

Department of Homeland Security

Cybersecurity and Infrastructure Security Agency

Budget Overview



Fiscal Year 2020
Congressional Justification

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Cybersecurity and Infrastructure Security Agency

Appropriation Organization Structure

Organization Name	Level	Fund Type (* Includes Defense Funding)
Cybersecurity and Infrastructure Security Agency	Component	
Operations and Support	Appropriation	
Mission Support	PPA	Discretionary - Appropriation*
Cybersecurity	PPA	
Cyber Readiness and Response	PPA Level II	Discretionary - Appropriation*
Cyber Infrastructure Resilience	PPA Level II	Discretionary - Appropriation*
Federal Cybersecurity	PPA Level II	Discretionary - Appropriation*
Infrastructure Security	PPA	
Infrastructure Capacity Building	PPA Level II	Discretionary - Appropriation*
Infrastructure Security Compliance	PPA Level II	Discretionary - Appropriation*
Emergency Communications	PPA	
Priority Telecommunications Services	PPA Level II	Discretionary - Appropriation*
Emergency Communications Preparedness	PPA Level II	Discretionary - Appropriation*
Integrated Operations	PPA	
Risk Management Operations	PPA Level II	Discretionary - Appropriation*
Critical Infrastructure Situational Awareness	PPA Level II	Discretionary - Appropriation*
Stakeholder Engagement and Requirements	PPA Level II	Discretionary - Appropriation*
Strategy, Policy, and Plans	PPA Level II	Discretionary - Appropriation*
Office of Biometric Identity Management	PPA	
Identity and Screening Program Operations	PPA Level II	Discretionary - Appropriation
IDENT/Homeland Advanced Recognition Technology Operations and Maintenance	PPA Level II	Discretionary - Appropriation
Procurement, Construction, and Improvements	Appropriation	
Construction and Facilities Improvements	PPA	Discretionary - Appropriation
Cybersecurity	PPA	
Continuous Diagnostics and Mitigation	PPA Level II,Investment	Discretionary - Appropriation*
National Cybersecurity Protection System	PPA Level II,Investment	Discretionary - Appropriation*
Federal Infrastructure Evolution Modernization	PPA Level II,Investment	Discretionary - Appropriation*
Emergency Communications	PPA	
Next Generation Networks Priority Services	PPA Level II,Investment	Discretionary - Appropriation*
Biometric Identity Management	PPA	
IDENT/Homeland Advanced Recognition Technology	PPA Level II,Investment	Discretionary - Appropriation

Department of Homeland Security

Cybersecurity and Infrastructure Security Agency

Organization Name	Level	Fund Type (* Includes Defense Funding)
Risk Management Operations	PPA	
Infrastructure Security	PPA	
Research and Development	Appropriation	
Cybersecurity	PPA	Discretionary - Appropriation*
Infrastructure Security	PPA	Discretionary - Appropriation*
Risk Management Operations	PPA	Discretionary - Appropriation*
Federal Protective Service	Appropriation	
FPS Operations	PPA	
Operating Expenses	PPA Level II	Discretionary - Offsetting Fee
Countermeasures	PPA	
Protective Security Officers	PPA Level II	Discretionary - Offsetting Fee
Technical Countermeasures	PPA Level II	Discretionary - Offsetting Fee

Cybersecurity and Infrastructure Security Agency Strategic Context

Component Overview

The strategic context presents the performance budget by tying together strategy, budget resource requests, programs, or PPAs, and performance measures that gauge the delivery of results to our stakeholders. The Common Appropriation Structure (CAS) allows DHS to integrate the strategic programmatic view with our budget view of resources. With this structure, a significant portion of the Level 1 PPAs represent what DHS refers to as our mission programs. A mission program is a group of activities acting together to accomplish a specific high-level outcome external to DHS and includes operational processes, skills, technology, human capital, and other resources. CISA's mission programs are presented below. Performance measures associated with these programs are presented in two measure sets, strategic and management measures. Strategic measures communicate results delivered for our agency goals by these mission programs and are considered our Government Performance and Results Act Modernization Act of 2010 (GPRAMA) measures. Additional management measures are displayed to provide a more thorough context of expected program performance for the Component related to its budgetary plans. Measure tables that do not display previous year's results are because the measure did not exist at that time.

Cybersecurity: The Cybersecurity program advances computer security preparedness and the response to cyberattacks and incidents. The program includes activities to secure the federal network, respond to incidents, disseminate actionable information, and collaborate with private-sector partners to secure critical infrastructure. This program supports the implementation of government-wide deployment of hardware and software systems to prevent and detect incidents, response to incidents at federal and private entities, and collaboration with the private sector to increase the security and resiliency of critical networks. The program also coordinates cybersecurity education for the federal workforce.

Strategic Measures

Measure: Average number of hours to notify agency of an incident on their network from earliest detection of potentially malicious activity						
Description: This measure provides insight into the efficiency and effectiveness of the NCPS program as a whole, by assessing average time to notify agency of an incident on their network, ensuring that the program is focusing time and resources primarily on identifying legitimate security threats. When activity on a federal network corresponds to an active Indicator of Compromise (IOC) deployed through the National Cybersecurity Protection System (NCPS), an alert is generated and sent to DHS. After initial review, DHS analysts triage the alerts based on a number of factors. If an alert, or several related alerts, is confirmed as suspected malicious activity, an incident ticket is created and notification is sent to the affected agency for further action.						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	---	---	---	---	24	24
Result:	---	---	---	---	TBD	TBD

Measure: Percent of incidents detected or blocked by EINSTEIN intrusion detection and prevention systems that are attributed to Nation State activity						
Description: This measure demonstrates the EINSTEIN intrusion detection and prevention systems' ability to detect and block the most significant malicious cyber-activity by Nation States on federal civilian networks. Nation States possess the resources and expertise to not only develop sophisticated cyber-attacks but sustain them over long periods of time. Thus the indicators that EINSTEIN deploys to detect and block malicious cyber-activity should focus on methods and tactics employed by Nation States. The overall percentage of incidents related to Nation State activity is expected to increase through greater information sharing with partners and improved indicator development, which will result in better incident attribution.						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	---	---	---	20%	21%	22%
Result:	---	---	---	29%	TBD	TBD

Measure: Percent of participating federal, civilian executive branch agencies for which Continuous Diagnostics and Mitigation (CDM) capabilities to manage user access and privileges to their networks are being monitored on the DHS managed Federal Dashboard						
Description: This measure calculates the percent of participating federal, civilian executive branch agencies in the Continuous Diagnostics and Mitigation (CDM) program whose data relating to user activities on their network is visible on the DHS managed Federal Dashboard. The data pertaining to "Who is on the Network" demonstrates the successful deployment, integration, display and exchange of data pertaining to this particular CDM capability that focuses on restricting network privileges and access to only those individuals who need it to perform their duties. The data that is visible to the agencies is at the individual/object level while the Federal Dashboard will provide DHS with summary level vulnerability and security information. Deploying CDM and sharing information with Federal agencies will enable greater DHS visibility and management of the security of Federal IT networks.						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	---	---	---	---	42%	63%
Result:	---	---	---	---	TBD	TBD

Measure: Percent of respondents indicating that operational cybersecurity information products provided by DHS are helpful						
Description: This measure assesses whether the products that the DHS National Cybersecurity and Communications Integration Center (NCCIC) provides are helpful for its customers and to allow NCCIC to make continuous improvements to those products. NCCIC's website feedback form enables recipients of products to submit feedback about the content of each product. Question five of the feedback survey solicits data on how helpful the information is to the stakeholder.						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	---	---	78%	90%	90%	90%
Result:	---	---	92%	93%	TBD	TBD

Measure: Percent of significant (critical and high) vulnerabilities identified by DHS cyber hygiene scanning of federal networks that are mitigated within the designated timeline						
Description: This measure calculates the percent of significant (critical and high) vulnerabilities identified through cyber hygiene scanning that are mitigated within the specified timeline. For critical vulnerabilities the timeline is 15 days and for high vulnerabilities the timeline is 30 days. DHS provides cyber hygiene scanning to agencies to aid in identifying and prioritizing vulnerabilities based on their severity for agencies to make risk based decisions regarding their network security. Identifying and mitigating the most serious vulnerabilities on a network in a timely manner is a critical component of an effective cybersecurity program.						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	---	---	80%	80%	70%	75%
Result:	---	---	---*	52%	TBD	TBD

* Unable to report data in FY 2017

Measure: Percent of significant (critical and high) vulnerabilities identified through a DHS assessment of a federal agency high value asset that are mitigated within 30 days						
Description: This measure calculates the percentage of critical vulnerabilities identified during a Risk and Vulnerability Assessment (RVA) of a High Value Asset (HVA) that the receiving agency has mitigated within 30 days of the final report being submitted to the agency. Binding Operation Directive (BOD) 18-02, Securing High Value Assets, requires agencies to mitigate critical vulnerabilities identified during the HVA assessment within 30 days and report progress to DHS. RVAs are performed on identified HVAs across the federal government to identify vulnerabilities associated with the federal government's most sensitive IT systems and data. As part of the assessment, the HVA owner agency receives a list of critical vulnerabilities to remediate and agencies provide monthly updates on progress. As agency vulnerability mitigation processes improve, more vulnerabilities should be mitigated in a shorter time.						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	---	---	---	---	45%	50%
Result:	---	---	---	---	TBD	TBD

Measure: Percent of survey respondents that were satisfied or very satisfied with the timeliness and relevance of cyber and infrastructure analysis based products						
Description: The Office of Cyber and Infrastructure Analysis (OCIA) produces infrastructure analytic products for DHS customers to make meaningful risk investment and resource allocation decisions in both crisis and steady state environments in order to reduce the impacts of infrastructure disruptions. In order for our customers to apply the knowledge gained from our products they must have the right information in a timely manner to inform decisions. Survey respondents comment on their level of satisfaction with both timeliness and relevance (two separate questions) of OCIA's analytic products which, in turn, provides OCIA with feedback that will be used to improve future products. OCIA averages the two responses for one metric. This is relevant to OCIA achieving its mission since the purpose of OCIA's analytic products are to inform decision-makers. Their feedback matters to the core of OCIA's purpose and is important to help OCIA gauge its progress toward accomplishing its mission.						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	---	80%	90%	92%	94%	96%
Result:	---	93%	93%	96%	TBD	TBD

Management Measures

Measure: Percent of respondents that rated the exercise as helpful in contributing to their ability to reduce cybersecurity risk within their organization						
Description: This measure assesses the percentage of respondents who participated in a cybersecurity exercise led by the National Cyber Exercise & Planning Program (NCEPP) that stated on a post-exercise survey that the experience was helpful in preparing them to contribute to reducing cybersecurity risk within their organization. Cybersecurity exercises allow participants to test their current policies and response plans in a realistic cyber scenario in order to identify weaknesses and focus areas for improvement. DHS strives to ensure that cybersecurity exercise offerings provide value and enable participants to better prevent, prepare for, and respond to cyber incidents. Results from this and other responses on the survey inform the planning and execution of future exercise offerings.						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	---	---	---	---	80%	80%
Result:	---	---	---	---	TBD	TBD

Emergency Communications: The Emergency Communications program is responsible for advancing the Nation's interoperable emergency communications capabilities to enable first responders and government officials to continue to communicate in the event of disasters.

Strategic Measures

Measure: Percent of calls made by National Security/Emergency Preparedness users during emergency situations that DHS ensured were connected						
Description: This measure gauges the reliability and effectiveness of the Government Emergency Telecommunications Service (GETS) by assessing the completion rate of calls made through the service. The GETS call completion rate is the percent of calls that a National Security/Emergency Preparedness (NS/EP) user completes via public telephone network to communicate with the intended user/location/system/etc. GETS is accessible by authorized users at any time, most commonly to ensure call completion during times of network congestion caused by all-hazard scenarios, including terrorist attacks or natural disasters(e.g., hurricane or earthquake).						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	97.0%	97.5%	98.0%	98.5%	99.0%	99.0%
Result:	99.3%	99%	99.3%	99.1%	TBD	TBD

Federal Protective Service: The Federal Protective Service protects federal facilities, their occupants, and visitors by providing law enforcement and protective security services. The program provides uniformed law enforcement and armed contract security guard presence, conducts facility security assessments, and designs countermeasures for tenant agencies in order to reduce risks to federal facilities and occupants.

Strategic Measures

Measure: Percent of Facility Security Committee Chairs (or designated officials) satisfied with the level of security provided at federal facilities						
Description: This measure assesses the effectiveness of protection and security services provided by the Federal Protective Service (FPS) to Facility Security Committee (FSC) Chairs, or their designated officials, through surveying their overall customer satisfaction. The FSC Chairperson is the representative of the primary tenant and is the primary customer of FPS Facility Security Assessments and countermeasure consultation. This will enable FPS to make better informed decisions to enhance the services it provides to its tenants.						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	---	---	78.00%	79.00%	80.00%	81.00%
Result:	---	---	77.00%	80.00%	TBD	TBD

Measure: Percent of high-risk facilities found to have no countermeasure-related deficiencies						
Description: This performance measure provides the percentage of high-risk facilities (Facility Security Levels 3-5) that are found to have no countermeasure-related deficiencies determined by contract security force evaluations and covert testing of security infrastructure. Countermeasure-related deficiencies are a weighted total of covert security testing (secret investigative operations used to identify deficiencies in security countermeasures, training, procedures, and use of technology) deficiencies and human countermeasure (guard force, screening procedures) deficiencies identified during contract security force evaluations. FSL Levels 3-5 are defined as high risk based on the Interagency Security Committee Standards as having over 450 federal employees; high volume of public contact; more than 150,000 square feet of space; tenant agencies that may include high-risk law enforcement and intelligence agencies, courts, judicial offices, and highly sensitive government records.						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	LES*	LES	LES	LES	LES	LES
Result:	LES	LES	LES	LES	TBD	TBD

*LES is Law Enforcement Sensitive.

Measure: Percent of high-risk facilities that receive a facility security assessment in compliance with the Interagency Security Committee (ISC) schedule						
Description: This measure reports the percentage of high risk (Facility Security Level 3, 4 and 5) facilities that receive a facility security assessment (FSA) in compliance with the ISC schedule. An FSA is a standardized comprehensive risk assessment that examines credible threats to federal buildings and the vulnerabilities and consequences associated with those threats. Credible threats include crime activity or potential acts of terrorism. Each facility is assessed against a baseline level of protection and countermeasures are recommended to mitigate the gap identified to the baseline or other credible threats and vulnerabilities unique to a facility. Requirements for the frequency of federal building security assessments are driven by the ISC standards with high risk facility assessments occurring on a three year cycle.						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	100%	100%	100%	100%	100%	100%
Result:	100%	96%	100%	100%	TBD	TBD

Management Measures

Measure: Operational Readiness of the Rapid Protection Force						
Description: This measure gauges the overall readiness of the Federal Protective Service's designated surge force known as the Rapid Protection Force (RPF) by measuring the percent of qualified RPF personnel available to deploy to a surge event. The RPF is a cadre of law enforcement personnel focused on rapid response to threats and enhanced operations at Federal facilities. The ability to gauge RPF readiness provides key information for ensuring that trained personnel are available to mitigate threats, stabilize incidents, and support special events.						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	---	---	---	---	65%	66%
Result:	---	---	---	---	TBD	TBD

Measure: Percent of required risk-based post visits completed for federal facilities						
Description: This measure gauges the reliability and effectiveness of the Government Emergency Telecommunications Service (GETS) by assessing the completion rate of calls made through the service. The GETS call completion rate is the percent of calls that a National Security/Emergency Preparedness (NS/EP) user completes via public telephone network to communicate with the intended user/location/system/etc . GETS is accessible by authorized users at any time, most commonly to ensure call completion during times of network congestion caused by all-hazard scenarios, including terrorist attacks or natural disasters. (e.g., hurricane or earthquake).						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	100%	100%	100%	95.0%	98.5%	99.0%
Result:	100%	100%	100%	100%	TBD	TBD

Infrastructure Protection: The Infrastructure Protection program leads and coordinates both regulatory and voluntary national programs and policies on critical infrastructure security and resilience and develops strong partnerships across government and the private sector. The program conducts and facilitates vulnerability and consequence assessments to help critical infrastructure owners and operators and SLTT partners to understand and address risks to critical infrastructure. Additionally, it provides information on emerging threats and hazards and offers tools and training to partners to help them manage risks to critical infrastructure.

Strategic Measures

Measure: Average score of approved Site Security Plans (SSPs)						
Description: This measure captures the average security score of approved Site Security Plans (SSP) of Chemical Facility Anti-Terrorism Standards (CFATS) regulated facilities. CFATS requires that all high risk chemical facilities submit a SSP for DHS’s review and assessment. DHS conducts a quantitative scoring of the SSP as a means of data collection, but not as a means of evaluating the SSP as the CFATS regulation is non-prescriptive. DHS performs an assessment on each SSP, starting with the facility’s initial SSP submittal, followed by assessments on subsequent SSPs. Subsequent SSPs are submitted by the facility in response to DHS’s assessment and inspections of the previous submittals. A facility becomes fully compliant with CFATS only after DHS inspects the facility and the facility submits a SSP that meets or exceeds the minimum criteria established for that facility’s risk-tier and security issues. This SSP submittal is referred to as the “approved” SSP submittal.						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	FOUO	FOUO	FOUO	FOUO	FOUO	FOUO
Result:	FOUO	FOUO	FOUO	FOUO	TBD	TBD

Measure: Average score of initial Site Security Plans (SSPs)						
Description: This measure depicts the average initial security score of Site Security Plans (SSP) for Chemical Facility Anti-Terrorism Standards (CFATS) regulated facilities. CFATS requires that all high risk chemical facilities submit a SSP for DHS’s review and assessment. DHS conducts a quantitative scoring of the SSP as a means of data collection, but not as a means of evaluating the SSP as the CFATS regulation is non-prescriptive. If a facility is determined to be high-risk by DHS, the facility must submit an initial SSP. Subsequent SSPs are submitted by the facility in response to DHS’s assessments and inspections of the previous submittals. A facility becomes fully compliant with CFATS after DHS inspects the facility and the facility submits a SSP that meets or exceeds the minimum criteria established for that facility’s risk-tier. This SSP submittal is referred to as the “approved” SSP submittal, which is captured in an additional measure. The scoring for the SSP is on a scale of 0-96.						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	FOUO	FOUO	FOUO	FOUO	FOUO	FOUO
Result:	FOUO	FOUO	FOUO	FOUO	TBD	TBD

Measure: Percent of Critical Infrastructure customers reporting implementation of at least one recommendation following a DHS cybersecurity assessment						
Description: This measure provides insight into the value of DHS cybersecurity assessments through the percent of Critical Infrastructure (CI) owners reporting implementation of at least one Improvement or Option for Consideration following a Cyber Resilience Review (CRR), External Dependencies Management Assessment (EDM), or Cyber Infrastructure Survey (CIS) . The DHS Office of Cybersecurity & Communication (CS&C) Stakeholder Engagement & Critical Infrastructure Resilience (SECIR) division administers these cybersecurity assessments and provides mitigation recommendations to CI, and state, local, tribal, & territorial (SLTT) partners. The key goal of the CRR is to ensure core, process-based capabilities exist and are measureable and meaningful predictors of an organization’s ability to manage cyber risk to CI. This is achieved through assessing how organizations manage cybersecurity for significant information services and assets (information, technology, resources, and personnel).						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	60%	100%	100%	85%	85%	87%
Result:	100%	100%	91%	85%	TBD	TBD

Measure: Percent of facilities that are likely to integrate vulnerability assessment or survey information into security and resilience enhancements						
Description: This measure demonstrates the percent of facilities that are likely to enhance their security and resilience by integrating Infrastructure Protection vulnerability assessment or survey information. Providing facilities with vulnerability information allows them to understand and reduce risk of the Nation's critical infrastructure. The results are based on all available data collected during the fiscal year through vulnerability assessments. Security and resilience enhancements can include changes to physical security, security force, security management, information sharing, protective measures, dependencies, robustness, resourcefulness, recovery, or the implementation of options for consideration.						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	80%	80%	80%	80%	85%	85%
Result:	90%	90%	92%	87%	TBD	TBD

Measure: Percent of respondents reporting that DHS critical infrastructure information will inform their decision making on risk mitigation and resilience enhancements						
Description: This measure will report the percent of critical infrastructure partners who indicated that the information and products received are useful for informing their risk management programs and influencing future decision-making regarding safety and/or security improvements and/or resilience enhancements at their facilities. The information and products include education, training, exercise, and information sharing activities developed or coordinated by the Office of Infrastructure Protection. Active outreach efforts and effective public-private partnerships on critical infrastructure issues help to reduce risk and increase resilience across the country.						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	---	71%	74%	77%	82%	85%
Result:	---	92%	95%	94%	TBD	TBD

Management Measures

Measure: Percent of respondents reporting that the counter improvised explosive device information provided by DHS is a valuable resource to support their responsibilities						
Description: This measure provides an indication of the value of information sharing via the Technical Resource for Incident Prevention (TRIPwire) to a diverse array of homeland security stakeholders (federal, state, local, territorial, tribal, and private sector partners) related to improvised explosive device (IED) threats and corresponding preparedness measures. TRIPwire users complete voluntary questionnaires on a quarterly basis rating their satisfaction with the utility of the information provided by TRIPwire. This ensures that TRIPwire's information sharing capabilities are keeping pace with what users seek and need to support their responsibilities.						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	75%	78%	78%	78%	80%	80%
Result:	84%	97%	87%	90%	TBD	TBD

Measure: Percent of respondents reporting that the counter-improvised explosive device (IED) training provided by DHS enhances their preparedness to perform their jobs						
Description: This measure provides an indication of whether NPPD's counter-IED training enhances the preparedness of a diverse array of homeland security stakeholders (Federal, state, local, and private sector partners) to perform their respective role(s) in preventing, protecting against, responding to, and/or mitigating bombing incidents. Training participants complete a voluntary questionnaire at the completion of every training iteration rating the degree to which the training increased their preparedness. This measure calculates the percentage of participants reporting that the training will increase their preparedness, response to and mitigation of bombing incidents. This measure provides important feedback to NPPD regarding how C-IED information is received by homeland security stakeholders, and demonstrates NPPD's contribution to enhancing national capabilities to prevent, protect against, respond to, and mitigate bombing incidents, in support of departmental and national objectives.						
Fiscal Year:	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Target:	---	---	---	---	85%	86%
Result:	---	---	---	---	TBD	TBD

Cybersecurity and Infrastructure Security Agency Budget Comparison and Adjustments

Budget Comparison with FY 2019 Annualized CR

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 Annualized CR	FY 2019 President's Budget	FY 2020 President's Budget
Operations and Support	\$1,482,165	\$1,482,165	\$1,470,340	\$1,278,550
Mission Support	\$84,493	\$84,493	\$78,103	\$77,814
Cybersecurity	\$722,908	\$722,908	\$713,055	\$760,882
Cyber Infrastructure Resilience	\$46,243	\$46,243	\$30,059	\$61,976
Cyber Readiness and Response	\$243,992	\$243,992	\$224,396	\$248,311
Federal Cybersecurity	\$432,673	\$432,673	\$458,600	\$450,595
Infrastructure Security	\$194,216	\$194,216	\$206,035	\$182,691
Infrastructure Capacity Building	\$121,776	\$121,776	\$129,182	\$126,653
Infrastructure Security Compliance	\$72,440	\$72,440	\$76,853	\$56,038
Emergency Communications	\$118,456	\$118,456	\$115,696	\$116,554
Emergency Communications Preparedness	\$54,501	\$54,501	\$51,785	\$51,959
Priority Telecommunications Services	\$63,955	\$63,955	\$63,911	\$64,595
Integrated Operations	\$142,663	\$142,663	\$127,170	\$140,609
Critical Infrastructure Situational Awareness	\$21,222	\$21,222	\$23,429	\$23,914
Risk Management Operations	\$56,410	\$56,410	\$44,683	\$62,199
Stakeholder Engagement and Requirements	\$50,583	\$50,583	\$45,127	\$42,070
Strategy, Policy, and Plans	\$14,448	\$14,448	\$13,931	\$12,426
Office of Biometric Identity Management	\$219,429	\$219,429	\$230,281	-
Identity and Screening Program Operations	\$68,826	\$68,826	\$69,590	-
IDENT/Homeland Advanced Recognition Technology Operations	\$150,603	\$150,603	\$160,691	-
Procurement, Construction, and Improvements	\$414,111	\$414,111	\$302,964	\$299,078
Cybersecurity	\$362,167	\$362,167	\$235,626	\$243,468
Continuous Diagnostics and Mitigation	\$246,981	\$246,981	\$125,548	\$137,630
National Cybersecurity Protection System	\$115,186	\$115,186	\$110,078	\$105,838
Emergency Communications	\$48,905	\$48,905	\$42,551	\$50,729
Next Generation Networks Priority Services	\$48,905	\$48,905	\$42,551	\$50,729
Biometric Identity Management	-	-	\$20,000	-
IDENT/Homeland Advanced Recognition Technology	-	-	\$20,000	-

Department of Homeland Security

Cybersecurity and Infrastructure Security Agency

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 Annualized CR	FY 2019 President's Budget	FY 2020 President's Budget
Risk Management Operations	\$500	\$500	-	-
Modeling Capability Transition Environment	\$500	\$500	-	-
Infrastructure Security	\$2,539	\$2,539	\$4,787	\$4,881
Infrastructure Protection (IP) Gateway	\$2,539	\$2,539	\$4,787	\$4,881
Research and Development	\$15,126	\$15,126	\$47,847	\$30,522
Cybersecurity	\$4,695	\$4,695	\$41,416	\$24,091
Infrastructure Security	\$6,431	\$6,431	\$2,431	\$1,216
Risk Management Operations	\$4,000	\$4,000	\$4,000	\$5,215
Federal Protective Service	\$1,476,055	\$1,476,055	\$1,527,110	\$1,559,930
FPS Operations	\$360,079	\$360,079	\$359,196	\$387,500
Operating Expenses	\$360,079	\$360,079	\$359,196	\$387,500
Countermeasures	\$1,115,976	\$1,115,976	\$1,167,914	\$1,172,430
Protective Security Officers	\$1,071,286	\$1,071,286	\$1,121,883	\$1,148,400
Technical Countermeasures	\$44,690	\$44,690	\$46,031	\$24,030
Total	\$3,387,457	\$3,387,457	\$3,348,261	\$3,168,080

Cybersecurity and Infrastructure Security Agency Comparison of Budget Authority and Request

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Operations and Support	2,557	2,085	\$1,482,165	2,607	2,100	\$1,470,340	2,507	2,072	\$1,278,550	(100)	(28)	(\$191,790)
Procurement, Construction, and Improvements	-	-	\$414,111	-	-	\$302,964	-	-	\$299,078	-	-	(\$3,886)
Research and Development	-	-	\$15,126	-	-	\$47,847	-	-	\$30,522	-	-	(\$17,325)
Federal Protective Service	1,602	1,507	\$1,476,055	1,602	1,507	\$1,527,110	1,602	1,507	\$1,559,930	-	-	\$32,820
Total	4,159	3,592	\$3,387,457	4,209	3,607	\$3,348,261	4,109	3,579	\$3,168,080	(100)	(28)	(\$180,181)
Subtotal Discretionary - Appropriation	2,557	2,085	\$1,911,402	2,607	2,100	\$1,821,151	2,507	2,072	\$1,608,150	(100)	(28)	(\$213,001)
Subtotal Discretionary - Offsetting Fee	1,602	1,507	\$1,476,055	1,602	1,507	\$1,527,110	1,602	1,507	\$1,559,930	-	-	\$32,820

For FY 2020, the Cybersecurity and Infrastructure Security Agency (CISA) requests \$3.2B in total gross budget authority. This represents a decrease of \$180.1M from the FY 2019 President's Budget for the National Protection and Programs Directorate.

CISA leads the national effort to defend critical infrastructure against the threats of today, while working with partners across all levels of government and in the private sector to secure against the evolving risks of tomorrow. In passing the *Cybersecurity and Infrastructure Security Agency Act of 2018*, Congress recognized that the role played by CISA has never been more important, as the threats against the Nation – digital and physical, manmade, technological, and natural – are more complex, and the threat actors more diverse, than at any point in our history. Ultimately, CISA seeks to defend and preserve the open society within which the Nation lives, the innovation culture America aims to foster, and the essential rights to privacy and civil liberties enshrined within the Constitution.

In support of these activities, the FY 2020 Budget funds \$1.1B to improve security of U.S. cyber infrastructure through collaboration with public, private, and international partners; \$246M to protect the Nation's critical infrastructure; \$167M to ensure emergency communications are available to Federal, State, local, tribal, and territorial entities; and \$1.6B in offsetting fee collections for the Federal Protective Service. Highlights from the FY 2020 Budget include:

- \$248M for the National Cybersecurity and Communications Integration Center to provide additional threat assessment capabilities, support the growth in demand for analytical products and 24x7x365 operational staffing, and maintain readiness to execute national security/emergency preparedness.

- \$405M for the National Cybersecurity Protection System(NCPS), which includes the EINSTEIN program, to continue deploying new intrusion detection and prevention, information sharing, and analytic capabilities to improve the cybersecurity of Federal civilian departments and agencies.
- \$232M for Continuous Diagnostics and Mitigation (CDM), which will allow DHS and Federal agencies to continuously manage their boundaries, security events, build security into system lifecycles, and enhance data protection.
- \$167M for Emergency Communications including the Next Generation Networks to maintain the number of wireless carriers deploying Priority Telecommunications Services, enabling the solution to maintain the same coverage across the U.S. regardless of the network technology.
- Developed a new fee model for charging customers for FPS' basic security services to more fully align its security-focused mission with the resources required. The new model is a statistically derived algorithm based on workload data and risk factors.
- The Office of Biometric and Identity Management (OBIM) has been transferred to the DHS Management Directorate following enactment of the *Cybersecurity and Infrastructure Security Agency Act of 2018*. Detailed budgetary information on OBIM can be found in the Management Directorate's portion of the FY 2020 President's Budget.

Figure 1: CISA Request by PPAs

Operations and Support <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	Defense %	Non Defense %
Cybersecurity (Level 1)					
Cyber Readiness and Response (Level 2)	243,992	224,396	248,311	100%	0%
NCCIC Operations	136,439	140,049	164,782	100%	0%
[CERT]	[104,689]	[117,566]	[131,838]		
NCCIC Planning and Exercises	107,553	84,347	83,529	100%	0%
[CERT]	[69,220]	[64,297]	[73,183]		
Cyber Infrastructure Resilience (Level 2)	46,243	30,059	61,976	100%	0%
Cybersecurity Advisors	14,693	6,860	6,830	100%	0%
Enhanced Cybersecurity Services	17,157	13,097	13,154	100%	0%
Cybersecurity Education and Awareness	14,393	10,102	32,507	100%	0%
Cyber Technology Initiative (New PPA)			9,485	100%	0%
Federal Cybersecurity (Level 2)	432,673	458,600	450,595	100%	0%
Federal Network Resilience	42,766	49,834	56,697	100%	0%
Continuous Diagnostics & Mitigation	102,681	112,089	94,514	100%	0%
National Cybersecurity Protection System	287,226	296,677	299,384	100%	0%
Subtotal, Cybersecurity	722,908	713,055	760,882		
Infrastructure Security (Level 1)					
Infrastructure Capacity Building (Level 2)	121,776	129,182	126,653	100%	0%
Sector Risk Management	47,612	55,859	46,237	100%	0%
Protective Security Advisors	35,677	39,114	45,151	100%	0%
Bombing Prevention	16,199	14,752	16,033	100%	0%
Infrastructure Information & Sensitive Data Protection	22,288	19,457	19,232	100%	0%
Infrastructure Security Compliance (Level 2)	72,440	76,853	56,038	100%	0%
Subtotal, Infrastructure Security	194,216	206,035	182,691		
Emergency Communications (Level 1)					
Emergency Communications Preparedness (Level 2)	54,501	51,785	51,959	100%	0%
Priority Telecommunications Services (Level 2)	63,955	63,911	64,595	100%	0%
GETS/WPS/SRAS/TSP	56,319	56,293	56,201	100%	0%
NGN-Priority Services	7,636	7,618	8,394	100%	0%
Subtotal, Emergency Communications	118,456	115,696	116,554		

Department of Homeland Security

Cybersecurity and Infrastructure Security Agency

Operations and Support <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	Defense %	Non Defense %
<u>Integrated Operations (Level 1)</u>					
Risk Management Operations (Level 2)	56,410	44,683	62,199	100%	0%
National Infrastructure Simulation Analysis Center	18,650	8,912	9,055	100%	0%
Infrastructure Analysis	37,760	35,771	53,144	100%	0%
Critical Infrastructure Situational Awareness (Level 2)	21,222	23,429	23,914	91%	9%
[Defense]	19,312	21,320	21,762		
[Non-Defense]	1,910	2,109	2,152		
Stakeholder Engagements & Requirements (Level 2)	50,583	45,127	42,070	90%	10%
[Defense]	45,810	40,614	37,863		
[Non-Defense]	4,773	4,513	4,207		
Strategy, Policy, & Plans (Level 2)	14,448	13,931	12,426	66%	34%
[Defense]	9,536	9,194	8,201		
[Non-Defense]	4,912	4,737	4,225		
Subtotal, Integrated Operations	142,663	127,170	140,609		
<u>Office of Biometric Identity Management (Level 1)</u>					
Identity & Screening Program Operations (Level 2)	68,826	69,590	0	0%	100%
IDENT/HART Operations & Maintenance (Level 2)	150,603	160,691	0	0%	100%
Subtotal, Office of Biometric Identity Management	219,429	230,281	0		
<u>Mission Support (Level 1)</u>				31%	69%
[Defense]	26,193	24,212	24,122		
[Non-Defense]	58,300	53,891	53,692		
Subtotal, Mission Support	84,493	78,103	77,814		
Total Operations and Support	1,482,165	1,470,340	1,278,550		
[Defense]	1,192,841	1,174,809	1,214,274		
[Non-Defense]	289,324	295,531	64,276		

Procurement, Construction and Improvements <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	Defense %	Non Defense %
<u>Cybersecurity (Level 1)</u>					
Federal Cybersecurity (Level 2)	362,167	235,626	243,468	100%	0%
Continuous Diagnostics & Mitigation	246,981	125,548	137,630	100%	0%
National Cybersecurity Protection System	115,186	110,078	105,838	100%	0%
Subtotal, Cybersecurity	362,167	235,626	243,468		
<u>Infrastructure Security (Level 1)</u>					
Infrastructure Capacity Building (Level 2)	2,539	4,787	4,881	100%	0%
Infrastructure Security PC&I (IP Gateway)	2,539	4,787	4,881	100%	0%
Subtotal, Infrastructure Security	2,539	4,787	4,881		
<u>Emergency Communications (Level 1)</u>					
Priority Telecommunications Services (Level 2)	48,905	42,551	50,729	100%	0%
NGN-Priority Services	48,905	42,551	50,729	100%	0%
Subtotal, Emergency Communications	48,905	42,551	50,729		
<u>Integrated Operations (Level 1)</u>					
Cyber & Infrastructure Analysis (Level 2)	500	0	0	100%	0%
Integrated Operations Assets and Infrastructure	500	0	0	100%	0%
Subtotal, Integrated Operations	500	0	0		
<u>Office of Biometric Identity Management (Level 1)</u>					
IDENT/HART (Level 2)	0	20,000	0	0%	100%
Subtotal, Office of Biometric Identity Management	0	20,000	0		
Total Procurement Construction and Improvements	414,111	302,964	299,078		
[Defense]	414,111	282,964	299,078		
[Non-Defense]	0	20,000	0		

Department of Homeland Security

Cybersecurity and Infrastructure Security Agency

Research and Development <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	Defense %	Non Defense %
<u>Cybersecurity (Level 1)</u>					
Cybersecurity (Level 2)	4,695	41,416	24,091	100%	0%
Cybersecurity R&D	4,695	41,416	24,091	100%	0%
Subtotal, Cybersecurity	4,695	41,416	24,091		
<u>Infrastructure Security (Level 1)</u>					
Infrastructure Security (Level 2)	6,431	2,431	1,216	100%	0%
Infrastructure Security R&D	6,431	2,431	1,216	100%	0%
Subtotal, Infrastructure Security	6,431	2,431	1,216		
<u>Integrated Operations (Level 1)</u>					
Cyber & Infrastructure Analysis (Level 2)	4,000	4,000	5,215	100%	0%
Integrated Operations R&D	4,000	4,000	5,215	100%	0%
Subtotal, Integrated Operations	4,000	4,000	5,215		
Total Research and Development	15,126	47,847	30,522		
[Defense]	15,126	47,847	30,522		
[Non-Defense]	0	0	0		

Federal Protective Service <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	Defense %	Non Defense %
<u>FPS Operations (Level 1)</u>					
Operating Expenses (Level 2)	360,079	359,196	387,500	0%	100%
Subtotal, FPS Operations	360,079	359,196	387,500		
<u>Countermeasures (Level 1)</u>					
Protective Security Officers (Level 2)	1,071,286	1,121,883	1,148,400	0%	100%
Technical Countermeasures (Level 2)	44,690	46,031	24,030	0%	100%
Subtotal, Countermeasures	1,115,976	1,167,914	1,172,430		
Total Federal Protective Service	1,476,055	1,527,110	1,559,930		
[Defense]	0	0	0		
[Non-Defense]	1,476,055	1,527,110	1,559,930		

Total CISA Request <i>(Total in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
Operations and Support	1,482,165	1,470,340	1,278,550
[Defense]	1,192,841	1,174,809	1,214,274
[Non-Defense]	289,324	295,531	64,276
Procurement Construction and Improvements	414,111	302,964	299,078
[Defense]	414,111	282,964	299,078
[Non-Defense]	0	20,000	0
Research and Development	15,126	47,847	30,522
[Defense]	15,126	47,847	30,522
[Non-Defense]	0	0	0
Federal Protective Service	1,476,055	1,527,110	1,559,930
[Defense]	0	0	0
[Non-Defense]	1,476,055	1,527,110	1,559,930
TOTAL	3,387,457	3,348,261	3,168,080
[Defense]	1,622,078	1,505,620	1,543,874
[Non-Defense]	1,765,379	1,842,641	1,624,206

Cybersecurity and Infrastructure Security Agency

Budget Authority and Obligations

Budget Authority (Dollars in Thousands)	FY 2018	FY 2019	FY 2020
Enacted/Request	\$3,387,457	\$3,348,261	\$3,168,080
Carryover and/or Recoveries (Actual/Estimates/Projections)	\$540,440	\$337,512	\$145,076
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	(\$3,010)	-	-
Supplementals	-	-	-
Total Budget Authority	\$3,924,887	\$3,685,773	\$3,313,156
Collections – Reimbursable Resources	-	-	-
Collections – Other Sources	\$50,524	(\$31,200)	(\$15,160)
Total Budget Resources	\$3,975,411	\$3,654,573	\$3,297,996
Obligations (Actual/Estimates/Projections)	\$3,614,522	\$3,533,097	\$3,179,605
Personnel: Positions and FTE			
Enacted/Request Positions	4,159	4,209	4,109
Enacted/Request FTE	3,592	3,607	3,579
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	4,159	4,209	4,109
FTE (Actual/Estimates/Projections)	3,592	3,607	3,579

Cybersecurity and Infrastructure Security Agency Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Operations and Support	2,557	2,085	\$344,649	\$165.27	2,607	2,100	\$347,495	\$165.45	2,507	2,072	\$340,540	\$164.32	(100)	(28)	(\$6,955)	(\$1.13)
Federal Protective Service	1,602	1,507	\$180,541	\$119.79	1,602	1,507	\$208,232	\$138.16	1,602	1,507	\$211,545	\$140.36	-	-	\$3,313	\$2.2
Total	4,159	3,592	\$525,190	\$146.19	4,209	3,607	\$555,727	\$154.05	4,109	3,579	\$552,085	\$154.23	(100)	(28)	(\$3,642)	\$0.18
Discretionary - Appropriation	2,557	2,085	\$344,649	\$165.27	2,607	2,100	\$347,495	\$165.45	2,507	2,072	\$340,540	\$164.32	(100)	(28)	(\$6,955)	(\$1.13)
Discretionary - Offsetting Fee	1,602	1,507	\$180,541	\$119.79	1,602	1,507	\$208,232	\$138.16	1,602	1,507	\$211,545	\$140.36	-	-	\$3,313	\$2.2

* The FTE Rate calculation does not include Object Class 11.8-Special Personal Services Payments or 13.0-Benefits for Former Personnel.

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$385,621	\$383,284	\$374,185	(\$9,099)
11.3 Other than Full-Time Permanent	\$5,961	\$9,339	\$9,130	(\$209)
11.5 Other Personnel Compensation	\$6,968	\$28,813	\$28,715	(\$98)
11.8 Special Personal Services Payments	\$59	\$59	\$59	-
12.1 Civilian Personnel Benefits	\$126,564	\$134,209	\$139,973	\$5,764
13.0 Benefits for Former Personnel	\$17	\$23	\$23	-
Total - Personnel Compensation and Benefits	\$525,190	\$555,727	\$552,085	(\$3,642)
Positions and FTE				
Positions - Civilian	4,159	4,209	4,109	(100)
FTE - Civilian	3,592	3,607	3,579	(28)

Cybersecurity and Infrastructure Security Agency Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Operations and Support	\$1,137,516	\$1,122,845	\$938,010	(\$184,835)
Procurement, Construction, and Improvements	\$414,111	\$302,964	\$299,078	(\$3,886)
Research and Development	\$15,126	\$47,847	\$30,522	(\$17,325)
Federal Protective Service	\$1,295,514	\$1,318,878	\$1,348,385	\$29,507
Total	\$2,862,267	\$2,792,534	\$2,615,995	(\$176,539)
Discretionary - Appropriation	\$1,566,753	\$1,473,656	\$1,267,610	(\$206,046)
Discretionary - Offsetting Fee	\$1,295,514	\$1,318,878	\$1,348,385	\$29,507

Non Pay by Object Class

Non-Pay Object Classes <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$28,395	\$22,822	\$23,087	\$265
22.0 Transportation of Things	\$13,082	\$14,164	\$14,078	(\$86)
23.1 Rental Payments to GSA	\$47,964	\$39,717	\$38,238	(\$1,479)
23.2 Rental Payments to Others	\$821	\$3,096	\$2,111	(\$985)
23.3 Communications, Utilities, and Misc. Charges	\$18,535	\$33,527	\$12,169	(\$21,358)
24.0 Printing and Reproduction	\$243	\$324	\$324	-
25.1 Advisory and Assistance Services	\$595,391	\$644,945	\$660,205	\$15,260
25.2 Other Services from Non-Federal Sources	\$1,234,805	\$1,214,457	\$1,212,387	(\$2,070)
25.3 Other Goods and Services from Federal Sources	\$595,120	\$386,315	\$403,238	\$16,923
25.4 Operation and Maintenance of Facilities	\$4,837	\$9,442	\$7,897	(\$1,545)
25.5 Research and Development Contracts	\$6,431	\$2,874	\$1,659	(\$1,215)
25.6 Medical Care	\$29	\$6	\$6	-
25.7 Operation and Maintenance of Equipment	\$202,322	\$342,807	\$189,059	(\$153,748)
25.8 Subsistence & Support of Persons	-	\$5,721	\$284	(\$5,437)
26.0 Supplies and Materials	\$5,175	\$9,502	\$9,187	(\$315)
31.0 Equipment	\$84,317	\$39,006	\$19,005	(\$20,001)
32.0 Land and Structures	\$4,412	\$9,563	\$8,815	(\$748)
41.0 Grants, Subsidies, and Contributions	\$20,298	\$14,050	\$14,050	-
42.0 Insurance Claims and Indemnities	\$90	\$196	\$196	-
Total - Non Pay Object Classes	\$2,862,267	\$2,792,534	\$2,615,995	(\$176,539)

Cybersecurity and Infrastructure Security Agency Supplemental Budget Justification Exhibits

Working Capital Fund

Appropriation and PPA <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
Operations and Support	\$74,325	\$75,682	\$72,996
Mission Support	\$7,642	\$7,979	\$9,504
Cybersecurity	\$32,648	\$34,704	\$36,192
Infrastructure Security	\$13,701	\$14,252	\$12,086
Emergency Communications	\$5,439	\$6,207	\$6,216
Integrated Operations	\$8,650	\$6,854	\$8,998
Office of Biometric Identity Management	\$6,245	\$5,686	-
Federal Protective Service	\$11,122	\$10,709	\$10,709
FPS Operations	\$11,122	\$10,709	\$10,709
Total Working Capital Fund	\$85,447	\$86,391	\$83,705

Cybersecurity and Infrastructure Security Agency
Status of Congressionally Requested Studies, Reports and Evaluations

Fiscal Year	Due Date	Reference/Citation	Requirement	Status
2017	09/29/2017	Senate Report 114-264, p. 101	Intrusions of Information Systems and Critical Infrastructure	With Component
2017	01/12/2018	P.L. 115-31 Joint Explanatory Statement p. 41	Strategic Plan to Secure Civilian Federal Networks	With OMB
2018	11/16/2018	FY18 Omnibus Joint Explanatory Statement p. 59	Cybersecurity Support to Nonfederal Levels of Government	With Component

Cybersecurity and Infrastructure Security Agency Authorized/Unauthorized Appropriations

Budget Activity <i>(Dollars in Thousands)</i>	Last year of Authorization	Authorized Level	Appropriation in Last Year of Authorization	FY 2020 President's Budget
	Fiscal Year	Amount	Amount	Amount
Operations and Support	N/A	N/A	N/A	\$1,278,550
Mission Support	N/A	N/A	N/A	\$77,814
Cybersecurity	N/A	N/A	N/A	\$760,882
Infrastructure Protection	N/A	N/A	N/A	\$182,691
Emergency Communications	N/A	N/A	N/A	\$116,554
Integrated Operations	N/A	N/A	N/A	\$140,609
Procurement, Construction, and Improvements	N/A	N/A	N/A	\$299,078
Cybersecurity	N/A	N/A	N/A	\$243,468
Emergency Communications	N/A	N/A	N/A	\$50,729
Infrastructure Security	N/A	N/A	N/A	\$4,881
Research and Development	N/A	N/A	N/A	\$30,522
Cybersecurity	N/A	N/A	N/A	\$24,091
Infrastructure Security	N/A	N/A	N/A	\$1,216
Risk Management Operations	N/A	N/A	N/A	\$5,215
Federal Protective Service	N/A	N/A	N/A	\$1,559,930
FPS Operations	N/A	N/A	N/A	\$387,500
Countermeasures	N/A	N/A	N/A	\$1,172,430
Total Direct Authorization/Appropriation	N/A	N/A	N/A	\$3,168,080
Fee Accounts	N/A	N/A	N/A	\$1,559,930

The *Cybersecurity and Infrastructure Security Agency Act of 2018* (P.L. 115-287) (November 16, 2018) authorizing the creation of CISA did not specify funding levels for CISA.

Cybersecurity and Infrastructure Security Agency Proposed Legislative Language

Operation and Support

For necessary expenses of the [National Protection and Programs Directorate for operations and support, as authorized by title II of the Homeland Security Act of 2002 (6 U.S.C. 121 et seq.), including minor procurements, construction, and improvements] *Cybersecurity and Infrastructure Security Agency for operations and support*, [\$1,470,340,000] *\$1,278,550,000*, of which [\$8,912,000] *\$9,055,000* shall remain available until September 30, [2020] *2021: Provided*, That not to exceed \$3,825 shall be for official reception and representation expenses.

Language Provision	Explanation
...[National Protection and Programs Directorate for operations and support, as authorized by title II of the Homeland Security Act of 2002 (6 U.S.C. 121 et seq.), including minor procurements, construction, and improvements] <i>Cybersecurity and Infrastructure Security Agency for operations and support</i>	Modified pursuant to the authorization of CISA pursuant to the <i>Cybersecurity and Infrastructure Security Agency Act of 2018</i> (P.L. 115-278).
...[\$1,470,340,000] <i>\$1,278,550,000</i>	Dollar change only.
...[\$8,912,000] <i>\$9,055,000</i>	Dollar change only.
...shall remain available until September 30, [2020] <i>2021</i> ;	The two-year funding under Operations and Support is aligned to the National Infrastructure Simulation and Analysis Center (NISAC). Currently, NISAC funding is distributed between Operations and Support and Research and Development. The funding was divided between the two because the CAS definition of R&D funding is based on Technology Readiness Levels (TRL) and some NISAC capabilities are “operational” activities that are used to inform decision making, and could arguably meet the definition of TRL 8 or 9. However, NISAC’s projects (including those funded under Operations and Support) are all cutting-edge science attempting to model infrastructure systems and their interdependencies in a way that is not done at scale, so even mature capabilities must be updated or deprecated based on scientific advances. This means that the vast majority of NISAC-related costs go toward multiyear projects to create new or updated capabilities, which are constantly at risk and require multiyear funding in order to execute without risk of lapsing funding.

Procurement, Construction, and Improvements

For necessary expenses of the [National Protection and Programs Directorate, as authorized by title II of the Homeland Security Act of 2002 (6 U.S.C. 121 et seq.)] *Cybersecurity and Infrastructure Security Agency*, for procurement, construction, and improvements, [\$302,964,000] \$299,078,000 to[, which shall] remain available until September 30, [2020] 2022.

Language Provision	Explanation
...[National Protection and Programs Directorate, as authorized by title II of the Homeland Security Act of 2002 (6 U.S.C. 121 et seq.)] <i>Cybersecurity and Infrastructure Security Agency</i>	Modified pursuant to the authorization of CISA pursuant to the <i>Cybersecurity and Infrastructure Security Agency Act of 2018</i> (P.L. 115-278).
...[\$302,964,000] <u>\$299,078,000</u>	Dollar change only.
...to[, which shall]	Minor language adjustment
...remain available until September 30, [2020] <u>2022</u>	Updated period of availability.

Research and Development

For necessary expenses of the [National Protection and Programs Directorate] *Cybersecurity and Infrastructure Security Agency* for research and development [, as authorized by the Homeland Security Act of 2002 (6 U.S.C. 121 et seq.) \$47,847,000] \$30,522,000, to remain available until September 30, [2020] 2021.

Language Provision	Explanation
[National Protection and Programs Directorate] <i>Cybersecurity and Infrastructure Security</i>	Modified pursuant to the authorization of CISA pursuant to the <i>Cybersecurity and Infrastructure Security Agency Act of 2018</i> (P.L. 115-278).
[, as authorized by the Homeland Security Act of 2002 (6 U.S.C. 121 et seq.)]	Section removed to streamline appropriations language.
[\$47,847,000] <u>\$30,522,000</u>	Dollar change only.
[2020] <u>2021</u> .	Updated period of availability.

Federal Protective Service

The revenues and collections of security fees credited to this account shall be available until expended for necessary expenses related to the protection of federally owned and leased buildings and for the operations of the Federal Protective Service.

Language Provision	Explanation
N/A	No Changes.

Statutory Authority

The revenues and collections of security fees credited to this account shall be available until expended for necessary expenses related to the protection of federally owned and leased buildings and for the operations of the Federal Protective Service.

Department of Homeland Security
Cybersecurity and Infrastructure Security Agency
Operations and Support



Fiscal Year 2020
Congressional Justification

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Operations and Support

Budget Comparison and Adjustments

Comparison of Budget Authority and Request

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Mission Support	435	349	\$84,493	428	338	\$78,103	424	333	\$77,814	(4)	(5)	(\$289)
Cybersecurity	743	579	\$722,908	770	577	\$713,055	842	698	\$760,882	72	121	\$47,827
Infrastructure Security	681	573	\$194,216	704	575	\$206,035	677	560	\$182,691	(27)	(15)	(\$23,344)
Emergency Communications	137	108	\$118,456	137	113	\$115,696	137	113	\$116,554	-	-	\$858
Integrated Operations	391	322	\$142,663	391	336	\$127,170	427	368	\$140,609	36	32	\$13,439
Office of Biometric Identity Management	170	154	\$219,429	177	161	\$230,281	-	-	-	(177)	(161)	(\$230,281)
Total	2,557	2,085	\$1,482,165	2,607	2,100	\$1,470,340	2,507	2,072	\$1,278,550	(100)	(28)	(\$191,790)
Subtotal Discretionary - Appropriation	2,557	2,085	\$1,482,165	2,607	2,100	\$1,470,340	2,507	2,072	\$1,278,550	(100)	(28)	(\$191,790)

*FTE reported in this table differ from MAX A-11 due to adjusted Prior Year (PY) totals and Current Year (CY) estimates reported at a later date than the MAX A-11 PY and CY lock dates.

The Cybersecurity and Infrastructure Security Agency (CISA) Operations and Support (O&S) appropriation funds the core operations of CISA to enhance the security and resilience of infrastructure against terrorist attacks, cyber events, natural disasters, and other large-scale incidents. Secure and resilient infrastructure is essential for national security, economic vitality, and public health and safety. CISA's programs bring to bear a range of specific capabilities that matrix together to provide a flexible platform to identify and pursue effective national risk mitigation.

The O&S appropriation supports the costs of necessary operations, mission support, and associated management and administration to execute CISA programs. Activities are organized according to the following Programs, Projects, and Activities (PPAs):

Mission Support: The Mission Support program provides enterprise leadership, management, and business administrative services that sustain day-to-day management operations. Key capabilities include conducting agency planning and performance management, managing finances, managing the agency workforce, providing physical and personnel security, acquiring goods and services, managing information technology, managing agency property and assets, providing legal affairs services, and providing general management and administration. These capabilities are critical to all CISA mission areas.

Cybersecurity: The Cybersecurity program supports CISA's mission to defend and secure cyberspace. Through cyber defense operations, CISA works to ensure that cyber threats are unable to achieve their objectives on Federal networks and critical infrastructure; this includes detecting and analyzing threat activity, preventing threats through information sharing and technical means, and responding to incidents. CISA fulfills its

responsibilities under the Federal Information Security Management Act (FISMA) to administer the cybersecurity of Federal agencies and ensure that Federal cybersecurity risk is managed at an acceptable level to agency missions and the Federal enterprise more broadly; this includes support to the risk management and governance efforts of the U.S. Office of Management and Budget (OMB), as well as building capacity at agencies by providing cybersecurity tools and services. CISA supports critical infrastructure, State, local, tribal, and territorial partners through engagement, planning, and capacity building services, which helps to ensure that cybersecurity risk is managed at a level acceptable for national security, public health and safety, and economic security. Finally, CISA strengthens the cyberspace ecosystem in the long-term to ensure that network defenders have an inherent advantage over attackers; this includes coordinating efforts and providing training for the Federal and national cybersecurity workforce, partnering with developers to secure networked technologies, and fostering long-term cybersecurity innovations.

Infrastructure Security: The Infrastructure Security program leads and coordinates national programs and policies on critical infrastructure security and resilience, and develops strong partnerships across government and the private sectors. The program conducts and facilitates vulnerability and consequence assessments to help critical infrastructure owners, operators, and State, local, tribal, and territorial partners understand and address risks to critical infrastructure. Additionally, it provides information on emerging threats and hazards and offers tools and training to partners to help them manage risks to critical infrastructure.

Emergency Communications: The Emergency Communications program ensures public safety through the provision of the tools needed to communicate during steady state and emergency operations. The program develops and implements nationwide emergency communications policy and plans, including the National Emergency Communications Plan and 56 Statewide Communications Interoperability Plans. It additionally manages funding, sustainment, and grant programs to support communications interoperability – and builds capacity with Federal, State, Local, Tribal, and Territorial stakeholders by providing technical assistance, training, resources, and guidance. As directed by legislation, the Emergency Communications PPA supports nationwide sharing of best practices and lessons learned through facilitation of SAFECOM and Emergency Communications Preparedness Center governance bodies. Moreover, the Emergency Communications PPA provides priority telecommunications services over commercial networks to enable national security and emergency preparedness personnel to communicate during telecommunications congestion scenarios across the Nation.

Integrated Operations: The Integrated Operations program ensures coordinated domain awareness and risk management operations through the sustainment of command and control capabilities, coordination, information sharing, and situational awareness. This program includes the National Risk Management Center (NRMC), as well as several organizations that carry out functions such as 24x7 critical infrastructure Watch operations, continuity of operations, stakeholder engagement, external affairs, privacy, policy development and implementation, and strategic planning.

Figure: CISA PPAs Level I, II, and III Split

Operations and Support (<i>Dollars in Thousands</i>)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2020 Program Funding	FY 2020 Salary and Benefits Funding	Defense %	Non Defense %
Cybersecurity (Level 1)							
Cyber Readiness and Response (Level 2)	\$243,992	\$224,396	\$248,311	\$195,879	\$52,432	100%	0%
NCCIC Operations	\$136,439	\$140,049	\$164,782	\$134,433	\$30,349	100%	0%
[CERT]	[\$104,689]	[\$117,566]	[\$131,838]	[\$107,095]	[\$24,743]		
NCCIC Planning and Exercises	\$107,553	\$84,347	\$83,529	\$61,446	\$22,083	100%	0%
[CERT]	[\$69,220]	[\$64,297]	[\$73,183]	[\$57,493]	[\$15,690]		
Cyber Infrastructure Resilience (Level 2)	\$46,243	\$30,059	\$61,976	\$48,151	\$13,825	100%	0%
Cybersecurity Advisors	\$14,693	\$6,860	\$6,830	\$2,399	\$4,431	100%	0%
Enhanced Cybersecurity Services	\$17,157	\$13,097	\$13,154	\$12,236	\$918	100%	0%
Cybersecurity Education and Awareness	\$14,393	\$10,102	\$32,507	\$27,271	\$5,236	100%	0%
Cyber Technology Strategic Initiative (<i>New PPA</i>)			\$9,485	\$6,245	\$3,240	100%	0%
Federal Cybersecurity (Level 2)	\$432,673	\$458,600	\$450,595	\$399,583	\$51,012	100%	0%
Federal Network Resilience	\$42,766	\$49,834	\$56,697	\$41,469	\$15,228	100%	0%
Continuous Diagnostics & Mitigation	\$102,681	\$112,089	\$94,514	\$88,529	\$5,985	100%	0%
National Cybersecurity Protection System	\$287,226	\$296,677	\$299,384	\$269,585	\$29,799	100%	0%
Subtotal, Cybersecurity	\$722,908	\$713,055	\$760,882	\$643,613	\$117,269		
Infrastructure Security (Level 1)							
Infrastructure Capacity Building (Level 2)	\$121,776	\$129,182	\$126,653	\$71,602	\$55,051	100%	0%
Sector Risk Management	\$47,612	\$55,859	\$46,237	\$26,296	\$19,940	100%	0%
Protective Security Advisors	\$35,677	\$39,114	\$45,151	\$21,072	\$24,079	100%	0%
Bombing Prevention	\$16,199	\$14,752	\$16,033	\$12,897	\$3,136	100%	0%
Infrastructure Information & Sensitive Data Protection	\$22,288	\$19,457	\$19,232	\$11,337	\$7,896	100%	0%
Infrastructure Security Compliance (Level 2)	\$72,440	\$76,853	\$56,038	\$21,371	\$34,667	100%	0%
Subtotal, Infrastructure Protection	\$194,216	\$206,035	\$182,691	\$92,973	\$89,718		
Emergency Communications (Level 1)							
Emergency Communications Preparedness (Level 2)	\$54,501	\$51,785	\$51,959	\$37,106	\$14,853	100%	0%
Priority Telecommunications Services (Level 2)	\$63,955	\$63,911	\$64,595	\$60,046	\$4,549	100%	0%
GETS/WPS/SRAS/TSP	\$56,319	\$56,293	\$56,201	\$53,572	\$2,629	100%	0%
NGN-Priority Services	\$7,636	\$7,618	\$8,394	\$6,474	\$1,920	100%	0%
Subtotal, Emergency Communications	\$118,456	\$115,696	\$116,554	\$97,152	19,402		

Cybersecurity and Infrastructure Security Agency

Operations and Support

Operations and Support (<i>Dollars in Thousands</i>)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2020 Program Funding	FY 2020 Salary and Benefits Funding	Defense %	Non Defense %
Integrated Operations (Level 1)							
Risk Management Operations (Level 2)	\$56,410	\$44,683	\$62,199	\$31,981	\$30,218	100%	0%
National Infrastructure Simulation Analysis Center	\$18,650	\$8,912	\$9,055	\$9,055	-	100%	0%
Infrastructure Analysis	\$37,760	\$35,771	\$53,144	\$22,926	\$30,218	100%	0%
Critical Infrastructure Situational Awareness (Level 2)	\$21,222	\$23,429	\$23,914	\$15,483	\$8,431	91%	9%
[Defense]	\$19,312	\$21,320	\$21,762	\$14,090	\$7,672		
[Non-Defense]	\$1,910	\$2,109	\$2,152	\$1,393	\$759		
Stakeholder Engagements & Requirements (Level 2)	\$50,583	\$45,127	\$42,070	\$27,642	\$14,428	90%	10%
[Defense]	\$45,810	\$40,614	\$37,863	\$24,878	\$12,985		
[Non-Defense]	\$4,773	\$4,513	\$4,207	\$2,764	\$1,443		
Strategy, Policy, & Plans (Level 2)	\$14,448	\$13,931	\$12,426	\$3,948	\$8,478	66%	34%
[Defense]	\$9,536	\$9,194	\$8,201	\$2,606	\$5,595		
[Non-Defense]	\$4,912	\$4,737	\$4,225	\$1,342	\$2,883		
Subtotal, Integrated Operations	\$142,663	\$127,170	\$140,609	\$79,054	\$61,555		
Office of Biometric Identity Management (Level 1)							
Identity & Screening Program Operations (Level 2)	\$68,826	\$69,590	-	-	-	0%	100%
IDENT/HART Operations & Maintenance (Level 2)	\$150,603	\$160,691	-	-	-	0%	100%
Subtotal, Office of Biometric Identity Management	\$219,429	\$230,281	-	-	-		
Mission Support (Level 1)						31%	69%
[Defense]	\$26,193	\$24,212	\$24,122	\$7,818	\$16,305		
[Non-Defense]	\$58,300	\$53,891	\$53,692	\$17,400	\$36,291		
Subtotal, Mission Support	\$84,493	\$78,103	\$77,814	\$25,218	\$52,596		
Total Operations and Support	\$1,482,165	\$1,470,340	\$1,278,550	\$938,010	\$340,540		
[Defense]	\$1,192,841	\$1,174,809	\$1,214,274	\$915,111	\$299,164		
[Non-Defense]	\$289,324	\$295,531	\$64,276	\$22,899	\$41,376		

Operations and Support

Budget Authority and Obligations

Budget Authority (Dollars in Thousands)	FY 2018	FY 2019	FY 2020
Enacted/Request	\$1,482,165	\$1,470,340	\$1,278,550
Carryover and/or Recoveries (Actual/Estimates/Projections)	\$71,776	\$787	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	\$4,985	-	-
Supplementals	-	-	-
Total Budget Authority	\$1,558,926	\$1,471,127	\$1,278,550
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	\$1,558,926	\$1,471,127	\$1,278,550
Obligations (Actual/Estimates/Projections)	\$1,554,774	\$1,471,127	\$1,278,550
Personnel: Positions and FTE			
Enacted/Request Positions	2,557	2,607	2,507
Enacted/Request FTE	2,085	2,100	2,072
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	2,557	2,607	2,507
FTE (Actual/Estimates/Projections)	2,085	2,100	2,072

Operations and Support Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	2,557	2,085	\$1,482,165
FY 2019 President's Budget	2,607	2,100	\$1,470,340
FY 2020 Base Budget	2,607	2,100	\$1,470,340
Transfer OBIM to MGMT/OBIM from CISA	(177)	(161)	(\$230,281)
Transfer to CISA/Mission Support from MGMT/OCSO for Background Investigations	-	-	\$1,089
Transfer to CISA/O&S from CISA/R&D for Cyber Tech Strategic Init	-	-	\$4,695
Transfer to MGMT/OCRSO from CISA/MS for Regional Field Efficiencies	-	-	(\$37)
Total Transfers	(177)	(161)	(\$224,534)
Annualization of 2019 Personnel Changes	-	25	\$4,467
Continuous Diagnostics and Mitigation (CDM) Hiring	30	25	-
FERS Agency Contribution Increase	-	-	\$5,612
National Capital Region Infrastructure Operations (NCRIO) Sustainment	-	-	\$5,838
National Infrastructure Coordination Center (NICC) Staffing	5	5	-
Office of Privacy Staffing	3	3	-
WCF and Shared Services	-	-	\$712
Total, Pricing Increases	38	58	\$16,629
Centralized Mission Support	-	-	(\$3,230)
Total, Pricing Decreases	-	-	(\$3,230)
Total Adjustments-to-Base	(139)	(103)	(\$211,135)
FY 2020 Current Services	2,468	1,997	\$1,259,205
Counter Intelligence and Insider Threat	2	1	\$173
CyberSentry	4	2	\$11,000
Enhancement in Support of Bomb-Making Materials Awareness Program (BMAP)	1	1	\$1,024
Enhancement to Support Continuity Operations (COOP) Program	4	2	\$1,188
Federal Network Resilience .gov Governance	4	2	\$3,340
Federal Network Resilience High Value Assets	4	2	\$4,830
Infrastructure Security Compliance CSAT Program Costs	-	-	\$182
IP Gateway Program Life Cycle Costs	-	-	\$229
National Cybersecurity Protection System (NCPS) Program Life Cycle Costs	-	13	\$11,103
NCCIC Staffing Plan	-	44	\$9,859

Cybersecurity and Infrastructure Security Agency

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Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
Next Generation Networks Priority Services (NGN-PS) Program Life Cycle Costs	-	-	\$9
Operations Support for NRMCC	-	-	\$143
Priority Telecommunications Services (PTS) Program Life Cycle Costs	-	-	\$13
Support State and Local Governments (Infrastructure Protection)	-	-	\$1,785
Support to State and Local Governments (Cybersecurity)	20	10	\$22,286
Total, Program Increases	39	77	\$67,164
CDM Program Life Cycle Costs	-	-	(\$14,794)
Decrement in Operations Coordination and Watch	-	(2)	(\$1,111)
Decrement to Pensacola Facility Operations	-	-	(\$11,414)
Protective Security Advisors (PSA) ISD Regionalization	-	-	(\$2,000)
Risk Based Approach to Chemical Security/CFATS	-	-	(\$18,500)
Total, Program Decreases	-	(2)	(\$47,819)
FY 2020 Request	2,507	2,072	\$1,278,550
FY 2019 To FY 2020 Change	(100)	(28)	(\$191,790)

Operations and Support Justification of Transfers

Transfers <i>(Dollars in Thousands)</i>	FY 2020 President's Budget		
	Positions	FTE	Amount
Transfer 1 - Transfer OBIM to MGMT/OBIM from CISA	(177)	(161)	(\$230,281)
Office of Biometric Identity Management	(177)	(161)	(\$230,281)
Identity and Screening Program Operations	(177)	(161)	(\$69,590)
IDENT/Homeland Advanced Recognition Technology Operations and Maintenance	-	-	(\$160,691)
Transfer 2 - Transfer to CISA/Mission Support from MGMT/OCSO for Background Investigations	-	-	\$1,089
Mission Support	-	-	\$1,089
Transfer 3 - Transfer to CISA/O&S from CISA/R&D for Cyber Tech Strategic Init	-	-	\$4,695
Cybersecurity	-	-	\$4,695
Cyber Infrastructure Resilience	-	-	\$4,695
Transfer 4 - Transfer to MGMT/OCRSO from CISA/MS for Regional Field Efficiencies	-	-	(\$37)
Mission Support	-	-	(\$37)
Total Transfers	(177)	(161)	(\$224,534)

Transfer 1 – Transfer OBIM to MGMT/OBIM from CISA: Reflects the transfer of the OBIM organization to DHS Headquarters Management Directorate. This operational transfer occurred when CISA was created in November 2018.

Transfer 2 – Transfer to CISA/Mission Support from MGMT/OCSO for Background Investigations: This transfer to DHS Components, including CISA, represents the costs related to the initiation, scheduling, and adjudication of background investigations for Federal civilian and contract employment. Components will provide the funding back to the DHS Chief Security Officer (OCSO) through a WCF fee for service.

Transfer 3 – Transfer to CISA/O&S from CISA/R&D for Cybersecurity Technology Strategic Initiative: This transfer reflects a shift from the Research and Development (R&D) appropriation to the Cyber Infrastructure Resilience PPA within the Operations and Support (O&S) appropriation, to better support the Cybersecurity Technology Strategic Initiative.

Transfer 4 – Transfer to MGMT/OCRSO from CISA/Mission Support for Regional Field Efficiencies: This transfer to the DHS Chief Readiness Support Officer (OCRSO) aligns funds for programs that build on current unity-of-effort, field efficiencies, and headquarters consolidation initiatives. Previously, benefiting DHS Components paid for these services via an inter-agency agreement.

Operations and Support

Justification of Pricing Changes

Pricing Changes (Dollars in Thousands)	FY 2020 President's Budget		
	Positions	FTE	Amount
Pricing Change 1 - Annualization of 2019 Personnel Changes	-	25	\$4,467
Cybersecurity	-	13	\$2,463
Cyber Readiness and Response	-	10	\$1,962
Federal Cybersecurity	-	3	\$501
Infrastructure Security	-	12	\$2,004
Infrastructure Capacity Building	-	12	\$2,004
Pricing Change 2 - Centralized Mission Support	-	-	(\$3,230)
Mission Support	-	-	(\$3,230)
Pricing Change 3 - Continuous Diagnostics and Mitigation (CDM) Hiring	30	25	-
Cybersecurity	30	25	-
Federal Cybersecurity	30	25	-
Pricing Change 4 - FERS Agency Contribution Increase	-	-	\$5,612
Mission Support	-	-	\$911
Cybersecurity	-	-	\$1,764
Cyber Infrastructure Resilience	-	-	\$116
Cyber Readiness and Response	-	-	\$813
Federal Cybersecurity	-	-	\$835
Infrastructure Security	-	-	\$1,614
Infrastructure Capacity Building	-	-	\$963
Infrastructure Security Compliance	-	-	\$651
Emergency Communications	-	-	\$335
Emergency Communications Preparedness	-	-	\$255
Priority Telecommunications Services	-	-	\$80
Integrated Operations	-	-	\$988
Critical Infrastructure Situational Awareness	-	-	\$128
Risk Management Operations	-	-	\$437
Stakeholder Engagement and Requirements	-	-	\$241
Strategy, Policy, and Plans	-	-	\$182
Office of Biometric Identity Management	-	-	-
Pricing Change 5 - National Capital Region Infrastructure Operations (NCRIO) Sustainment	-	-	\$5,838

Pricing Changes (Dollars in Thousands)	FY 2020 President's Budget		
	Positions	FTE	Amount
Mission Support	-	-	\$5,838
Pricing Change 6 - National Infrastructure Coordination Center (NICC) Staffing	5	5	-
Integrated Operations	5	5	-
Critical Infrastructure Situational Awareness	5	5	-
Pricing Change 7 - Office of Privacy Staffing	3	3	-
Integrated Operations	3	3	-
Stakeholder Engagement and Requirements	3	3	\$510
Strategy, Policy, and Plans	-	-	(\$510)
Pricing Change 8 - WCF and Shared Services	-	-	\$712
Emergency Communications	-	-	\$712
Priority Telecommunications Services	-	-	\$712
Total Pricing Changes	38	58	\$13,399

Pricing Change 1 – Annualization of 2019 Personnel Changes: This pricing change reflects an increase in FTE and salaries and benefits funds to support the operation and sustainment of the programs recommended in the FY 2019 budget request.

Pricing Change 2 – Centralized Mission Support: This pricing change reflects a decrease to the Mission Support PPA due to reductions in travel and training, and reductions to existing contracts due to hiring of Federal FTE in FY 2019 and FY 2020.

Pricing Change 3 – CDM Hiring: This pricing change reflects an increase in FTE for the Continuous Diagnostics and Mitigation (CDM) program as a result of converting contractor positions to government FTE to adequately support agencies in accelerating the deployment of CDM capabilities.

Pricing Change 4 – FERS Agency Contribution Increase: Per OMB Circular A-11, agency FERS contributions increased. The regular FERS agency contribution increased by 2.3% from 13.7% in FY 2019 to 16.0% in FY 2020. The Law Enforcement FERS agency contribution increased by 3.3% from 30.1% to 33.4%. The agency contribution amount for CSRS did not change.

Pricing Change 5 – National Capital Region Infrastructure Operations (NCRIO) Sustainment: This pricing change reflects adjustments of NCRIO amounts to reflect full funding needs as determined by the Working Capital Fund (WCF) Governance Board.

Pricing Change 6 – National Infrastructure Coordination Center (NICC) Staffing: This pricing change reflects an increase in FTE for the NICC program as a result of converting contractor positions to government FTE.

Pricing Change 7 – Office of Privacy Staffing: This pricing change reflects an increase in privacy personnel that has taken place within CISA. No increase in Salaries and Benefits funding is required to support these FTE.

Pricing Change 8 – WCF and Shared Services: This pricing change reflects an increase to support existing Emergency Communications Division's priority telecommunications services which authorizes national security and emergency preparedness organizations to receive priority treatment for vital voice and circuits or other telecommunications services.

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Justification of Program Changes

Program Changes (Dollars in Thousands)	FY 2020 President's Budget		
	Positions	FTE	Amount
Program Change 1 - CDM Program Life Cycle Costs	-	-	(\$14,794)
Cybersecurity	-	-	(\$14,794)
Federal Cybersecurity	-	-	(\$14,794)
Program Change 2 - Counter Intelligence and Insider Threat	2	1	\$173
Mission Support	2	1	\$173
Program Change 3 - CyberSentry	4	2	\$11,000
Cybersecurity	4	2	\$11,000
Cyber Readiness and Response	4	2	\$11,000
Program Change 4 - Decrement in Operations Coordination and Watch	-	(2)	(\$1,111)
Integrated Operations	-	(2)	(\$1,111)
Critical Infrastructure Situational Awareness	-	-	(\$831)
Risk Management Operations	-	(2)	(\$280)
Program Change 5 - Decrement to Pensacola Facility Operations	-	-	(\$11,414)
Cybersecurity	-	-	(\$11,414)
Cyber Readiness and Response	-	-	(\$5,414)
Federal Cybersecurity	-	-	(\$6,000)
Program Change 6 - Enhancement in Support of Bomb-Making Materials Awareness Program (BMAP)	1	1	\$1,024
Infrastructure Security	1	1	\$1,024
Infrastructure Capacity Building	1	1	\$1,024
Program Change 7 - Enhancement to Support Continuity Operations (COOP) Program	4	2	\$1,188
Integrated Operations	4	2	\$1,188
Critical Infrastructure Situational Awareness	4	2	\$1,188
Program Change 8 - Federal Network Resilience .gov Governance	4	2	\$3,340
Cybersecurity	4	2	\$3,340
Federal Cybersecurity	4	2	\$3,340
Program Change 9 - Federal Network Resilience High Value Assets	4	2	\$4,830
Cybersecurity	4	2	\$4,830
Federal Cybersecurity	4	2	\$4,830
Program Change 10 - IP Gateway Program Life Cycle Costs	-	-	\$229
Infrastructure Security	-	-	\$229

Cybersecurity and Infrastructure Security Agency

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Program Changes (Dollars in Thousands)	FY 2020 President's Budget		
	Positions	FTE	Amount
Infrastructure Capacity Building	-	-	\$229
Program Change 11 - Infrastructure Security Compliance CSAT Program Costs	-	-	\$182
Infrastructure Security	-	-	\$182
Infrastructure Security Compliance	-	-	\$182
Program Change 12 - NCCIC Staffing Plan	-	44	\$9,859
Cybersecurity	-	44	\$9,859
Cyber Readiness and Response	-	44	\$9,859
Program Change 13 - National Cybersecurity Protection System (NCPS) Program Life Cycle Costs	-	13	\$11,103
Cybersecurity	-	13	\$11,103
Federal Cybersecurity	-	13	\$11,103
Program Change 14 - Next Generation Networks Priority Services (NGN-PS) Program Life Cycle Costs	-	-	\$9
Emergency Communications	-	-	\$9
Priority Telecommunications Services	-	-	\$9
Program Change 15 - Operations Support for NRM	-	-	\$143
Integrated Operations	-	-	\$143
Risk Management Operations	-	-	\$143
Program Change 16 - Priority Telecommunications Services (PTS) Program Life Cycle Costs	-	-	\$13
Emergency Communications	-	-	\$13
Priority Telecommunications Services	-	-	\$13
Program Change 17 - Protective Security Advisors (PSA) ISD Regionalization	-	-	(\$2,000)
Infrastructure Security	-	-	(\$2,000)
Infrastructure Capacity Building	-	-	(\$2,000)
Program Change 18 - Risk Based Approach to Chemical Security/CFATS	-	-	(\$18,500)
Infrastructure Security	-	-	(\$18,500)
Infrastructure Security Compliance	-	-	(\$18,500)
Program Change 19 - Support State and Local Governments (Infrastructure Security)	-	-	\$1,785
Infrastructure Security	-	-	\$1,785
Infrastructure Capacity Building	-	-	\$1,785
Program Change 20 - Support to State and Local Governments (Cybersecurity)	20	10	\$22,286
Cybersecurity	20	10	\$22,286
Cyber Readiness and Response	20	10	\$22,286
Total Program Changes	39	75	\$19,345

Program Change 1 – CDM Program Life Cycle Costs:**Description**

The FY 2020 request includes a reduction of 0 Positions, 0 FTE, and \$14.8M to the CDM program to align the program to its acquisition life cycle cost requirements. The base for this program is 55 Positions, 40 FTE, and \$112.1M.

Justification

This change aligns to the acquisition life cycle cost requirements for the CDM program in FY 2020.

The requested funding will provide the necessary resources to complete all planned activities relating to CDM in FY 2020. The requested O&S funding of \$94.5M includes planned funding increases and decreases that net to an overall decrease of \$14.8M. Specifically, in FY 2020 funding will not be required for Asset Management (Phase 1), Identity and Access Management (Phase 2), and Network Security Management (Phase 3). Additionally, there are increased requirements associated with Dashboards, Program Planning and Operations, and salaries and benefits. Fully funding these requirement will support the provision of CDM capabilities to agencies with newly-signed agreements, continue deployment and expansion of Network Security Management (Phase 3) to strengthen and protect boundaries, enhance security operations, and design and build security into systems. Funding will also allow for the continued expansion of Data Protection Management (Phase 4) capabilities at selected agencies focusing on protecting data on the network; and provide continued support and enhancement for the Federal dashboard and agency dashboard capabilities to deliver increased functionality to users. This will significantly improve the ability of Federal civilian agencies to prepare for, and respond to, incident management – as well as protect data through stronger boundary protection and other means.

Performance

CDM program operations will be supported with this program change. This adjustment, along with the base budget, transfers, pricing changes, and program changes requested in this justification, will allow the program to satisfy its operations and sustainment requirements to adequately address emerging cyber threats.

Program Change 2 – Counter Intelligence and Insider Threat:**Description**

The FY 2020 request includes an increase of 2 Positions, 1 FTE, and \$0.2M to support additional counterintelligence personnel for CISA. Base resources in the Mission Support program include 428 Positions, 338 FTE, and \$78.1M.

Justification

This program increase will allow CISA to grow counterintelligence efforts. This will further institutionalize and professionalize counterintelligence activities across the Department, help the DHS Counterintelligence Program establish a counterintelligence culture across the Department, and counter threats posed by foreign intelligence entities. The increase will additionally allow CISA to enhance existing Insider Threat elements, including support to the Insider Threat Operations Center. This will further institutionalize and professionalize Insider Threat activities across the

Performance

The increase in counter intelligence and insider threat funding will enhance counterintelligence work within CISA. This increase in personnel ties to the DHS strategic decision to increase counterintelligence positions across the Department.

Program Change 3 – CyberSentry:

Description

This FY 2020 program increase of 4 Positions, 2 FTE, and \$11.0M will enable CISA to detect malicious activity at the intersection of critical infrastructure entities' control system networks and their corresponding corporate IT networks and internet boundaries. Currently, there are no positions, FTE, or funds for this program.

Justification

Critical infrastructure organizations are increasingly connected to business networks and the internet, making them valuable targets for adversaries of the United States. As such, U.S. organizations are experiencing network intrusions at an increasing frequency. As the national leader in industrial control systems (ICS) security, the CISA National Cybersecurity and Communications Integration Center (NCCIC) must grow its capacity and capability to stay ahead of emerging risks and better support critical infrastructure. To enhance detection of threats, DHS will pilot the CyberSentry program in FY 2020, extending the NCCIC's existing cybersecurity services to volunteer these services to critical infrastructure organizations across the country on a permanent basis. As the national cybersecurity hub for government and critical infrastructure security, DHS is uniquely positioned to offer these services to critical infrastructure entities across all 16 infrastructure sectors.

Performance

DHS's CyberSentry pilot effort will deploy network sensor systems at volunteer companies' boundary between their control systems network and corporate network, providing a new level of reliable threat and event data for the entity and DHS. This will increase the speed of information-sharing with DHS and produce real-time, actionable information directly to companies that are currently vulnerable to malicious attacks in a more timely and effective manner. Requested funds will be used to procure and install sensors, provide system integration support, and provide contractor support for coordinating with participating organizations. With the requested level of funding, the program will achieve initial operating capability by the end of FY 2020 for up to five participating critical infrastructure operators.

Program Change 4 Decrement in Operations Coordination and Watch:**Description**

The FY 2020 request includes a reduction of 0 Positions, 2 FTE, and \$1.1M to operations coordination and Watch activities. The base for the programs that support these activities is 199 Positions, 177 FTE, and \$68.1M.

Justification

Through consolidation of functions, CISA has identified two FTEs that can be reduced, realizing efficiencies while maintaining performance. Operations coordination and Watch activities previously existed in multiple areas across CISA, and CISA is working to better integrate these activities to create efficiencies across the enterprise. In addition, CISA's Infrastructure Security (IS) Division will find efficiencies within its Watch contract and reduce one 24x7 contractor position.

Performance

Adequate operations will continue with the proposed decrement to operations coordination and Watch. CISA will find efficiencies in its Watch contract and slow hiring for the NRMCC.

Program Change 5 – Decrement to Pensacola Facility Operations:**Description**

The FY 2020 request includes a reduction of 0 Positions, 0 FTE, and \$11.4M to Pensacola facility operations since less funding is required in FY 2020 versus FY 2019 to satisfy operational requirements. The base for this program is 0 Positions, 0 FTE, and \$11.4M.

Justification

Funding for the initial build-out of the Pensacola facility was requested as part of the FY 2019 President's Budget Request and has been removed as part of the FY 2020 request.

Performance

This funding decrease non-recurs funding requested in FY 2019 for construction activities. That construction is expected to be completed in FY 2019, and so funding is not required in FY 2020.

Program Change 6 – Enhancement in Support of Bomb-Making Materials Awareness Program (BMAP):**Description**

The FY 2020 request includes an increase of 1 Position, 1 FTE, and \$1.0M to enhance the national capability to detect and disrupt terrorist attacks before they occur by transitioning CISA's BMAP to a fully-funded program of record and building a service delivery approach to achieve the scale necessary to have a strategic impact. The base for this program is 20 Positions, 19 FTE, and \$14.8M.

Justification

With the funding requested in FY 2020, CISA plans to support expanded BMAP operations. The goal of this program is to increase awareness and build a network of vigilant, informed private sector partners who serve as the Nation's first line of defense against improvised explosive devices (IED) and the sale of precursor chemicals to individuals suspected of trying to create homemade explosives. With the funding requested, CISA will be able to hire an individual to manage all BMAP planning conferences, implementation/sustainment meetings, and symposiums. The funding will additionally provide for: student support, training delivery, lodging, and food services for BMAP administrator training events and BMAP Community Liaison classes; course instruction revisions; development and/or revision of marketing materials; outreach printing costs; and the operations and maintenance requirements for the Homeland Security Information Network (HSIN) BMAP Community of Interest.

Supporting the BMAP is important operationally since the Administration and the Intelligence Community have stated that, due to the ready accessibility of the materials and know-how to construct IEDs, they are likely to remain "the tool of choice" for terrorist actors into the foreseeable future. There is also a general consensus that the shifting threat landscape is driving a need to support a larger portion of the State, local, and private sector communities with a greater level of IED awareness and counter-IED capabilities, as they are in the best position to recognize and report terrorism activities. A 2017 National Academies for Science study concluded that "...the vast majority of bombings in the U.S. involve the use of easy-to-purchase, commercially-available explosive powders and homemade explosives made from common household products. Restricting access to precursor chemicals might contribute to reducing the threat of IED attacks and, in turn, prevent potentially devastating bombings, save lives, and reduce financial impacts."

The Consolidated Appropriations Act for FY 2016 directed DHS to "...employ additional measures to secure ammonium nitrate and other IED precursors while continuing the rulemaking process." This program change specifically addresses the Congressional intent of augmenting regulations with voluntary precursor control programs such as BMAP.

Performance

FY 2020 funding for BMAP would provide for a critical element in the Department's strategy for explosive precursor control – complementing and filling gaps within existing regulatory measures and empowering State and local communities to enhance their own preparedness, which is in alignment with the DHS Strategic Plan's focus on detecting and disrupting bombing attacks before they occur. Through this program change, DHS will support the sustainment of current BMAP State partnerships and expand from its current seven partnerships to 32 by FY 2024. CISA will establish BMAP programs in up to 600 of the highest-risk jurisdictions in 32 states – which would result in an increase of BMAP Administrators and Community Liaisons (from the current level of 240 to 1,240 individuals), and a corresponding increase in outreach to local point-of-sale retailers (from 200 to approximately 5,000 per year).

Program Change 7 – Enhancement to Support Continuity Operations (COOP) Program:**Description**

The FY 2020 request includes an increase of 4 Positions, 2 FTE, and \$1.2M to enhance business continuity and emergency preparedness within the National Capital Region (NCR) and CISA's expanding regional footprint. It will also allow CISA to enhance its devolution capabilities, as outlined in Federal continuity directives, and provide for critical equipment refresh at the emergency relocation site. The base for this program is 9 Positions,

9 FTE, and \$5.2M.

Justification

With the funding requested in FY 2020, CISA plans to focus on regional operations in Denver, Colorado and Pensacola, Florida to ensure seamless, redundant continuity postures for CISA critical missions. The additional positions and FTE requested would provide devolution and emergency response group support to critical stakeholders. Devolution is a challenging mission area for CISA continuity operations; and the focus on this particular area would enhance resiliency, redundancies, and eliminate potential disruptions.

Performance

Regional operations are critical for the CISA mission. The CISA continuity operations strategy is to ensure seamless, redundant, and continuous postures for CISA critical missions by focusing on regional operations; specifically, operations in Denver, Colorado and Pensacola, Florida. The following activities are planned with the FY 2020 funding requested:

- Provide regional support for national exercise planning (Pensacola, Florida)
- Provide regional support for the Continuity Evaluation Tool (Denver, Colorado)
- Lead devolution planning and execution (Pensacola, Florida and Denver, Colorado)
- Establish devolution verification and validation metrics (Pensacola, Florida)
- Develop devolution standard operating procedures and protocols (Pensacola, Florida)
- Establish regional CISA preparedness (Denver, Colorado)
- Establish redundant communications support for the emergency response (Pensacola, Florida)
- Provide planning and response technical assistance to regional offices (Pensacola, Florida and Denver, Colorado)

Program Change 8 – Federal Network Resilience .gov Governance:**Description**

The FY 2020 request includes an increase of 4 Positions, 2 FTE, and \$3.3M to establish unified cybersecurity action across the Federal Civilian Executive Branch (FCEB) through enhanced governance and policy implementation. The base for this program are 13 Positions, 7 FTEs, and \$4.8M.

Justification

In order to effectively administer the cybersecurity of the FCEB, DHS must fully integrate its various governance and situational awareness capabilities to analyze information and determine the appropriate means by which DHS can scale cybersecurity actions to meet operational requirements across the interagency. This request supports Federal civilian agencies in understanding, adopting, and implementing effective cybersecurity governance practices through the provision of governance-focused planning support, technical assistance services, and products to fill any governance gaps identified. This support will enable the Federal civilian agency leaders to translate cyber risks into mission and business decisions. It will also allow Federal staff to advise and assist agencies in the implementation of cybersecurity governance practices around capabilities and programs (e.g., Continuous Diagnostics and Mitigation and High Value Assets), critical priorities (e.g., mobility, cloud, and managed services), and/or directives and mandates (e.g., Binding Operational Directives and special publications from the National Institute of Standards and

Performance

To ensure that every agency maintains an adequate level of cybersecurity commensurate with its own risks and with those of the FCEB enterprise, CISA must bolster the following functions: establish Federal cybersecurity governance technical assistance that supports evaluating and updating the Federal cybersecurity baseline; advance FCEB cyber risk awareness; provide decision support products and services that enable agencies to implement cybersecurity governance leading practices; develop, distribute, and share implementing guidance around OMB guidance, NIST special publications, and DHS directives; standardize Federal cybersecurity governance models and approaches within and across the FCEB; support CDM and facilitate organization readiness and adoption of CDM program tools and capabilities; and enhance shared services to meet identified gaps.

Program Change 9 – Federal Network Resilience High Value Assets (HVA) Program:

Description

The FY 2020 request includes an increase of 4 Positions, 2 FTE, and \$4.8M to ensure that Federal agencies achieve a minimum cybersecurity baseline for the HVA program through assessments, technical assistance, and architectural design support. The base for this program is 15 Positions, 8 FTEs, and \$5.1M.

Justification

The request supports guidance detailed in U.S. OMB Memorandum 19-03, which is focused on strengthening the cybersecurity of Federal agencies by enhancing the HVA program. The guidance broadened the definition of what comprises a Federal HVA; as a result, the HVA inventory increased significantly, requiring a greater number of assessments. The funding requested will support an increase in operational assessments conducted; and the analysis will provide insight into interconnected nature and systemic risk to HVAs across the Federal Enterprise. This insight will provide DHS with the ability to articulate architectural capabilities and technical requirements aligned with Federal governance and risk management.

Performance

With the dynamic adversarial threat to the security and resilience of HVAs, it is essential that the initiative evolve to take a more comprehensive view of the risk to the Federal enterprise and the measures available to mitigate those risks. To meet the increase in operational assessments required, DHS must increase its operational assessment capacity by maturing its assessment methodology. DHS must also increase its scope of assessments to include .gov Cybersecurity Architecture Reviews (.gov CAR) and supply chain risk management. DHS plans to increase the number of assessments conducted by 80% beginning in FY 2020.

Program Change 10 – IP Gateway Program Life Cycle Costs:

Description

The FY 2020 request includes an increase of 0 Positions, 0 FTE, and \$0.3M to the Infrastructure Protection (IP) Gateway program. The base for the overall Infrastructure Information and Sensitive Data Protection program, through which the IP Gateway program is funded, is 65 Positions, 56 FTE, and \$19.5M.

Justification

By the end of FY 2020, the IP Gateway program will migrate to a cloud-based hosting environment. This increase will support dual operations of the IP Gateway in its current hardware-based environment during the transition to the cloud. It is anticipated that the transition to the cloud environment and the disposal of the legacy hardware will be completed by FY 2021.

Performance

Performing the transition to the cloud will allow for the modernization of the system in an efficient, dynamic, and scalable computing environment that will adhere to current governance and regulations. It will also allow for the progression to a new investment in future years. This migration will facilitate future planning efforts to build a mobile and dynamic environment and increased ability to perform data analytics. Performing dual operations of the IP Gateway in its current hardware-based environment and the cloud-based environment will allow for the validation of the successful migration of services and data to the new cloud-based environment prior to shutting down and decommissioning the hardware-based environment.

Program Change 11 – Infrastructure Security Compliance (ISC) CSAT Program Costs:**Description**

The FY 2020 request includes an increase of 0 Positions, 0 FTE, and \$0.2M to the Infrastructure Security Compliance (ISC) Chemical Security Assessment Tool (CSAT) program. The base for the ISC program is 307 Positions, 248 FTE, and \$76.9M.

Justification

As a result of revisions to the risk-based tiering methodologies, approximately 700 new facilities have been added to the Chemical Facility Anti-Terrorism Standards (CFATS) program. This change represents the additional help desk support, data analysis, and software maintenance activities to account for the increased number of users within the system.

Performance

The ISC CSAT program operation and maintenance activities will continue to be supported.

Program Change 12 – NCICC Staffing Plan:**Description**

The FY 2020 request includes an increase of 0 Positions, 44 FTE, and \$9.9M to implement the third phase of the NCCIC Staffing Plan. The NCCIC Staffing Plan is a rigorous workload-based staffing analysis that outlines staffing requirements proportionate to increased analytic demands. The base for this program is 396 Positions, 290 FTE, and \$224.4M.

Justification

NCCIC operates at the intersection of government, private sector, and international network defense and communications communities. It applies unique analytic perspectives; ensures shared situational awareness; and orchestrates synchronized responses, mitigation strategies, and recovery

efforts. The requested funding will provide for an increase in government FTE as well as the equipment and contractor support required to perform assessments and incident response activities, develop analytical products, and support continuous (24x7x365) operational staffing in the National Capital Region (NCR) and Pensacola, Florida. The funding will also allow CISA to maintain readiness in order to execute national security and emergency preparedness.

Performance

The funding requested will increase government FTE and provide contractor subject matter expertise – including network, threat, and technical analyst support. It will also allow the CISA NCCIC to refresh and integrate new equipment and kits required for assessments and on-site incident response activities, upgrade Watch equipment, and enhance interagency coordination and information sharing. Moreover, the funding requested will ultimately assist the NCCIC in better supporting its stakeholders and safeguarding the Nation’s critical infrastructure from physical and cyber threats.

Program Change 13 – National Cybersecurity Protection System (NCPS) Program Life Cycle Costs:**Description**

The FY 2020 request includes an increase of 0 Positions, 13 FTE, and \$11.1M to align the NCPS program to its acquisition life cycle cost requirements. The base for this program is 177 Positions, 139 FTE, and \$296.7M.

Justification

The program change requested aligns with the acquisition life cycle cost requirements in FY 2020 for the NCPS program. The operations and support requirements for acquisition programs fluctuate over time depending on the work required. The funding increase requested is driven by the deployment of newly-developed information-sharing, intrusion detection, and intrusion prevention capabilities into the operational environment. The requested funding increase also covers the increased costs of supporting infrastructure, such as the Mission Operating Environment (MOE), and the increased costs associated with commercial cloud capabilities – which will allow the NCPS program to more easily scale to support expected increases in user data and facilitate improved availability, reliability, and scalability of systems. The additional funding requested will allow the NCPS program to continue providing near real-time protection and information to Federal civilian departments and agencies, cyber centers, and other Federal, State and local authorities.

Performance

NCPS is an integrated system-of-systems designed to deliver a range of capabilities, including intrusion detection and prevention, analytics, and information sharing capabilities that defend the civilian Federal Government's information technology infrastructure from cyber threats. The requested funding will allow the program to satisfy its operations and sustainment requirements to adequately address emerging cyber threats.

Program Change 14 – Next Generation Networks Priority Services (NGN-PS) Program Life Cycle Costs:**Description**

The FY 2020 request includes an increase of 0 Positions, 0 FTE, and \$0.009M to align the NGN-PS program to its acquisition life cycle cost requirements. The base for this program is 13 Positions, 11 FTE, and \$7.6M.

Justification

This change aligns the with the NGN-PS acquisition life cycle cost requirements for FY 2020. The operations and support requirements for acquisition programs fluctuate over time depending on the work required. The program received approval in FY 2018 to start Phase 1, Increment 3 to provide wireline priority access at the Local Exchange Carriers, which is required for the Government Emergency Telecommunications Service (GETS) and Special Routing Arrangement Service (SRAS) portion of the network. In FY 2020, NGN-PS will be developing solutions for Phase 1, Increment 3, and Wireline Access, which will update GETS on wired telephone services sometimes referred to as “the last mile” of the telephone call flow.

Performance

NGN-PS program operations will be supported with this program change. This adjustment, along with the base budget, transfers, pricing changes, and program changes requested in this justification will allow the program to satisfy its operations and sustainment requirements to adequately address emergency preparedness, response, and recovery communications.

Program Change 15 – Operations Support for NRMCM:**Description**

The FY 2020 request includes an increase of 0 Positions, 0 FTE, and \$0.1M to support existing NRMCM critical infrastructure situational awareness projects including NRMCM-coordinated risk mitigation efforts. The base for this program is 183 Positions, 166 FTE, and \$62.199M.

Justification

This change aligns with the NRMCM’s operations support requirements in FY 2020. The NRMCM is a planning, analysis, and collaboration center working to identify and address the most significant risks to our Nation’s critical infrastructure. In FY 2020, the NRMCM’s operations support will include the development of risk management approaches to manage risks to national functions, integrate cross-sector risk management activities, and incubate strategic risk management activities.

Performance

NRMCM program operations will be supported by this change. This adjustment, along with the base budget, transfers, pricing changes, and program changes requested in this justification will allow the program to satisfy its operations and sustainment requirements to adequately identify, analyze, prioritize, and manage risks to national functions in order to protect the Nation’s critical infrastructure.

Program Change 16 – Priority Telecommunications Services (PTS) Program Life Cycle Costs:**Description**

The FY 2020 request includes an increase of 0 Positions, 0 FTE, and \$0.013M to align the PTS program to its acquisition life cycle cost requirements. The base for this program is 17 Positions, 15 FTE, and \$56.3M.

Justification

This change aligns with the National Security and Emergency Preparedness PTS Government Emergency Telecommunications Service/Wireless Priority Service/Special Routing Arrangement Service/Telecommunications Service Priority (GETS/WPS/SRAS/TSP) acquisition life cycle cost requirements for FY 2020. The FY 2020 funding provides continued carrier design, development, and certification of WPS priority features on their 4G/LTE networks, preventing a National Security or Emergency Preparedness (NS/EP) telecommunications shortfall as the carriers start to decommission their 2G/3G networks supporting WPS. In addition, the FY 2020 funding will continue to implement the end-to-end priority service over the new 4G/LTE technologies to ensure Wireless Priority Services continue to support national security and emergency preparedness missions.

Performance

National Security and Emergency Preparedness GETS/WPS/SRAS/TSP program operations will be supported with this program change. This adjustment, along with the base budget, transfers, pricing changes, and program changes requested in this justification, will allow the program to satisfy its operations and sustainment requirements to adequately provide priority access for NS/EP users on commercial telecommunications networks.

Program Change 17 – Protective Security Advisors (PSA) IS Division Regionalization:**Description**

The FY 2020 request includes a reduction of 0 Positions, 0 FTE, and \$2.0M to the PSA program. The base for this program is 148 Positions, 119 FTE, and \$39.1M.

Justification

This program change will be achieved through the reduction of various operational support elements across the ten CISA regional offices such as: travel, training, exercises, and IT-related services.

Performance

The \$2.0M reduction is achieved through a variety of efficiencies to include training, travel, and equipment, which will have no performance impact on the program..

Program Change 18 – Risk Based Approach to Chemical Security/CFATS:**Description**

The FY 2020 request includes a reduction of 0 Positions, 0 FTE, and \$18.5M to right-size resources based on the current risks associated with high-threat chemicals and chemical facilities. The base for the Infrastructure Security Compliance program is 307 Positions, 248 FTE, and \$76.9M.

Justification

The program change can be achieved through changes to contract risk management and review support, administrative and legal support, IT system development, regulatory review and enhancement, travel, inspector uniforms, and training. CISA will explore mitigation strategies with the reduction,

such as: (1) continuing to find ways to streamline the compliance inspection process, and (2) decreasing the time provided to facilities for inspections, which could encourage facilities to maintain compliance.

Performance

While protecting the Nation's high-risk chemical infrastructure from the threat of terrorism is a key CISA mission, CISA is also responsible for protecting all critical infrastructure from all arising threats. At this funding level, DHS will continue to approve facility security plans and conduct inspections to ensure that facilities implement security measures to reduce the risk of a terrorist exploiting a chemical of interest.

Program Change 19 – Support State and Local Governments (Infrastructure Security):**Description**

The FY 2020 request includes an increase of 0 Positions, 0 FTE, and \$1.8M to fully execute the Sector-Specific Agency (SSA) management responsibilities for the assigned critical infrastructure sectors. In particular, the request will expand CISA capabilities to support State and local mission partners and their corresponding critical infrastructure stakeholders. The base for the Sector Risk Management program is 164 Positions, 133 FTE, and \$55.9M.

Justification

With the funding requested in FY 2020, CISA plans to expand its ability to serve as the Federal lead for the assigned critical infrastructure sectors and to effectively support mission partners at the State and local level by developing and facilitating access to sector-specific capacity-building resources as well as promoting the adoption of physical and cyber risk management best practices.

The roles and responsibilities associated with the SSA function require a multi-dimensional approach that cannot be limited to collaboration with national-level partners. With the additional funding, CISA will be able to fully execute the broad spectrum of SSA roles and responsibilities, which include serving as the Federal interface for the coordination of sector-specific activities; promoting coordination across various levels of government; collaborating with sector stakeholders at the National, State, and local levels to support the Nation's critical infrastructure security and resilience mission; and leading strategic planning efforts for the assigned critical infrastructure sectors. By working in collaboration with State and local mission partners, CISA will be able to more effectively identify sector needs and stakeholder requirements while increasing the reach and penetration of sector-specific products and services.

Performance

With the funding requested in FY 2020, CISA will enhance its ability to fulfill the SSA management responsibilities for the assigned critical infrastructure sectors by developing new and expanded partnerships with State and local mission partners in a manner that is tailored to the needs and risk profile of each region. The additional resources will enhance capabilities to develop and sustain comprehensive stakeholder engagement and outreach activities in collaboration with State, county, and/or local entities. In addition, CISA will develop sector-specific best practices, guidelines, and recommendations to improve risk management activities across the assigned critical infrastructure sectors.

Program Change 20 – Support to State and Local Governments (Cybersecurity):**Description**

The FY 2020 request includes an increase of 20 Positions, 10 FTE, and \$22.3M to support State and local governments with risk-reducing voluntary services and technical assistance capabilities. There is no base funding for this.

Justification

With the resources requested in FY 2020, CISA will provide critical infrastructure stakeholders with a series of risk-reducing voluntary services and technical assistance capabilities from the NCCIC. These services and capabilities will include: proactive vulnerability assessments of infrastructure networks and systems, technical analyses of system and equipment vulnerabilities, incident response and cyber-hunt engagements, and classified and unclassified information sharing. Working with State and local governments is essential to ensuring the security of the electoral process and the Nation's critical infrastructure as a whole.

Performance

The resources requested in FY 2020 will allow CISA to assist stakeholders in Federal departments and agencies; State, local, tribal, and territorial governments; and the private sector in managing cybersecurity risks as demand continues to grow in critical infrastructure sectors and subsectors. The resources requested will enable CISA to institutionalize and mature current infrastructure risk reducing efforts, including providing vulnerability management services such as cyber hygiene scans and on-site/remote risk and vulnerability assessments, organizational cybersecurity assessments (e.g., phishing campaign assessments), pro-active adversary hunt operations; and enhanced threat information sharing. These efforts, coupled with consistent and expanded outreach and awareness activities, will reduce the number of cyber incidents, detect cyber incidents more rapidly, and decrease the ability of threat actors to influence our Nation's democratic processes.

Operations and Support Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Mission Support	435	349	\$55,987	\$160.25	428	338	\$53,396	\$157.8	424	333	\$52,596	\$157.77	(4)	(5)	(\$800)	(\$0.03)
Cybersecurity	743	579	\$106,520	\$183.97	770	577	\$105,852	\$183.45	842	698	\$117,269	\$168.01	72	121	\$11,417	(\$15.44)
Infrastructure Security	681	573	\$88,268	\$154.05	704	575	\$90,169	\$156.82	677	560	\$89,718	\$160.21	(27)	(15)	(\$451)	\$3.39
Emergency Communications	137	108	\$18,133	\$167.9	137	113	\$19,067	\$168.73	137	113	\$19,402	\$171.7	-	-	\$335	\$2.97
Integrated Operations	391	322	\$53,898	\$167.39	391	336	\$56,071	\$166.88	427	368	\$61,555	\$167.27	36	32	\$5,484	\$0.39
Office of Biometric Identity Management	170	154	\$21,843	\$141.84	177	161	\$22,940	\$142.48	-	-	-	-	(177)	(161)	(\$22,940)	(\$142.48)
Total	2,557	2,085	\$344,649	\$165.27	2,607	2,100	\$347,495	\$165.45	2,507	2,072	\$340,540	\$164.32	(100)	(28)	(\$6,955)	(\$1.13)
Discretionary - Appropriation	2,557	2,085	\$344,649	\$165.27	2,607	2,100	\$347,495	\$165.45	2,507	2,072	\$340,540	\$164.32	(100)	(28)	(\$6,955)	(\$1.13)

* The FTE Rate calculation does not include Object Class 11.8-Special Personal Services Payments or 13.0-Benefits for Former Personnel. This applies to all FTE rate calculations in this appropriation.

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$246,561	\$251,978	\$242,704	(\$9,274)
11.3 Other than Full-Time Permanent	\$5,904	\$6,134	\$5,925	(\$209)
11.5 Other Personnel Compensation	\$5,333	\$5,339	\$5,241	(\$98)
11.8 Special Personal Services Payments	\$59	\$59	\$59	-
12.1 Civilian Personnel Benefits	\$86,792	\$83,985	\$86,611	\$2,626
Total - Personnel Compensation and Benefits	\$344,649	\$347,495	\$340,540	(\$6,955)
Positions and FTE				
Positions - Civilian	2,557	2,607	2,507	(100)
FTE - Civilian	2,085	2,100	2,072	(28)

Operations and Support

Permanent Positions by Grade Appropriation

Grades and Salary Range (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
Total, SES	34	33	30	-3
GS-15	434	435	413	-22
GS-14	941	970	921	-49
GS-13	721	734	734	-
GS-12	366	374	369	-5
GS-11	39	39	23	-16
GS-10	-	2	2	-
GS-9	15	14	10	-4
GS-8	2	2	2	-
GS-7	5	4	3	-1
Total Permanent Positions	2,557	2,607	2,507	-100
Unfilled Positions EOY	2,557	2,607	2,507	-100
Position Locations				
Headquarters	2,051	2,091	1,998	-93
U.S. Field	506	516	509	-7
Averages				
Average Personnel Costs, ES Positions	172,938	175,705	175,705	-
Average Personnel Costs, GS Positions	100,028	101,629	122,230	20,601
Average Grade, GS Positions	13	13	14	1

Operations and Support Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Mission Support	\$28,506	\$24,707	\$25,218	\$511
Cybersecurity	\$616,388	\$607,203	\$643,613	\$36,410
Infrastructure Security	\$105,948	\$115,866	\$92,973	(\$22,893)
Emergency Communications	\$100,323	\$96,629	\$97,152	\$523
Integrated Operations	\$88,765	\$71,099	\$79,054	\$7,955
Office of Biometric Identity Management	\$197,586	\$207,341	-	(\$207,341)
Total	\$1,137,516	\$1,122,845	\$938,010	(\$184,835)
Discretionary - Appropriation	\$1,137,516	\$1,122,845	\$938,010	(\$184,835)

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$14,873	\$13,887	\$12,163	(\$1,724)
22.0 Transportation of Things	\$454	\$3,495	\$3,425	(\$70)
23.1 Rental Payments to GSA	\$21,580	\$13,146	\$12,734	(\$412)
23.2 Rental Payments to Others	\$816	\$2,105	\$2,105	-
23.3 Communications, Utilities, and Misc. Charges	\$13,075	\$12,009	\$3,457	(\$8,552)
24.0 Printing and Reproduction	\$241	\$181	\$181	-
25.1 Advisory and Assistance Services	\$480,105	\$462,097	\$471,377	\$9,280
25.2 Other Services from Non-Federal Sources	\$30,780	\$35,519	\$12,238	(\$23,281)
25.3 Other Goods and Services from Federal Sources	\$282,065	\$311,670	\$316,871	\$5,201
25.4 Operation and Maintenance of Facilities	\$4,786	\$7,219	\$7,219	-
25.5 Research and Development Contracts	-	\$443	\$443	-
25.6 Medical Care	\$7	\$1	\$1	-
25.7 Operation and Maintenance of Equipment	\$197,292	\$220,499	\$55,324	(\$165,175)
25.8 Subsistence & Support of Persons	-	\$237	\$237	-
26.0 Supplies and Materials	\$820	\$6,396	\$6,294	(\$102)

Non-Pay Object Classes <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
31.0 Equipment	\$65,822	\$14,982	\$14,982	-
32.0 Land and Structures	\$4,412	\$4,728	\$4,728	-
41.0 Grants, Subsidies, and Contributions	\$20,298	\$14,050	\$14,050	-
42.0 Insurance Claims and Indemnities	\$90	\$181	\$181	-
Total - Non Pay Object Classes	\$1,137,516	\$1,122,845	\$938,010	(\$184,835)

Mission Support – PPA**Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization <i>(Dollars in Thousands)</i>	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Mission Support	435	349	\$84,493	428	338	\$78,103	424	333	\$77,814	(4)	(5)	(\$289)
Total	435	349	\$84,493	428	338	\$78,103	424	333	\$77,814	(4)	(5)	(\$289)
Subtotal Discretionary - Appropriation	435	349	\$84,493	428	338	\$78,103	424	333	\$77,814	(4)	(5)	(\$289)

PPA Level I Description

The Mission Support PPA within the O&S appropriation provides enterprise leadership, management, and business administrative services that sustain the day-to-day management and back-office operations. Key capabilities include: conducting agency planning and performance management, managing finances, managing the agency workforce, providing physical and personnel security, acquiring goods and services, managing information technology, managing agency property and assets, managing agency communications, managing legal affairs, and providing general management and administration.

Mission Support – PPA

Budget Authority and Obligations

Budget Authority (Dollars in Thousands)	FY 2018	FY 2019	FY 2020
Enacted/Request	\$84,493	\$78,103	\$77,814
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	-	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	\$2,180	-	-
Supplementals	-	-	-
Total Budget Authority	\$86,673	\$78,103	\$77,814
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	\$86,673	\$78,103	\$77,814
Obligations (Actual/Estimates/Projections)	\$86,478	\$78,103	\$77,814
Personnel: Positions and FTE			
Enacted/Request Positions	435	428	424
Enacted/Request FTE	349	338	333
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	439	428	424
FTE (Actual/Estimates/Projections)	353	338	333

Mission Support – PPA

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	435	349	\$84,493
FY 2019 President's Budget	428	338	\$78,103
FY 2020 Base Budget	428	338	\$78,103
Transfer to CISA/Mission Support from MGMT/OCSO for Background Investigations	-	-	\$1,089
Transfer to Cyber Infra Res from Mission Supp for Cyber Tech Strategic Init	(10)	(10)	(\$2,448)
Transfer to Infra Cap Build from Mission Supp for Regionalization Facilities	-	-	(\$3,160)
Transfer to MGMT/OCRSO from CISA/MS for Regional Field Efficiencies	-	-	(\$37)
Transfer within CISA/O&S for FTP/FTE Realignment	4	4	\$575
Total Transfers	(6)	(6)	(\$3,981)
FERS Agency Contribution Increase	-	-	\$911
National Capital Region Infrastructure Operations (NCRIO) Sustainment	-	-	\$5,838
Total, Pricing Increases	-	-	\$6,749
Centralized Mission Support	-	-	(\$3,230)
Total, Pricing Decreases	-	-	(\$3,230)
Total Adjustments-to-Base	(6)	(6)	(\$462)
FY 2020 Current Services	422	332	\$77,641
Counter Intelligence and Insider Threat	2	1	\$173
Total, Program Increases	2	1	\$173
FY 2020 Request	424	333	\$77,814
FY 2019 To FY 2020 Change	(4)	(5)	(\$289)

Mission Support – PPA

Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Mission Support	435	349	\$55,987	\$160.25	428	338	\$53,396	\$157.8	424	333	\$52,596	\$157.77	(4)	(5)	(\$800)	(\$0.03)
Total	435	349	\$55,987	\$160.25	428	338	\$53,396	\$157.8	424	333	\$52,596	\$157.77	(4)	(5)	(\$800)	(\$0.03)
Discretionary - Appropriation	435	349	\$55,987	\$160.25	428	338	\$53,396	\$157.8	424	333	\$52,596	\$157.77	(4)	(5)	(\$800)	(\$0.03)

* The FTE Rate calculation does not include Object Class 11.8-Special Personal Services Payments or 13.0-Benefits for Former Personnel.

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$39,708	\$37,422	\$35,977	(\$1,445)
11.3 Other than Full-Time Permanent	\$2,200	\$2,200	\$2,200	-
11.5 Other Personnel Compensation	\$500	\$500	\$500	-
11.8 Special Personal Services Payments	\$59	\$59	\$59	-
12.1 Civilian Personnel Benefits	\$13,520	\$13,215	\$13,860	\$645
Total - Personnel Compensation and Benefits	\$55,987	\$53,396	\$52,596	(\$800)
Positions and FTE				
Positions - Civilian	435	428	424	(4)
FTE - Civilian	349	338	333	(5)

Pay Cost Drivers

Leading Cost Drivers (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Cybersecurity Information Technology Personnel	21	\$2,910	\$138.57	21	\$2,910	\$138.57	22	\$3,072	\$139.64	1	\$162	\$1.07
Cybersecurity Program Management	44	\$10,161	\$230.93	44	\$10,161	\$230.93	38	\$8,905	\$210.37	(6)	(\$2,167)	(\$20.56)
Other Personnel	284	\$42,916	\$151.11	273	\$40,325	\$147.71	264	\$40,619	\$153.86	(9)	\$294	\$6.15
Total – Pay Cost Drivers	349	\$55,987	\$160.42	338	\$53,396	\$157.80	324	\$52,596	\$162.33	(14)	(\$800)	\$4.53

Explanation of Pay Cost Drivers

Cybersecurity Information Technology Personnel: The FY 2020 funding reflects an increase in one counterintelligence position in support of the Department's effort to increase counterintelligence positions throughout DHS.

Cyber Security Program Management Personnel: The FY 2020 funding reflects a decrease in funding and positions to support the transfer of funds associated with the Cyber Strategic Initiative in the Cyber Infrastructure Resilience PPA and the FERS agency contribution increased by 2.3%; from 13.7% in FY 2019 to 16.0% in FY 2020.

Other Personnel: The change from FY 2019 to FY 2020 costs reflects the transfers of funding into, and out of, the Mission Support PPA to support several CISA efforts.

Mission Support – PPA Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Mission Support	\$28,506	\$24,707	\$25,218	\$511
Total	\$28,506	\$24,707	\$25,218	\$511
Discretionary - Appropriation	\$28,506	\$24,707	\$25,218	\$511

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$756	\$960	\$960	-
22.0 Transportation of Things	\$19	\$24	\$24	-
23.1 Rental Payments to GSA	\$4,456	\$3,657	\$497	(\$3,160)
23.2 Rental Payments to Others	\$231	\$297	\$297	-
23.3 Communications, Utilities, and Misc. Charges	-	\$205	\$205	-
24.0 Printing and Reproduction	\$8	\$10	\$10	-
25.1 Advisory and Assistance Services	\$7,021	\$2,091	\$8,992	\$6,901
25.2 Other Services from Non-Federal Sources	\$3,793	\$5,013	\$5,013	-
25.3 Other Goods and Services from Federal Sources	\$3,671	\$3,671	\$3,671	-
25.4 Operation and Maintenance of Facilities	\$462	\$587	\$587	-
25.7 Operation and Maintenance of Equipment	\$7,704	\$7,704	\$4,474	(\$3,230)
26.0 Supplies and Materials	\$276	\$350	\$350	-
31.0 Equipment	\$109	\$138	\$138	-
Total - Non Pay Object Classes	\$28,506	\$24,707	\$25,218	\$511

Non Pay Cost Drivers

Leading Non Pay Cost Drivers <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Operations and Maintenance of Facilities and Equipment	\$8,166	\$8,291	\$6,457	(\$1,834)
Rental Payments to GSA and Others	\$4,687	\$3,954	\$3,006	(\$948)
Other Costs	\$15,653	\$12,462	\$15,755	\$3,293
Total – Non Pay Cost Drivers	\$28,506	\$24,707	\$25,218	\$511

Explanation of Non Pay Cost Drivers

Operations and Maintenance of Facilities and Equipment: The FY 2020 funding reflects funding for physical and personnel security, acquiring goods and services, managing information technology, and managing agency property and assets.

Rental Payments to GSA and Others: The FY 2020 funding reflects funding for rental of spaces and other incidental services utilized by CISA, including: General Services Administration (GSA) rentals, offsite storage spaces, and occupied seats and production shared spaces at Mount Weather.

Other Costs: The FY 2020 funding provides support for equipment, CISA leadership and employee travel, and office supplies needed to complete professional duties and responsibilities.

Cybersecurity – PPA**Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Cyber Infrastructure Resilience	48	38	\$46,243	48	37	\$30,059	82	71	\$61,976	34	34	\$31,917
Cyber Readiness and Response	376	286	\$243,992	396	290	\$224,396	403	339	\$248,311	7	49	\$23,915
Federal Cybersecurity	319	255	\$432,673	326	250	\$458,600	357	288	\$450,595	31	38	(\$8,005)
Total	743	579	\$722,908	770	577	\$713,055	842	698	\$760,882	72	121	\$47,827
Subtotal Discretionary - Appropriation	743	579	\$722,908	770	577	\$713,055	842	698	\$760,882	72	121	\$47,827

PPA Level I Description

The Cybersecurity program advances computer security preparedness and the response to cyberattacks and incidents. The program includes activities to secure the Federal network, respond to incidents, disseminate actionable information, and collaborate with private sector partners to secure critical infrastructure. This program supports the implementation of government-wide deployment of hardware and software systems to prevent and detect incidents, respond to incidents at Federal and private entities, and collaborate with the private sector to increase the security and resiliency of critical networks. The program also coordinates cybersecurity education for the Federal workforce.

The Cybersecurity PPA contains the following Level II PPAs:

Cyber Readiness and Response: The Cyber Readiness and Response PPA funds efforts to ensure the security and resilience of the Nation's critical infrastructure from physical and cyber threats. Funding within this PPA supports the NCCIC and may also support technical aspects of cross-CISA cyber risk mitigation efforts.

Cyber Infrastructure Resilience: The Cyber Infrastructure Resilience PPA funds efforts to increase the security of critical infrastructure systems and networks through education and awareness, partnerships with owners/operators, and information-sharing programs. Funding within this PPA supports Cybersecurity Advisors (CSAs), Cyber Education and Awareness, Enhanced Cybersecurity Services (ECS), and the new Cybersecurity Technology Strategic Initiative.

Federal Cybersecurity: The Federal Cybersecurity PPA funds efforts to protect Federal networks, improve security posture of high value assets, and provide governance and training across the Federal Enterprise. Funding in this PPA supports the CDM program, the NCPS program, and Federal Network Resilience (FNR).

Figure: CISA Cybersecurity Funding Breakout by Appropriation and PPA

Appropriation	PPA Level I	PPA Level II	PPA Level III	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
Operations & Support	Cybersecurity	Cyber Readiness & Response	NCCIC Operations	\$136,439	\$140,049	\$164,782
			NCCIC Planning & Exercises	\$107,553	\$84,347	\$83,529
		Cyber Infrastructure Resilience	Cybersecurity Advisors	\$14,693	\$6,860	\$6,830
			Enhanced Cybersecurity Services	\$17,157	\$13,097	\$13,154
			Cyber Education & Awareness	\$14,393	\$10,102	\$32,507
			Cybersecurity Technology Strategic Initiative	-	-	\$9,485
		Federal Cybersecurity	Federal Network Resilience	\$42,766	\$49,834	\$56,697
			Continuous Diagnostics & Mitigation	\$102,681	\$112,089	\$94,514
			National Cybersecurity Protection System	\$287,226	\$296,677	\$299,384
	Integrated Operations	Risk Management Operations	Infrastructure Analysis	\$6,065	\$4,715	\$4,715
Procurement, Construction, & Improvements	Cybersecurity	Federal Cybersecurity	Continuous Diagnostics & Mitigation	\$246,981	\$125,548	\$137,630
			National Cybersecurity Protection System	\$115,186	\$110,078	\$105,838
Research & Development	Cybersecurity	Cybersecurity	Cybersecurity R&D	\$4,695	\$41,416	\$24,091
Total Cyber Activity (Dollars in Thousands)				\$1,095,835	\$994,812	\$1,033,156

Cybersecurity – PPA

Budget Authority and Obligations

Budget Authority (Dollars in Thousands)	FY 2018	FY 2019	FY 2020
Enacted/Request	\$722,908	\$713,055	\$760,882
Carryover and/or Recoveries (Actual/Estimates/Projections)	\$69,675	-	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	\$4,985	-	-
Supplementals	-	-	-
Total Budget Authority	\$797,568	\$713,055	\$760,882
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	\$797,568	\$713,055	\$760,882
Obligations (Actual/Estimates/Projections)	\$797,225	\$713,055	\$760,882
Personnel: Positions and FTE			
Enacted/Request Positions	743	770	842
Enacted/Request FTE	579	577	698
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	743	770	842
FTE (Actual/Estimates/Projections)	579	577	698

Cybersecurity – PPA

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	743	579	\$722,908
FY 2019 President's Budget	770	577	\$713,055
FY 2020 Base Budget	770	577	\$713,055
Transfer to CISA/O&S from CISA/R&D for Cyber Tech Strategic Init	-	-	\$4,695
Transfer to Cyber Infra Res from Em Comm Prep for Cyber Tech Strategic Init	-	-	\$81
Transfer to Cyber Infra Res from Mission Supp for Cyber Tech Strategic Init	10	10	\$2,448
Transfer to Cyber Infra Res from PTS for Cyber Tech Strategic Init	-	-	\$130
Transfer to Cyber Infra Res from SH Eng for Cyber Tech Strategic Init	-	-	\$36
Total Transfers	10	10	\$7,390
Annualization of 2019 Personnel Changes	-	13	\$2,463
Continuous Diagnostics and Mitigation (CDM) Hiring	30	25	-
FERS Agency Contribution Increase	-	-	\$1,764
Total, Pricing Increases	30	38	\$4,227
Total Adjustments-to-Base	40	48	\$11,617
FY 2020 Current Services	810	625	\$724,672
CyberSentry	4	2	\$11,000
Federal Network Resilience .gov Governance	4	2	\$3,340
Federal Network Resilience High Value Assets	4	2	\$4,830
National Cybersecurity Protection System (NCPS) Program Life Cycle Costs	-	13	\$11,103
NCCIC Staffing Plan	-	44	\$9,859
Support to State and Local Governments (Cybersecurity)	20	10	\$22,286
Total, Program Increases	32	73	\$62,418
CDM Program Life Cycle Costs	-	-	(\$14,794)
Decrement to Pensacola Facility Operations	-	-	(\$11,414)
Total, Program Decreases	-	-	(\$26,208)
FY 2020 Request	842	698	\$760,882
FY 2019 To FY 2020 Change	72	121	\$47,827

Cybersecurity – PPA

Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Cyber Infrastructure Resilience	48	38	\$7,383	\$194.29	48	37	\$7,039	\$190.24	82	71	\$13,825	\$194.72	34	34	\$6,786	\$4.48
Cyber Readiness and Response	376	286	\$50,040	\$174.97	396	290	\$50,455	\$173.98	403	339	\$52,432	\$154.67	7	49	\$1,977	(\$19.31)
Federal Cybersecurity	319	255	\$49,097	\$192.54	326	250	\$48,358	\$193.43	357	288	\$51,012	\$177.12	31	38	\$2,654	(\$16.31)
Total	743	579	\$106,520	\$183.97	770	577	\$105,852	\$183.45	842	698	\$117,269	\$168.01	72	121	\$11,417	(\$15.44)
Discretionary - Appropriation	743	579	\$106,520	\$183.97	770	577	\$105,852	\$183.45	842	698	\$117,269	\$168.01	72	121	\$11,417	(\$15.44)

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$71,981	\$74,000	\$81,371	\$7,371
11.3 Other than Full-Time Permanent	\$556	\$856	\$856	-
11.5 Other Personnel Compensation	\$1,418	\$1,303	\$1,303	-
12.1 Civilian Personnel Benefits	\$32,565	\$29,693	\$33,739	\$4,046
Total - Personnel Compensation and Benefits	\$106,520	\$105,852	\$117,269	\$11,417
Positions and FTE				
Positions - Civilian	743	770	842	72
FTE - Civilian	579	577	698	121

Cybersecurity – PPA
Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Cyber Infrastructure Resilience	\$38,860	\$23,020	\$48,151	\$25,131
Cyber Readiness and Response	\$193,952	\$173,941	\$195,879	\$21,938
Federal Cybersecurity	\$383,576	\$410,242	\$399,583	(\$10,659)
Total	\$616,388	\$607,203	\$643,613	\$36,410
Discretionary - Appropriation	\$616,388	\$607,203	\$643,613	\$36,410

Non Pay by Object Class

Non-Pay Object Classes <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$1,888	\$1,516	\$1,516	-
22.0 Transportation of Things	\$137	\$74	\$74	-
23.1 Rental Payments to GSA	\$8,047	\$5,699	\$5,699	-
23.2 Rental Payments to Others	\$315	\$572	\$572	-
23.3 Communications, Utilities, and Misc. Charges	\$118	\$394	\$394	-
24.0 Printing and Reproduction	\$93	-	-	-
25.1 Advisory and Assistance Services	\$334,910	\$333,844	\$342,811	\$8,967
25.2 Other Services from Non-Federal Sources	\$854	\$5,614	\$5,614	-
25.3 Other Goods and Services from Federal Sources	\$159,852	\$183,046	\$212,097	\$29,051
25.4 Operation and Maintenance of Facilities	\$988	\$3,794	\$3,794	-
25.5 Research and Development Contracts	-	\$443	\$443	-
25.6 Medical Care	\$6	-	-	-
25.7 Operation and Maintenance of Equipment	\$23,291	\$35,611	\$34,003	(\$1,608)
25.8 Subsistence & Support of Persons	-	\$237	\$237	-
26.0 Supplies and Materials	\$161	\$5,536	\$5,536	-
31.0 Equipment	\$62,957	\$11,915	\$11,915	-
32.0 Land and Structures	\$4,396	\$4,705	\$4,705	-
41.0 Grants, Subsidies, and Contributions	\$18,298	\$14,050	\$14,050	-
42.0 Insurance Claims and Indemnities	\$77	\$153	\$153	-
Total - Non Pay Object Classes	\$616,388	\$607,203	\$643,613	\$36,410

Cyber Readiness and Response – PPA Level II**Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization <i>(Dollars in Thousands)</i>	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Cyber Readiness and Response	376	286	\$243,992	396	290	\$224,396	403	339	\$248,311	7	49	\$23,915
Total	376	286	\$243,992	396	290	\$224,396	403	339	\$248,311	7	49	\$23,915
Subtotal Discretionary - Appropriation	376	286	\$243,992	396	290	\$224,396	403	339	\$248,311	7	49	\$23,915

PPA Level II Description

The Cyber Readiness and Response PPA funds the NCCIC, which is the Federal Government's civilian hub for 24x7 cyber situational awareness, incident response, coordination, information sharing, and analysis. The NCCIC serves as a management center that is a national nexus of cyber and communications integration for the Federal Government; State, local, tribal, and territorial governments; the Intelligence Community; law enforcement; the private sector; and international entities. The NCCIC operates at the intersection of government, private sector, and international network defense and communications communities applying unique analytic perspectives, ensuring shared situational awareness, and orchestrating synchronized response, mitigation, and recovery efforts while protecting the constitutional and privacy rights of Americans in both the cybersecurity and communications domains. The NCCIC provides technical cyber expertise for CISA-led national risk mitigation efforts. The dynamic and evolving cyber environment requires the NCCIC to remain operationally-focused and agile in its requirements planning, business processes, and mission execution. The NCCIC leverages capabilities and platforms, including those delivered by the CDM and NCPS programs, in order to merge technologies to meet operational requirements. The application of such tools and capabilities enables the NCCIC to enhance its awareness of risks to the cybersecurity landscape. The Cyber Readiness and Response PPA additionally supports the Multi-State Information Sharing and Analysis Center (MS-ISAC) grant program and Watch activities.

Figure: Multi-State Information Sharing and Analysis Center Grant Funding

MS-ISAC Grant	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
MS-ISAC Grant Funding <i>(Dollars in Thousands)</i>	\$9,516	\$9,516	\$9,516

Cyber Readiness and Response – PPA Level II

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	376	286	\$243,992
FY 2019 President's Budget	396	290	\$224,396
FY 2020 Base Budget	396	290	\$224,396
Transfer to Cyber Infra Res from Cyber Read for Cyber Education Training	(16)	(16)	(\$15,959)
Transfer to Cyber Infra Res from Cyber Read for Cyber Tech Strategic Init	(1)	(1)	(\$632)
Total Transfers	(17)	(17)	(\$16,591)
Annualization of 2019 Personnel Changes	-	10	\$1,962
FERS Agency Contribution Increase	-	-	\$813
Total, Pricing Increases	-	10	\$2,775
Total Adjustments-to-Base	(17)	(7)	(\$13,816)
FY 2020 Current Services	379	283	\$210,580
CyberSentry	4	2	\$11,000
NCCIC Staffing Plan	-	44	\$9,859
Support to State and Local Governments (Cybersecurity)	20	10	\$22,286
Total, Program Increases	24	56	\$43,145
Decrement to Pensacola Facility Operations	-	-	(\$5,414)
Total, Program Decreases	-	-	(\$5,414)
FY 2020 Request	403	339	\$248,311
FY 2019 To FY 2020 Change	7	49	\$23,915

Cyber Readiness and Response – PPA Level II

Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Cyber Readiness and Response	376	286	\$50,040	\$174.97	396	290	\$50,455	\$173.98	403	339	\$52,432	\$154.67	7	49	\$1,977	(\$19.31)
Total	376	286	\$50,040	\$174.97	396	290	\$50,455	\$173.98	403	339	\$52,432	\$154.67	7	49	\$1,977	(\$19.31)
Discretionary - Appropriation	376	286	\$50,040	\$174.97	396	290	\$50,455	\$173.98	403	339	\$52,432	\$154.67	7	49	\$1,977	(\$19.31)

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$33,039	\$34,908	\$35,946	\$1,038
11.3 Other than Full-Time Permanent	\$347	\$417	\$417	-
11.5 Other Personnel Compensation	\$841	\$846	\$846	-
12.1 Civilian Personnel Benefits	\$15,813	\$14,284	\$15,223	\$939
Total - Personnel Compensation and Benefits	\$50,040	\$50,455	\$52,432	\$1,977
Positions and FTE				
Positions - Civilian	376	396	403	7
FTE - Civilian	286	290	339	49

Pay Cost Drivers

Leading Cost Drivers (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Cybersecurity Information Technology Personnel	244	\$42,693	\$174.97	248	\$43,108	\$173.82	298	\$45,358	\$152.21	50	\$2,250	(\$21.61)
Cybersecurity Program Management Personnel	42	\$7,347	\$174.93	42	\$7,347	\$174.93	41	\$7,074	\$172.54	(1)	(\$273)	(\$2.39)
Total – Pay Cost Drivers	286	\$50,040	\$174.97	290	\$50,455	\$173.98	339	\$52,432	\$154.67	49	\$1,977	(\$19.31)

Explanation of Pay Cost Drivers

Cybersecurity Information Technology Personnel: The FY 2020 funding supports the annualization of the FY 2019 increase of personnel changes required to address Cyber Analytics, the NCCIC Staffing Plan, CyberSentry, and support to State and local governments. It also includes an increase in FERS contributions and reflects a transfer to the Cyber Readiness and Response PPA to support cyber education and training.

Cybersecurity Program Management Personnel: Per OMB Circular A-11, agency FERS contributions increased. The regular FERS Agency contribution increased by 2.3% from 13.7% in FY 2019 to 16.0% in FY 2020. The change from FY 2019 to FY 2020 also includes the transfer of 1 FTE position to support the Cybersecurity Technology Strategic Initiative in the Cyber Infrastructure Resilience PPA.

Cyber Readiness and Response – PPA Level II

Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Cyber Readiness and Response	\$193,952	\$173,941	\$195,879	\$21,938
Total	\$193,952	\$173,941	\$195,879	\$21,938
Discretionary - Appropriation	\$193,952	\$173,941	\$195,879	\$21,938

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$1,540	\$1,199	\$1,199	-
22.0 Transportation of Things	\$58	\$19	\$19	-
23.1 Rental Payments to GSA	\$2,153	\$536	\$536	-
23.2 Rental Payments to Others	\$115	\$19	\$19	-
23.3 Communications, Utilities, and Misc. Charges	\$62	\$146	\$146	-
24.0 Printing and Reproduction	\$30	-	-	-
25.1 Advisory and Assistance Services	\$87,067	\$65,395	\$67,886	\$2,491
25.2 Other Services from Non-Federal Sources	\$555	\$322	\$322	-
25.3 Other Goods and Services from Federal Sources	\$74,316	\$73,393	\$94,454	\$21,061
25.4 Operation and Maintenance of Facilities	\$986	\$1,600	\$1,600	-
25.6 Medical Care	\$6	-	-	-
25.7 Operation and Maintenance of Equipment	\$8,224	\$15,192	\$13,578	(\$1,614)
26.0 Supplies and Materials	\$82	\$5,475	\$5,475	-
31.0 Equipment	\$5,233	\$1,145	\$1,145	-
41.0 Grants, Subsidies, and Contributions	\$13,448	\$9,500	\$9,500	-
42.0 Insurance Claims and Indemnities	\$77	-	-	-
Total - Non Pay Object Classes	\$193,952	\$173,941	\$195,879	\$21,938

Non Pay Cost Drivers

Leading Non Pay Cost Drivers (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Analysis	\$42,661	\$54,490	\$59,665	\$5,175
MS-ISAC	\$9,516	\$9,516	\$9,516	-
Operations	\$87,586	\$74,312	\$84,155	\$9,843
Support State and Local Governments	\$14,153	-	\$18,434	\$18,434
Training and Exercises	\$13,518	\$13,518	-	(\$13,518)
Other Costs	\$26,518	\$22,105	\$24,109	\$2,004
Total – Non Pay Cost Drivers	\$193,952	\$173,941	\$195,879	\$21,938

Explanation of Non Pay Cost Drivers

Analysis: The analysis cost driver includes activities related to cyber threat, risk, and technical analysis; communications; and program management support. The FY 2020 request includes an increase for the NCCIC Staffing Plan.

MS-ISAC: This effort supports the overall cybersecurity posture of the Nation's State, local, tribal and territorial governments through focused cyber threat prevention, protection, response, and recovery through a cost sharing initiative. There are no changes from FY 2019 to FY 2020.

Operations: The operations cost driver includes activities related to assessments, incident detection and response, adversary hunt operations, telecommunications, operations and coordination, and program management support. The FY 2020 request includes an increase for the NCCIC Staffing Plan; an increase to support the CyberSentry pilot; and a reduction for the adjustment in the Pensacola build-out schedule.

Support State and Local Governments: The FY 2020 request includes resources to support State and local governments, allowing NCCIC to identify vulnerabilities, provide mitigations, characterize risk, and prioritize actions for the Nation's critical infrastructure. These efforts respond to critical emerging requirements and address key Administration and Congressional priorities.

Training and Exercises: The training and exercises cost driver supports national-level technical and cybersecurity awareness training and exercise capabilities for the DHS's Federal, State, local, tribal and territorial government partners; the private sector; international partners; and others. In FY 2020, this function will be reallocated to the National Cybersecurity Training and Education Office.

Other Costs: Other costs include funds to support the organization's working capital fund and shared services costs. The FY 2020 request includes a proportional increase in these costs.

Cyber Infrastructure Resilience – PPA Level II**Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Cyber Infrastructure Resilience	48	38	\$46,243	48	37	\$30,059	82	71	\$61,976	34	34	\$31,917
Total	48	38	\$46,243	48	37	\$30,059	82	71	\$61,976	34	34	\$31,917
Subtotal Discretionary - Appropriation	48	38	\$46,243	48	37	\$30,059	82	71	\$61,976	34	34	\$31,917

PPA Level II Description

The Cyber Infrastructure Resilience PPA includes the Cybersecurity Advisors (CSA) initiative, Cybersecurity Education and Awareness, the Cybersecurity Technology Strategic Initiative, and the Enhanced Cybersecurity Services program.

Cybersecurity Advisors: CSAs protect cyber components within the Nation's critical infrastructure by acting as individual representatives of the Department. They form personal, on-the-ground connections with critical infrastructure owners and operators. The figure below summarizes the CSA FTP and funding:

Figure: Cybersecurity Advisors

Cybersecurity Advisor (CSA)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
Number of CSA FTPs	30	30	30
CSA Funding (Dollars in Thousands)	\$14,693	\$6,860	\$6,830

Note: The decrease in funding from FY 2018 to FY 2019 reflects a program decrease of approximately \$8M requested in the FY 2019 President's Budget.

Cybersecurity Education and Awareness: The Cybersecurity Education and Awareness program supports training and workforce development programs intended to build a national cybersecurity workforce. The program promotes cybersecurity education and awareness across the Nation.

In FY 2020, the budget proposes a \$22.4M realigned from the NCCIC (\$16M) and FNR (\$6.4M) into a new National Cybersecurity Training and Education Office, a consolidation of existing cybersecurity training, education and exercise programs to enable collaboration. The office will enable CISA to maintain state of the art national-level technical and cybersecurity awareness training and exercise capabilities; improve exercise, education,

and training offerings to enhance the technical capabilities of partners managing enterprise and control systems security and resilience across the risk management spectrum; and improve leadership, first responder, and general critical infrastructure workplace understanding and awareness of enterprise and ICS cybersecurity threats, vulnerabilities, and the potential consequences of exploitation.

Cybersecurity Technology Strategic Initiative: The Cybersecurity Technology Strategic Initiative funds efforts to guide CISA cybersecurity programs toward a common vision that advances cybersecurity capabilities, data architecture efforts, and strategic technologies. The initiative accelerates the adoption of technologies, international standards, and specifications to promote rapid technical innovation and enable information-sharing to improve the effectiveness of cybersecurity solutions. The initiative also supports the promotion of cybersecurity awareness, training, and education. In FY 2020, the Department requests a transfer of funding from the Research and Development (R&D) appropriation and other O&S PPAs to consolidate support for the Cybersecurity Technology Strategic Initiative in the Cyber Infrastructure Resilience PPA.

Enhanced Cybersecurity Services: The Enhanced Cybersecurity Services (ECS) program assists the United States-based public and private entities to protect their networks against unauthorized access exploitation and data exfiltration. The program works by deriving timely, actionable cyber threat indicators from sensitive and classified government information. ECS is a voluntary program and is meant to augment, but not replace, existing cybersecurity capabilities.

Figure: Cyber Education and Awareness Initiatives

Appropriation	PPA Level I	PPA Level II	PPA Level III	Activities	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
Operations & Support	Cybersecurity	Cyber Infrastructure Resilience	Cyber Education & Awareness	Salaries & Benefits	\$1,733	\$1,767	\$5,236
				Program Support	\$578	\$553	\$553
				Higher Education	\$300	\$300	\$300
				Training & Workforce Development	\$3,565	\$3,565	\$22,501
				K-12 Education	\$4,300	-	-
				Education Outreach & Awareness	\$1,068	\$1,068	\$1,068
				Cybersecurity Awareness	\$550	\$550	\$550
				NICCS Portal	\$2,299	\$2,299	\$2,299
TOTAL, Cyber Education & Awareness (Dollars in Thousands)					\$14,393	\$10,102	\$32,507

Higher Education: Provides support to the Scholarship for Service (SFS) program, which DHS supports in partnership with the National Science Foundation. The SFS program seeks to increase the number of qualified employees working for Federal, State, local, tribal or territorial governments in cybersecurity, and to increase the capacity of the United States education enterprise to produce professionals in cybersecurity. SFS provides funds to colleges and universities for student scholarships in support of education in areas relevant to cybersecurity.

Training & Workforce Development: Provides support for training and workforce development programs intended to build a national cybersecurity workforce capable of protecting our systems against threats and attacks. This support includes providing DHS cybersecurity products training to Federal departments and agencies, facilitating cybersecurity training programs such as the co-development of the National Initiative for Cybersecurity Education (NICE) Cybersecurity Workforce Framework, the recent expansion of the NICE Framework Work Role Capability Indicators, and other workforce development resources. This also supports the maintenance and expansion of the Federal Virtual Training Environment (FedVTE), which provides free cybersecurity training to all government employees and U.S. Veterans. Significantly more funding is allocated in the FY 2020 budget versus the FY 2019 budget due to the consolidation of training funding in the Cyber Education and Awareness PPA Level III beginning in FY 2020. Previously, some education and training funding was allocated to the Cyber Readiness and Response PPA and Federal Cybersecurity PPA.

K through 12 Education: This activity utilized the Cybersecurity Education and Training Assistance Program (CETAP) grant to support the development of cybersecurity-integrated high school curricula - which middle and high schools across the country could adopt and offer to numerous students each year.

Education Outreach and Awareness: Provides support for all general education and outreach activities intended to build the national cybersecurity workforce pipeline. This work includes the development and execution of strategies and plans to communicate the importance, value, and impact of cybersecurity careers and to engage stakeholders and partners to support these pipeline development efforts. Sample activities include preparing for and conducting outreach events, developing and releasing communication materials, and writing and promoting new cybersecurity workforce development resources.

Cybersecurity Awareness: Provides support for programs intended to build the cybersecurity knowledge of our Nation, to inform future workers about cybersecurity careers, and to ensure every American has the resources they need to stay safer and more secure online.

NICCS Portal: Provides supports to the National Initiative for Cybersecurity Careers and Studies (NICCS) Portal. The NICCS Portal serves as a national resource for cybersecurity training, education, and workforce development. NICCS provides the Nation with the tools and resources necessary to ensure the Nation's workforce has the appropriate training and education in the cybersecurity field. Our training catalog offers thousands of online and in-person cybersecurity and IT courses from hundreds of providers throughout the country.

Cyber Infrastructure Resilience – PPA Level II

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	48	38	\$46,243
FY 2019 President's Budget	48	37	\$30,059
FY 2020 Base Budget	48	37	\$30,059
Transfer to CISA/O&S from CISA/R&D for Cyber Tech Strategic Init	-	-	\$4,695
Transfer to Cyber Infra Res from Cyber Read for Cyber Education Training	16	16	\$15,959
Transfer to Cyber Infra Res from Cyber Read for Cyber Tech Strategic Init	1	1	\$632
Transfer to Cyber Infra Res from Em Comm Prep for Cyber Tech Strategic Init	-	-	\$81
Transfer to Cyber Infra Res from Federal Cyber for Cyber Education Training	5	5	\$6,407
Transfer to Cyber Infra Res from Federal Cyber for Cyber Tech Strategic Init	2	2	\$1,413
Transfer to Cyber Infra Res from Mission Supp for Cyber Tech Strategic Init	10	10	\$2,448
Transfer to Cyber Infra Res from PTS for Cyber Tech Strategic Init	-	-	\$130
Transfer to Cyber Infra Res from SH Eng for Cyber Tech Strategic Init	-	-	\$36
Total Transfers	34	34	\$31,801
FERS Agency Contribution Increase	-	-	\$116
Total, Pricing Increases	-	-	\$116
Total Adjustments-to-Base	34	34	\$31,917
FY 2020 Current Services	82	71	\$61,976
FY 2020 Request	82	71	\$61,976
FY 2019 To FY 2020 Change	34	34	\$31,917

Cyber Infrastructure Resilience – PPA Level II

Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Cyber Infrastructure Resilience	48	38	\$7,383	\$194.29	48	37	\$7,039	\$190.24	82	71	\$13,825	\$194.72	34	34	\$6,786	\$4.48
Total	48	38	\$7,383	\$194.29	48	37	\$7,039	\$190.24	82	71	\$13,825	\$194.72	34	34	\$6,786	\$4.48
Discretionary - Appropriation	48	38	\$7,383	\$194.29	48	37	\$7,039	\$190.24	82	71	\$13,825	\$194.72	34	34	\$6,786	\$4.48

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$5,141	\$5,020	\$9,827	\$4,807
11.3 Other than Full-Time Permanent	\$45	\$24	\$24	-
11.5 Other Personnel Compensation	\$57	\$34	\$34	-
12.1 Civilian Personnel Benefits	\$2,140	\$1,961	\$3,940	\$1,979
Total - Personnel Compensation and Benefits	\$7,383	\$7,039	\$13,825	\$6,786
Positions and FTE				
Positions - Civilian	48	48	82	34
FTE - Civilian	38	37	71	34

Pay Cost Drivers

Leading Cost Drivers (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Information Technology Personnel	32	\$6,240	\$195.00	31	\$5,896	\$190.19	65	\$12,670	\$194.92	34	\$6,774	\$4.73
Program Management Personnel	6	\$1,143	\$190.50	6	\$1,143	\$190.50	6	\$1,155	\$192.50	0	\$12	\$2.00
Total – Pay Cost Drivers	38	\$7,383	\$194.29	37	\$7,039	\$190.24	71	\$13,825	\$194.72	34	\$6,786	\$4.48

Explanation of Pay Cost Drivers

Information Technology Personnel: The FY 2020 funding reflects the transfer of funds and positions within O&S to consolidate funding in support of the Cybersecurity Technology Strategic Initiative and cyber education and training. In addition, the increase in this cost driver reflects a FERS contribution increase, which increased agency contributions by 2.3% from 13.7% in FY 2019 to 16.0% in FY 2020.

Program Management Personnel: The increase in the cost driver reflects a FERS contribution increase. The regular FERS Agency contribution increased by 2.3% from 13.7% in FY 2019 to 16.0% in FY 2020.

Cyber Infrastructure Resilience – PPA Level II

Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Cyber Infrastructure Resilience	\$38,860	\$23,020	\$48,151	\$25,131
Total	\$38,860	\$23,020	\$48,151	\$25,131
Discretionary - Appropriation	\$38,860	\$23,020	\$48,151	\$25,131

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$108	\$108	\$108	-
22.0 Transportation of Things	\$12	\$9	\$9	-
23.1 Rental Payments to GSA	\$589	\$336	\$336	-
23.2 Rental Payments to Others	\$200	\$249	\$249	-
23.3 Communications, Utilities, and Misc. Charges	-	\$247	\$247	-
25.1 Advisory and Assistance Services	\$22,974	\$12,548	\$25,613	\$13,065
25.2 Other Services from Non-Federal Sources	\$67	\$51	\$51	-
25.3 Other Goods and Services from Federal Sources	\$8,599	\$2,579	\$14,639	\$12,060
25.4 Operation and Maintenance of Facilities	\$2	\$471	\$471	-
25.7 Operation and Maintenance of Equipment	\$1,117	\$945	\$951	\$6
25.8 Subsistence & Support of Persons	-	\$218	\$218	-
26.0 Supplies and Materials	\$22	\$13	\$13	-
31.0 Equipment	\$320	\$634	\$634	-
32.0 Land and Structures	-	\$62	\$62	-
41.0 Grants, Subsidies, and Contributions	\$4,850	\$4,550	\$4,550	-
Total - Non Pay Object Classes	\$38,860	\$23,020	\$48,151	\$25,131

Non Pay Cost Drivers

Leading Non Pay Cost Drivers <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Cyber Education and Awareness	\$12,105	\$8,335	\$27,271	\$18,936
Cybersecurity Advisors	\$10,723	\$2,429	\$2,399	(\$30)
Cybersecurity Technology Strategic Initiative	-	-	\$6,245	\$6,245
Enhanced Cybersecurity Services	\$16,032	\$12,256	\$12,236	(\$20)
Total – Non Pay Cost Drivers	\$38,860	\$23,020	\$48,151	\$25,131

Explanation of Non Pay Cost Drivers

Cyber Education and Awareness: The FY 2020 funding reflects the annualization of the FY 2019 increase of non-personnel enhancements for Cyber Education and Awareness and captures transfer to support cyber education training. It additionally captures a transfer of funds to support the Cybersecurity Technology Strategic Initiative.

Cybersecurity Advisors: The FY 2020 funding reflects the annualization of the FY 2019 increase of non-personnel enhancements for CSAs as well as a transfer of funds to support the Cybersecurity Technology Strategic Initiative.

Cybersecurity Technology Strategic Initiative: The FY 2020 funding reflects the transfer of funds from the R&D appropriation, and within O&S, to consolidate funding in support of the Cybersecurity Technology Strategic Initiative.

Enhanced Cybersecurity Services: The FY 2020 funding reflects the annualization of the FY 2019 increase of non-personnel enhancements for Enhanced Cybersecurity Services as well as a transfer of funds to support the Cybersecurity Technology Strategic Initiative.

*Federal Cybersecurity – PPA Level II***Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Federal Cybersecurity	319	255	\$432,673	326	250	\$458,600	357	288	\$450,595	31	38	(\$8,005)
Total	319	255	\$432,673	326	250	\$458,600	357	288	\$450,595	31	38	(\$8,005)
Subtotal Discretionary - Appropriation	319	255	\$432,673	326	250	\$458,600	357	288	\$450,595	31	38	(\$8,005)

PPA Level II Description

The Federal Cybersecurity program includes the CDM program, NCPS program, and Federal Network Resilience (FNR).

Continuous Diagnostics and Mitigation (CDM): The CDM program provides the Department, along with other Federal agencies, with capabilities and tools to identify cybersecurity risks on an ongoing basis, prioritize these risks based on potential impacts, and enable cybersecurity personnel to mitigate the most significant problems first.

National Cybersecurity Protection System (NCPS): The NCPS program is an integrated system that delivers intrusion detection, intrusion prevention, analytics, and information sharing capabilities that combat and mitigate cyber threats to the Federal executive branch information and networks.

Federal Network Resilience (FNR): FNR builds upon the efforts of CDM and NCPS by enabling Federal departments and agencies to enhance their cybersecurity posture through coordination, tools, and support services.

The FY 2020 request will allow CISA to continue providing the necessary tools and services for all phases of the CDM program to enable Federal and other government information technology networks to strengthen the security posture of their own cyber networks. It will also enable continued enhancements to the protection of Federal civilian departments' and agencies' information technology infrastructures from cyber threats through the execution of the NCPS program and support provided through FNR. Together, CDM and NCPS share a common goal of protecting infrastructure by providing a common baseline designed to provide a common approach, consistent cross-agency results, and foundational security capabilities across the Federal civilian enterprise. CISA's NCCIC will leverage capabilities and platforms, including those delivered by CDM and NCPS programs, in order to merge technologies to meet operational requirements. The application of such tools and capabilities enables the NCCIC to enhance its awareness of risks to the cybersecurity landscape.

Federal Cybersecurity – PPA Level II Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	319	255	\$432,673
FY 2019 President's Budget	326	250	\$458,600
FY 2020 Base Budget	326	250	\$458,600
Transfer to Cyber Infra Res from Federal Cyber for Cyber Education Training	(5)	(5)	(\$6,407)
Transfer to Cyber Infra Res from Federal Cyber for Cyber Tech Strategic Init	(2)	(2)	(\$1,413)
Total Transfers	(7)	(7)	(\$7,820)
Annualization of 2019 Personnel Changes	-	3	\$501
Continuous Diagnostics and Mitigation (CDM) Hiring	30	25	-
FERS Agency Contribution Increase	-	-	\$835
Total, Pricing Increases	30	28	\$1,336
Total Adjustments-to-Base	23	21	(\$6,484)
FY 2020 Current Services	349	271	\$452,116
Federal Network Resilience .gov Governance	4	2	\$3,340
Federal Network Resilience High Value Assets	4	2	\$4,830
National Cybersecurity Protection System (NCPS) Program Life Cycle Costs	-	13	\$11,103
Total, Program Increases	8	17	\$19,273
CDM Program Life Cycle Costs	-	-	(\$14,794)
Decrement to Pensacola Facility Operations	-	-	(\$6,000)
Total, Program Decreases	-	-	(\$20,794)
FY 2020 Request	357	288	\$450,595
FY 2019 To FY 2020 Change	31	38	(\$8,005)

Federal Cybersecurity – PPA Level II Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Federal Cybersecurity	319	255	\$49,097	\$192.54	326	250	\$48,358	\$193.43	357	288	\$51,012	\$177.12	31	38	\$2,654	(\$16.31)
Total	319	255	\$49,097	\$192.54	326	250	\$48,358	\$193.43	357	288	\$51,012	\$177.12	31	38	\$2,654	(\$16.31)
Discretionary - Appropriation	319	255	\$49,097	\$192.54	326	250	\$48,358	\$193.43	357	288	\$51,012	\$177.12	31	38	\$2,654	(\$16.31)

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$33,801	\$34,072	\$35,598	\$1,526
11.3 Other than Full-Time Permanent	\$164	\$415	\$415	-
11.5 Other Personnel Compensation	\$520	\$423	\$423	-
12.1 Civilian Personnel Benefits	\$14,612	\$13,448	\$14,576	\$1,128
Total - Personnel Compensation and Benefits	\$49,097	\$48,358	\$51,012	\$2,654
Positions and FTE				
Positions - Civilian	319	326	357	31
FTE - Civilian	255	250	288	38

Pay Cost Drivers

Leading Cost Drivers (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Information Technology Personnel	240	\$46,818	\$195.08	235	\$46,080	\$196.09	273	\$48,693	\$178.36	38	\$2,613	(\$17.73)
Program Management Personnel	15	\$2,279	\$151.93	15	\$2,278	\$151.93	15	\$2,319	\$154.60	0	\$41	\$2.67
Total – Pay Cost Drivers	255	\$49,097	\$192.54	250	\$48,358	\$193.43	288	\$51,012	\$177.13	38	\$2,654	(\$16.31)

Explanation of Pay Cost Drivers

Information Technology Personnel: The FY 2020 funding reflects the annualization of the FY 2019 increase of personnel changes required to address governance and training support and the hiring of FTE to support the CDM program. It also reflects the hiring of FTE to support Federal Network Resilience and the NCPS program, as well as the FERS contribution increase, which increased agency contributions by 2.3% from 13.7% in FY 2019 to 16.0% in FY 2020.

Program Management Personnel: The increase to the cost driver reflects a FERS contribution increase. The regular FERS Agency contribution increased by 2.3% from 13.7% in FY 2019 to 16.0% in FY 2020.

Federal Cybersecurity – PPA Level II Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Federal Cybersecurity	\$383,576	\$410,242	\$399,583	(\$10,659)
Total	\$383,576	\$410,242	\$399,583	(\$10,659)
Discretionary - Appropriation	\$383,576	\$410,242	\$399,583	(\$10,659)

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$240	\$209	\$209	-
22.0 Transportation of Things	\$67	\$46	\$46	-
23.1 Rental Payments to GSA	\$5,305	\$4,827	\$4,827	-
23.2 Rental Payments to Others	-	\$304	\$304	-
23.3 Communications, Utilities, and Misc. Charges	\$56	\$1	\$1	-
24.0 Printing and Reproduction	\$63	-	-	-
25.1 Advisory and Assistance Services	\$224,869	\$255,901	\$249,312	(\$6,589)
25.2 Other Services from Non-Federal Sources	\$232	\$5,241	\$5,241	-
25.3 Other Goods and Services from Federal Sources	\$76,937	\$107,074	\$103,004	(\$4,070)
25.4 Operation and Maintenance of Facilities	-	\$1,723	\$1,723	-
25.5 Research and Development Contracts	-	\$443	\$443	-
25.7 Operation and Maintenance of Equipment	\$13,950	\$19,474	\$19,474	-
25.8 Subsistence & Support of Persons	-	\$19	\$19	-
26.0 Supplies and Materials	\$57	\$48	\$48	-
31.0 Equipment	\$57,404	\$10,136	\$10,136	-
32.0 Land and Structures	\$4,396	\$4,643	\$4,643	-
42.0 Insurance Claims and Indemnities	-	\$153	\$153	-
Total - Non Pay Object Classes	\$383,576	\$410,242	\$399,583	(\$10,659)

Non Pay Cost Drivers

Leading Non Pay Cost Drivers (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Continuous Diagnostics and Mitigation (CDM)	\$96,557	\$105,937	\$88,530	(\$17,407)
Federal Network Resilience (FNR)	\$29,331	\$34,970	\$41,468	\$6,498
National Cybersecurity Protection System (NCPS)	\$257,688	\$269,335	\$269,585	\$250
Total – Non Pay Cost Drivers	\$383,576	\$410,242	\$399,583	(\$10,659)

Explanation of Non Pay Cost Drivers

Continuous Diagnostics and Mitigation (CDM): The FY 2020 funding reflects an increase in funding associated the program's acquisition life cycle cost estimates, the transfer of funds between appropriations in support of CDM capabilities, including Dashboard and Network Security Management (Phase 3), as well as a decrease in Program, Planning, and Operations and a transfer of funds to support the Cybersecurity Technology Strategic Initiative in the Cyber Infrastructure Resilience PPA.

Federal Network Resilience (FNR): The FY 2020 funding reflects increases associated with the program changes for FNR.gov Governance and High Value Assets (HVAs) as well as a decrease due to a transfer of funds to support the Cybersecurity Technology Strategic Initiative in the Cyber Infrastructure Resilience PPA.

National Cybersecurity Protection System (NCPS): The FY 2020 request reflects an increase in Intrusion Prevention operations and support activities due to the deployment of new capabilities into operations. The increase also supports an increased use of commercial cloud capabilities for the NCPS Core Infrastructure and NCPS capabilities. Increased use of commercial cloud capabilities will improve the scalability, availability, and reliability of the infrastructure, tools, and capabilities that the NCCIC needs to meet mission needs. The FY 2020 request also reflects a decrease to analytics, which is due to: the current cycle of technical refresh not being required; the Pensacola facility operations associated with the construction buildout of the facility; and a transfer of funds to support the Cybersecurity Technology Strategic Initiative in the Cyber Infrastructure Resilience PPA.

*Infrastructure Security – PPA***Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Infrastructure Capacity Building	374	318	\$121,776	397	327	\$129,182	389	331	\$126,653	(8)	4	(\$2,529)
Infrastructure Security Compliance	307	255	\$72,440	307	248	\$76,853	288	229	\$56,038	(19)	(19)	(\$20,815)
Total	681	573	\$194,216	704	575	\$206,035	677	560	\$182,691	(27)	(15)	(\$23,344)
Subtotal Discretionary - Appropriation	681	573	\$194,216	704	575	\$206,035	677	560	\$182,691	(27)	(15)	(\$23,344)

PPA Level I Description

The Infrastructure Security PPA in the O&S appropriation funds the coordinated national effort to oversee the National Infrastructure Protection Plan (NIPP) and manage risks to our Nation's critical infrastructure through coordination with private and public infrastructure partners. The vast majority of our Nation's critical infrastructure is owned and operated by the private sector, and the programs funded via this PPA are based on building partnerships, planning for preparedness, and sharing information and tools to ensure the availability, security, and resilience of the Nation's critical infrastructure. This PPA conducts and facilitates vulnerability and consequence assessments to help critical infrastructure owners and operators and State, local, tribal, and territorial partners understand and address risks to critical infrastructure.

Additionally, the Infrastructure Security PPA provides information on emerging threats and hazards, and offers tools and training to partners to help them manage risks to critical infrastructure. This PPA also includes CISA's chemical regulatory programs.

The Infrastructure Security PPA contains the following Level II PPAs:

Infrastructure Capacity Building: This PPA increases the security and resilience of facilities, systems, networks, and surrounding communities to cyber, physical, and human risks through partnership efforts. The PPA provides for analysis, expertise, and other technical assistance to critical infrastructure owners and operators. It additionally facilitates access to, and the exchange of, information and intelligence necessary to strengthen the security and resilience of critical infrastructure.

Infrastructure Security Compliance: This PPA provides for the security of the Nation's high-risk chemical facilities through the systematic regulation, inspection, and enforcement under the authority of the Chemical Facility Anti-Terrorism Standards (CFATS). It also supports the ongoing development of the Ammonium Nitrate Security Program and a holistic approach to the security risk management of other improvised explosive device precursors through both regulatory and voluntary options.

Infrastructure Security – PPA

Budget Authority and Obligations

Budget Authority (Dollars in Thousands)	FY 2018	FY 2019	FY 2020
Enacted/Request	\$194,216	\$206,035	\$182,691
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	-	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	(\$398)	-	-
Supplementals	-	-	-
Total Budget Authority	\$193,818	\$206,035	\$182,691
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	\$193,818	\$206,035	\$182,691
Obligations (Actual/Estimates/Projections)	\$192,611	\$206,035	\$182,691
Personnel: Positions and FTE			
Enacted/Request Positions	681	704	677
Enacted/Request FTE	573	575	560
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	678	704	677
FTE (Actual/Estimates/Projections)	570	575	560

Infrastructure Security – PPA Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	681	573	\$194,216
FY 2019 President's Budget	704	575	\$206,035
FY 2020 Base Budget	704	575	\$206,035
Transfer to Infra Cap Build from Mission Supp for Regionalization Facilities	-	-	\$3,160
Transfer to Risk Mgmt Ops from Infra Cap Build for NRMCC	(25)	(25)	(\$12,444)
Transfer within CISA/O&S for FTP/FTE Realignment	(3)	(3)	(\$398)
Total Transfers	(28)	(28)	(\$9,682)
Annualization of 2019 Personnel Changes	-	12	\$2,004
FERS Agency Contribution Increase	-	-	\$1,614
Total, Pricing Increases	-	12	\$3,618
Total Adjustments-to-Base	(28)	(16)	(\$6,064)
FY 2020 Current Services	676	559	\$199,971
Enhancement in Support of Bomb-Making Materials Awareness Program (BMAP)	1	1	\$1,024
Infrastructure Security Compliance CSAT Program Costs	-	-	\$182
IP Gateway Program Life Cycle Costs	-	-	\$229
Support State and Local Governments (Infrastructure Protection)	-	-	\$1,785
Total, Program Increases	1	1	\$3,220
Protective Security Advisors (PSA) ISD Regionalization	-	-	(\$2,000)
Risk Based Approach to Chemical Security/CFATS	-	-	(\$18,500)
Total, Program Decreases	-	-	(\$20,500)
FY 2020 Request	677	560	\$182,691
FY 2019 To FY 2020 Change	(27)	(15)	(\$23,344)

Infrastructure Security – PPA

Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Infrastructure Capacity Building	374	318	\$49,971	\$157.14	397	327	\$53,005	\$162.09	389	331	\$55,051	\$166.32	(8)	4	\$2,046	\$4.23
Infrastructure Security Compliance	307	255	\$38,297	\$150.18	307	248	\$37,164	\$149.85	288	229	\$34,667	\$151.38	(19)	(19)	(\$2,497)	\$1.53
Total	681	573	\$88,268	\$154.05	704	575	\$90,169	\$156.82	677	560	\$89,718	\$160.21	(27)	(15)	(\$451)	\$3.39
Discretionary - Appropriation	681	573	\$88,268	\$154.05	704	575	\$90,169	\$156.82	677	560	\$89,718	\$160.21	(27)	(15)	(\$451)	\$3.39

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$66,036	\$67,366	\$66,291	(\$1,075)
11.3 Other than Full-Time Permanent	\$1,326	\$1,369	\$1,371	\$2
11.5 Other Personnel Compensation	\$2,210	\$2,280	\$2,283	\$3
12.1 Civilian Personnel Benefits	\$18,696	\$19,154	\$19,773	\$619
Total - Personnel Compensation and Benefits	\$88,268	\$90,169	\$89,718	(\$451)
Positions and FTE				
Positions - Civilian	681	704	677	(27)
FTE - Civilian	573	575	560	(15)

Infrastructure Security – PPA Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Infrastructure Capacity Building	\$71,805	\$76,177	\$71,602	(\$4,575)
Infrastructure Security Compliance	\$34,143	\$39,689	\$21,371	(\$18,318)
Total	\$105,948	\$115,866	\$92,973	(\$22,893)
Discretionary - Appropriation	\$105,948	\$115,866	\$92,973	(\$22,893)

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$5,200	\$6,462	\$4,862	(\$1,600)
22.0 Transportation of Things	\$130	\$3,194	\$3,194	-
23.1 Rental Payments to GSA	\$5,678	\$265	\$3,425	\$3,160
23.3 Communications, Utilities, and Misc. Charges	\$520	-	-	-
24.0 Printing and Reproduction	\$140	\$166	\$166	-
25.1 Advisory and Assistance Services	\$51,962	\$49,408	\$40,705	(\$8,703)
25.2 Other Services from Non-Federal Sources	\$675	\$489	\$370	(\$119)
25.3 Other Goods and Services from Federal Sources	\$28,451	\$43,789	\$28,158	(\$15,631)
25.4 Operation and Maintenance of Facilities	\$500	\$521	\$521	-
25.7 Operation and Maintenance of Equipment	\$10,179	\$10,675	\$10,675	-
26.0 Supplies and Materials	\$80	\$146	\$146	-
31.0 Equipment	\$2,418	\$700	\$700	-
32.0 Land and Structures	\$15	\$23	\$23	-
42.0 Insurance Claims and Indemnities	-	\$28	\$28	-
Total - Non Pay Object Classes	\$105,948	\$115,866	\$92,973	(\$22,893)

*Infrastructure Capacity Building – PPA Level II***Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Infrastructure Capacity Building	374	318	\$121,776	397	327	\$129,182	389	331	\$126,653	(8)	4	(\$2,529)
Total	374	318	\$121,776	397	327	\$129,182	389	331	\$126,653	(8)	4	(\$2,529)
Subtotal Discretionary - Appropriation	374	318	\$121,776	397	327	\$129,182	389	331	\$126,653	(8)	4	(\$2,529)

PPA Level II Description

The Infrastructure Capacity Building PPA in the O&S appropriation supports multiple projects. The work supported by this particular PPA is summarized as follows:

Sector Risk Management: CISA supports the security and resilience of facilities, systems, networks, and surrounding communities to cyber, physical, and human risks through effective partnership efforts at the national level, and capacity building activities delivered at the regional and field levels. To this end, multiple CISA organizations work together to provide analysis, expertise, and other technical assistance to critical infrastructure owners and operators. CISA also facilitates access to, and the exchange of, information and intelligence necessary to strengthen the security and resilience of critical infrastructure. Additionally, CISA oversees a nationwide framework to guide infrastructure security and resilience efforts, serving as the sector-specific agency for a number of critical infrastructure sectors and subsectors. As the designated sector-specific agency, CISA serves as the Federal interface for the dynamic prioritization and coordination of sector-specific activities; coordinates with government and non-government stakeholders to plan, implement, and execute sector-specific initiatives to advance the critical infrastructure security and resilience mission; leads the development and revisions of the corresponding sector-specific plans; leads the development of technical guidelines, incident management playbooks, training products, and informational resources; and promotes the adoption of physical and cyber risk management best practices across each sector. In FY 2020, CISA will continue to improve the delivery of services in the field by integrating physical and cyber threat mitigation actions, providing unity of effort for stakeholders, and eliminating redundancy of business support to allow for increased depth and breadth of services for customers. Funds will also provide for continued implementation of the Interagency Security Committee compliance activities to support the adoption of security standards by Federal facilities.

Protective Security Advisors: CISA provides proactive engagement with State, local, tribal, and territorial government mission partners and the private sector to protect the Nation's critical infrastructure through PSA outreach. The PSAs and regional staff are located across the United States in the localities where critical infrastructure is built, operated, and maintained. They serve as onsite critical infrastructure and vulnerability assessment specialists for the Department, while providing a local perspective to the national risk picture by identifying, assessing, monitoring, and minimizing

the risk to critical infrastructure at the State, local, and regional levels. They develop, implement, and provide national coordination for protective programs and facilitate critical infrastructure response and recovery from all hazards. Regional staff support planning and operational efforts, and tailor the delivery of services directly to stakeholders in communities.

Figure: Protective Security Advisors

Protective Security Advisors (PSA)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
# of PSA FTP	148	148	161
PSA Funding (<i>Dollars in Thousands</i>)	\$30,658	\$34,095	\$37,876

Note: Funding data depicted in the Figure is only funding related to PSAs and Regional Operations. It does not include Vulnerability Assessment's non-assessment funding. FTPs include all positions supported via the Level III PSA PPA, not just the number of positions serving in the PSA role – which is 117 across all three fiscal years.

Regional Service Delivery Model: CISA supports our integrated field force outside of the National Capital Region (NCR). The field force is spread across ten CISA regions throughout the United States. This effort has allowed CISA to shift resources from headquarters to the regions in order to provide enhanced services to State, local, and private sector stakeholders. Each Regional Office provides administrative, mission support, and outreach functions to stakeholders, such as coordinating training and exercises for regional stakeholders, developing internal CISA regional plans, participating in external planning with regional partners, and providing advice and expertise on information protection, CISA data tools, sector specialties, resilience, and recovery.

Bombing Prevention: CISA supports the Department's efforts to implement the National Policy for Countering Improvised Explosive Devices (National Counter-IED policy) and enhance the Nation's ability to prevent, protect against, respond to, and mitigate the use of explosives against critical infrastructure, the private sector, and Federal, State, local, tribal, and territorial entities. In FY 2020, CISA will enhance the national capacity to detect and disrupt terrorist attacks before they occur, per the DHS Strategic Plan, by transitioning CISA's BMAP to a fully-funded program of record and building a service delivery approach to achieve the scale necessary to have strategic impact. This will complement and fill gaps left by regulatory measures and increase public and private sector awareness by empowering State and local communities to enhance their own preparedness.

Figure: Office of Bombing Prevention Initiatives

Initiative Area	Sub-Projects & Acquisitions	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
<u>Bombing Prevention 1:</u> Coordination of National and Intergovernmental Bombing Prevention Efforts	Policy, Plans, and Analysis Support	\$1,061	\$1,061	\$1,061
<u>Bombing Prevention 2:</u> Counter-IED Capability Analysis and Planning Support	Program Planning, Analysis, and Outreach	\$702	\$702	\$702
	National Counter-IED Capabilities Analysis Database (NCCAD)	\$1,545	\$1,355	\$1,355
	Multi-Jurisdiction IED Security Planning (MJIEDSP/CAPS)	\$709	\$709	\$709
<u>Bombing Prevention 3:</u> Information Sharing and Decision Support	Program Planning, Analysis, and Outreach	\$702	\$702	\$702
	TRIPwire Operations and Maintenance	\$1,666	\$1,666	\$1,666
	TRIPwire Modernization	\$252	-	
	TRIPwire Open Source Intelligence/Content	\$2,145	\$2,145	\$2,145
<u>Bombing Prevention 4:</u> Counter-IED Training and Awareness	Program Planning, Analysis, and Outreach	\$702	\$702	\$702
	OBP IED Awareness Training at CDP/NGB	\$284	\$536	\$536
	Curriculum Development and VILT Connectivity	\$17	\$17	\$17
	Bomb-Making Materials Awareness Program (BMAP)	\$218	\$408	\$918
	C-IED Printed Material	\$100	\$100	\$120
<u>Miscellaneous</u>	Travel, Professional Development, P-Card, Salaries and Benefits, WCF, etc.	\$6,096	\$4,649	\$5,400
Bombing Prevention Total (Dollars in Thousands)		\$16,199	\$14,752	\$16,033

TRIPwire: CISA supports TRIPwire, a subset of Bombing Prevention, which is an online, secure, collaborative information and resource-sharing portal for the Nation's security and emergency services professionals across the Federal, State, local, and tribal sectors. TRIPwire is designed to increase awareness of evolving IED tactics, techniques, and procedures, as well as to document incident lessons learned and counter-IED preparedness information.

Soft Targets: In FY 2017, CISA assessed that a more comprehensive, innovative, and coordinated approach was necessary to address risk posed by terrorists and other extremist actors who, more frequently, are leveraging simple tactics to cause damage in less-secure public areas. As an initial measure, CISA issued the Soft Target Security Framework that serves as a guide for the agency to invest in solutions to enhance soft target security in partnership with the public and private sectors. To ensure this effort is successful, CISA will continue to define priority actions in support of the FY 2019 implementation of the Soft Target Framework and identify opportunities for enhancing integration and coordination efforts through FY 2020 and beyond.

IP Gateway: In FY 2020, CISA will continue to operate and maintain the IP Gateway suite of capabilities. The IP Gateway will continue to function through FY 2021. A new investment is planned for a replacement system that is cloud-based, mobile, and scalable. This capability advancement will incorporate new data analytics and business intelligence capabilities to support evidence-based decisions in support of steady state operations, event planning, and domestic incidents. CISA intends to continue normal operation of the Protected Critical Infrastructure Information (PCII). In addition to normal operations of the PCII program, 6 Code of Federal Regulations (CFR) Part 29 Procedures for Handling Critical Infrastructure Information" that was published in FY 2006 is being updated. Investing in the system that will replace the IP Gateway suite of capabilities and the necessary updates to the PCII Final Rule will ensure that CISA possesses the appropriate tools necessary to carry out the Infrastructure Security mission.

Infrastructure Capacity Building – PPA Level II

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	374	318	\$121,776
FY 2019 President's Budget	397	327	\$129,182
FY 2020 Base Budget	397	327	\$129,182
Transfer to Infra Cap Build from Mission Supp for Regionalization Facilities	-	-	\$3,160
Transfer to Risk Mgmt Ops from Infra Cap Build for NRMCC	(25)	(25)	(\$12,444)
Transfer within CISA/O&S for FTP/FTE Realignment	16	16	\$2,750
Total Transfers	(9)	(9)	(\$6,534)
Annualization of 2019 Personnel Changes	-	12	\$2,004
FERS Agency Contribution Increase	-	-	\$963
Total, Pricing Increases	-	12	\$2,967
Total Adjustments-to-Base	(9)	3	(\$3,567)
FY 2020 Current Services	388	330	\$125,615
Enhancement in Support of Bomb-Making Materials Awareness Program (BMAP)	1	1	\$1,024
IP Gateway Program Life Cycle Costs	-	-	\$229
Support State and Local Governments (Infrastructure Protection)	-	-	\$1,785
Total, Program Increases	1	1	\$3,038
Protective Security Advisors (PSA) ISD Regionalization	-	-	(\$2,000)
Total, Program Decreases	-	-	(\$2,000)
FY 2020 Request	389	331	\$126,653
FY 2019 To FY 2020 Change	(8)	4	(\$2,529)

Infrastructure Capacity Building – PPA Level II

Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Infrastructure Capacity Building	374	318	\$49,971	\$157.14	397	327	\$53,005	\$162.09	389	331	\$55,051	\$166.32	(8)	4	\$2,046	\$4.23
Total	374	318	\$49,971	\$157.14	397	327	\$53,005	\$162.09	389	331	\$55,051	\$166.32	(8)	4	\$2,046	\$4.23
Discretionary - Appropriation	374	318	\$49,971	\$157.14	397	327	\$53,005	\$162.09	389	331	\$55,051	\$166.32	(8)	4	\$2,046	\$4.23

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$37,446	\$39,636	\$40,660	\$1,024
11.3 Other than Full-Time Permanent	\$762	\$803	\$805	\$2
11.5 Other Personnel Compensation	\$1,270	\$1,337	\$1,340	\$3
12.1 Civilian Personnel Benefits	\$10,493	\$11,229	\$12,246	\$1,017
Total - Personnel Compensation and Benefits	\$49,971	\$53,005	\$55,051	\$2,046
Positions and FTE				
Positions - Civilian	374	397	389	(8)
FTE - Civilian	318	327	331	4

Pay Cost Drivers

Leading Cost Drivers (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Program Personnel	318	\$49,971	\$157.14	327	\$53,005	\$162.09	331	\$55,052	\$166.32	4	\$2,047	\$4.22
Total – Pay Cost Drivers	318	\$49,971	\$157.14	327	\$53,005	\$162.09	331	\$55,052	\$166.32	4	\$2,047	\$4.22

Explanation of Pay Cost Driver

Program Personnel: The change in FY 2020 funding reflect the annualization of the FY 2019 increase of personnel changes required to address the Soft Target Office, the requested program change for BMAP, and the movement of pay funding and personnel between O&S PPAs to more effectively support Infrastructure Security programs including the NRMC. This change also includes an increase in FERS Agency contribution, which increased by 2.3% from 13.7% in FY 2019 to 16.0% in FY 2020.

Infrastructure Capacity Building – PPA Level II

Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Infrastructure Capacity Building	\$71,805	\$76,177	\$71,602	(\$4,575)
Total	\$71,805	\$76,177	\$71,602	(\$4,575)
Discretionary - Appropriation	\$71,805	\$76,177	\$71,602	(\$4,575)

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$2,700	\$3,722	\$3,122	(\$600)
22.0 Transportation of Things	\$100	\$3,172	\$3,172	-
23.1 Rental Payments to GSA	\$3,610	\$265	\$3,425	\$3,160
24.0 Printing and Reproduction	\$125	\$151	\$151	-
25.1 Advisory and Assistance Services	\$35,500	\$36,595	\$33,661	(\$2,934)
25.2 Other Services from Non-Federal Sources	\$500	\$324	\$205	(\$119)
25.3 Other Goods and Services from Federal Sources	\$21,559	\$22,466	\$18,384	(\$4,082)
25.4 Operation and Maintenance of Facilities	\$500	\$521	\$521	-
25.7 Operation and Maintenance of Equipment	\$7,026	\$8,534	\$8,534	-
26.0 Supplies and Materials	\$20	\$63	\$63	-
31.0 Equipment	\$150	\$341	\$341	-
32.0 Land and Structures	\$15	\$23	\$23	-
Total - Non Pay Object Classes	\$71,805	\$76,177	\$71,602	(\$4,575)

Non Pay Cost Drivers

Leading Non Pay Cost Drivers (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Bombing Prevention	\$13,537	\$12,077	\$12,897	\$820
Infrastructure Information and Sensitive Data Protection	\$13,978	\$11,108	\$11,337	\$229
Protective Security Advisors	\$15,231	\$18,645	\$21,072	\$2,427
Sector Risk Management	\$29,059	\$34,347	\$26,296	(\$8,051)
Total – Non Pay Cost Drivers	\$71,805	\$76,177	\$71,602	(\$4,575)

Explanation of Non Pay Cost Drivers

Bombing Prevention: The Bombing Prevention program currently supports the Department's efforts to implement the National Policy for Countering Improvised Explosive Devices (National Counter-IED policy) and enhance the Nation's ability to prevent, protect against, respond to, and mitigate the use of explosives against critical infrastructure; the private sector; and Federal, State, local, tribal, and territorial entities. This cost driver reflects the increase of funds to enhance the national capacity to detect and disrupt terrorist attacks before they occur by transitioning CISA's BMAP to a fully funded program of record and building a service delivery approach to achieve the scale necessary to have strategic impact.

Infrastructure Information and Sensitive Data Protection (IISDP): The IISDP program currently provides Federal, State, and local governments, and private sector stakeholders with innovative IT solutions. In FY 2020, CISA will continue to operate and maintain the IP Gateway suite of capabilities, and migrate them to a cloud-based hosting environment. The current IP Gateway capabilities will continue to function through FY 2023. A new investment is planned for a replacement system that is cloud-based, mobile, and scalable. This capability advancement will incorporate new data analytics and business intelligence capabilities to support evidence-based decisions for steady state operations, event planning, and domestic incidents. CISA intends to continue normal operation of the Protected Critical Infrastructure Information (PCII) Program. In addition to normal operations of the PCII program, 6 Code of Federal Regulations (CFR) Part 29 "Procedures for Handling Critical Infrastructure Information" that was published in FY 2006 is being reviewed and updated as required. Investing in the system that will replace the IP Gateway suite of capabilities and the necessary updates to the PCII Final Rule will ensure that CISA possesses the appropriate tools necessary to carry out the Infrastructure Security mission. This cost driver reflects an increase of funds due to the standard inflation and the funds to support a dual operations of the IP Gateway in its current hardware-based environment during the transition to the cloud.

Protective Security Advisors (PSA): The PSA program currently provides proactive engagement with State, local, tribal, and territorial government mission partners and the private sector to protect the Nation's critical infrastructure through PSA outreach. The PSAs and regional staff are located across the United States in the localities where critical infrastructure is built, operated, and maintained. They serve as onsite critical infrastructure and vulnerability assessment specialists for the Department, while providing a local perspective to the national risk picture by identifying, assessing, monitoring, and minimizing the risk to critical infrastructure at the State, local, and regional levels. The cost driver reflects changes that are due to a transfer of funds from the Mission Support PPA to align the IS Regionalization facility to the PSA PPA.

Sector Risk Management (SRM): The SRM programs currently provides analysis, expertise, and other technical assistance to critical infrastructure owners and operators. It facilitates access to, and the exchange of, information and intelligence necessary to strengthen the security and resilience of critical infrastructure. The cost driver reflects the increase of funds to support CISA serving as the Federal lead for the Election Infrastructure Subsector in which CISA will effectively collaborate with the subsector stakeholder to share information and develop resources, best practices, and training to mitigate physical and cyber-attacks. The decrease in cost is based on the transfer of some of the SRM program functions to the NRMC.

*Infrastructure Security Compliance – PPA Level II***Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Infrastructure Security Compliance	307	255	\$72,440	307	248	\$76,853	288	229	\$56,038	(19)	(19)	(\$20,815)
Total	307	255	\$72,440	307	248	\$76,853	288	229	\$56,038	(19)	(19)	(\$20,815)
Subtotal Discretionary - Appropriation	307	255	\$72,440	307	248	\$76,853	288	229	\$56,038	(19)	(19)	(\$20,815)

PPA Level II Description

The Infrastructure Security Compliance PPA in the O&S appropriation funds the securing of the Nation's high-risk chemical facilities through the systematic regulation, inspection, and enforcement under the authority of CFATS. The Infrastructure Security Compliance PPA also funds the development of the Ammonium Nitrate Security Program and other efforts to secure chemicals. In January 2019, Congress extended the authorization of the CFATS program to April 2020. In support of CFATS and explosive precursor security, CISA provides funding for regulatory mission support, regulation compliance determination, field operations support, and technical engineering for facilities data collection and analysis tools, including the Chemical Security Assessment Tool (CSAT) suite. Improving operations and support processes through information technology investments in CSAT will ensure that CISA remains responsive to changing legislative and regulatory requirements while effectively managing regulatory compliance of chemical facilities, which is necessary to support CISA's priority of securing high-risk chemical facilities from terrorist attacks.

In FY 2020, CISA plans to:

- Continue the regular cycle of CFATS compliance and enforcement;
- Perform listening sessions and public meetings in the rulemaking process to update to the existing CFATS regulation, to include any changes arising from CFATS reauthorization legislation;
- Implement additional requirements arising from CFATS reauthorization legislation, if applicable;
- If approved, perform substantive implementation of the Personnel Surety program at CFATS tier 3 and 4 facilities;
- Continue the process of developing a combined regulatory and voluntary effort to secure improvised explosive device precursor chemicals, as recommended by a FY 2017 National Academy of Sciences study; and,
- Continue ongoing testing of explosive precursor chemicals in furtherance of both CFATS and IED protection efforts. The two budget projects supported by the Infrastructure Security Compliance PPA are the Infrastructure Security Compliance project and the CSAT investment. In FY 2020, CISA will continue to operate and maintain the CSAT suite of tools integral to the ongoing CFATS compliance process, as well as the Chemical-Terrorism Vulnerability Information program laid out in 6 CFR part 27.

Infrastructure Security Compliance – PPA Level II

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	307	255	\$72,440
FY 2019 President's Budget	307	248	\$76,853
FY 2020 Base Budget	307	248	\$76,853
Transfer within CISA/O&S for FTP/FTE Realignment	(19)	(19)	(\$3,148)
Total Transfers	(19)	(19)	(\$3,148)
FERS Agency Contribution Increase	-	-	\$651
Total, Pricing Increases	-	-	\$651
Total Adjustments-to-Base	(19)	(19)	(\$2,497)
FY 2020 Current Services	288	229	\$74,356
Infrastructure Security Compliance CSAT Program Costs	-	-	\$182
Total, Program Increases	-	-	\$182
Risk Based Approach to Chemical Security/CFATS	-	-	(\$18,500)
Total, Program Decreases	-	-	(\$18,500)
FY 2020 Request	288	229	\$56,038
FY 2019 To FY 2020 Change	(19)	(19)	(\$20,815)

Infrastructure Security Compliance – PPA Level II

Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Infrastructure Security Compliance	307	255	\$38,297	\$150.18	307	248	\$37,164	\$149.85	288	229	\$34,667	\$151.38	(19)	(19)	(\$2,497)	\$1.53
Total	307	255	\$38,297	\$150.18	307	248	\$37,164	\$149.85	288	229	\$34,667	\$151.38	(19)	(19)	(\$2,497)	\$1.53
Discretionary - Appropriation	307	255	\$38,297	\$150.18	307	248	\$37,164	\$149.85	288	229	\$34,667	\$151.38	(19)	(19)	(\$2,497)	\$1.53

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$28,590	\$27,730	\$25,631	(\$2,099)
11.3 Other than Full-Time Permanent	\$564	\$566	\$566	-
11.5 Other Personnel Compensation	\$940	\$943	\$943	-
12.1 Civilian Personnel Benefits	\$8,203	\$7,925	\$7,527	(\$398)
Total - Personnel Compensation and Benefits	\$38,297	\$37,164	\$34,667	(\$2,497)
Positions and FTE				
Positions - Civilian	307	307	288	(19)
FTE - Civilian	255	248	229	(19)

Pay Cost Drivers

Leading Cost Drivers (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Program Personnel	255	\$38,297	\$150.18	248	\$37,164	\$149.85	229	\$34,667	\$151.38	(19)	(\$2,497)	\$1.53
Total Pay Cost Drivers	255	\$38,297	\$150.18	248	\$37,164	\$149.85	229	\$34,667	\$151.38	(19)	(\$2,497)	\$1.53

Explanation of Pay Cost Driver

Program Personnel: The change from FY 2019 to FY 2020 reflects the movement of pay funding and personnel between O&S PPAs to more effectively support infrastructure security programs. This change also includes an increase in FERS Agency contribution, which increased by 2.3% from 13.7% in FY 2019 to 16.0% in FY 2020.

Infrastructure Security Compliance – PPA Level II

Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Infrastructure Security Compliance	\$34,143	\$39,689	\$21,371	(\$18,318)
Total	\$34,143	\$39,689	\$21,371	(\$18,318)
Discretionary - Appropriation	\$34,143	\$39,689	\$21,371	(\$18,318)

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$2,500	\$2,740	\$1,740	(\$1,000)
22.0 Transportation of Things	\$30	\$22	\$22	-
23.1 Rental Payments to GSA	\$2,068	-	-	-
23.3 Communications, Utilities, and Misc. Charges	\$520	-	-	-
24.0 Printing and Reproduction	\$15	\$15	\$15	-
25.1 Advisory and Assistance Services	\$16,462	\$12,813	\$7,044	(\$5,769)
25.2 Other Services from Non-Federal Sources	\$175	\$165	\$165	-
25.3 Other Goods and Services from Federal Sources	\$6,892	\$21,323	\$9,774	(\$11,549)
25.7 Operation and Maintenance of Equipment	\$3,153	\$2,141	\$2,141	-
26.0 Supplies and Materials	\$60	\$83	\$83	-
31.0 Equipment	\$2,268	\$359	\$359	-
42.0 Insurance Claims and Indemnities	-	\$28	\$28	-
Total - Non Pay Object Classes	\$34,143	\$39,689	\$21,371	(\$18,318)

Non Pay Cost Drivers

Leading Non Pay Cost Drivers <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Infrastructure Security Compliance	\$26,133	\$29,762	\$15,853	(\$13,909)
Travel and Working Capital Funds	\$8,710	\$9,927	\$5,518	(\$4,409)
Total – Non Pay Cost Drivers	\$34,843	\$39,689	\$21,371	(\$18,318)

Explanation of Non Pay Cost Drivers

Infrastructure Security Compliance (ISC): The ISC program currently secures the Nation's high-risk chemical facilities through the systematic regulation, inspection, and enforcement under the authority of CFATS. It also manages the IT investment in Chemical Security Assessment Tool (CSAT) suite. This cost driver reflects a decrease of funds for cancellations or reductions in contract support, Chemical Security Inspector (CSI) uniforms, and training.

Travel and Working Capital Funds: This cost driver reflects the decrease of funds for planned travel and Working Capital Fund in FY 2020.

Emergency Communications – PPA**Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization <i>(Dollars in Thousands)</i>	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Emergency Communications Preparedness	107	82	\$54,501	107	87	\$51,785	107	87	\$51,959	-	-	\$174
Priority Telecommunications Services	30	26	\$63,955	30	26	\$63,911	30	26	\$64,595	-	-	\$684
Total	137	108	\$118,456	137	113	\$115,696	137	113	\$116,554	-	-	\$858
Subtotal Discretionary - Appropriation	137	108	\$118,456	137	113	\$115,696	137	113	\$116,554	-	-	\$858

PPA Level I Description

The Emergency Communications PPA in the O&S appropriation ensures public safety by providing for the tools needed to communicate during steady state and emergency operations. The program develops and implements nationwide emergency communications policies and plans, including the National Emergency Communications Plan and 56 Statewide Communications Interoperability Plans. The program also builds capacity with Federal, State, local, tribal, and territorial stakeholders by providing technical assistance, training, resources, and guidance. As directed by legislation, the Emergency Communications PPA supports nationwide sharing of best practices and lessons learned through facilitation of the SAFECOM and Emergency Communications Preparedness Center governance bodies. Additionally, the Emergency Communications PPA provides priority telecommunications services over commercial networks to enable national security and emergency preparedness personnel to communicate during congestion scenarios across the Nation.

In addition, the Emergency Communications program drives Federal emergency communications efficiencies through conducting strategic planning, ensuring grant alignment, developing common investment and infrastructure planning approaches, representing Federal users on national-level policy and standards issues, and coordinating between domestic and international stakeholders along the borders.

The Emergency Communications PPA contains the following Level II PPAs:

Emergency Communications Preparedness: The Emergency Communication Preparedness PPA enhances public safety interoperable communications at all levels of government by providing technical assistance to State, regional, local, and tribal government officials to support and promote the ability of emergency response providers and relevant government officials to continue to communicate – via voice, video, and data – in the event of natural disasters, acts of terrorism, and other man-made disasters, as required by statute.

Priority Telecommunications Services: The Priority Telecommunications Services (PTS) PPA maintains essential government functions and operations during an emergency by providing National Security and Emergency Preparedness (NS/EP) communications under all circumstances, including when network congestion or damage renders conventional communications ineffective.

Emergency Communications – PPA

Budget Authority and Obligations

Budget Authority (Dollars in Thousands)	FY 2018	FY 2019	FY 2020
Enacted/Request	\$118,456	\$115,696	\$116,554
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	-	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	-	-	-
Supplementals	-	-	-
Total Budget Authority	\$118,456	\$115,696	\$116,554
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	\$118,456	\$115,696	\$116,554
Obligations (Actual/Estimates/Projections)	\$118,365	\$115,696	\$116,554
Personnel: Positions and FTE			
Enacted/Request Positions	137	137	137
Enacted/Request FTE	108	113	113
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	137	137	137
FTE (Actual/Estimates/Projections)	108	113	113

Emergency Communications – PPA

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	137	108	\$118,456
FY 2019 President's Budget	137	113	\$115,696
FY 2020 Base Budget	137	113	\$115,696
Transfer to Cyber Infra Res from Em Comm Prep for Cyber Tech Strategic Init	-	-	(\$81)
Transfer to Cyber Infra Res from PTS for Cyber Tech Strategic Init	-	-	(\$130)
Total Transfers	-	-	(\$211)
FERS Agency Contribution Increase	-	-	\$335
WCF and Shared Services	-	-	\$712
Total, Pricing Increases	-	-	\$1,047
Total Adjustments-to-Base	-	-	\$836
FY 2020 Current Services	137	113	\$116,532
Next Generation Networks Priority Services (NGN-PS) Program Life Cycle Costs	-	-	\$9
Priority Telecommunications Services (PTS) Program Life Cycle Costs	-	-	\$13
Total, Program Increases	-	-	\$22
FY 2020 Request	137	113	\$116,554
FY 2019 To FY 2020 Change	-	-	\$858

Emergency Communications – PPA Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Emergency Communications Preparedness	107	82	\$13,685	\$166.89	107	87	\$14,598	\$167.79	107	87	\$14,853	\$170.72	-	-	\$255	\$2.93
Priority Telecommunications Services	30	26	\$4,448	\$171.08	30	26	\$4,469	\$171.88	30	26	\$4,549	\$174.96	-	-	\$80	\$3.08
Total	137	108	\$18,133	\$167.9	137	113	\$19,067	\$168.73	137	113	\$19,402	\$171.7	-	-	\$335	\$2.97
Discretionary - Appropriation	137	108	\$18,133	\$167.9	137	113	\$19,067	\$168.73	137	113	\$19,402	\$171.7	-	-	\$335	\$2.97

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$13,478	\$14,418	\$14,418	-
11.3 Other than Full-Time Permanent	\$175	\$145	\$145	-
11.5 Other Personnel Compensation	\$252	\$218	\$218	-
12.1 Civilian Personnel Benefits	\$4,228	\$4,286	\$4,621	\$335
Total - Personnel Compensation and Benefits	\$18,133	\$19,067	\$19,402	\$335
Positions and FTE				
Positions - Civilian	137	137	137	-
FTE - Civilian	108	113	113	-

Emergency Communications – PPA Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Emergency Communications Preparedness	\$40,816	\$37,187	\$37,106	(\$81)
Priority Telecommunications Services	\$59,507	\$59,442	\$60,046	\$604
Total	\$100,323	\$96,629	\$97,152	\$523
Discretionary - Appropriation	\$100,323	\$96,629	\$97,152	\$523

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$1,168	\$1,576	\$1,576	-
22.0 Transportation of Things	\$20	\$55	\$55	-
23.1 Rental Payments to GSA	\$1,383	\$1,509	\$1,509	-
23.2 Rental Payments to Others	\$19	\$985	\$985	-
23.3 Communications, Utilities, and Misc. Charges	-	\$112	\$112	-
25.1 Advisory and Assistance Services	\$45,202	\$39,261	\$39,523	\$262
25.2 Other Services from Non-Federal Sources	\$504	\$383	\$383	-
25.3 Other Goods and Services from Federal Sources	\$45,272	\$45,210	\$45,117	(\$93)
25.4 Operation and Maintenance of Facilities	\$900	\$1,439	\$1,439	-
25.7 Operation and Maintenance of Equipment	\$3,606	\$3,909	\$4,263	\$354
26.0 Supplies and Materials	\$13	\$74	\$74	-
31.0 Equipment	\$222	\$2,116	\$2,116	-
32.0 Land and Structures	\$1	-	-	-
41.0 Grants, Subsidies, and Contributions	\$2,000	-	-	-
42.0 Insurance Claims and Indemnities	\$13	-	-	-
Total - Non Pay Object Classes	\$100,323	\$96,629	\$97,152	\$523

Emergency Communications Preparedness – PPA Level II**Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Emergency Communications Preparedness	107	82	\$54,501	107	87	\$51,785	107	87	\$51,959	-	-	\$174
Total	107	82	\$54,501	107	87	\$51,785	107	87	\$51,959	-	-	\$174
Subtotal Discretionary - Appropriation	107	82	\$54,501	107	87	\$51,785	107	87	\$51,959	-	-	\$174

PPA Level II Description

The Emergency Communication Preparedness PPA provides capacity-building technical assistance, training, resources, and guidance to State, regional, local, and tribal government officials to ensure emergency response providers and relevant government officials can continue to communicate in the event of natural disasters, acts of terrorism, and other man-made disasters, as required by statute. The program gathers stakeholder requirements and assists all 56 U.S. states and territories in developing and implementing Communications Interoperability Plans aligned to the National Emergency Communications Plan (NECP). Additionally, the program drives emergency communications efficiencies through the development of effective governance, strategic planning, alignment of grants, and development of common investment and infrastructure planning approaches.

Further, the Emergency Communication PPA collaborates with domestic and international stakeholders to support common policy and standards that ensure emergency communications interoperability at all levels of government.

Emergency Communication Preparedness – PPA Level II

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	107	82	\$54,501
FY 2019 President's Budget	107	87	\$51,785
FY 2020 Base Budget	107	87	\$51,785
Transfer to Cyber Infra Res from Em Comm Prep for Cyber Tech Strategic Init	-	-	(\$81)
Total Transfers	-	-	(\$81)
FERS Agency Contribution Increase	-	-	\$255
Total, Pricing Increases	-	-	\$255
Total Adjustments-to-Base	-	-	\$174
FY 2020 Current Services	107	87	\$51,959
FY 2020 Request	107	87	\$51,959
FY 2019 To FY 2020 Change	-	-	\$174

Emergency Communication Preparedness – PPA Level II

Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Emergency Communications Preparedness	107	82	\$13,685	\$166.89	107	87	\$14,598	\$167.79	107	87	\$14,853	\$170.72	-	-	\$255	\$2.93
Total	107	82	\$13,685	\$166.89	107	87	\$14,598	\$167.79	107	87	\$14,853	\$170.72	-	-	\$255	\$2.93
Discretionary - Appropriation	107	82	\$13,685	\$166.89	107	87	\$14,598	\$167.79	107	87	\$14,853	\$170.72	-	-	\$255	\$2.93

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$10,111	\$10,962	\$10,962	-
11.3 Other than Full-Time Permanent	\$175	\$145	\$145	-
11.5 Other Personnel Compensation	\$201	\$167	\$167	-
12.1 Civilian Personnel Benefits	\$3,198	\$3,324	\$3,579	\$255
Total - Personnel Compensation and Benefits	\$13,685	\$14,598	\$14,853	\$255
Positions and FTE				
Positions - Civilian	107	107	107	-
FTE - Civilian	82	87	87	-

Pay Cost Drivers

Leading Cost Drivers (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Information Technology Personnel	4	\$668	\$167.00	6	\$1,002	\$167.00	6	\$1,019	\$169.83	0	\$17	\$2.83
Program Management Personnel	78	\$13,017	\$166.88	81	\$13,596	\$167.85	81	\$13,834	\$170.79	0	\$238	\$2.94
Total – Pay Cost Drivers	82	\$13,685	\$166.89	87	\$14,598	\$167.79	87	\$14,853	\$170.72	0	\$255	\$2.93

Explanation of Pay Cost Drivers

Information Technology Personnel: The FY 2020 funding reflects an increase to FERS contributions. The regular FERS agency contribution increased by 2.3% from 13.7% in FY 2019 to 16.0% in FY 2020.

Program Management Personnel: The FY 2020 funding reflects an increase to FERS contributions. The regular FERS agency contribution increased by 2.3% from 13.7% in FY 2019 to 16.0% in FY 2020.

Emergency Communication Preparedness – PPA Level II

Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Emergency Communications Preparedness	\$40,816	\$37,187	\$37,106	(\$81)
Total	\$40,816	\$37,187	\$37,106	(\$81)
Discretionary - Appropriation	\$40,816	\$37,187	\$37,106	(\$81)

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$1,025	\$1,512	\$1,512	-
22.0 Transportation of Things	\$8	\$15	\$15	-
23.1 Rental Payments to GSA	\$622	\$343	\$343	-
23.2 Rental Payments to Others	\$19	-	-	-
23.3 Communications, Utilities, and Misc. Charges	-	\$75	\$75	-
25.1 Advisory and Assistance Services	\$17,472	\$16,336	\$16,296	(\$40)
25.2 Other Services from Non-Federal Sources	\$63	\$83	\$83	-
25.3 Other Goods and Services from Federal Sources	\$16,801	\$16,953	\$16,912	(\$41)
25.4 Operation and Maintenance of Facilities	\$892	\$360	\$360	-
25.7 Operation and Maintenance of Equipment	\$1,678	\$1,323	\$1,323	-
26.0 Supplies and Materials	\$7	\$10	\$10	-
31.0 Equipment	\$216	\$177	\$177	-
41.0 Grants, Subsidies, and Contributions	\$2,000	-	-	-
42.0 Insurance Claims and Indemnities	\$13	-	-	-
Total - Non Pay Object Classes	\$40,816	\$37,187	\$37,106	(\$81)

Non Pay Cost Drivers

Leading Non Pay Cost Drivers <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Emergency Communications Preparedness	\$35,081	\$32,188	\$32,107	(\$81)
Other Costs	\$5,735	\$4,999	\$4,999	\$0
Total – Non Pay Cost Drivers	\$40,816	\$37,187	\$37,106	(\$81)

Explanation of Non Pay Cost Drivers

Emergency Communications Preparedness: The FY 2020 funding reflects the annualization of the program changes under Emergency Communications Preparedness as well as the transfer of funds to support the Cybersecurity Technology Strategic Initiative in the Cyber Infrastructure Resilience PPA.

Other Costs: The FY 2020 request reflects the Working Capital Fund, shared services, and travel.

Priority Telecommunications Services – PPA Level II**Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Priority Telecommunications Services	30	26	\$63,955	30	26	\$63,911	30	26	\$64,595	-	-	\$684
Total	30	26	\$63,955	30	26	\$63,911	30	26	\$64,595	-	-	\$684
Subtotal Discretionary - Appropriation	30	26	\$63,955	30	26	\$63,911	30	26	\$64,595	-	-	\$684

PPA Level II Description

The PTS PPA maintains essential government functions and operations during an emergency by providing National Security and Emergency Preparedness (NS/EP) communications under all circumstances, when network congestion or damage renders conventional communications ineffective. Specifically, PTS enhances the ability of registered users to complete calls during a crisis using the following:

- Government Emergency Telecommunications Service (GETS): Nationwide landline telephone service that provides priority NS/EP telecommunications.
- Wireless Priority Service (WPS): Nationwide wireless NS/EP telephone service that operates with GETS to provide priority services via selected commercial wireless service providers.
- Special Routing Arrangement Service (SRAS): Service for special users.
- Telecommunications Service Priority (TSP): Priority provisioning and restoration of critical NS/EP circuits.
- Next Generation Networks PS (NGN PS) provides technology insertion for priority voice telecommunications services as the public-switched networks supported by commercial carriers evolve to Internet Protocol transport. Next generation networks for PTS operations will provide data and video priority.

The PPA also ensures that new network infrastructures are capable of satisfying priority telecommunications requirements as carriers evolve to next-generation networks. PTS is a service acquisition for which the Government provides oversight of the operational program. The investment is a White House-directed, national-level NS/EP Telecommunications Program (NLP) that leverages the commercially-owned Public Switched Network (PSN).

Priority Telecommunications Services – PPA Level II

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	30	26	\$63,955
FY 2019 President's Budget	30	26	\$63,911
FY 2020 Base Budget	30	26	\$63,911
Transfer to Cyber Infra Res from PTS for Cyber Tech Strategic Init	-	-	(\$130)
Total Transfers	-	-	(\$130)
FERS Agency Contribution Increase	-	-	\$80
WCF and Shared Services	-	-	\$712
Total, Pricing Increases	-	-	\$792
Total Adjustments-to-Base	-	-	\$662
FY 2020 Current Services	30	26	\$64,573
Next Generation Networks Priority Services (NGN-PS) Program Life Cycle Costs	-	-	\$9
Priority Telecommunications Services (PTS) Program Life Cycle Costs	-	-	\$13
Total, Program Increases	-	-	\$22
FY 2020 Request	30	26	\$64,595
FY 2019 To FY 2020 Change	-	-	\$684

Priority Telecommunications Services – PPA Level II

Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Priority Telecommunications Services	30	26	\$4,448	\$171.08	30	26	\$4,469	\$171.88	30	26	\$4,549	\$174.96	-	-	\$80	\$3.08
Total	30	26	\$4,448	\$171.08	30	26	\$4,469	\$171.88	30	26	\$4,549	\$174.96	-	-	\$80	\$3.08
Discretionary - Appropriation	30	26	\$4,448	\$171.08	30	26	\$4,469	\$171.88	30	26	\$4,549	\$174.96	-	-	\$80	\$3.08

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$3,367	\$3,456	\$3,456	-
11.5 Other Personnel Compensation	\$51	\$51	\$51	-
12.1 Civilian Personnel Benefits	\$1,030	\$962	\$1,042	\$80
Total - Personnel Compensation and Benefits	\$4,448	\$4,469	\$4,549	\$80
Positions and FTE				
Positions - Civilian	30	30	30	-
FTE - Civilian	26	26	26	-

Pay Cost Drivers

Leading Cost Drivers (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Program Personnel	26	\$4,448	\$171.12	26	\$4,469	\$171.88	26	\$4,549	\$174.96	-	\$80	\$3.08
Total Pay Cost Drivers	26	\$4,448	\$171.12	26	\$4,469	\$171.88	26	\$4,549	\$174.96	-	\$80	\$3.08

Explanation of Pay Cost Driver

Program Personnel: The FY 2020 funding reflects an increase in FERS contributions. The regular FERS agency contribution increased by 2.3% from 13.7% in FY 2019 to 16.0% in FY 2020.

Priority Telecommunications Services – PPA Level II

Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Priority Telecommunications Services	\$59,507	\$59,442	\$60,046	\$604
Total	\$59,507	\$59,442	\$60,046	\$604
Discretionary - Appropriation	\$59,507	\$59,442	\$60,046	\$604

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$143	\$64	\$64	-
22.0 Transportation of Things	\$12	\$40	\$40	-
23.1 Rental Payments to GSA	\$761	\$1,166	\$1,166	-
23.2 Rental Payments to Others	-	\$985	\$985	-
23.3 Communications, Utilities, and Misc. Charges	-	\$37	\$37	-
25.1 Advisory and Assistance Services	\$27,730	\$22,925	\$23,227	\$302
25.2 Other Services from Non-Federal Sources	\$441	\$300	\$300	-
25.3 Other Goods and Services from Federal Sources	\$28,471	\$28,257	\$28,205	(\$52)
25.4 Operation and Maintenance of Facilities	\$8	\$1,079	\$1,079	-
25.7 Operation and Maintenance of Equipment	\$1,928	\$2,586	\$2,940	\$354
26.0 Supplies and Materials	\$6	\$64	\$64	-
31.0 Equipment	\$6	\$1,939	\$1,939	-
32.0 Land and Structures	\$1	-	-	-
Total - Non Pay Object Classes	\$59,507	\$59,442	\$60,046	\$604

Non Pay Cost Drivers

Leading Non Pay Cost Drivers <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
GETS/WPS/SRAS/TSP	\$51,871	\$53,689	\$53,572	(\$117)
NGN-Priority Services	\$7,636	\$5,753	\$6,474	\$721
Total – Non Pay Cost Drivers	\$59,507	\$59,442	\$60,046	\$604

Explanation of Non Pay Cost Drivers

GETS/WPS/SRAS/TSP: The FY 2020 funding reflects the annualization of FY 2019 program changes as well as the transfer of funds to support the Cybersecurity Technology Strategic Initiative in the Cyber Infrastructure Resilience PPA.

NGN-Priority Services: The FY 2020 funding reflects the annualization of FY 2019 program changes as well as the transfer of funds to support the Cybersecurity Technology Strategic Initiative in the Cyber Infrastructure Resilience PPA.

*Integrated Operations – PPA***Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization <i>(Dollars in Thousands)</i>	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Critical Infrastructure Situational Awareness	51	41	\$21,222	51	44	\$23,429	60	51	\$23,914	9	7	\$485
Risk Management Operations	148	116	\$56,410	148	133	\$44,683	183	166	\$62,199	35	33	\$17,516
Stakeholder Engagement and Requirements	118	102	\$50,583	118	96	\$45,127	116	94	\$42,070	(2)	(2)	(\$3,057)
Strategy, Policy, and Plans	74	63	\$14,448	74	63	\$13,931	68	57	\$12,426	(6)	(6)	(\$1,505)
Total	391	322	\$142,663	391	336	\$127,170	427	368	\$140,609	36	32	\$13,439
Subtotal Discretionary - Appropriation	391	322	\$142,663	391	336	\$127,170	427	368	\$140,609	36	32	\$13,439

PPA Level I Description

The Integrated Operations PPA in the O&S appropriation ensures coordinated domain awareness and risk management operations through the sustainment of several projects, including command and control, coordination, information sharing, and situational awareness projects. In addition, the Integrated Operations PPA supports the National Risk Management Center (NRMC), as well as various organizations that carry out functions such as 24x7 critical infrastructure Watch operations, continuity of operations, stakeholder engagement, external affairs, privacy, policy development and implementation, and strategic and operational planning.

The Integrated Operations PPA contains the following Level II PPAs:

Critical Infrastructure Situational Awareness: This PPA funds the coordination and information-sharing of operations centers that maintain situational awareness of the Nation's critical infrastructure for the Federal government. By facilitating cross-domain physical security and cybersecurity coordination, these operation centers advance integrated cyber and physical risk management beyond the critical infrastructure owners and operators to include all of the Federal interagency partners.

Risk Management Operations (previously Cyber and Infrastructure Analysis): This PPA funds efforts to address the Nation's highest priority risks to infrastructure through an integrated, analytical risk management approach executed by the NRMC. Core NRMC analytic functions reside in the Risk Management Operations PPA, with technical expertise matrixed from across CISA to support specific NRMC-coordinated risk mitigation efforts. Funds will contribute to strategic initiatives to mitigate risks to position, navigation, and timing technologies, as well as other high-priority efforts.

Stakeholder Engagement and Requirements: This PPA supports the enhancement of domestic all-hazard, cybersecurity, and communications partnerships in critical infrastructure sectors. These partnerships advance national risk management objectives, provide for information exchange between government and industry, and support outreach and awareness activities.

Strategy, Policy, and Plans: This PPA develops and implements Component-level strategy and policy, which enables the enterprise strategic management process and promotes the integration of policy and strategy across all of CISA's mission areas.

Integrated Operations – PPA

Budget Authority and Obligations

Budget Authority (Dollars in Thousands)	FY 2018	FY 2019	FY 2020
Enacted/Request	\$142,663	\$127,170	\$140,609
Carryover and/or Recoveries (Actual/Estimates/Projections)	\$2,101	\$787	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	(\$177)	-	-
Supplementals	-	-	-
Total Budget Authority	\$144,587	\$127,957	\$140,609
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	\$144,587	\$127,957	\$140,609
Obligations (Actual/Estimates/Projections)	\$142,557	\$127,957	\$140,609
Personnel: Positions and FTE			
Enacted/Request Positions	391	391	427
Enacted/Request FTE	322	336	368
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	390	391	427
FTE (Actual/Estimates/Projections)	321	336	368

Integrated Operations – PPA Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	391	322	\$142,663
FY 2019 President's Budget	391	336	\$127,170
FY 2020 Base Budget	391	336	\$127,170
Transfer to Cyber Infra Res from SH Eng for Cyber Tech Strategic Init	-	-	(\$36)
Transfer to Risk Mgmt Ops from Infra Cap Build for NRMC	25	25	\$12,444
Transfer within CISA/O&S for FTP/FTE Realignment	(1)	(1)	(\$177)
Total Transfers	24	24	\$12,231
FERS Agency Contribution Increase	-	-	\$988
National Infrastructure Coordination Center (NICC) Staffing	5	5	-
Office of Privacy Staffing	3	3	-
Total, Pricing Increases	8	8	\$988
Total Adjustments-to-Base	32	32	\$13,219
FY 2020 Current Services	423	368	\$140,389
Enhancement to Support Continuity Operations (COOP) Program	4	2	\$1,188
Operations Support for NRMC	-	-	\$143
Total, Program Increases	4	2	\$1,331
Decrement in Operations Coordination and Watch	-	(2)	(\$1,111)
Total, Program Decreases	-	(2)	(\$1,111)
FY 2020 Request	427	368	\$140,609
FY 2019 To FY 2020 Change	36	32	\$13,439

Integrated Operations – PPA

Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Critical Infrastructure Situational Awareness	51	41	\$7,454	\$181.8	51	44	\$7,225	\$164.2	60	51	\$8,431	\$165.31	9	7	\$1,206	\$1.11
Risk Management Operations	148	116	\$20,962	\$180.71	148	133	\$24,186	\$181.85	183	166	\$30,218	\$182.04	35	33	\$6,032	\$0.19
Stakeholder Engagement and Requirements	118	102	\$15,546	\$152.41	118	96	\$14,677	\$152.89	116	94	\$14,428	\$153.49	(2)	(2)	(\$249)	\$0.6
Strategy, Policy, and Plans	74	63	\$9,936	\$157.71	74	63	\$9,983	\$158.46	68	57	\$8,478	\$148.74	(6)	(6)	(\$1,505)	(\$9.72)
Total	391	322	\$53,898	\$167.39	391	336	\$56,071	\$166.88	427	368	\$61,555	\$167.27	36	32	\$5,484	\$0.39
Discretionary - Appropriation	391	322	\$53,898	\$167.39	391	336	\$56,071	\$166.88	427	368	\$61,555	\$167.27	36	32	\$5,484	\$0.39

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$39,269	\$41,586	\$44,647	\$3,061
11.3 Other than Full-Time Permanent	\$1,436	\$1,353	\$1,353	-
11.5 Other Personnel Compensation	\$852	\$937	\$937	-
12.1 Civilian Personnel Benefits	\$12,341	\$12,195	\$14,618	\$2,423
Total - Personnel Compensation and Benefits	\$53,898	\$56,071	\$61,555	\$5,484
Positions and FTE				
Positions - Civilian	391	391	427	36
FTE - Civilian	322	336	368	32

Integrated Operations – PPA Non Pay Budget Exhibits

Non Pay Summary				
Organization <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Critical Infrastructure Situational Awareness	\$13,768	\$16,204	\$15,483	(\$721)
Risk Management Operations	\$35,448	\$20,497	\$31,981	\$11,484
Stakeholder Engagement and Requirements	\$35,037	\$30,450	\$27,642	(\$2,808)
Strategy, Policy, and Plans	\$4,512	\$3,948	\$3,948	-
Total	\$88,765	\$71,099	\$79,054	\$7,955
Discretionary - Appropriation	\$88,765	\$71,099	\$79,054	\$7,955

Non Pay by Object Class

Non-Pay Object Classes <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$5,737	\$3,249	\$3,249	-
22.0 Transportation of Things	\$78	\$78	\$78	-
23.1 Rental Payments to GSA	\$1,604	\$1,604	\$1,604	-
23.2 Rental Payments to Others	\$251	\$251	\$251	-
23.3 Communications, Utilities, and Misc. Charges	\$3,885	\$2,746	\$2,746	-
24.0 Printing and Reproduction	-	\$5	\$5	-
25.1 Advisory and Assistance Services	\$40,283	\$36,165	\$39,346	\$3,181
25.2 Other Services from Non-Federal Sources	\$858	\$858	\$858	-
25.3 Other Goods and Services from Federal Sources	\$31,919	\$23,054	\$27,828	\$4,774
25.4 Operation and Maintenance of Facilities	\$1,936	\$878	\$878	-
25.6 Medical Care	\$1	\$1	\$1	-
25.7 Operation and Maintenance of Equipment	\$1,909	\$1,909	\$1,909	-
26.0 Supplies and Materials	\$188	\$188	\$188	-
31.0 Equipment	\$116	\$113	\$113	-
Total - Non Pay Object Classes	\$88,765	\$71,099	\$79,054	\$7,955

Risk Management Operations – PPA Level II**Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Risk Management Operations	148	116	\$56,410	148	133	\$44,683	183	166	\$62,199	35	33	\$17,516
Total	148	116	\$56,410	148	133	\$44,683	183	166	\$62,199	35	33	\$17,516
Subtotal Discretionary - Appropriation	148	116	\$56,410	148	133	\$44,683	183	166	\$62,199	35	33	\$17,516

PPA Level II Description

The Risk Management Operations PPA in the O&S appropriation funds efforts to address the Nation's highest priority risks to infrastructure through an integrated analytical risk management approach executed by the NRMC. The NRMC identifies, assesses, prioritizes, and manages risks to national critical functions - the functions of government and the private sector so vital to the United States that their disruption, corruption, or dysfunction would have a debilitating impact on national security, economic security, national public health or safety. NRMC works collaboratively with public and private sector partners to:

- Collaborate on the development of risk management strategies and approaches to manage risks to national functions;
- Integrate cross-sector risk management activities; and
- Incubate strategic risk management activities

The NRMC bases risk management planning and coordination efforts on a strong analytic foundation, enabling the understanding of risks and options for risk mitigation. The NRMC focuses on risks to national critical functions to ensure progress against our highest priority risks, uniting the identification and analysis of risk with coordinated action to reduce risk. NRMC both directly conducts analysis, modeling and simulation activities, including data analysis, risk analysis, and other activities, and manages the National Infrastructure Simulation and Analysis Center (NISAC). NISAC builds and leverages advanced analytic capabilities to inform cyber and physical homeland security decisions. This PPA includes funding for the operation of the Modeling Capability Transition Environment (MCTE).

In FY 2020, CISA requests an alignment of funding and personnel to support the new NRMC organization. The figure below shows the shift in resources captured in this budget request.

Figure: Alignment to Support NRMC

PPA Level 1	PPA Level 2	FTE	FTP	Total Funding (\$K)
Infrastructure Security	Infrastructure Capacity Building	(25)	(25)	(\$12,444)
Integrated Operations	Stakeholder Engagement and Requirements	(5)	(5)	(\$3,772)
Integrated Operations	Strategy, Policy, and Plans	(5)	(5)	(\$1,000)
Integrated Operations	Risk Management Operations	35	35	\$17,216

Risk Management Operations – PPA Level II

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	148	116	\$56,410
FY 2019 President's Budget	148	133	\$44,683
FY 2020 Base Budget	148	133	\$44,683
Transfer to Risk Mgmt Ops from Infra Cap Build for NRMC	25	25	\$12,444
Transfer to Risk Mgmt Ops from SH Eng for NRMC	5	5	\$3,772
Transfer to Risk Mgmt Ops from SPP for NRMC	5	5	\$1,000
Total Transfers	35	35	\$17,216
FERS Agency Contribution Increase	-	-	\$437
Total, Pricing Increases	-	-	\$437
Total Adjustments-to-Base	35	35	\$17,653
FY 2020 Current Services	183	168	\$62,336
Operations Support for NRMC	-	-	\$143
Total, Program Increases	-	-	\$143
Decrement in Operations Coordination and Watch	-	(2)	(\$280)
Total, Program Decreases	-	(2)	(\$280)
FY 2020 Request	183	166	\$62,199
FY 2019 To FY 2020 Change	35	33	\$17,516

Risk Management Operations – PPA Level II

Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Risk Management Operations	148	116	\$20,962	\$180.71	148	133	\$24,186	\$181.85	183	166	\$30,218	\$182.04	35	33	\$6,032	\$0.19
Total	148	116	\$20,962	\$180.71	148	133	\$24,186	\$181.85	183	166	\$30,218	\$182.04	35	33	\$6,032	\$0.19
Discretionary - Appropriation	148	116	\$20,962	\$180.71	148	133	\$24,186	\$181.85	183	166	\$30,218	\$182.04	35	33	\$6,032	\$0.19

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$16,291	\$18,927	\$22,686	\$3,759
11.3 Other than Full-Time Permanent	\$262	\$295	\$295	-
11.5 Other Personnel Compensation	\$433	\$487	\$487	-
12.1 Civilian Personnel Benefits	\$3,976	\$4,477	\$6,750	\$2,273
Total - Personnel Compensation and Benefits	\$20,962	\$24,186	\$30,218	\$6,032
Positions and FTE				
Positions - Civilian	148	148	183	35
FTE - Civilian	116	133	166	33

Pay Cost Drivers

Leading Cost Drivers (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Program Personnel	116	\$20,962	\$180.71	133	\$24,186	\$181.85	166	\$30,218	\$182.04	33	\$6,032	\$0.19
Total – Pay Cost Drivers	116	\$20,962	\$180.71	133	\$24,186	\$181.85	166	\$30,218	\$182.04	33	\$6,032	\$0.19

Explanation of Pay Cost Drivers

Program Personnel: The change from FY 2019 to FY 2020 costs reflects the transfer of FTEs from other subcomponents within CISA into the NRMC in order to consolidate core risk management programs under unified leadership. This transfer maintains prior funding levels but brings together all the parts of the risk management cycle to support robust action against the highest threats to critical infrastructure. The change from FY 2019 to FY 2020 costs also reflects the decrement to Operations Coordination and Watch. The change also includes an increase in FERS Agency contribution, which increased by 2.3% from 13.7% in FY 2019 to 16.0% in FY 2020.

Risk Management Operations – PPA Level II

Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Risk Management Operations	\$35,448	\$20,497	\$31,981	\$11,484
Total	\$35,448	\$20,497	\$31,981	\$11,484
Discretionary - Appropriation	\$35,448	\$20,497	\$31,981	\$11,484

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$234	\$234	\$234	-
22.0 Transportation of Things	\$2	\$2	\$2	-
23.1 Rental Payments to GSA	\$1,209	\$1,209	\$1,209	-
23.3 Communications, Utilities, and Misc. Charges	\$3,885	\$2,746	\$2,746	-
24.0 Printing and Reproduction	-	\$5	\$5	-
25.1 Advisory and Assistance Services	\$7,624	\$3,227	\$8,196	\$4,969
25.2 Other Services from Non-Federal Sources	\$700	\$700	\$700	-
25.3 Other Goods and Services from Federal Sources	\$19,814	\$11,455	\$17,970	\$6,515
25.4 Operation and Maintenance of Facilities	\$1,931	\$873	\$873	-
25.6 Medical Care	\$1	\$1	\$1	-
26.0 Supplies and Materials	\$30	\$30	\$30	-
31.0 Equipment	\$18	\$15	\$15	-
Total - Non Pay Object Classes	\$35,448	\$20,497	\$31,981	\$11,484

Non Pay Cost Drivers

Leading Non Pay Cost Drivers <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
National Infrastructure Simulation and Analysis Center	\$18,650	\$8,912	\$9,055	\$143
Infrastructure Analysis	\$16,798	\$11,585	\$22,926	\$11,341
Total – Non Pay Cost Drivers	\$35,448	\$20,497	\$31,981	\$11,484

Explanation of Non Pay Cost Driver

National Infrastructure Simulation and Analysis Center (NISAC): Through the NISAC, CISA/NRMC conducts modeling, simulation, and advanced analytics to support planning and risk management, including in-depth studies on critical infrastructure dependencies and interdependencies. NISAC leverages the advanced modeling and simulation capabilities of technical performers, including the National Laboratories, to model and understand regional and national-level direct and cascading impacts of failures and disruptions to infrastructure. NISAC also provides crisis action support for quick-turn analysis.

Infrastructure Analysis: The FY 2020 funding provides the core risk management functions of CISA/NRMC, bringing together efforts to identify, analyze, prioritize, and manage risks to national functions from the highest priority risks to critical infrastructure. The change from FY 2019 to FY 2020 costs reflects the transfer of programs from other divisions within CISA into the NRMC in an effort to consolidate core risk management programs. This transfer maintains prior funding levels but brings together all the parts of the risk management cycle to support robust action against our highest threats to critical infrastructure. The FY 2020 request also reflects costs associated with Working Capital Fund, shared services, and travel.

Critical Infrastructure Situational Awareness – PPA Level II**Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Critical Infrastructure Situational Awareness	51	41	\$21,222	51	44	\$23,429	60	51	\$23,914	9	7	\$485
Total	51	41	\$21,222	51	44	\$23,429	60	51	\$23,914	9	7	\$485
Subtotal Discretionary - Appropriation	51	41	\$21,222	51	44	\$23,429	60	51	\$23,914	9	7	\$485

PPA Level II Description

The Critical Infrastructure Situational Awareness PPA in the O&S appropriation funds the coordination and information-sharing of operation centers that maintain situational awareness of the Nation's critical infrastructure for the Federal government. By facilitating cross-domain physical security and cybersecurity coordination, these operation centers advance integrated cyber and physical risk management beyond the critical infrastructure owners and operators to include all of the Federal interagency partners. This integrated approach to planning, information sharing, data sharing, and enhanced situational awareness maximizes the ability for leadership to make informed strategic and operational decisions around critical infrastructure security and resilience in both steady-state and incident-driven situations. This results in more synchronized response, mitigation, and recovery efforts.

This PPA allows for further enhancements between critical infrastructure situational awareness activities and cybersecurity capabilities to provide for a single Watch and Warning Center. A unified cyber and physical Watch and Warning Center will better meet national strategic goals; support interagency partners, critical infrastructure owners, and operators; and provide national and departmental leadership with accurate, informed situational awareness and decision support.

In FY 2020, CISA plans to continue to drive cross-communication and information-sharing with owners and operators through cyber and infrastructure awareness and reporting – as well as critical infrastructure interagency coordination.

Critical Infrastructure Situational Awareness – PPA Level II

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	51	41	\$21,222
FY 2019 President's Budget	51	44	\$23,429
FY 2020 Base Budget	51	44	\$23,429
FERS Agency Contribution Increase	-	-	\$128
National Infrastructure Coordination Center (NICC) Staffing	5	5	-
Total, Pricing Increases	5	5	\$128
Total Adjustments-to-Base	5	5	\$128
FY 2020 Current Services	56	49	\$23,557
Enhancement to Support Continuity Operations (COOP) Program	4	2	\$1,188
Total, Program Increases	4	2	\$1,188
Decrement in Operations Coordination and Watch	-	-	(\$831)
Total, Program Decreases	-	-	(\$831)
FY 2020 Request	60	51	\$23,914
FY 2019 To FY 2020 Change	9	7	\$485

Critical Infrastructure Situational Awareness – PPA Level II

Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Critical Infrastructure Situational Awareness	51	41	\$7,454	\$181.8	51	44	\$7,225	\$164.2	60	51	\$8,431	\$165.31	9	7	\$1,206	\$1.11
Total	51	41	\$7,454	\$181.8	51	44	\$7,225	\$164.2	60	51	\$8,431	\$165.31	9	7	\$1,206	\$1.11
Discretionary - Appropriation	51	41	\$7,454	\$181.8	51	44	\$7,225	\$164.2	60	51	\$8,431	\$165.31	9	7	\$1,206	\$1.11

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$5,441	\$5,212	\$6,032	\$820
11.3 Other than Full-Time Permanent	\$112	\$112	\$112	-
11.5 Other Personnel Compensation	\$188	\$188	\$188	-
12.1 Civilian Personnel Benefits	\$1,713	\$1,713	\$2,099	\$386
Total - Personnel Compensation and Benefits	\$7,454	\$7,225	\$8,431	\$1,206
Positions and FTE				
Positions - Civilian	51	51	60	9
FTE - Civilian	41	44	51	7

Pay Cost Drivers

Leading Cost Drivers (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Program Personnel	41	\$7,454	\$181.80	44	\$7,225	\$164.20	51	\$8,431	\$165.31	7	\$1,206	\$1.11
Total – Pay Cost Drivers	41	\$7,454	\$181.80	44	\$7,225	\$164.20	51	\$8,431	\$165.31	7	\$1,206	\$1.11

Explanation of Pay Cost Driver

Program Personnel: The change from FY 2019 to FY 2020 reflects the transfer to salaries and benefits from program funding, FTE rightsizing, and additional FTE in support of COOP. The change also includes an increase in FERS Agency contribution, which increased by 2.3% from 13.7% in FY 2019 to 16.0% in FY 2020.

Critical Infrastructure Situational Awareness – PPA Level II

Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Critical Infrastructure Situational Awareness	\$13,768	\$16,204	\$15,483	(\$721)
Total	\$13,768	\$16,204	\$15,483	(\$721)
Discretionary - Appropriation	\$13,768	\$16,204	\$15,483	(\$721)

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$148	\$148	\$148	-
25.1 Advisory and Assistance Services	\$10,669	\$13,105	\$12,344	(\$761)
25.2 Other Services from Non-Federal Sources	\$17	\$17	\$17	-
25.3 Other Goods and Services from Federal Sources	\$2,105	\$2,105	\$2,145	\$40
25.7 Operation and Maintenance of Equipment	\$781	\$781	\$781	-
26.0 Supplies and Materials	\$20	\$20	\$20	-
31.0 Equipment	\$28	\$28	\$28	-
Total - Non Pay Object Classes	\$13,768	\$16,204	\$15,483	(\$721)

Non Pay Cost Drivers

Leading Non Pay Cost Drivers <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Critical Infrastructure Situational Awareness for Infrastructure Security	\$11,825	\$13,914	\$12,334	(\$1,580)
Other Costs	\$1,943	\$2,290	\$3,149	\$859
Total Non Pay Cost Drivers	\$13,768	\$16,204	\$15,483	(\$721)

Explanation of Non Pay Cost Drivers

Critical Infrastructure Situational Awareness for Infrastructure Security: The FY 2020 funding provides information sharing of operations centers that maintain situational awareness of the Nation's critical infrastructure. This cost driver reflects a decrease in funds due to the reduction of operations coordination and Watch efforts. It also reflects a balance workforce conversion of program dollars to salaries and benefits to account for the positions and FTE increase.

Other Costs: This cost driver reflects the increase of funds for planned travel and the Working Capital Fund.

*Stakeholder Engagement and Requirements – PPA Level II***Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Stakeholder Engagement and Requirements	118	102	\$50,583	118	96	\$45,127	116	94	\$42,070	(2)	(2)	(\$3,057)
Total	118	102	\$50,583	118	96	\$45,127	116	94	\$42,070	(2)	(2)	(\$3,057)
Subtotal Discretionary - Appropriation	118	102	\$50,583	118	96	\$45,127	116	94	\$42,070	(2)	(2)	(\$3,057)

PPA Level II Description

The Stakeholder Engagement and Requirements PPA in the O&S appropriation supports the enhancement of domestic all-hazard, cybersecurity, and communications partnerships in critical infrastructure sectors. These partnerships advance national risk management objectives, provide for information exchange between government and industry, and support outreach and awareness activities. The PPA funds national planning efforts to mature national resiliency efforts and implement strategies that build assurance and resilience across the infrastructure community. Several of the activities supported under this PPA are as follows:

Vulnerability Assessments: The Vulnerability Assessments program reduces the risk to the Nation's critical infrastructure from manmade threats and natural hazards. These assessments, which include the Regional Resiliency Assessment Program (RRAP), the Infrastructure Survey Tool (IST), and the Infrastructure Visualization Platform (IVP) and the guided implementation of various dependency and consequence assessment methodologies, enables CISA to identify the vulnerabilities of the Nation's most critical assets and systems, and help CISA to develop protective measures to mitigate those vulnerabilities and improve resilience. These objectives and outcomes will be achieved through conducting individual facility and regional vulnerability and resiliency assessments; providing protective measures; tracking improvements to critical infrastructure; and coordinating and partnering with SSAs and other Federal agencies and partners – including State, regional, local, and private sector security partners. Vulnerability assessments provide CISA security partners with tools, processes, and methodologies to help reduce vulnerabilities.

Cybersecurity: Under Cybersecurity, CISA enhances domestic partnerships in critical infrastructure sectors, building partnerships with advance national CISA objectives, providing an information exchange between government and industry, and supporting outreach and awareness activities. CISA works with industry partners, State partners, and local tribal, and territorial partners.

External Affairs: The External Affairs office develops and implements a coordinated communications strategy across CISA and DHS. External Affairs consists of four branches: Legislative Affairs, Public Affairs, Public Engagement, and Strategic Communications. In addition, External Affairs has assigned team members that support core portfolios aligned to the subcomponents.

Privacy: The Privacy office works to integrate full individual privacy and civil liberty protections to ensure safety and security.

Stakeholder Engagement and Requirements – PPA Level II

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	118	102	\$50,583
FY 2019 President's Budget	118	96	\$45,127
FY 2020 Base Budget	118	96	\$45,127
Transfer to Cyber Infra Res from SH Eng for Cyber Tech Strategic Init	-	-	(\$36)
Transfer to Risk Mgmt Ops from SH Eng for NRMC	(5)	(5)	(\$3,772)
Total Transfers	(5)	(5)	(\$3,808)
FERS Agency Contribution Increase	-	-	\$241
Office of Privacy Staffing	3	3	\$510
Total, Pricing Increases	3	3	\$751
Total Adjustments-to-Base	(2)	(2)	(\$3,057)
FY 2020 Current Services	116	94	\$42,070
FY 2020 Request	116	94	\$42,070
FY 2019 To FY 2020 Change	(2)	(2)	(\$3,057)

Stakeholder Engagement and Requirements – PPA Level II

Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Stakeholder Engagement and Requirements	118	102	\$15,546	\$152.41	118	96	\$14,677	\$152.89	116	94	\$14,428	\$153.49	(2)	(2)	(\$249)	\$0.6
Total	118	102	\$15,546	\$152.41	118	96	\$14,677	\$152.89	116	94	\$14,428	\$153.49	(2)	(2)	(\$249)	\$0.6
Discretionary - Appropriation	118	102	\$15,546	\$152.41	118	96	\$14,677	\$152.89	116	94	\$14,428	\$153.49	(2)	(2)	(\$249)	\$0.6

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$10,459	\$9,590	\$9,298	(\$292)
11.3 Other than Full-Time Permanent	\$897	\$897	\$897	-
11.5 Other Personnel Compensation	\$159	\$159	\$159	-
12.1 Civilian Personnel Benefits	\$4,031	\$4,031	\$4,074	\$43
Total - Personnel Compensation and Benefits	\$15,546	\$14,677	\$14,428	(\$249)
Positions and FTE				
Positions - Civilian	118	118	116	(2)
FTE - Civilian	102	96	94	(2)

Pay Cost Drivers

Leading Cost Drivers (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Program Personnel	47	\$6,527	\$138.87	44	\$5,489	\$124.75	44	\$6,089	\$138.39	0	\$600	\$13.64
Other Personnel	55	\$9,019	\$163.98	52	\$9,188	\$176.69	45	\$8,339	\$185.31	(7)	(\$849)	\$8.62
Total – Pay Cost Drivers	102	\$15,546	\$152.41	96	\$14,677	\$152.89	89	\$14,428	\$162.11	(7)	(\$249)	\$9.22

Explanation of Pay Cost Drivers

Program Personnel: Per OMB Circular A-11, agency FERS contributions increased. The regular FERS agency contribution increased by 2.3% from 13.7% in FY 2019 to 16.0% in FY 2020.

Other Personnel: The change from FY 2019 to FY 2020 include the transfer of personnel to the NRMCC. Change also includes the annualization of three personnel in the Privacy office.

Stakeholder Engagement and Requirements – PPA Level II

Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Stakeholder Engagement and Requirements	\$35,037	\$30,450	\$27,642	(\$2,808)
Total	\$35,037	\$30,450	\$27,642	(\$2,808)
Discretionary - Appropriation	\$35,037	\$30,450	\$27,642	(\$2,808)

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$911	\$911	\$911	-
22.0 Transportation of Things	\$76	\$76	\$76	-
23.1 Rental Payments to GSA	\$395	\$395	\$395	-
23.2 Rental Payments to Others	\$251	\$251	\$251	-
25.1 Advisory and Assistance Services	\$21,990	\$18,509	\$17,482	(\$1,027)
25.2 Other Services from Non-Federal Sources	\$141	\$141	\$141	-
25.3 Other Goods and Services from Federal Sources	\$10,000	\$8,894	\$7,113	(\$1,781)
25.4 Operation and Maintenance of Facilities	\$5	\$5	\$5	-
25.7 Operation and Maintenance of Equipment	\$1,128	\$1,128	\$1,128	-
26.0 Supplies and Materials	\$70	\$70	\$70	-
31.0 Equipment	\$70	\$70	\$70	-
Total - Non Pay Object Classes	\$35,037	\$30,450	\$27,642	(\$2,808)

Non Pay Cost Drivers

Leading Non Pay Cost Drivers (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Cybersecurity	\$17,307	\$14,508	\$15,109	\$601
Infrastructure Security Vulnerability Assessments	\$11,247	\$10,932	\$11,039	\$107
Other Costs	\$6,483	\$5,010	\$1,494	(\$3,516)
Total – Non Pay Cost Drivers	\$35,037	\$30,450	\$27,642	(\$2,808)

Explanation of Non Pay Cost Drivers

Cybersecurity: The FY 2020 funding reflects the increase of funds due to the annualization of FY 2019 program changes and the transfer of funds to support the Cybersecurity Technology Strategic Initiative in the Cyber Infrastructure Resilience PPA.

Infrastructure Security Vulnerability Assessments: The Stakeholder Engagement and Requirements program currently funds the vulnerability assessment efforts and provides support to the critical infrastructure sectors. This cost driver reflects a minimal increase due to realignment of Working Capital Funds and travel.

Other Costs: This cost driver reflects funding for planned travel and the Working Capital Fund. It also captures the transfer of funding to support the Cybersecurity Technology Strategic Initiative and National Risk Management Center, specifically for shared services and Working Capital Funded requirements.

*Strategy, Policy, and Plans – PPA Level II***Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Strategy, Policy, and Plans	74	63	\$14,448	74	63	\$13,931	68	57	\$12,426	(6)	(6)	(\$1,505)
Total	74	63	\$14,448	74	63	\$13,931	68	57	\$12,426	(6)	(6)	(\$1,505)
Subtotal Discretionary - Appropriation	74	63	\$14,448	74	63	\$13,931	68	57	\$12,426	(6)	(6)	(\$1,505)

PPA Level II Description

The Strategy, Policy and Plans PPA in the O&S appropriation supports the following:

- Articulating the long-term strategic vision for CISA;
- Developing and implementing Component-level strategy, policy, and planning that enables the enterprise strategic management process;
- Coordinating CISA international policy, strategy, plans and engagements;
- Leading the development of integrated strategic, resource, and programmatic planning guidance;
- Conducting strategic, operational, and program evaluations;
- Managing external audits and inspections in order to support senior leadership and guide operations to enhance the resilience of the Nation's physical and cyber infrastructure;
- Promoting integration of policy and strategy across all of CISA's mission areas; and,
- Ensuring appropriate CISA representation and cooperation with the DHS Office of Policy.

Strategy, Policy, and Plans – PPA Level II

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	74	63	\$14,448
FY 2019 President's Budget	74	63	\$13,931
FY 2020 Base Budget	74	63	\$13,931
Transfer to Risk Mgmt Ops from SPP for NRMCC	(5)	(5)	(\$1,000)
Transfer within CISA/O&S for FTP/FTE Realignment	(1)	(1)	(\$177)
Total Transfers	(6)	(6)	(\$1,177)
FERS Agency Contribution Increase	-	-	\$182
Total, Pricing Increases	-	-	\$182
Office of Privacy Staffing	-	-	(\$510)
Total, Pricing Decreases	-	-	(\$510)
Total Adjustments-to-Base	(6)	(6)	(\$1,505)
FY 2020 Current Services	68	57	\$12,426
FY 2020 Request	68	57	\$12,426
FY 2019 To FY 2020 Change	(6)	(6)	(\$1,505)

Strategy, Policy, and Plans – PPA Level II

Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Strategy, Policy, and Plans	74	63	\$9,936	\$157.71	74	63	\$9,983	\$158.46	68	57	\$8,478	\$148.74	(6)	(6)	(\$1,505)	(\$9.72)
Total	74	63	\$9,936	\$157.71	74	63	\$9,983	\$158.46	68	57	\$8,478	\$148.74	(6)	(6)	(\$1,505)	(\$9.72)
Discretionary - Appropriation	74	63	\$9,936	\$157.71	74	63	\$9,983	\$158.46	68	57	\$8,478	\$148.74	(6)	(6)	(\$1,505)	(\$9.72)

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$7,078	\$7,857	\$6,631	(\$1,226)
11.3 Other than Full-Time Permanent	\$165	\$49	\$49	-
11.5 Other Personnel Compensation	\$72	\$103	\$103	-
12.1 Civilian Personnel Benefits	\$2,621	\$1,974	\$1,695	(\$279)
Total - Personnel Compensation and Benefits	\$9,936	\$9,983	\$8,478	(\$1,505)
Positions and FTE				
Positions - Civilian	74	74	68	(6)
FTE - Civilian	63	63	57	(6)

Pay Cost Drivers

Leading Cost Drivers (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Program Personnel	25	\$4,376	\$175.04	25	\$4,396	\$186.64	25	\$3,966	\$158.64	0	(\$430)	(\$28)
Other Personnel	38	\$5,560	\$146.32	38	\$5,587	\$147.03	28	\$4,512	\$161.14	(10)	(\$1,075)	\$14.12
Total – Pay Cost Drivers	63	\$9,936	\$157.71	63	\$9,983	\$158.46	53	\$8,478	\$159.96	(10)	(\$1,505)	\$1.50

Explanation of Pay Cost Drivers

Program Personnel: The FY 2020 funding reflects the annualization of pay. Per OMB Circular A-11, agency FERS contributions increased. The regular FERS agency contribution increased by 2.3% from 13.7% in FY 2019 to 16.0% in FY 2020.

Other Personnel: The change from FY 2019 to FY 2020 reflects annualization from FY 2019 as well as transfers of FTE and positions within CISA.

Strategy, Policy, and Plans – PPA Level II
Non Pay Budget Exhibits

Non Pay Summary

Organization <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Strategy, Policy, and Plans	\$4,512	\$3,948	\$3,948	-
Total	\$4,512	\$3,948	\$3,948	-
Discretionary - Appropriation	\$4,512	\$3,948	\$3,948	-

Non Pay by Object Class

Non-Pay Object Classes <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$4,444	\$1,956	\$1,956	-
25.1 Advisory and Assistance Services	-	\$1,324	\$1,324	-
25.3 Other Goods and Services from Federal Sources	-	\$600	\$600	-
26.0 Supplies and Materials	\$68	\$68	\$68	-
Total - Non Pay Object Classes	\$4,512	\$3,948	\$3,948	-

Non Pay Cost Drivers

Leading Non Pay Cost Drivers <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Other Costs	\$4,512	\$3,948	\$3,948	-
Total – Non Pay Cost Drivers	\$4,512	\$3,948	\$3,948	-

Explanation of Non Pay Cost Driver

Other Costs: This cost driver reflects the annualization of 2019 program changes. It supports consistent operations including Shared Services and the Working Capital Fund. There is no change between FY 2019 and FY 2020.

*Office of Biometric Identity Management – PPA***Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization <i>(Dollars in Thousands)</i>	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Identity and Screening Program Operations	170	154	\$68,826	177	161	\$69,590	-	-	-	(177)	(161)	(\$69,590)
IDENT/Homeland Advanced Recognition Technology Operations and Maintenance	-	-	\$150,603	-	-	\$160,691	-	-	-	-	-	(\$160,691)
Total	170	154	\$219,429	177	161	\$230,281	-	-	-	(177)	(161)	(\$230,281)
Subtotal Discretionary - Appropriation	170	154	\$219,429	177	161	\$230,281	-	-	-	(177)	(161)	(\$230,281)

The Office of Biometric and Identity Management (OBIM) has been transferred to the DHS Management Directorate following enactment of the Cybersecurity and Infrastructure Security Agency Act of 2018. Detailed budgetary information for OBIM can be found in the Management Directorate's portion of the FY 2020 President's Budget.

Office of Biometric Identity Management – PPA
Budget Authority and Obligations

Budget Authority <i>(Dollars in Thousands)</i>	FY 2018	FY 2019	FY 2020
Enacted/Request	\$219,429	\$230,281	-
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	-	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	(\$1,605)	-	-
Supplementals	-	-	-
Total Budget Authority	\$217,824	\$230,281	-
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	\$217,824	\$230,281	-
Obligations (Actual/Estimates/Projections)	\$217,538	\$230,281	-
Personnel: Positions and FTE			
Enacted/Request Positions	170	177	-
Enacted/Request FTE	154	161	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	170	177	-
FTE (Actual/Estimates/Projections)	154	161	-

Office of Biometric Identity Management – PPA

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	170	154	\$219,429
FY 2019 President's Budget	177	161	\$230,281
FY 2020 Base Budget	177	161	\$230,281
Transfer OBIM to MGMT/OBIM from CISA	(177)	(161)	(\$230,281)
Total Transfers	(177)	(161)	(\$230,281)
Total Adjustments-to-Base	(177)	(161)	(\$230,281)
FY 2020 Request	-	-	-
FY 2019 To FY 2020 Change	(177)	(161)	(\$230,281)

Office of Biometric Identity Management – PPA

Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Identity and Screening Program Operations	170	154	\$21,843	\$141.84	177	161	\$22,940	\$142.48	-	-	-	-	(177)	(161)	(\$22,940)	(\$142.48)
Total	170	154	\$21,843	\$141.84	177	161	\$22,940	\$142.48	-	-	-	-	(177)	(161)	(\$22,940)	(\$142.48)
Discretionary - Appropriation	170	154	\$21,843	\$141.84	177	161	\$22,940	\$142.48	-	-	-	-	(177)	(161)	(\$22,940)	(\$142.48)

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$16,089	\$17,186	-	(\$17,186)
11.3 Other than Full-Time Permanent	\$211	\$211	-	(\$211)
11.5 Other Personnel Compensation	\$101	\$101	-	(\$101)
12.1 Civilian Personnel Benefits	\$5,442	\$5,442	-	(\$5,442)
Total - Personnel Compensation and Benefits	\$21,843	\$22,940	-	(\$22,940)
Positions and FTE				
Positions - Civilian	170	177	-	(177)
FTE - Civilian	154	161	-	(161)

Office of Biometric Identity Management – PPA

Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Identity and Screening Program Operations	\$46,983	\$46,650	-	(\$46,650)
IDENT/Homeland Advanced Recognition Technology Operations and Maintenance	\$150,603	\$160,691	-	(\$160,691)
Total	\$197,586	\$207,341	-	(\$207,341)
Discretionary - Appropriation	\$197,586	\$207,341	-	(\$207,341)

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$124	\$124	-	(\$124)
22.0 Transportation of Things	\$70	\$70	-	(\$70)
23.1 Rental Payments to GSA	\$412	\$412	-	(\$412)
23.3 Communications, Utilities, and Misc. Charges	\$8,552	\$8,552	-	(\$8,552)
25.1 Advisory and Assistance Services	\$727	\$1,328	-	(\$1,328)
25.2 Other Services from Non-Federal Sources	\$24,096	\$23,162	-	(\$23,162)
25.3 Other Goods and Services from Federal Sources	\$12,900	\$12,900	-	(\$12,900)
25.7 Operation and Maintenance of Equipment	\$150,603	\$160,691	-	(\$160,691)
26.0 Supplies and Materials	\$102	\$102	-	(\$102)
Total - Non Pay Object Classes	\$197,586	\$207,341	-	(\$207,341)

Identity and Screening Program Operations – PPA Level II**Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization <i>(Dollars in Thousands)</i>	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Identity and Screening Program Operations	170	154	\$68,826	177	161	\$69,590	-	-	-	(177)	(161)	(\$69,590)
Total	170	154	\$68,826	177	161	\$69,590	-	-	-	(177)	(161)	(\$69,590)
Subtotal Discretionary - Appropriation	170	154	\$68,826	177	161	\$69,590	-	-	-	(177)	(161)	(\$69,590)

The Office of Biometric and Identity Management (OBIM) has been transferred to the DHS Management Directorate following enactment of the Cybersecurity and Infrastructure Security Agency Act of 2018. Detailed budgetary information for OBIM can be found in the Management Directorate's portion of the FY 2020 President's Budget.

Identity and Screening Program Operations – PPA Level II

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	170	154	\$68,826
FY 2019 President's Budget	177	161	\$69,590
FY 2020 Base Budget	177	161	\$69,590
Transfer OBIM to MGMT/OBIM from CISA	(177)	(161)	(\$69,590)
Total Transfers	(177)	(161)	(\$69,590)
Total Adjustments-to-Base	(177)	(161)	(\$69,590)
FY 2020 Request	-	-	-
FY 2019 To FY 2020 Change	(177)	(161)	(\$69,590)

Identity and Screening Program Operations – PPA Level II

Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Identity and Screening Program Operations	170	154	\$21,843	\$141.84	177	161	\$22,940	\$142.48	-	-	-	-	(177)	(161)	(\$22,940)	(\$142.48)
Total	170	154	\$21,843	\$141.84	177	161	\$22,940	\$142.48	-	-	-	-	(177)	(161)	(\$22,940)	(\$142.48)
Discretionary - Appropriation	170	154	\$21,843	\$141.84	177	161	\$22,940	\$142.48	-	-	-	-	(177)	(161)	(\$22,940)	(\$142.48)

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$16,089	\$17,186	-	(\$17,186)
11.3 Other than Full-Time Permanent	\$211	\$211	-	(\$211)
11.5 Other Personnel Compensation	\$101	\$101	-	(\$101)
12.1 Civilian Personnel Benefits	\$5,442	\$5,442	-	(\$5,442)
Total - Personnel Compensation and Benefits	\$21,843	\$22,940	-	(\$22,940)
Positions and FTE				
Positions - Civilian	170	177	-	(177)
FTE - Civilian	154	161	-	(161)

Pay Cost Drivers

Leading Cost-Drivers (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Other Personnel	154	\$21,843	\$141.84	161	\$22,940	\$142.48	-	-	-	(161)	(\$22,940)	(\$142.48)
Total – Pay Cost Drivers	154	\$21,843	\$141.84	161	\$22,940	\$142.48	-	-	-	(161)	(\$22,940)	(\$142.48)

Explanation of Pay Cost Driver

The Office of Biometric and Identity Management (OBIM) has been transferred to the DHS Management Directorate following enactment of the Cybersecurity and Infrastructure Security Agency Act of 2018. Detailed budgetary information for OBIM can be found in the Management Directorate's portion of the FY 2020 President's Budget.

Identity and Screening Program Operations – PPA Level II

Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Identity and Screening Program Operations	\$46,983	\$46,650	-	(\$46,650)
Total	\$46,983	\$46,650	-	(\$46,650)
Discretionary - Appropriation	\$46,983	\$46,650	-	(\$46,650)

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$124	\$124	-	(\$124)
22.0 Transportation of Things	\$70	\$70	-	(\$70)
23.1 Rental Payments to GSA	\$412	\$412	-	(\$412)
23.3 Communications, Utilities, and Misc. Charges	\$8,552	\$8,552	-	(\$8,552)
25.1 Advisory and Assistance Services	\$727	\$1,328	-	(\$1,328)
25.2 Other Services from Non-Federal Sources	\$24,096	\$23,162	-	(\$23,162)
25.3 Other Goods and Services from Federal Sources	\$12,900	\$12,900	-	(\$12,900)
26.0 Supplies and Materials	\$102	\$102	-	(\$102)
Total - Non Pay Object Classes	\$46,983	\$46,650	-	(\$46,650)

Non Pay Cost Drivers

Leading Non Pay Cost Drivers <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Biometric Verification	\$11,100	\$11,100	-	(\$11,100)
Program Support	\$29,298	\$29,298	-	(\$29,298)
Other Costs	\$6,585	\$6,252	-	(\$6,252)
Total – Non Pay Cost Drivers	\$46,983	\$46,650	-	(\$46,650)

Explanation of Non Pay Cost Driver

The Office of Biometric and Identity Management (OBIM) has been transferred to the DHS Management Directorate following enactment of the Cybersecurity and Infrastructure Security Agency Act of 2018. Detailed budgetary information for OBIM can be found in the Management Directorate's portion of the FY 2020 President's Budget.

IDENT/Homeland Advanced Recognition Technology Operations & Maintenance – PPA Level II**Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization <i>(Dollars in Thousands)</i>	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
IDENT/Homeland Advanced Recognition Technology	-	-	\$150,603	-	-	\$160,691	-	-	-	-	-	(\$160,691)
Total	-	-	\$150,603	-	-	\$160,691	-	-	-	-	-	(\$160,691)
Subtotal Discretionary - Appropriation	-	-	\$150,603	-	-	\$160,691	-	-	-	-	-	(\$160,691)

The Office of Biometric and Identity Management (OBIM) has been transferred to the DHS Management Directorate following enactment of the Cybersecurity and Infrastructure Security Agency Act of 2018. Detailed budgetary information for OBIM can be found in the Management Directorate's portion of the FY 2020 President's Budget.

IDENT/Homeland Advanced Recognition Technology Operations & Maintenance – PPA Level II

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	-	-	\$150,603
FY 2019 President's Budget	-	-	\$160,691
FY 2020 Base Budget	-	-	\$160,691
Transfer OBIM to MGMT/OBIM from CISA	-	-	(\$160,691)
Total Transfers	-	-	(\$160,691)
Total Adjustments-to-Base	-	-	(\$160,691)
FY 2020 Request	-	-	-
FY 2019 To FY 2020 Change	-	-	(\$160,691)

IDENT/Homeland Advanced Recognition Technology Operations & Maintenance – PPA Level II

Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
IDENT/Homeland Advanced Recognition Technology Operations and Maintenance	\$150,603	\$160,691	-	(\$160,691)
Total	\$150,603	\$160,691	-	(\$160,691)
Discretionary - Appropriation	\$150,603	\$160,691	-	(\$160,691)

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
25.7 Operation and Maintenance of Equipment	\$150,603	\$160,691	-	(\$160,691)
Total - Non Pay Object Classes	\$150,603	\$160,691	-	(\$160,691)

Non Pay Cost Drivers

Leading Non Pay Cost Drivers (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 OMB Submission	FY 2019 to FY 2020 Total Changes
IDENT/Homeland Advanced Recognition Technology	\$150,603	\$160,691	-	(\$160,691)
Total – Non Pay Cost Drivers	\$150,603	\$160,691	-	(\$160,691)

Explanation of Non Pay Cost Driver

The Office of Biometric and Identity Management (OBIM) has been transferred to the DHS Management Directorate following enactment of the Cybersecurity and Infrastructure Security Agency Act of 2018. Detailed budgetary information for OBIM can be found in the Management Directorate's portion of the FY 2020 President's Budget.

Department of Homeland Security
Cybersecurity and Infrastructure Security Agency
Procurement, Construction, and Improvements



Fiscal Year 2020
Congressional Justification

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Procurement, Construction, and Improvements

Budget Comparison and Adjustments

Comparison of Budget Authority and Request

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Cybersecurity	\$362,167	\$235,626	\$243,468	\$7,842
Emergency Communications	\$48,905	\$42,551	\$50,729	\$8,178
Biometric Identity Management	-	\$20,000	-	(\$20,000)
Risk Management Operations	\$500	-	-	-
Infrastructure Security	\$2,539	\$4,787	\$4,881	\$94
Total	\$414,111	\$302,964	\$299,078	(\$3,886)
Discretionary - Appropriation	\$414,111	\$302,964	\$299,078	(\$3,886)

The Cybersecurity and Infrastructure Security Agency (CISA) Procurement, Construction, and Improvements (PC&I) appropriation supports activities which enhance the security and resilience of the Nation's infrastructure against terrorist attacks, cyber events, natural disasters, and other large-scale incidents, including national security special events.

PC&I provides funds necessary for the planning, operational development, engineering and purchase of one or more assets (which hereinafter also refers to end items) prior to sustainment. Information Technology (IT) related PC&I may consist of one or more end items which provide useful software and/or hardware in an operational (production) environment, including non-tangible assets.

Activities are organized according to the following Program, Project, and Activity (PPA) structure:

Cybersecurity: This PPA funds major acquisition programs that support cybersecurity activities:

- Continuous Diagnostics and Mitigation (CDM) enhances the overall security posture of Federal agencies' networks by providing them with the capability to identify cybersecurity risks and vulnerabilities, prioritize these risks and vulnerabilities based upon potential impacts, and mitigate the most significant problems first. CDM assists in protecting agencies against exploitation by unauthorized and unmanaged hardware and software; known vulnerabilities; weak configuration settings (including port, protocols, and services); insider attacks; and loss of confidentiality, integrity, or availability due to unanticipated events and attacks requiring recovery or special responses.
- National Cybersecurity Protection System (NCPS) is an integral part of the cybersecurity community, providing near real-time protection and information to Federal civilian Departments and Agencies; cyber centers; and other Federal, State and local authorities. NCPS consists of the hardware, software, supporting processes, training, and services being developed and acquired in direct support of the Department of

Homeland Security's mission requirements delineated in and mandated by various legal provisions and executive branch policy documents, including section 2213 of the Homeland Security Act of 2002, as amended, the Federal Cybersecurity Enhancement Act of 2015, section 3553 of title 44, United States Code, and National Security Presidential Directives 54 (NSPD-54) / Homeland Security Presidential Directive 23 (HSPD-23).

Emergency Communications: This PPA funds Emergency Communications responsible for advancing the Nation's interoperable emergency communications capabilities to enable first responders and government officials to continue to communicate in the event of disasters.

- Next Generation Network Priority Services (NGN-PS) supports the development, testing, and improvements to the capability for priority access on and restoration of commercial telecommunications networks required by Presidential Policy Directive 40 and OSTP/OMB Directive 16-1 supporting National Security/Emergency Preparedness (NS/EP) communications, which include: communications that support Continuity of Government; Federal; and, State, local, territorial, and tribal (SLTT) emergency preparedness, response, and recovery communications.

Infrastructure Security: This PPA funds efforts that conduct and facilitate vulnerability and consequence assessments to help critical infrastructure owners and operators and SLTT partners understand and address risks to critical infrastructure. Additionally, it provides information on emerging threats and hazards and offers tools and training to partners to help them manage risks to critical infrastructure.

- Infrastructure Security Gateway (IS Gateway) investment, which supports the CISA in meeting its mission of assessing key assets (e.g., bridge, power grid, dam, and subways) and critical infrastructure vulnerabilities and taking action to mitigate vulnerabilities, enhance security, and ensure continuity and necessary redundancy.

Procurement, Construction, and Improvements

Budget Authority and Obligations

Budget Authority (Dollars in Thousands)	FY 2018	FY 2019	FY 2020
Enacted/Request	\$414,111	\$302,964	\$299,078
Carryover and/or Recoveries (Actual/Estimates/Projections)	\$297,034	\$266,144	\$104,781
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	(\$3,300)	-	-
Supplementals	-	-	-
Total Budget Authority	\$707,845	\$569,108	\$403,859
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	\$707,845	\$569,108	\$403,859
Obligations (Actual/Estimates/Projections)	\$402,287	\$464,327	\$298,859
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Procurement, Construction, and Improvements

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	-	-	\$414,111
FY 2019 President's Budget	-	-	\$302,964
FY 2020 Base Budget	-	-	-
Continuous Diagnostics and Mitigation (CDM)	-	-	\$137,630
Infrastructure Protection Gateway (IPG)	-	-	\$4,881
National Cybersecurity Protection System (NCPS)	-	-	\$105,838
Next Generation Networks Priority Services (NGN-PS)	-	-	\$50,729
Total Investment Elements	-	-	\$299,078
FY 2020 Request	-	-	\$299,078
FY 2019 To FY 2020 Change	-	-	(\$3,886)

Procurement, Construction, and Improvements**Non Pay Budget Exhibits****Non Pay by Object Class**

Non-Pay Object Classes <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	-	\$11	-	(\$11)
22.0 Transportation of Things	-	\$16	-	(\$16)
23.1 Rental Payments to GSA	-	\$1,067	-	(\$1,067)
23.2 Rental Payments to Others	-	\$985	-	(\$985)
25.1 Advisory and Assistance Services	\$109,282	\$123,279	\$121,056	(\$2,223)
25.2 Other Services from Non-Federal Sources	-	\$73	-	(\$73)
25.3 Other Goods and Services from Federal Sources	\$297,576	\$65,093	\$75,600	\$10,507
25.4 Operation and Maintenance of Facilities	-	\$1,545	-	(\$1,545)
25.7 Operation and Maintenance of Equipment	-	\$90,108	\$102,422	\$12,314
26.0 Supplies and Materials	-	\$38	-	(\$38)
31.0 Equipment	\$7,253	\$20,001	-	(\$20,001)
32.0 Land and Structures	-	\$748	-	(\$748)
Total - Non Pay Object Classes	\$414,111	\$302,964	\$299,078	(\$3,886)

Procurement, Construction, and Improvements Capital Investments Exhibits

Capital Investments

Investment <i>(Dollars in Thousands)</i>	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
Continuous Diagnostics and Mitigation	024-000009571	1	Procurement	IT	Yes	\$246,981	\$125,548	\$137,630
National Cybersecurity Protection System	024-000009508	1	Procurement	IT	Yes	\$115,186	\$110,078	\$105,838
IDENT/Homeland Advanced Recognition Technology	024-000005253	1	Procurement	IT	Yes	-	\$20,000	-
Next Generation Networks Priority Services	024-000009540	2	Procurement	IT	Yes	\$48,905	\$42,551	\$50,729
Infrastructure Protection (IP) Gateway	024-000009567	2	Procurement	IT	Yes	\$2,539	\$4,787	\$4,881
Modeling Capability Transition Environment	024-000009587	3	Procurement	IT	No	\$500	-	-

*Cybersecurity – PPA***Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Continuous Diagnostics and Mitigation	\$246,981	\$125,548	\$137,630	\$12,082
National Cybersecurity Protection System	\$115,186	\$110,078	\$105,838	(\$4,240)
Total	\$362,167	\$235,626	\$243,468	\$7,842
Discretionary - Appropriation	\$362,167	\$235,626	\$243,468	\$7,842

PPA Level I Description

Cybersecurity provides the necessary tools and services to enhance the protection of all Federal civilian departments and agency (D/A) infrastructure and provide a common baseline of security through the Continuous Diagnostics and Mitigation (CDM) and National Cybersecurity Protection System (NCPS) programs.

The PPA is comprised of the following investments:

Continuous Diagnostics and Mitigation (CDM): This investment provides resources to complete Asset Management (Phase 1) gaps remaining in agencies following initial task orders; fund provision of CDM to agencies with newly signed Memoranda of Agreements; continue deployment and expansion of Network Security Management (Phase 3) to strengthen and protect boundaries, enhance security operations, and design and build security into systems; as well as continue expansion of Data Protection Management (Phase 4) capabilities at selected agencies focusing on protecting data on the network; and provide continued support and enhancement for the Federal dashboard and agency dashboard capabilities to deliver increased functionality to users. This will significantly improve Federal civilian agency abilities to prepare for and respond to incident management, as well as protect data through stronger boundary protection and other means.

National Cybersecurity Protection System (NCPS): This investment funds the NCPS investment profile and provides near real-time protection and information to Federal civilian Departments and Agencies; cyber centers; and other Federal, State, and local authorities. This investment will allow NCPS to continue to build on already deployed capabilities and expand access to DHS threat information and analysis.

Cybersecurity – PPA

Budget Authority and Obligations

Budget Authority <i>(Dollars in Thousands)</i>	FY 2018	FY 2019	FY 2020
Enacted/Request	\$362,167	\$235,626	\$243,468
Carryover and/or Recoveries (Actual/Estimates/Projections)	\$220,691	\$254,812	\$100,000
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	-	-	-
Supplementals	-	-	-
Total Budget Authority	\$582,858	\$490,438	\$343,468
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	\$582,858	\$490,438	\$343,468
Obligations (Actual/Estimates/Projections)	\$289,346	\$390,438	\$243,468
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Cybersecurity – PPA

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	-	-	\$362,167
FY 2019 President's Budget	-	-	\$235,626
FY 2020 Base Budget	-	-	-
Continuous Diagnostics and Mitigation (CDM)	-	-	\$137,630
National Cybersecurity Protection System (NCPS)	-	-	\$105,838
Total Investment Elements	-	-	\$243,468
FY 2020 Request	-	-	\$243,468
FY 2019 To FY 2020 Change	-	-	\$7,842

Cybersecurity – PPA
Non Pay Budget Exhibits
Non Pay by Object Class

Non-Pay Object Classes <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	-	\$11	-	(\$11)
22.0 Transportation of Things	-	\$3	-	(\$3)
23.1 Rental Payments to GSA	-	\$187	-	(\$187)
25.1 Advisory and Assistance Services	\$108,433	\$113,410	\$105,838	(\$7,572)
25.2 Other Services from Non-Federal Sources	-	\$47	-	(\$47)
25.3 Other Goods and Services from Federal Sources	\$246,981	\$32,075	\$35,208	\$3,133
25.4 Operation and Maintenance of Facilities	-	\$1,483	-	(\$1,483)
25.7 Operation and Maintenance of Equipment	-	\$87,655	\$102,422	\$14,767
26.0 Supplies and Materials	-	\$6	-	(\$6)
31.0 Equipment	\$6,753	\$1	-	(\$1)
32.0 Land and Structures	-	\$748	-	(\$748)
Total - Non Pay Object Classes	\$362,167	\$235,626	\$243,468	\$7,842

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
CDM Investment Cost	\$246,981	\$125,548	\$137,630	\$12,082
NCPS Investment Cost	\$115,186	\$110,078	\$105,838	(\$8,640)
Total – Non Pay Cost Drivers	\$362,167	\$235,626	\$243,468	\$3,442

Explanation of Non Pay Cost Drivers

CDM Investment Costs: CDM annual alignment to cost estimate in accordance with the acquisition profile which will refresh Asset Management tools currently deployed. This will ensure that agency dashboards reflect sensor data from Identity and Access Management.

NCPS Investment Costs: The change is primarily associated with the decrease in Intrusion Prevention system enhancements and traffic aggregation deployment efforts from the prior year.

Cybersecurity – PPA
Capital Investments Exhibits

Capital Investments

Investment <i>(Dollars in Thousands)</i>	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
Continuous Diagnostics and Mitigation	024-000009571	1	Procurement	IT	Yes	\$246,981	\$125,548	\$137,630
National Cybersecurity Protection System	024-000009508	1	Procurement	IT	Yes	\$115,186	\$110,078	\$105,838

Continuous Diagnostics and Mitigation – Investment**Capital Investments Exhibits****Procurement/Acquisition Programs****Continuous Diagnostics and Mitigation (CDM)****Procurement, Construction, and Investments Funding**

Investment <i>(Dollars in Thousands)</i>	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
Continuous Diagnostics and Mitigation	024-000009571	1	Procurement	IT	Yes	\$246,981	\$125,548	\$137,630

Investment Description

The current threat environment requires a dynamic approach to fortifying Federal and other government cyber networks. With CDM, “.gov” systems are automatically assessed to identify cyber risks and flaws for priority resolution. The CDM program provides cybersecurity tools, integration services, and dashboards to all participating agencies to enable them to improve their respective security postures by reducing the attack surface of their networks. The mission of the CDM program is a fully-operational federal dashboard, which will provide the National Cybersecurity and Communications Integration Center (NCCIC) a completely integrated view of the “.gov” network, ensuring that when there is a cyber attack on one agency network, all other agencies will have full situational awareness. This situational awareness used to take DHS days to weeks to acquire, CDM shortens this timeframe to minutes.

Justification

The FY 2020 Budget includes \$137.6M that will allow CDM to continue to enable agencies to strengthen their networks in the face of continued cyber threats across the entire civilian Federal domain. CDM funding breakout captured in the figure below.

Figure: CDM Procurement, Construction, and Improvements (PC&I) Funding Breakout
(Dollars in Thousands)

CDM Program	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
Dashboard	\$43,019	\$7,754	\$11,351
Asset Management (Phase 1)	\$72,344	\$25,545	\$43,354
Identity and Access Management (Phase 2)	\$32,000	-	-
Network Security Management (Phase 3)	\$89,618	\$75,249	\$32,658
Data Protection Management (Phase 4)	\$10,000	\$17,000	\$42,637
Program, Planning and Operations	-	-	\$7,630
Total, CDM PC&I	\$246,981	\$125,548	\$137,630

The CDM program is shifting focus from phases to capabilities in order to better define and communicate program status and success. The previous phase structure implied a serial approach to implementation that is not necessarily accurate as CDM capabilities can be deployed in parallel. The new capabilities structure also provides better organization and description of how CDM capabilities relate to one another.

The program provides CDM agency dashboards to participating agencies that provide near real-time awareness of their agency's cybersecurity posture. CDM also maintains a Federal dashboard, which receives summary data feeds from agency dashboards to provide increased visibility into the entire Federal cybersecurity posture. In FY 2020, CDM will ensure that agency dashboards reflect sensor data from prior completed phases.

CDM Asset Management (Phase 1) capability provides network discovery and endpoint (laptops/desktops/servers) management tools, allowing the agency to continuously know what software and hardware they have on their network and to understand whether or not those assets are vulnerable and are configured securely. Asset Management enables Departments and agencies to manage identified assets and properly configure them so they are no longer open to attack. In FY 2020, CDM plans to continue refreshing Asset Management tools originally deployed in 2014.

CDM Identity and Access Management (Phase 2) capability provides tools to ensure agency employees do not access information or systems beyond their established privileges, credentials, and training. Agencies are able to manage user accounts and protect against adversaries from gaining access to critical systems. In FY 2020, CDM will continue to ensure that agency dashboards reflect sensor data from Identity and Access Management tools delivered in FY 2018 and FY 2019. The program will continue to evolve Identity and Access Management to leverage future enhancements, when necessary.

CDM Network Security Management (Phase 3) capability deployment will continue in FY 2020, focusing on boundary protection, managing events, preparing for events and incidents, and strengthening lifecycle security management. Network Security Management will provide capability to Federal civilian Departments and agencies against anomalous activity inside Federal networks and alerting security personnel for expedited remediation. In this case, anomalous activity includes an adversary's attempt to move across a network and access sensitive data.

CDM Data Protection Management (Phase 4) capability deployment will build upon the pilots initially deployed in FY 2019, and continue to expand to additional agencies that are ready for the data protection capabilities in FY 2020.

As part of CDMs annual Life Cycle Cost Estimate update, what was previously called Engineer Services was functionally realigned to an investment activity. Program, Planning, and Operations funds Federally-Funded Research and Development Centers (FFRDC) to provide knowledge, services, and expertise to solve technical problems, and assist with pilot program developments. The FFRDCs provide CISA with independent and objective advice and quick response on critical issues throughout the Homeland Security Enterprise.

As a result of the Asset Management work that has been underway at the agencies through the CDM program, the Federal Dashboard is now in production and is in the process of being operationalized by the National Cybersecurity and Communications Integration Center (NCCIC) team. By running queries against the near-real time data in the Federal Dashboard from the CFO Act agencies and the first group of non-CFO Act agencies, the NCCIC can view current information about agency computing and network assets, identify what software versions are running on the assets, and

understand what the vulnerability and secure configuration postures are of the assets.

The FY 2020 funding for CDM will support the program investment profile, providing additional resources to complete Asset Management gaps remaining in agencies following initial task orders; fund provision of CDM to agencies with newly signed Memoranda of Agreements; continue deployment and expansion of Network Security Management to strengthen and protect boundaries, enhance security operations, and design and build in security into systems; as well as continue expansion of Data Protection Management capabilities at selected agencies focusing on protecting data on the network; and provide continued support and enhancement for the Federal dashboard and agency dashboard capabilities to deliver increased functionality to users. This will significantly improve Federal civilian agency abilities to prepare for and respond to incident management, as well as protect data through stronger boundary protection and other means.

FY 2018 Key Milestone Events

- Asset Management: Released follow-on task orders to continue dashboard services and Network Security Management capabilities.
- Identity and Access Management: Continued to deploy tools to agencies.
- Identity and Access Management: Reached Initial Operational Capability (IOC).
- Network Security Management: Released follow-on task orders to continue dashboard services and begin deployment.
- Data Protection Management: Active planning to determine most effective approach to delivering tools and services.
- Dashboard: Continued data exchanges for Asset Management tools between agency and Federal dashboards to identify trends and collect metrics.
- Dashboard: Continued development risk scoring approach to enhance agencies' ability to fix their worst problems first.

FY 2019 Planned Key Milestone Events

- Asset Management: Begin tool refresh for tools deployed in the original delivery and task orders.
- Identity and Access Management: Using the CDM DEFEND task order, integrate capabilities into the dashboard at agencies.
- Network Security Management: Support existing CDM DEFEND task orders to continue deploying capabilities.
- Data Protection Management: Begin pilot programs at selected agencies and refine plans for full deployment in future years.
- Dashboard: Transition to new contract for dashboard support; continued support to Federal and Agency dashboard operations; continued evolution of risk scoring algorithm. Provide enhanced dashboard visualization and analytic capabilities to agencies and Federal dashboard stakeholders.

FY 2020 Planned Key Milestone Events

- Asset Management: Complete deploying CDM Asset Management and Identity and Access Management to agencies that just signed CDM Memoranda of Agreements; continue tool refresh for Asset Management tools deployed in the original delivery and task orders.
- Network Security Management: Continue to deploy capabilities to strengthen and protect boundaries, enhance security operations and build security into information systems.
- Data Protection Management: Continue and expand pilot programs at selected agencies and begin full deployment across agencies.

Procurement, Construction, and Improvements**Cybersecurity - PPA**

- Dashboard: Continued support to Federal and Agency dashboard operations; continued evolution of risk scoring algorithm and application to agency operations. Work to streamline operations and improve utilization of scores to strengthen overall cybersecurity posture.

Overall Investment Funding

<i>(Dollars in Thousands)</i>	Prior Years	FY 2018	FY 2019	FY 2020
Operations and Support	\$12,714	\$102,681	\$112,089	\$94,541
Procurement, Construction, and Improvements	\$872,218	\$246,981	\$125,548	\$137,630
Research and Development	-	-	-	-
Legacy Appropriations	-			
Total Project Funding	\$884,932	\$349,662	\$237,637	\$232,144
Obligations	\$341,483	\$193,607		
Expenditures	\$445,966	\$28,376		

Contract Information (Current/Execution Year, Budget Year)

Contract Number	Contractor	Type	Award Date (mo/yr)	Start Date (mo/yr)	End Date (mo/yr)	EVM in Contract	Total Value (Dollars in Thousands)
47QFCA18F0025	BOOZ ALLEN HAMILTON INC.	Task Order	12/2017	12/2017	01/2024	No	\$621,448
47QFCA18F0050	CACI INC FEDERAL	Task Order	04/2018	04/2018	04/2024	No	\$63,067
GSQ0015AJ0086	Booz Hamilton, Inc	Task Order	09/2015	09/2015	09/2018	No	\$82,932
GSQ0016AJ0056	Knowledge Consulting Group	Task Order	06/2016	06/2016	06/2018	No	\$85,430
HSSA01-12-X-0178	GSA FEDSIM	Interagency Agreement	09/2015	09/2012	08/2018	No	\$522,868

Significant Changes to Investment since Prior Year Enacted

N/A

Investment Schedule

Description	Design Work		Project Work	
	Initiated	Completed	Initiated	Completed
	FY 2018			
CISA - CDM - CMaaS Implementation TO2A (p)			FY 2017 Q3	FY 2018 Q3
CISA - CDM - CMaaS Implementation TO2B (p)			FY 2017 Q3	FY 2018 Q3
CISA - CDM - CMaaS Implementation TO2C (p)			FY 2017 Q4	FY 2018 Q4
CISA - CDM - CMaaS Implementation TO2D (p)			FY 2017 Q4	FY 2018 Q4
CISA - CDM - CMaaS Implementation TO2E (p)			FY 2017 Q4	FY 2018 Q4
CISA - CDM - CMaaS Implementation TO2F (p)			FY 2017 Q4	FY 2018 Q4
CISA - CDM - Dashboard (p)			FY 2017 Q2	FY 2019 Q1
CISA - CDM - TO PrivMgmt (p)			FY 2017 Q3	FY 2018 Q3
CISA – CDM – TO CredMgmt			FY 2018 Q1	FY 2019 Q1
	FY 2019			
CISA - CDM - CMaaS Implementation TO2A (p)			FY 2018 Q3	FY 2019 Q3
CISA - CDM - CMaaS Implementation TO2B (p)			FY 2018 Q3	FY 2019 Q3
CISA - CDM - CMaaS Implementation TO2C (p)			FY 2018 Q4	FY 2019 Q4
CISA - CDM - CMaaS Implementation TO2D (p)			FY 2018 Q4	FY 2019 Q4
CISA - CDM - CMaaS Implementation TO2E (p)			FY 2018 Q4	FY 2019 Q4
CISA - CDM - CMaaS Implementation TO2F (p)			FY 2018 Q4	FY 2019 Q4
CISA - CDM - Dashboard (p)			FY 2018 Q2	FY 2020 Q1
CISA - CDM - TO PrivMgmt (p)			FY 2018 Q3	FY 2019 Q3
CISA – CDM – TO CredMgmt			FY 2019 Q1	FY 2020 Q1
	FY 2020			
CISA - CDM - CMaaS Implementation TO2A (p)			FY 2019 Q3	FY 2020 Q3
CISA - CDM - CMaaS Implementation TO2B (p)			FY 2019 Q3	FY 2020 Q3
CISA - CDM - CMaaS Implementation TO2C (p)			FY 2019 Q4	FY 2020 Q4
CISA - CDM - CMaaS Implementation TO2D (p)			FY 2019 Q4	FY 2020 Q4
CISA - CDM - CMaaS Implementation TO2E (p)			FY 2019 Q4	FY 2020 Q4
CISA - CDM - CMaaS Implementation TO2F (p)			FY 2019 Q4	FY 2020 Q4
CISA - CDM - Dashboard (p)			FY 2019 Q2	FY 2021 Q1
CISA - CDM - TO PrivMgmt (p)			FY 2019 Q3	FY 2020 Q3
CISA – CDM – TO CredMgmt			FY 2020 Q1	FY 2021 Q1

*National Cybersecurity Protection System – Investment***Capital Investments Exhibits****Procurement/Acquisition Programs****National Cybersecurity Protection System (NCPS)****Procurement, Construction, and Investments Funding**

Investment <i>(Dollars in Thousands)</i>	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
National Cybersecurity Protection System	024-000009508	1	Procurement	IT	Yes	\$115,186	\$110,078	\$105,838

Investment Description

NCPS provides a wide range of cybersecurity capabilities for Federal departments and agencies: intrusion detection, intrusion prevention, advanced cyber analytics, information sharing, and core infrastructure using classified and unclassified information.

In accordance with its statutory authorities, CISA works through the NCPS to deploy capabilities that detect and prevent cybersecurity risks in network traffic transiting or traveling to or from agency information systems. It also continues the deployment of EINSTEIN capabilities to all participating Federal agencies to enhance detection of cyber vulnerabilities and protection from cyber threats.

NCPS is a foundational element in the suite of programs, systems, and processes deployed to protect the Federal cyberspace. NCPS capabilities include the EINSTEIN set of capabilities which support the deployment of intrusion detection/prevention, information sharing, and advanced analytic capabilities to enhance protection from cyber threats. The EINSTEIN capabilities under NCPS include EINSTEIN 1, which provides network traffic monitoring services, EINSTEIN 2 which provides intrusion detection services, and EINSTEIN 3 Accelerated (E3A), which provides intrusion prevention services.

Justification

The FY 2020 Budget includes \$105.8M for NCPS to provide an active intrusion prevention capability that conducts threat-based decision making on network traffic entering or leaving the Federal Executive Branch civilian networks and disables attempted intrusions before harm is done. Additionally, the FY 2020 investment will build upon improvements that are started in FY 2019 to enhance and modernize NCPS capabilities. For example, NCPS will continue to increase adoption of cloud services both for NCPS capabilities as well as expanding use of the cloud for the core infrastructure (backend data storage and processing environment). The investment in the NCPS program is the primary vehicle to fund the technology used to monitor the .gov networks and enable CISA to conduct Threat Analysis, Intrusion Detection, and Intrusion Response

activities. NCPS investments are spread across five capability areas that allow CISA to execute this mission: Intrusion Detection, Intrusion Prevention, Analytics, Information Sharing, and Core Infrastructure. If investment is not made in each of these areas, CISA would quickly become unable to perform their mission essential functions. For instance:

- Intrusion Detection – reduced funding would lead to degradation of the EINSTEIN 1 and EINSTEIN 2 sensor networks that act as the cornerstone of CISA’s ability to monitor and detect malicious traffic on .gov networks. Additionally, CISA’s ability to respond to confirmed intrusions and incidents would be degraded or eliminated. CISA cyber analysts would lose the ability to analyze agency traffic and be unable to confirm if malicious activity has occurred at a given agency’s network.
- Intrusion Prevention – reduced funding would lead to degradation of the EINSTEIN 3 Accelerated service that is the sole .gov enterprise capability operated by CISA with the ability to prevent and limit malicious activities from penetrating federal networks and systems. This service monitors and provides a significant defensive layer to protect .gov email and DNS from being utilized to infiltrate and then exfiltrate data from .gov networks.
- Analytics – reduced funding would lead to degradation of CISA’s ability to analyze information from the EINSTEIN sensor network, as well as process information that is received through any number of sources to include commercial threat feeds, indicators received via Automated Indicator Sharing (AIS), Malware submission for analysis, Incident Response Teams, Industrial Control Systems, and the public sector at-large. The Analytics environment is the cornerstone of all CISA cyber operations and reduced funding would diminish their ability to carry out their mission essential functions.
- Information Sharing – reduced funding would impact the ability for CISA to share the cyber threat analysis, along with additional computer network security information with its public and private sector partners rapidly and in a secure environment. Reduced funding would impact the ability for CISA cyber analysts to connect with and communicate all cybersecurity partners to include Federal Executive Branch Departments and Agencies, the Department of Defense, the U.S. Intelligence Community, over a dozen private sector Information Sharing Analysis Centers (ISACs), critical infrastructure sectors, foreign partners, and State, Local, Tribal, and Territorial (SLTT) governmental organizations. Failure to quickly and accurately share threat intelligence and cybersecurity best practices and tactics, techniques, and procedures would not only harm the .gov domain, but the cybersecurity posture of all network owners and cybersecurity operations centers around the world.

NCPS will continue to implement a redesign of the Advanced Malware Analysis Center (AMAC) to improve the reliability and scalability. The AMAC is a capability that enables CISA cyber analysts to receive, perform analysis, and reverse engineer malware samples that are retrieved during incident response activities and malware samples that are received from public and private-sector partners. An AMAC capability currently exists; however, the program office is working with CISA to enhance the capability and improve the architecture to support increased automation and analytical tools that would enable CISA to rapidly perform analysis on malware samples that are received. NCPS will continue with the development of the Cross Domain Solution and unified workflow capability that will provide a single platform for automating the workflows across independent CISA business and mission support applications into a single infrastructure. Continued enhancements are also planned for intrusion detection capabilities through continued planning and development of the advanced detection capability (i.e., enhanced sensor platform, signature & analytics sharing, non-signature based capabilities). The advanced detection capacity is the suites of tools deployed that provide a non-signature based detection capability to the NCPS. By leveraging advanced behavioral, reputation-based, and machine learning techniques (i.e., algorithms and

confidence models) LRA is able to identify malicious activity in network traffic otherwise missed by signature-based models. To accomplish this, behavioral characteristics are written into algorithms and indicators to allow for near real-time detection using machine learning. The models are focused on actionable information and detect behaviors that can be disrupted with possible countermeasures. Through the development and tuning of analytics against available traffic, LRA has shown the capability to detect evolving models of malicious traffic with behavioral characteristics, and generate alerts with elevated confidence scores on potential intrusions.

In FY 2020, NCPS will also begin an effort to develop a centralized authoritative Domain Name System (DNS) name resolution services for the entire Federal Civilian Executive Branch (FCEB). The managed service will provide enterprise DNS management and a rich set of analytics that sit on top of traditional DNS services. DNS is an essential service for communication over the Internet. In order to access websites, email, and other services, browsers, and other clients query the DNS system to get the current IP address for the subject domain. From a cybersecurity perspective, many cyber attacks rely on outbound egress DNS queries for command and control. Once a piece of malware is inside a network, it must communicate back out to get instructions or exfiltrate data. DNS is often the channel for this communication. According to a 2014 Cisco report, over 90% of malware uses DNS in this way. A centralized DNS security service will provide insights into threat activity across the government by giving CISA cyber visibility into all DNS requests across the FCEB. The NCPS funding breakout is captured in the figure below.

Figure: NCPS Procurement, Construction, and Improvements (PC&I) Funding Breakout
(Dollars in Thousands)

NCPS Program	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
Intrusion Detection	-	\$10,847	\$11,064
Analytics	\$30,903	\$21,141	\$21,564
Information Sharing	\$25,226	\$25,408	\$21,223
Intrusion Prevention	\$58,557	\$19,466	\$19,805
Core Infrastructure	\$500	-	-
Program, Planning and Operations	-	\$33,216	\$32,182
Total, NCPS PC&I	\$115,186	\$110,078	\$105,838

FY 2018 Key Milestone Events

- Intrusion Detection/Prevention:
 - Continued to work with Internet Service Providers (ISPs), Cloud Service Providers (CSPs), and Departments and Agencies (D/As) to provide protection of cloud email implementations by the D/As.
 - Improved E3A alerting provided to D/As.
- Developed enhancements to intrusion prevention to support “compound indicators” within E3A email filtering service that allows NCCIC analysts to develop more complex and precise indicators to block malicious emails.
- Analytics:
 - Continued development of anomalous analytics capability that leverages artificial intelligence to detect malicious activity.

- Matured streaming analytics to identify patterns in live data and include processes and tools associated with near real-time analysis.
- Developed analytic framework capability to provide NCCIC analysts with enhanced ability to query and analyze data from across NCPS datasets.
- Information Sharing:
 - Adopted Homeland Security Information Network's (HSIN) collaboration capability to provide additional tools that NCCIC analysts can leverage to collaborate with cyber analysts from other communities.
 - Continued to work with HSIN Program Management Office (PMO) to improve capabilities and meet NCCIC information processing and sharing requirements.
 - Delivered and continued to enhance/mature the Indicator Management Platform used by NCCIC analysts to vet, analyze, and enrich indicators from multiple sources.
 - Continued Enhancement of the Automated Indicator Sharing (AIS) technology to improve the efficiency, reliability, and speed of sharing indicators with NCCIC's public and private partners.
- Core Infrastructure:
 - Expanded Mission Operating Environment (MOE) capacity and architecture to support additional applications, data, and users to support DHS information sharing initiatives.
 - Evaluate of cloud technologies to expand and extend MOE services and capacity to meet user needs.

FY 2019 Planned Key Milestone Events

- Intrusion Detection/Prevention:
 - Operationalize non-signature based capabilities to enhance cybersecurity protection of Federal departments and agencies.
 - Continue pilot activities with Cloud Service Providers to provide NCCIC with access to their security services and data to enhance protection of D/A assets.
 - Implement E1 enhancements to provide NCCIC with a more robust data set to improve intrusion detection and response. Expand the locations of signature testing sensors to enhance the efficiency of signatures.
 - Implement IPSS enhancements including compound indicators, improved indicator handling procedures, and improved E3A alert formatting and reporting. Leverage EIS contract vehicle for IPSS services.
- Analytics:
 - Redesign the Advanced Malware Analysis Center (AMAC) to refresh the technology, improve reliability, and improve scalability.
 - Enhance Analytic Framework capability to provide NCCIC analysts with enhanced ability to query and analyze data from across NCPS datasets and further automate cyber threat analysis.
- Information Sharing:
 - Initial delivery of a Unified Workflow capability that will provide a single platform to allow NCCIC to collapse many of the business and mission support applications into a single infrastructure and improve the tracking, coordination, and reporting activities for the NCCIC.
 - Implement enhancements to AIS infrastructure to support STIX/TAXII 2.0 and to leverage commercial cloud capabilities and microservices that will more easily scale to support expected increases in users and data and that will provide high availability.

- Continue enhancements to the Indicator Management Platform to support the AIS data flow and to improve on the analysis and enrichment of indicator data and to support the AIS data flow.
- Implement initial Cross Domain Solution to improve the efficiency of processing classified information.

FY 2020 Planned Key Milestone Events

- Intrusion Detection/Prevention:
 - Continue to evolve and mature non-signature based capabilities to enhance cybersecurity protection of .gov
 - Continue activities with Cloud Service Providers to provide NCCIC with access to their security services and data to enhance protection of D/A assets.
 - Continue upgrades to the EINSTEIN sensor suite to improve performance, reliability, and capacity and account for the evolving locations of .gov traffic and data such as cloud & mobile, etc.
 - Evolve and mature Intrusion Prevention Security Services (IPSS) to enhance cybersecurity protection of the .gov domain.
 - Capture requirements, develop a solicitation and award an enterprise DNS name resolution service that provides enterprise DNS management and a rich set of analytics that sit on top of traditional DNS services.
- Analytics:
 - Enhance Analytic Framework capability to provide NCCIC analysts with ability to query and analyze data from across NCPS datasets.
 - Continue enhancements to analytic tools and processes to further automate cyber threat analysis.
- Information Sharing:
 - Continue enhancements to the information sharing infrastructure to improve the efficiency, reliability, and speed of sharing information with the cyber community.
 - Continued enhancements to the Unified Workflow capability that provides a single platform for automating the workflows across independent NCCIC business and mission support applications and unifies them into a consolidated view that improves the tracking, coordination, and reporting activities for the NCCIC.

Overall Investment Funding

<i>(Dollars in Thousands)</i>	Prior Years	FY 2018	FY 2019	FY 2020
Operations and Support	\$742,140	\$287,226	\$296,677	\$299,384
Procurement, Construction, and Improvements	\$1,969,681	\$115,186	\$110,078	\$105,838
Research and Development	-	-	-	-
Legacy Appropriations	\$104,890			
Total Project Funding	\$2,816,711	\$402,412	\$406,755	\$405,222
Obligations	\$2,788,950	\$303,621		
Expenditures	\$2,730,645	\$126,840		

Contract Information (Current/Execution Year, Budget Year)

Contract Number	Contractor	Type	Award Date (mo/yr)	Start Date (mo/yr)	End Date (mo/yr)	EVM in Contract	Total Value (Dollars in Thousands)
70QS0118F00001402	Raytheon Company	Task Order	12/2018	12/2018	12/2022	No	\$236,300
HSSA0113C1102	Vencore [formerly SI Organization]	Contract	09/2013	09/2013	09/2018	No	\$163,348
HSSA0116J1606	CenturyLink	Task Order	03/2016	03/2016	03/2019	No	\$81,081
HSSA0116X2203	Sandia National Labs	Interagency Agreement	08/2016	08/2016	08/2020	No	\$92,154
HSSA01-17-J-1621	Raytheon Company	Task Order	06/2017	06/2017	06/2022	No	\$387,829

Significant Changes to Investment since Prior Year Enacted

N/A

Investment Schedule

Description	Design Work		Project Work	
	Initiated	Completed	Initiated	Completed
	FY 2018			
CISA – NCPS – Intrusion Prevention ADE-3			FY2017 Q3	FY2018 Q2
CISA – NCPS – IPSS Enhancements			FY2018 Q1	FY2018 Q4
CISA – NCPS – Analytics – Analytic Tool Enhancements			FY2018 Q1	FY2018 Q4
CISA – NCPS – Info Sharing – ADE-2C			FY2017 Q3	FY2018 Q2
CISA – NCPS – Info Sharing – HSIN Collaboration Adoption			FY 2018 Q1	FY2018 Q3
CISA – NCPS – Info Sharing – Indicator Management Platform	FY2017 Q2	FY2017 Q4	FY2018 Q1	FY2018 Q2
CISA - NCPS - NCPS Maintenance			FY 2018 Q1	FY 2024 Q4
	FY 2019			
CISA – NCPS – Intrusion Detection – E1 Enhancements			FY2018 Q4	FY2019 Q2
CISA – NCPS – Intrusion Detection – Advanced detection capability operationalization			FY 2018 Q2	FY2019 Q1
CISA – NCPS – Intrusion Detection – Initial Cloud Pilots			FY2018 Q2	FY2019 Q4
CISA – NCPS – IPSS Enhancements			FY2019 Q1	FY2019 Q4
CISA – NCPS – Analytics – Analytic Toolset Enhancements			FY2019 Q1	FY2019 Q4
CISA – NCPS – Info Sharing – Unified Workflow (initial)	FY2018 Q2	FY2018 Q4	FY2019 Q1	FY2019 Q4
CISA – NCPS – Info Sharing – Cross Domain Solution (initial)	FY2018 Q3	FY2019 Q2	FY2019 Q2	FY2019 Q4
CISA – NCPS – Info Sharing – Indicator Management Enhancements			FY2018 Q3	FY2019 Q4
CISA - NCPS - NCPS Maintenance			FY 2019 Q1	FY 2024 Q4
	FY 2020			
CISA – NCPS – Intrusion Detection – Advanced detection Enhancements			FY2019 Q2	FY2020 Q4
CISA – NCPS – Intrusion Detection – Cloud Enhancements			FY2020 Q1	FY2020 Q4
CISA – NCPS – Intrusion Prevention – GSA EIS Transition			FY2019 Q4	FY2020 Q4
CISA – NCPS – DNS Service Requirements/Solicitation	FY2020 Q1	FY2020 Q4	FY2021 Q4	
CISA – NCPS – Analytics – Analytic Enhancements			FY2020 Q1	FY2020 Q4
CISA – NCPS – Info Sharing – Unified Workflow Enhancements			FY2020 Q1	FY2020 Q4
CISA – NCPS – Info Sharing – Cross Domain Solution Enhancements			FY2020 Q1	FY2020 Q4
CISA – NCPS – Info Sharing – AIS Infrastructure Enhancement			FY2019 Q1	FY2020 Q3
CISA - NCPS - NCPS Maintenance			FY 2020 Q1	FY 2024 Q4

Emergency Communications – PPA**Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Next Generation Networks Priority Services	\$48,905	\$42,551	\$50,729	\$8,178
Total	\$48,905	\$42,551	\$50,729	\$8,178
Discretionary - Appropriation	\$48,905	\$42,551	\$50,729	\$8,178

PPA Level I Description

The Emergency Communications PPA funds an acquisition that supports and promotes communications used by emergency responders and government officials to keep America safe, secure, and resilient.

Next Generation Networks Priority Services: The Next Generation Networks Priority Services (NGN-PS) program updates priority calling services for Federal, State, local, tribal, and territorial government users from a legacy commercial network to a commercial IP platform. NGN-PS ensures there is no gap in service to critical voice communications used to support continuity of operations and disaster response.

Emergency Communications – PPA

Budget Authority and Obligations

Budget Authority (Dollars in Thousands)	FY 2018	FY 2019	FY 2020
Enacted/Request	\$48,905	\$42,551	\$50,729
Carryover and/or Recoveries (Actual/Estimates/Projections)	\$54,492	\$11,332	\$4,781
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	-	-	-
Supplementals	-	-	-
Total Budget Authority	\$103,397	\$53,883	\$55,510
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	\$103,397	\$53,883	\$55,510
Obligations (Actual/Estimates/Projections)	\$91,351	\$49,102	\$50,510
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Emergency Communications – PPA

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	-	-	\$48,905
FY 2019 President's Budget	-	-	\$42,551
FY 2020 Base Budget	-	-	-
Next Generation Networks Priority Services (NGN-PS)	-	-	\$50,729
Total Investment Elements	-	-	\$50,729
FY 2020 Request	-	-	\$50,729
FY 2019 To FY 2020 Change	-	-	\$8,178

Emergency Communications – PPA**Non Pay Budget Exhibits****Non Pay by Object Class**

Non-Pay Object Classes <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
22.0 Transportation of Things	-	\$13	-	(\$13)
23.1 Rental Payments to GSA	-	\$880	-	(\$880)
23.2 Rental Payments to Others	-	\$985	-	(\$985)
25.1 Advisory and Assistance Services	\$849	\$9,869	\$15,218	\$5,349
25.2 Other Services from Non-Federal Sources	-	\$26	-	(\$26)
25.3 Other Goods and Services from Federal Sources	\$48,056	\$28,231	\$35,511	\$7,280
25.4 Operation and Maintenance of Facilities	-	\$62	-	(\$62)
25.7 Operation and Maintenance of Equipment	-	\$2,453	-	(\$2,453)
26.0 Supplies and Materials	-	\$32	-	(\$32)
Total - Non Pay Object Classes	\$48,905	\$42,551	\$50,729	\$8,178

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Next Generation Networks Priority Services	\$48,905	\$42,551	\$50,729	\$8,178
Total – Non Pay Cost Drivers	\$48,905	\$42,551	\$50,729	\$8,178

Explanation of Non Pay Cost Driver

Next Generation Networks Priority Services: NGN-PS alignment to cost estimate in accordance with the acquisition profile. In FY 2020, NGN-PS will be developing solutions for Phase 1, Increment 3, and Wireline Access, which will update Government Emergency Telecommunications Service (GETS) on wired telephone services sometimes referred to as “the last mile” of the telephone call flow.

Emergency Communications – PPA

Capital Investments Exhibits

Capital Investments

Investment <i>(Dollars in Thousands)</i>	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
Next Generation Networks Priority Services	024-000009540	2	Procurement	IT	Yes	\$48,905	\$42,551	\$50,729

Next Generation Network Priority Services – Investment**Capital Investments Exhibits****Procurement/Acquisition Programs****Next Generation Network – Priority Services (NGN-PS)****Procurement, Construction, and Investments Funding**

Investment <i>(Dollars in Thousands)</i>	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
Next Generation Networks Priority Services	024-000009540	2	Procurement	IT	Yes	\$48,905	\$42,551	\$50,729

Investment Description

The NGN-PS program responds to Presidential Policy Directive (PPD) 40, National Continuity Program and Executive Order (EO) 13618, Assignment of National Security and Emergency Preparedness Communications Functions, which directs the Secretary of DHS to oversee the development, testing, implementation, and sustainment of National Security/Emergency Preparedness (NS/EP) communications, including: communications that support Continuity of Government; Federal, and State, local, territorial, and tribal emergency preparedness, response, and recovery communications.

NGN-PS addresses a capabilities gap created as the Service Provider's replace aging networks with Internet Protocol (IP) based next generation networks. The legacy Priority Telecommunication Services (PTS) program provides priority access for NS/EP users on commercial telecommunications networks, however, this capability will be lost as aging networks are replaced. These IP-based next generation networks will not support the legacy PTS routing protocols leaving an operational gap for priority access. NGN-PS addresses this capability gap by offering highly survivable, commercial telecomm assets to provide the Government with priority communications capabilities over nationwide networks at a fraction of the cost required to build a Government-owned system.

NGN-PS is a multi-phase, multi-increment, technology insertion that will ultimately deliver priority voice and data communication services. Phase 1 (voice), Increment 1 addresses the transition of legacy, priority voice capabilities in the commercial carriers' long distance core networks. Phase 1, Increment 2 works with major commercial telecommunications wireless carriers as they transition from 2G/3G networks to IP-based infrastructures (4G/LTE networks) as required for Wireless Priority Service (WPS). Phase 1, Increment 3 is required for Government Emergency Telecommunications Service (GETS) and Special Routing Arrangement Service (SRAS) to work at the local exchange carrier (LEC) for priority wireline calls. Phase 2 and Phase 3 will provide priority for data and video over IP wireless networks.

Justification

The FY 2020 Budget includes \$50.7M for NGN-PS to ensure the continuity of priority telecommunications during an emergency through the continuation of NS/EP priority services currently provided via commercial networks. As major commercial telecommunications carriers replace their current circuit-switched infrastructure with IP-based infrastructure, NGN-PS upgrades will ensure new network infrastructures are capable to accommodate the more than 500,000 authorized users with the ability to communicate during crises. When deployed, NGN-PS technologies will provide all levels of government with priority communications capabilities over robust and diverse nationwide commercial communications networks at a fraction of the cost required to build and maintain a government-owned system.

The FY 2020 funding will continue to support the NGN-PS and result in new end-to-end priority service capabilities. NGN-PS has been working with cellular carriers since FY 2015 to implement priority services for national security and emergency preparedness users as commercial carriers transitioned to 4G/LTE networks. The FY 2020 funding provides continued carrier design, development, and certification of WPS priority features on their 4G/LTE networks, preventing a NS/EP telecommunications shortfall as the carriers start to decommission their 2G/3G networks supporting WPS. In addition, the FY 2020 funding will continue to implement the end-to-end priority service over the new 4G/LTE technologies to ensure priority services are available as carriers transition to IP only networks. NGN-PS funding breakout captured in the figure below.

Figure: NGN-PS Procurement, Construction, and Improvements (PC&I) Funding Breakout

NGN-PS Program <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
Phase 1, Increment 1 – Core Networks	-	-	-
Phase 1, Increment 2 – Wireless Networks	\$42,585	\$29,183	\$8,262
Phase 1, Increment 3 – Wireline Access	-	\$11,768	\$41,145
Operational Test Authority (OTA) Support	\$1,600	\$1,600	\$1,322
Program, Planning and Operations	\$4,720	-	-
Total, NGN-PS PC&I	\$48,905	\$42,551	\$50,729

It is critical that NGN is fielded as carriers convert to IP networks to ensure priority services are always available for national security and emergency preparedness users. Without the required funding, the program will not have priority access services on commercial networks and thus will not meet the communications requirements for national security and emergency preparedness.

Overall Investment Funding

<i>(Dollars in Thousands)</i>	Prior Years	FY 2018	FY 2019	FY 2020
Operations and Support	\$7,465	\$7,636	\$7,618	\$8,394
Procurement, Construction, and Improvements	\$387,863	\$48,905	\$42,551	\$50,729
Research and Development	-	-	-	-
Legacy Appropriations	-			
Total Project Funding	\$395,328	\$56,541	\$50,169	\$59,123
Obligations	\$144,488	\$45,188		
Expenditures	\$144,488	\$7,696		

Contract Information (Current/Execution Year, Budget Year)

Contract Number	Contractor	Type	Award Date (mo/yr)	Start Date (mo/yr)	End Date (mo/yr)	EVM in Contract	Total Value (Dollars in Thousands)
HC101314C0003	AT&T	Firm Fixed Price	08/2014	07/2014	03/2024	N/A	\$210,870
HC101314C0001	Sprint	Firm Fixed Price	03/2014	03/2014	03/2024	N/A	\$161,130
HC101314C0002	Verizon	Firm Fixed Price	05/2014	05/2014	03/2024	N/A	\$ 210,472
HSHQDC15C00059	Leidos	Combination (two or more)	03/2017	03/2018	03/2022	N/A	\$33,751
TBD	TBD – Integration Contract	Cost Plus Award Fee	08/2019	08/2019	08/2024	No	\$234,045

Significant Changes to Investment since Prior Year Enacted

The NGN-PS program received approval on the Acquisition Decision Event in FY 2018 from the Acquisition Review Board (ARB) to start Phase 1, Increment 3 to provide wireline priority access at the Local Exchange Carriers, which is required for the GETS and SRAS portion of the network.

The NGN-PS program received approval on the Acquisition Decision Event in FY 2018 from the Acquisition Review Board (ARB) to complete Phase 1, Increment 1 which is providing long distance/core priority across three major carriers.

FY 2018 Key Milestone Events

- Worked with the Operational Test Agent to summarize testing of Long Distance priority communications for NS/EP users to help achieve FOC October 2018.
- Added Cybersecurity requirements to the project.
- Completed a proof of concept for Increment 3 on a major local exchange carrier.
- Three major wireless carriers now have 4G/LTE priority over their radio access network.
- Identified needed operational metrics to collect performance data for Phase 1, Increment 2.
- Began interoperability project between Wireless Priority Service and FirstNet's Nationwide Public Safety Broadband Network.

FY 2019 Planned Key Milestone Events

- IOC on four Wireless Priority Service commercial carriers for Phase 1, Increment 2.
- Reach FOC for end-to-end priority for two nationwide wireless carriers
- Begin Phase 1, Increment 3, Wireline Priority Access deployment.
- Complete Alternative of Analysis and Cost Estimate for Data and Video Priority.

FY 2020 Planned Key Milestone Events

- Provide end-to-end priority on three wireless carriers in support of Phase 1, Increment 2.
- Complete interoperability project between Wireless Priority Service and FirstNet's Nationwide Public Safety Broadband Network.
- Continue Phase 1, Increment 3 deployment.
- Plan for Phase II, Data and Video Priority

Procurement, Construction, and Improvements
Investment Schedule

Emergency Communications - PPA

Description	Design Work		Project Work	
	Initiated	Completed	Initiated	Completed
	FY 2018			
Common	FY 2007 Q1	FY 2024 Q4	FY 2013 Q4	FY 2024 Q4
Phase 1 Increment 1	FY 2008 Q3	FY 2020 Q4	FY 2013 Q4	FY 2019 Q3
Phase 1 Increment 2	FY 2016 Q1	FY 2024 Q4	FY 2017 Q4	FY 2024 Q4
Service Provider 1	FY 2014 Q3	FY 2024 Q4	FY 2018 Q3	FY 2020 Q4
Service Provider 2	FY 2014 Q3	FY 2024 Q4	FY 2019 Q1	FY 2024 Q4
Service Provider 3	FY 2014 Q4	FY 2024 Q4	FY 2017 Q4	FY 2019 Q4
Wireless Capability	FY 2015 Q1	FY 2015 Q4		
	FY 2019			
Common	FY 2007 Q1	FY 2024 Q4	FY 2013 Q4	FY 2024 Q4
Phase 1 Increment 1	FY 2008 Q3	FY 2020 Q4	FY 2017 Q4	FY 2024 Q4
Phase 1 Increment 2	FY 2016 Q1	FY 2024 Q4	FY 2017 Q4	FY 2024 Q4
Service Provider 1	FY 2014 Q3	FY 2024 Q4	FY 2018 Q3	FY 2022 Q4
Service Provider 2	FY 2014 Q3	FY 2024 Q4	FY 2019 Q1	FY 2024 Q4
Service Provider 3	FY 2014 Q4	FY 2024 Q4	FY 2017 Q4	FY 2019 Q4
	FY 2020			
Common	FY 2007 Q1	FY 2024 Q4	FY 2013 Q4	FY 2024 Q4
Phase 1 Increment 1	FY 2008 Q3	FY 2020 Q4	FY 2017 Q4	FY 2024 Q4
Phase 1 Increment 2	FY 2016 Q1	FY 2024 Q4	FY 2017 Q4	FY 2024 Q4
Service Provider 1	FY 2014 Q3	FY 2024 Q4	FY 2018 Q3	FY 2022 Q4
Service Provider 2	FY 2014 Q3	FY 2024 Q4	FY 2019 Q1	FY 2024 Q4
Service Provider 3	FY 2014 Q4	FY 2024 Q4	FY 2017 Q4	FY 2019 Q4

Biometric Identity Management – PPA**Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
IDENT/Homeland Advanced Recognition Technology	-	\$20,000	-	(\$20,000)
Total	-	\$20,000	-	(\$20,000)
Discretionary - Appropriation	-	\$20,000	-	(\$20,000)

PPA Level I Description

The Office of Biometric and Identity Management (OBIM) has been transferred to the DHS Management Directorate following enactment of the Cybersecurity and Infrastructure Security Agency Act of 2018. Detailed budgetary information on OBIM can be found in the Management Directorate's portion of the FY 2020 President's Budget.

Biometric Identity Management – PPA

Budget Authority and Obligations

Budget Authority (Dollars in Thousands)	FY 2018	FY 2019	FY 2020
Enacted/Request	-	\$20,000	-
Carryover and/or Recoveries (Actual/Estimates/Projections)	\$21,851	-	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	(\$3,300)	-	-
Supplementals	-	-	-
Total Budget Authority	\$18,551	\$20,000	-
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	\$18,551	\$20,000	-
Obligations (Actual/Estimates/Projections)	\$18,551	\$20,000	-
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Biometric Identity Management – PPA
Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	-	-	-
FY 2019 President's Budget	-	-	\$20,000
FY 2020 Base Budget	-	-	-
FY 2020 Request	-	-	-
FY 2019 To FY 2020 Change	-	-	(\$20,000)

Biometric Identity Management – PPA**Non Pay Budget Exhibits****Non Pay by Object Class**

Non-Pay Object Classes <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
31.0 Equipment	-	\$20,000	-	(\$20,000)
Total - Non Pay Object Classes	-	\$20,000	-	(\$20,000)

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 OMB Submission	FY 2019 to FY 2020 Total Changes
HART Investment	-	\$20,000	-	(\$20,000)
Total – Non Pay Cost Drivers	-	\$20,000	-	(\$20,000)

Explanation of Non Pay Cost Drivers

The Office of Biometric and Identity Management (OBIM) has been transferred to the DHS Management Directorate following enactment of the Cybersecurity and Infrastructure Security Agency Act of 2018. Detailed budgetary information on OBIM can be found in the Management Directorate's portion of the FY 2020 President's Budget.

Biometric Identity Management – PPA
Capital Investments Exhibits

Capital Investments

Investment <i>(Dollars in Thousands)</i>	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
IDENT/Homeland Advanced Recognition Technology	024-000005253	1	Procurement	IT	Yes	-	\$20,000	-

IDENT/Homeland Advanced Recognition Technology – PPA Level II**Capital Investments Exhibits****Procurement/Acquisition Programs****IDENT/Homeland Advanced Recognition Technology (HART)****Procurement, Construction, and Investments Funding**

Investment <i>(Dollars in Thousands)</i>	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
IDENT/Homeland Advanced Recognition Technology	024-000005253	1	Procurement	IT	Yes	-	\$20,000	-

In the FY 2020 President’s Budget, the Office of Biometric Identity Management is transferred from CISA to Management. As part of that transfer, the IDENT/Homeland Advanced Recognition Technology procurement program is funded as part of the Management PC&I appropriation. The program is detailed in that chapter of the FY 2020 DHS Budget Request.

*Risk Management Operations – PPA***Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Modeling Capability Transition Environment	\$500	-	-	-
Total	\$500	-	-	-
Discretionary - Appropriation	\$500	-	-	-

PPA Level I Description

The Risk Management Operations PPA funds the Modeling Capability Transition Environment program.

Modeling Capability Transition Environment: The Modeling Capability Transition Environment (MCTE) program is an IT environment that analysts can integrate, refine, and run analytical models, run simulations, and perform geospatial and calculated analyses in a risk analytics workflow system, allowing analysts to systematically integrate risk analytical models to create an automated workflow system for infrastructure modeling. It will also allow for the deployment of an automated workflow system in an environment that National Risk Management Center (NRMC) performers can access and run their own risk analysis within an automated workflow system. This capability will allow NRMC to perform a wide variety of risk analysis while providing a single integrated environment, reduced analytical time frames, and providing more accurate model results.

Risk Management Operations – PPA

Budget Authority and Obligations

Budget Authority (Dollars in Thousands)	FY 2018	FY 2019	FY 2020
Enacted/Request	\$500	-	-
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	-	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	-	-	-
Supplementals	-	-	-
Total Budget Authority	\$500	-	-
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	\$500	-	-
Obligations (Actual/Estimates/Projections)	\$500	-	-
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Risk Management Operations – PPA
Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	-	-	\$500
FY 2019 President's Budget	-	-	-
FY 2020 Base Budget	-	-	-
FY 2020 Request	-	-	-
FY 2019 To FY 2020 Change	-	-	-

Risk Management Operations – PPA**Non Pay Budget Exhibits****Non Pay by Object Class**

Non-Pay Object Classes <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
31.0 Equipment	\$500	-	-	-
Total - Non Pay Object Classes	\$500	-	-	-

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
MCTE Equipment	\$500	-	-	-
Total – Non Pay Cost Drivers	\$500	-	-	-

Explanation of Non Pay Cost Driver

N/A

Risk Management Operations – PPA
Capital Investments Exhibits

Capital Investments

Investment <i>(Dollars in Thousands)</i>	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
Modeling Capability Transition Environment	024-000009587	3	Procurement	IT	No	\$500	-	-

Modeling Capability Transition Environment (MCTE) – Investment**Capital Investments Exhibits****Procurement/Acquisition Programs****Modeling Capability Transition Environment (MCTE)****Procurement, Construction, and Investments Funding**

Investment <i>(Dollars in Thousands)</i>	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
Modeling Capability Transition Environment	024-000009587	3	Procurement	IT	No	\$500	-	-

Investment Description

MCTE will be an environment where risk analytical models can be fully integrated to create an automated enterprise workflow system for infrastructure modeling in support of the protection of critical infrastructure. This standalone environment will provide the ability for analysts to access and run their own risk analyses within the automated enterprise workflow system. By implementing the MCTE, the NRMC will enhance its analytic capabilities to inform decisions made by DHS, public and private sector partners and other stakeholders to improve the security and resilience of infrastructure and understand their interdependencies. This capability will allow the NRMC to perform a wide variety of risk analysis such as: estimate the population affected by power outages during a hurricane; estimate the recovery time from power outages per region; estimate the economic impact of region during a flood; estimate the disruption to the national transportation system during a national event. The MCTE will provide NRMC analysts access to integrated NRMC analytical models and the MCTE will provide an automated workflow system that integrates infrastructure modeling and an accessible computing environment for risk analysts to run their own risk analysis within the automated enterprise workflow system.

The NRMC requires greater access for risk analysts to leverage analytical models, thereby reducing the reliance on higher cost, National Infrastructure Simulation Center national laboratory subject matter experts to run models. The NRMC will be able to reduce analytical timeframes, producing more timely information for decision makers. With this mission, the NRMC needs an analytic environment that can be accessed by analysts within the NRMC, specific national labs, and other authorized partners. The environment must allow analysts to access, integrate, refine and run analytical models, run simulations, and perform geospatial and calculated analyses in a risk analytics workflow system. The analytical results must be produced to support crisis action conditions for a wide variety of hazard profiles in various regions within the United States. Meeting this need also increases the capability of NRMC analysts to produce simulation-based analyses in steady state, which increases the speed during crisis action.

Justification

The FY 2020 Budget does not include PC&I funding for the MCTE, which is expected to reach Full Operating Capability (FOC) in FY 2020. Future funding for sustainment will be provided in CISA's O&S appropriation.

FY 2018 Key Milestone Events

- Release Planning Review (RPR): Determined if sufficient release planning has been conducted by breaking down the work to ensure a minimum viable product can be deployed.
- Sprint Planning Review (SPR): Determined if sufficient planning has been conducted to execute the planned work in the upcoming sprint.
- Acquisition Decision Event (ADE) - 2A/2B.

FY 2019 Planned Key Milestone Events

- Sprint Review and Demo (SRD): A review of the work planned versus completed during the SPR.
- Release Readiness Review/2C (RRR/2C): Determine whether the features/capabilities that were configured during a release meets what was planned and is ready for deployment.
- ADE-2C Release 1.
- Initial Operating Capability (IOC) FY 2019 Q3.

FY 2020 Planned Key Milestone Events

- Post Implementation Review (PIR): An assessment and review of an operational solution to ascertain how well project objectives were met. This review will only occur once.
- Disposal Review (DR): Is the disposition or decommissioning of the CISA instance and management of the CISA data after access to the application is shut off. This review will only occur after Initial Operational Capability.
- ADE-2C Release 2.
- ADE-2C Release 3.
- ADE-3 FY 2020 Q4.
- Full Operating Capability (FOC) FY 2020 Q4.

Overall Investment Funding

<i>(Dollars in Thousands)</i>	Prior Years	FY 2018	FY 2019	FY 2020
Operations and Support	-	-	\$2,229	\$2,301
Procurement, Construction, and Improvements	-	\$500	-	-
Research and Development	-	-	-	-
Legacy Appropriations	-			
Total Project Funding	-	\$500	\$2,229	\$500
Obligations	-	\$500		
Expenditures	-	\$500		

Contract Information (Current/Execution Year, Budget Year)

Contract Number	Contractor	Type	Award Date (mo/yr)	Start Date (mo/yr)	End Date (mo/yr)	EVM in Contract	Total Value
TBD							

Significant Changes to Investment since Prior Year Enacted

No significant changes from prior year.

**Procurement, Construction, and Improvement
Investment Schedule**

Risk Management Operations - PPA

Description	Design Work		Project Work	
	Initiated	Completed	Initiated	Completed
	FY 2018			
ADE 1 Gate Approval			FY 2018 Q3	FY 2018 Q1
ADE 2A/2B (Milestone)			FY 2018 Q4	FY 2018 Q4
	FY 2019			
Procurement of Fed RAMP IT Architecture and Labor			FY 2018 Q3	FY 2018 Q4
Procurement and Licenses			FY 2018 Q3	FY 2018 Q4
Initial Operating Capability (Milestone)			FY 2019 Q3	FY 2019 Q3
ADE 2C (Milestone)			FY 2019 Q3	FY 2019 Q3
	FY 2020			
ADE 2C Release 2 (Milestone)			FY 2020 Q1	FY 2020 Q1
ADE 2C Release 3 (Milestone)			FY 2020 Q3	FY 2020 Q3
ADE 3 (Milestone)			FY 2020 Q4	FY 2020 Q4
Full Operating Capability (FOC) (Milestone)			FY 2020 Q4	FY 2020 Q4

Severable Items

Element/Item	Prior Years	FY 2018	FY 2019	FY 2020
Licenses	-	\$200	-	-
FedRAMP IT Infrastructure	-	\$200	-	-
Labor	-	\$100	-	-

*Infrastructure Security – PPA***Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Infrastructure Protection (IP) Gateway	\$2,539	\$4,787	\$4,881	\$94
Total	\$2,539	\$4,787	\$4,881	\$94
Discretionary - Appropriation	\$2,539	\$4,787	\$4,881	\$94

PPA Level I Description

The Infrastructure Security (IS) PPA funds an acquisition that supports activities related to IP Gateway.

IP Gateway: The IP Gateway system provides a secure, encrypted, controlled-access web interface to a suite of specialized tools to DHS Components, Federal agencies, State, local, tribal, and territorial governments, and owner/operators of the Nation’s critical infrastructure. A consistent assessment methodology supports asset-to-asset comparisons, robust analytics, and cross-government sharing of critical infrastructure information. Additionally, textual and geospatial presentations aid user understanding of the underlying data.

Infrastructure Security – PPA

Budget Authority and Obligations

Budget Authority (Dollars in Thousands)	FY 2018	FY 2019	FY 2020
Enacted/Request	\$2,539	\$4,787	\$4,881
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	-	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	-	-	-
Supplementals	-	-	-
Total Budget Authority	\$2,539	\$4,787	\$4,881
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	\$2,539	\$4,787	\$4,881
Obligations (Actual/Estimates/Projections)	\$2,539	\$4,787	\$4,881
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Infrastructure Security – PPA Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	-	-	\$2,539
FY 2019 President's Budget	-	-	\$4,787
FY 2020 Base Budget	-	-	-
Infrastructure Protection Gateway (IPG)	-	-	\$4,881
Total Investment Elements	-	-	\$4,881
FY 2020 Request	-	-	\$4,881
FY 2019 To FY 2020 Change	-	-	\$94

Infrastructure Security – PPA

Non Pay Budget Exhibits

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
25.3 Other Goods and Services from Federal Sources	\$2,539	\$4,787	\$4,881	\$94
Total - Non Pay Object Classes	\$2,539	\$4,787	\$4,881	\$94

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
IP Gateway Investment	\$2,539	\$4,787	\$4,881	\$94
Total – Non Pay Cost Drivers	\$2,539	\$4,787	\$4,881	\$94

Explanation of Non Pay Cost Driver

IP Gateway Investment Cost: This cost driver reflects an increase of funds due to the annualization of FY 2019 program changes.

Infrastructure Security – PPA
Capital Investments Exhibits

Capital Investments

Investment <i>(Dollars in Thousands)</i>	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
Infrastructure Protection (IP) Gateway	024-000009567	2	Procurement	IT	Yes	\$2,539	\$4,787	\$4,881

Infrastructure Protection (IP) Gateway – Investment**Capital Investments Exhibits****Procurement/Acquisition Programs****(Infrastructure Security (IP) Gateway)****Procurement, Construction, and Investments Funding**

Investment <i>(Dollars in Thousands)</i>	Unique Item Identifier	Acquisition Level	Procurement/ Construction	IT/Non-IT	MAOL	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget
Infrastructure Protection (IP) Gateway	024-000009567	2	Procurement	IT	Yes	\$2,539	\$4,787	\$4,881

Investment Description

The IP Gateway supports the DHS mission to protect critical infrastructure by taking action to mitigate vulnerabilities and enhance security. The IP Gateway ensures there is a single, centrally-managed repository which enables the collection, visualization, storage, retrieval, search, and manipulation of critical infrastructure information. A new investment is planned to replace the IP Gateway. The new system will be cloud-based, mobile, and scalable. The capability will incorporate new data analytics and business intelligence capabilities to support evidence-based decisions. This is to support steady state operations and ensure protection from all hazards regarding event planning and domestic incidents.

Justification

The FY 2020 Budget includes \$4.9M to begin the design and development of a replacement to the IP Gateway system.

The current IP Gateway system is a consolidated set of IT tools and applications that must be modernized in order to support CISA's evolving mission to protect critical infrastructure through risk management and enhanced resiliency. The system is near technical obsolescence and cannot sufficiently support current and future stakeholder mission objectives. The IP Gateway replacement requires significant resources in FY 2020 in order to support development of an IT solution consistent with the stakeholder's mission-essential requirements.

The IT solution should possess modern capabilities such as cloud and mobile-based functionality. FY 2018 PC&I funding supported the redesign of the Special Events and Domestic Incidents Tracker (SEdit) and expansion of the Dependency capabilities to additional sectors. In FY 2019, the IP Gateway will begin activities to migrate to a cloud-based environment. The design and development of the new investment is planned to begin in FY 2020, post cloud migration.

FY 2018 Key Milestone Events

- IP Gateway SEDIT Redesign Project:
 - Acquisition Decision Event (ADE) 2B – FY 2018 Q3.
 - Development Contract Award – FY 2018 Q4.
- IP Gateway Dependency Enhancements Project:
 - Development Contract Award – FY 2018 Q4.

FY 2019 Planned Key Milestone Events

- IP Gateway SEDIT Redesign Project:
 - ADE 2C – FY 2019 Q2
 - Initial Operational Capability (IOC) – FY 2019 Q3.
 - Full Operational Capability (FOC) – FY 2019 Q4.
 - ADE 3 – FY 2019 Q4.
- IP Gateway Dependency Enhancements Project:
 - RPR – FY 2019 Q2.
 - IOC – FY 2019 Q4.
 - FOC – FY 2019 Q4.
- IP Gateway Cloud Migration:
 - Contract Award – FY 2019 Q3.
- New Investment:
 - ADE 0/1 – FY 2019 Q4.

FY 2020 Planned Key Milestone Events

- IP Gateway Cloud Migration:
 - IOC – FY 2020 Q3.
- New Investment:
 - ADE 2A/B – FY 2020 Q2.
 - Design and Development Contract Award – FY 2020 Q3.

Overall Investment Funding

<i>(Dollars in Thousands)</i>	Prior Years	FY 2018	FY 2019	FY 2020
Operations and Support	\$329,855	\$20,159	\$16,424	\$17,543
Procurement, Construction, and Improvements	-	\$2,539	\$4,787	\$4,881
Research and Development	-	-	-	-
Legacy Appropriations	-			
Total Project Funding	\$329,855	\$22,698	\$21,211	\$22,424
Obligations	\$329,855	\$22,698		
Expenditures	\$329,855	\$22,698		

Contract Information (Current/Execution Year, Budget Year)

Contract Number	Contractor	Type	Award Date (mo/yr)	Start Date (mo/yr)	End Date (mo/yr)	EVM in Contract	Total Value (Dollars in Thousands)
TBD (New Contract)	Department of Energy/Idaho National Laboratory	Interagency Agreement	08/2018	08/2018	08/2019	No	\$1,139
TBD (New Contract)	Department of Energy/Idaho National Laboratory	Interagency Agreement	08/2018	08/2018	08/2019	No	\$1,400
TBD (New Contract)	Department of Energy/Idaho National Laboratory	Option to Interagency Agreement	08/2019	08/2019	08/2020	No	\$126

Significant Changes to Investment since Prior Year Enacted

A new investment is planned to replace the IP Gateway. The development of the new investment is planned to begin with FY 2020 PC&I funding. The new system will be cloud-based, mobile, and scalable. This capability advancement will incorporate data analytics and business intelligence capabilities into the new system to support evidence-based decisions for steady state operations, event planning, and domestic incidents within the Regions and at Headquarters.

**Procurement, Construction, and Improvement
Investment Schedule**

Infrastructure Security - PPA

Description	Design Work		Project Work	
	Initiated	Completed	Initiated	Completed
	FY 2018			
SEDIT ADE 2B	FY 2018 Q3	FY 2018 Q3		
SEDIT Development Contract Award			FY 2018 Q4	FY 2018 Q4
Dependency Development Contract Award			FY 2018 Q4	FY 2018 Q4
	FY 2019			
SEDIT ADE 2C			FY 2019 Q2	FY 2019 Q2
SEDIT IOC			FY 2019 Q3	FY 2019 Q3
SEDIT FOC			FY 2019 Q4	FY 2019 Q4
SEDIT ADE 3			FY 2019 Q4	FY 2019 Q4
Dependency Enhancements RPR	FY 2019 Q2	FY 2019 Q2		
Dependency Enhancements IOC			FY 2019 Q4	FY 2019 Q4
Dependency Enhancements FOC			FY 2019 Q4	FY 2019 Q4
Cloud Migration Contract Award			FY 2019 Q3	FY 2019 Q3
New Investment ADE 0/1	FY 2019 Q4	FY 2019 Q4		
	FY 2020			
Cloud Migration IOC			FY 2020 Q3	FY 2020 Q3
New Investment ADE 2A/B	FY 2020 Q2	FY 2020 Q2		
New Investment Design and Development Contract Award			FY 2020 Q3	FY 2020 Q3

Department of Homeland Security
Cybersecurity and Infrastructure Security Agency
Research and Development



Fiscal Year 2020
Congressional Justification

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Research and Development

Budget Comparison and Adjustments

Comparison of Budget Authority and Request

Organization <i>(Dollars in Thousands)</i>	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Cybersecurity	-	-	\$4,695	-	-	\$41,416	-	-	\$24,091	-	-	(\$17,325)
Infrastructure Security	-	-	\$6,431	-	-	\$2,431	-	-	\$1,216	-	-	(\$1,215)
Risk Management Operations	-	-	\$4,000	-	-	\$4,000	-	-	\$5,215	-	-	\$1,215
Total	-	-	\$15,126	-	-	\$47,847	-	-	\$30,522	-	-	(\$17,325)
Subtotal Discretionary - Appropriation	-	-	\$15,126	-	-	\$47,847	-	-	\$30,522	-	-	(\$17,325)

The Cybersecurity and Infrastructure Security's (CISA) Research and Development (R&D) appropriation provides resources necessary to support the search for new or refined knowledge and ideas, and for the application or use of such knowledge and ideas for the development of new or improved products and processes. Projects supported by R&D funds are expected to maintain or increase national economic productivity, while simultaneously developing Federal programs and services so that they take advantage of the most up to date technology and methodology provided by the private sector.

The appropriation includes the following Programs, Projects, and Activities (PPAs):

Cybersecurity: The program oversees the development and application of research to ensure reliable, interoperable, and effective CISA technologies and processes. The program works to ensure CISA cyber activities remain abreast of leading-edge cybersecurity defense capabilities in order to maintain and advance computer security preparedness and response to cyberattacks and incidents. Specific emphasis is placed on cybersecurity and CISA's role in addressing challenges by collaborating with Federal departments and agencies to address cybersecurity risks, opportunities, and solutions on cyber issues with public and private sector partners.

Infrastructure Security: The program leads and coordinates national programs and policies on critical infrastructure security and resilience, which leads to strong partnerships across government and private sectors. The program conducts and facilitates vulnerability and consequence assessments to help critical infrastructure owners and operators and state, local, tribal, and territorial partners understand and address risks to critical infrastructure. Additionally, it provides information on emerging threats and hazards, and offers tools and training to partners to help them manage risks to critical infrastructure.

Risk Management Operations: The program funds research and development activities, including activities conducted to enhance the capabilities of the National Infrastructure Simulation and Analysis Center (NISAC). The National Risk Management Center (NRMC) leads risk management efforts for our nation's critical functions, addressing both cyber and physical threats. NRMC is the hub of operational public-private interaction to manage risk to our Nation's critical infrastructure. NRMC, through its R&D activities, provides homeland security decision makers with timely, relevant, high-quality analysis of cyber and physical risks to critical infrastructure across all sectors, during steady-state operations, and crisis action. The R&D program funds the development of advanced modeling and simulation, data analysis, and risk analysis capabilities focused on characterizing disruptions to cyber and infrastructure systems and networks.

Research and Development Budget Authority and Obligations

Budget Authority <i>(Dollars in Thousands)</i>	FY 2018	FY 2019	FY 2020
Enacted/Request	\$15,126	\$47,847	\$30,522
Carryover and/or Recoveries (Actual/Estimates/Projections)	\$16	\$8,322	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	(\$4,695)	-	-
Supplementals	-	-	-
Total Budget Authority	\$10,447	\$56,169	\$30,522
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	\$10,447	\$56,169	\$30,522
Obligations (Actual/Estimates/Projections)	\$6,803	\$56,169	\$30,522
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Research and Development Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	-	-	\$15,126
FY 2019 President's Budget	-	-	\$47,847
FY 2020 Base Budget	-	-	\$47,847
Transfer from Infrastructure Security	-	-	\$1,215
Transfer to O&S from R&D/Cybersecurity for Cyber Tech Strategic Init	-	-	(\$4,695)
Transfer to Risk Management Operations	-	-	(\$1,215)
Total Transfers	-	-	(\$4,695)
Annualization of 2019 Program Changes in R&D Cybersecurity	-	-	\$588
Total, Pricing Increases	-	-	\$588
Total Adjustments-to-Base	-	-	(\$4,107)
FY 2020 Current Services	-	-	\$43,740
Research and Development for Cybersecurity	-	-	(\$13,218)
Total, Program Decreases	-	-	(\$13,218)
FY 2020 Request	-	-	\$30,522
FY 2019 To FY 2020 Change	-	-	(\$17,325)

Research and Development Justification of Transfers

Transfers <i>(Dollars in Thousands)</i>	FY 2020 President's Budget		
	Positions	FTE	Amount
Transfer 1 - Transfer from Infrastructure Security	-	-	\$1,215
Risk Management Operations	-	-	\$1,215
Transfer 2 - Transfer to O&S from R&D/Cybersecurity for Cyber Tech Strategic Init	-	-	(\$4,695)
Cybersecurity	-	-	(\$4,695)
Transfer 3 - Transfer to Risk Management Operations	-	-	(\$1,215)
Infrastructure Security	-	-	(\$1,215)
Total Transfers	-	-	(\$4,695)

Transfer 1 – Transfer from Infrastructure Security: Transfer of budgetary authority within the R&D appropriation for the NRMCM realignment. This is a net-zero realignment to reflect the funding within Risk Management Operations rather than in Infrastructure Security in FY 2020.

Transfer 2 – Transfer to O&S from R&D/Cybersecurity for Cybersecurity Technology Initiative: Transfer of budgetary authority for realignment of Cybersecurity Technology Strategic Initiative.

Transfer 3 – Transfer to Risk Management Operations: Transfer of budgetary authority within the R&D appropriation for the NRMCM realignment. This is a net-zero realignment to reflect the funding within Risk Management Operations rather than in Infrastructure Security in FY 2020.

Research and Development Justification of Pricing Changes

Pricing Changes (Dollars in Thousands)	FY 2020 President's Budget		
	Positions	FTE	Amount
Pricing Change 1 - Annualization of 2019 Program Changes in R&D Cybersecurity	-	-	\$588
Cybersecurity	-	-	\$588
Total Pricing Changes	-	-	\$588

Pricing Change 1 – Annualization of 2019 Program Changes in R&D Cybersecurity: This pricing change reflects adjustments in program funding necessary to continue support of the Cybersecurity R&D included in the FY 2019 President’s Budget. Specifically this funding is needed for increased operation and maintenance costs associated with the tool used for architecture analysis, requirements definition, and data modelling Cybersecurity R&D purposes.

Research and Development Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Cybersecurity	\$4,695	\$41,416	\$24,091	(\$17,325)
Infrastructure Security	\$6,431	\$2,431	\$1,216	(\$1,215)
Risk Management Operations	\$4,000	\$4,000	\$5,215	\$1,215
Total	\$15,126	\$47,847	\$30,522	(\$17,325)
Discretionary - Appropriation	\$15,126	\$47,847	\$30,522	(\$17,325)

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
25.1 Advisory and Assistance Services	\$4,612	\$40,528	\$22,615	(\$17,913)
25.2 Other Services from Non-Federal Sources	\$33	\$888	\$888	-
25.3 Other Goods and Services from Federal Sources	\$4,000	\$4,000	\$5,215	\$1,215
25.5 Research and Development Contracts	\$6,431	\$2,431	\$1,216	(\$1,215)
25.7 Operation and Maintenance of Equipment	-	-	\$588	\$588
31.0 Equipment	\$50	-	-	-
Total - Non Pay Object Classes	\$15,126	\$47,847	\$30,522	(\$17,325)

Cybersecurity – PPA**Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Cybersecurity	-	-	\$4,695	-	-	\$41,416	-	-	\$24,091	-	-	(\$17,325)
Total	-	-	\$4,695	-	-	\$41,416	-	-	\$24,091	-	-	(\$17,325)
Subtotal Discretionary - Appropriation	-	-	\$4,695	-	-	\$41,416	-	-	\$24,091	-	-	(\$17,325)

PPA Level I Description

Cybersecurity works to bridge the traditional barrier that exists between innovators, stakeholders, and Cybersecurity and Emergency Communications operational elements. The PPA projects strive to align and execute this effort by implementing a comprehensive R&D lifecycle approach through the identification of requirements, discovery of relevant research, and transition to practice.

Cyber threats are dynamic, and their attacks are asymmetric and difficult to predict. CISA's stakeholders and operational organizations need fast access to the latest advances in technology to ensure they have the best tools to defend against such threats. CISA strives to be at the front-end of R&D requirements elicitation and the R&D lifecycle process. It seeks to quickly and iteratively match federally funded technologies to operational gaps, providing its stakeholders and operational organizations with information about, early access to, or use of the latest cyber technology. Early adoption of R&D technologies by CISA operational stakeholders is mutually beneficial to CISA and R&D organizations. The benefits of early R&D adoption include, but are not limited to: 1) shaping and influencing the development and direction of new and emerging technologies; 2) reducing risks during initial investment; and 3) enabling savings from licensing fees after transition to practice and commercialization. The benefits to R&D organizations include, but are not limited to: 1) capitalizing on prior adoption activities under government sponsored settings to expand commercialization of proven technologies; and 2) experiencing early tool functional/operational testing in real world environments to improve their technologies development.

Cybersecurity includes the following R&D projects:

Analytics: Identifies early indications of threats that operate at a large scale (such as new and emerging botnets) and other malicious behavior, develops advanced analytics techniques that match vulnerable targets to known goals of threat actors to identify potential targets, and improves the ability to identify cyber-attacks by leveraging data points available through existing data sets.

Emergency Communications: Identifies and delivers new technologies supporting emergency communications functionality for U.S. commercial networks to strengthen the ability of first response organizations in order to coordinate, facilitates the management of communications channels and frequencies among multiple disciplines, and then shares incident-related information among agencies.

Network and Infrastructure Security: Develops an advanced cloud security architecture, technical concepts and solutions, develops alternatives to monitor encrypted data at the network layer, explores open-source solutions for implementing bi-directional sharing, cyber defense integration of shared indicators, and continually improves cyber data handling with innovative ingest, storage, and access technologies for structured and unstructured data types at a global scale.

Requirements Gathering and Prioritization: Identifies and prioritizes requirements, discovers technologies (existing and in-development), selects best matching requirements-to-technologies, and transitions technologies to operational environment.

Cybersecurity – PPA

Budget Authority and Obligations

Budget Authority (Dollars in Thousands)	FY 2018	FY 2019	FY 2020
Enacted/Request	\$4,695	\$41,416	\$24,091
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	\$335	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	(\$4,695)	-	-
Supplementals	-	-	-
Total Budget Authority	-	\$41,751	\$24,091
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	-	\$41,751	\$24,091
Obligations (Actual/Estimates/Projections)	\$4,360	\$41,751	\$24,091
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Cybersecurity – PPA Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	-	-	\$4,695
FY 2019 President's Budget	-	-	\$41,416
FY 2020 Base Budget	-	-	\$41,416
Transfer to O&S from R&D/Cybersecurity for Cyber Tech Strategic Init	-	-	(\$4,695)
Total Transfers	-	-	(\$4,695)
Annualization of 2019 Program Changes in R&D Cybersecurity	-	-	\$588
Total, Pricing Increases	-	-	\$588
Total Adjustments-to-Base	-	-	(\$4,107)
FY 2020 Current Services	-	-	\$37,309
Research and Development for Cybersecurity	-	-	(\$13,218)
Total, Program Decreases	-	-	(\$13,218)
FY 2020 Request	-	-	\$24,091
FY 2019 To FY 2020 Change	-	-	(\$17,325)

Cybersecurity - PPA Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Cybersecurity	\$4,695	\$41,416	\$24,091	(\$17,325)
Total	\$4,695	\$41,416	\$24,091	(\$17,325)
Discretionary - Appropriation	\$4,695	\$41,416	\$24,091	(\$17,325)

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
25.1 Advisory and Assistance Services	\$4,612	\$40,528	\$22,615	(\$17,913)
25.2 Other Services from Non-Federal Sources	\$33	\$888	\$888	-
25.7 Operation and Maintenance of Equipment	-	-	\$588	\$588
31.0 Equipment	\$50	-	-	-
Total - Non Pay Object Classes	\$4,695	\$41,416	\$24,091	(\$17,325)

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers <i>Dollars in Thousands</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Analytics	-	\$15,005	\$9,804	(\$5,201)
Emergency Communications	-	\$8,505	\$5,547	(\$2,958)
Network and Infrastructure Security	-	\$12,005	\$7,869	(\$4,136)
Requirements Gathering and Prioritization	-	\$1,206	\$871	(\$335)
Cybersecurity Technology Strategic Initiative	\$4,695	\$4,695	-	(\$4,695)
Total – Non Pay Cost Drivers	\$4,695	\$41,416	\$24,091	(\$17,325)

Explanation of Non Pay Cost Drivers

Analytics: This cost driver reflects the reprioritization of research and development efforts across the Department. The program will be executed by implementing a comprehensive lifecycle approach through the identification of requirements, discovery of relevant research, and transition to practice. The FY 2020 request is reflective of the funding required to support the priority requirements.

Emergency Communications: This cost driver reflects the reprioritization of research and development efforts across the Department. The program will be executed by implementing a comprehensive lifecycle approach through the identification of requirements, discovery of relevant research, and transition to practice. The FY 2020 request is reflective of the funding required to support the priority requirements.

Network and Infrastructure Security: This cost driver reflects the reprioritization of research and development efforts across the Department. The program will be executed by implementing a comprehensive lifecycle approach through the identification of requirements, discovery of relevant research, and transition to practice. The FY 2020 request is reflective of the funding required to support the priority requirements.

Requirements Gathering and Prioritization: This cost driver reflects the reprioritization of research and development efforts across the Department. The program will be executed by implementing a comprehensive lifecycle approach through the identification of requirements, discovery of relevant research, and transition to practice. The FY 2020 request is reflective of the funding required to support the priority requirements.

Cybersecurity Technology Strategic Initiative: This cost driver reflects the transfer of budgetary authority for Cybersecurity Technology Strategic Initiative from R&D to the Operations and Support (O&S) appropriation.

Cybersecurity – PPA

Research and Development

Technology Readiness Level Exhibit

Analytics

Project Description

Analytics supports analytical tools that detect and identify threats that operate at a large scale (such as new and emerging botnets) and other malicious behavior. Botnets are a set of bots, or software applications, which are connected and run automated scripts over the internet. Botnets can create distributed denial of service attacks on networks or websites. They represent an easily understood example of a cyber threat that operates at a large scale.

- **Problem:** The detection of botnet or other malicious behavior is not possible without significant support from threat intelligence reporting from multiple sources. Currently, there is a capability gap with respect to fusing together unstructured reporting and existing structured data at machine speed to produce a combined report for this purpose. There is also a lack of any capability to provide quick, accurate analysis of file binaries for malware discovery at scale. There is currently a gap of tools to automate and scale malware detection.
- **Solution:** The FY 2020 President's Budget includes \$9.8M to support R&D of technologies to detect and identify early indications of large scale threats and other malicious behavior from low-signal indicators in the data using analytics. CISA also intends to develop analytic techniques which match vulnerable targets to known goals of threat actors to identify potential targets.
- **Impact:** This effort will improve CISA's ability to identify cyber-attacks by leveraging all the data points available through the existing, but currently stove-piped, rich data sets.

Sub-Projects

- There are no sub-projects for this effort.

FY 2018 Key Milestone Events

- N/A

FY 2019 Planned Key Milestone Events

- Research technologies under development for malware reverse engineering and malware analysis at scale.
- Research technologies that provide solutions for detection and aggregation of threat intelligence from multiple sources.

FY 2020 Planned Key Milestone Events

- Pilots of promising malware analysis tools using DHS datasets.
- Proof of concept for interoperability of multiple threat intelligence analyses.

Overall Project Funding

<i>(Dollars in Thousands)</i>	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Project Funding	-	-	-	\$15,005	\$9,804
Obligations	-	-	-	-	-

Project Schedule

Research & Development Description	Plan Start Date	Planned Completion
FY 2018		
N/A		
FY 2019		
Research technologies under development for malware reverse engineering and malware analysis at scale.	FY 2019 Q1	FY 2020 Q4
Research technologies that provide solutions for detection and aggregation of threat intelligence from multiple sources.	FY 2019 Q1	FY 2020 Q4
Kickoff pilots of promising malware analysis tools using DHS datasets.	FY 2020 Q1	FY 2020 Q4
Demonstrate proof of concept for interoperability of multiple threat intelligence analyses.	FY 2020 Q1	FY 2020 Q4

Type of Research

Developmental

Technical Readiness Level

The program will be Technology Readiness Level 5 “Validation Simulated or Real Space Environment” in FY 2020. The program will begin at TRL 5 “Validation in Simulated or Real Space Environment” in FY 2020 and will end at TRL 7 “Validation in Simulated or Real Space Environment” in FY 2021.

Transition Plans

- The research would transition to a new threat analysis capabilities within CISA, within the next three to five year, and augment or replace capabilities currently provided by the National Cybersecurity Protections System program, also known as EINSTEIN.

Project Description

Emergency Communications includes efforts to facilitate the sharing of information between emergency responders during critical incidents and events.

- **Problem:** Currently, there are no solutions to provide strong authentication using identity management solutions for interoperability of emergency communications systems in order to seamlessly exchange data during an incident between supporting jurisdictions. The ability to access, integrate, and display images and video from the incident scene is key to facilitating the sharing of information between emergency responders during critical incidents and events.
- **Solution:** The FY 2020 President’s Budget includes \$5.5M to identify and deliver new technologies that will support emergency communications functionality for U.S. commercial networks applicable to 5G plans. This effort is intended to:
 - Strengthen the ability of first response organizations to coordinate dispatch functions from multiple jurisdictions and agencies during response operations;
 - Facilitate the management of communications channels and frequencies among multiple disciplines;
 - Share incident-related information among agencies and disciplines during response operations using strong authentication.
- **Impact:** Communications is a designated critical infrastructure sector for which DHS is the Sector Specific Agency. This effort will increase CISA’s ability to support Emergency Communications cyber-attack response/preparedness.

Sub-Projects

- There are no sub-projects for this effort.

FY 2018 Key Milestone Events

- N/A

FY 2019 Planned Key Milestone Events

- Research technologies and solutions to facilitate information sharing for emergency responders during incidents.
- Research tools that support emergency communications functionality in 5G infrastructures.

FY 2020 Planned Key Milestone Events

- Identify and explore the transition of solutions to facilitate information sharing for emergency responders during incidents.
- Identify tools supporting emergency communications functionality for US commercial networks applicable to 5G plans.

Overall Project Funding

<i>(Dollars in Thousands)</i>	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Project Funding	-	-	-	\$8,505	\$5,547
Obligations	-	-	-	-	-

Project Schedule

Research & Development Description	Plan Start Date	Planned Completion
FY 2018		
N/A		
FY 2019		
Research technologies and solutions to facilitate information sharing for emergency responders during incidents.	FY 2019 Q1	FY 2020 Q4
Research tools that support emergency communications functionality in 5G infrastructures.	FY 2019 Q1	FY2020 Q4
FY 2020		
Transition of solutions to facilitate information sharing for emergency responders during incidents.	FY 2020 Q1	FY 2020 Q4
Present options/recommendations of identified tools supporting emergency communications functionality for US commercial networks applicable to 5G plans.	FY 2020 Q1	FY 2020 Q4

Type of Research

Developmental

Technical Readiness Level

The program will be Technology Readiness Level 5 “Validation in Simulated or Real Space Environment” in FY 2020. The program will begin at TRL 5 “Validation in Simulated or Real Space Environment” in FY 2020 and will end at TRL 7 “System Prototype Demonstration in an Operational Environment” in FY 2021.

Transition Plans

- The research would transition primarily to private sector communications network providers for the improvement of security to the nation’s mobile communications systems, and to SLTT stakeholders implementing their own emergency communications networks.

Project Description

Network and Infrastructure Security supports targeted R&D efforts to develop toolsets for IT managers that increase network security in cloud and other multi-tenant environments.

- **Problem:** Current, perimeter-based tools are not as effective for monitoring security in a multi-tenant environment and do not perform as needed in a cloud environment. In addition, encryption is adding a layer of complexity to monitoring network traffic, especially as encrypted web traffic continues to increase. CISA has identified a need for more collaboration and information sharing among organizations to better leverage the broader community's experience in combating the associated cyber threats, to include the commercial Cloud Service Providers.
- **Solution:** The FY 2020 President's Budget includes \$7.9M to facilitate effective toolsets to provide IT managers with situational-awareness in cloud and other multi-tenant environments, to include the development of advanced cloud security architecture, technical concepts, and solutions. Additionally, CISA will research alternatives to monitoring encrypted data at the network layer, and will explore open-source "turn-key" solutions for implementing bi-directional sharing and cyber defense integration of shared indicators exclusively using open source tools/platforms that can continually scale to address the growing size of data sets.
- **Impact:** This effort will improve situational awareness of government data residing in a cloud environment and encrypted traffic, specifically CISA's Continuous Diagnostics & Mitigation and National Cybersecurity Protection System programs. And, address potential mission gaps in CISA's ability to identify malicious activity in encrypted traffic and identify vulnerabilities in government data residing in a cloud environment.

Sub-Projects

- There are no sub-projects for this effort.

FY 2018 Key Milestone Events

- N/A

FY 2019 Planned Key Milestone Events

- Research technologies under development for situational awareness in cloud and multi-tenant environments and research technologies that provide solutions to implement bi-directional sharing of indicators.

FY 2020 Planned Key Milestone Events

- Identify and draft an advanced cloud security architecture, technical concepts and solutions, and turn-key solutions for the implementation of bi-directional sharing of indicators using open source tools and platforms.

Research and Development

Cybersecurity – PPA

- Identify and draft a scalable platform for innovative ingest, storage, and access technologies for structured and unstructured data types at a global scale.

Overall Project Funding

<i>(Dollars in Thousands)</i>	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Project Funding	-	-	-	\$12,005	\$7,869
Obligations	-	-	-	-	-

Project Schedule

Research & Development Description	Plan Start Date	Planned Completion
FY 2018		
N/A		
FY 2019		
Research technologies under development for situational awareness in cloud and multi-tenant environments.	FY 2019 Q1	FY 2020 Q4
Research technologies that provide solutions to implement bi-directional sharing of indicators.	FY 2019 Q1	FY 2020 Q4
FY 2020		
Develop a draft advanced cloud security architecture, technical concepts and solutions.	FY2020 Q1	FY 2020 Q4
Develop a turn-key solution for the implementation of bi-directional sharing of indicators using open source tools and platforms.	FY 2020 Q1	FY 2020 Q4

Type of Research

Developmental

Technical Readiness Level

The program will be Technology Readiness Level 5 “Validation in Simulated or Real Space Environment” in FY 2020. The program will begin at TRL 5 “Validation in Simulated or Real Space Environment” in FY 2020 and will end at TRL 7 “System Prototype Demonstration in an Operational Environment” in FY 2021.

Transition Plans

- The research would transition to DHS Component(s) or Homeland Security’s Cybersecurity stakeholder(s) including the next generation EINSTEIN system in the National Cybersecurity Protections System, the Continuous Diagnostics and Mitigation program, and the Multi-ISAC ALBERT system.

Requirements Gathering and Prioritization**Project Description**

This project identifies and prioritizes strategic technology requirements based on national level risk analysis; works with private sector vendors, DHS S&T, and other government agencies to discover technologies (existing and in-development); coordinates selection of best matching requirements-to-technologies; and assists in the transition of technologies to operational environments.

- **Problem:** The FY 2020 President’s Budget includes a significant investment for work with the R&D community to drive cybersecurity research and development of advanced concepts and technical solutions to identified mission technology requirements. Cyber R&D priorities across DHS and in industry are not prioritized based on the ability to reduce cyber risk. Few R&D projects transition to operational use within DHS or to external stakeholders.
- **Solution:** The FY 2020 President’s Budget includes \$0.9M for work with the R&D community to analysis and enterprise architecture methodologies will be used to identify high priority technology gaps. Improved coordination between R&D centers and operational components will improve the quality of R&D projects, and reduce the time required to operationalize them. Both government and industry partners will work towards candidate solutions to meet the requirements and to drive the innovation of cost effective security products, services, and solutions in the cyber ecosystem.
- **Impact:** This effort will support CISA’s near and long-term changes in technology and the Government’s network landscape by ensuring that all CISA current programs are building capabilities that meet the future needs of the cybersecurity ecosystem. The number of cyber R&D projects resulting in operational implementation will increase, and the ability of the cyber security ecosystem to respond to rapidly changing threats will improve.

Sub-Projects

- There are no sub-projects for this effort.

FY 2018 Key Milestone Events

- N/A

FY 2019 Planned Key Milestone Events

- Review, refine, and update CISA R&D requirements based on new threats and technology to work with DHS and industry research organizations to identify relevant technologies and projects that will meet CISA R&D requirements on an annual basis.
- Develop baseline for CISA major initiatives and create roadmap for strategic outlook of the 3-5 year technology space, then align CISA initiatives into comprehensive architecture view.

FY 2020 Planned Key Milestone Events

- Identify Gaps in Current Cybersecurity Capabilities Prioritized based on Threat and Risk and align CISA investments based on priority of the capabilities.
- Continue to collect and refine CISA R&D requirements and work with DHS and industry research organizations to identify relevant (current/future) technologies and projects that will meet CISA R&D requirements.

Overall Project Funding

<i>(Dollars in Thousands)</i>	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Project Funding	-	-	-	\$1,206	\$871
Obligations	-	-	-	-	-

Project Schedule

Research & Development Description	Plan Start Date	Planned Completion
FY 2018		
N/A		
FY 2019		
Build CISA Future Capabilities Architecture, based on the changing landscape, and incorporate into the enterprise architecture roadmap. Develop requirements for new capabilities identified through the gap analysis to improve/enhance CISA's cybersecurity mission.	FY 2019 Q1	FY 2020 Q4
Collect, refine, and update cyber protection requirements and work with DHS S&T to identify relevant technologies and projects that can meet CISA R&D requirements.	FY 2019 Q3	FY 2020 Q4
Identify Gaps in Current Cybersecurity Capabilities Prioritized based on Threat and Risk and align CISA investments based on priority of the capabilities.	FY 2019 Q1	FY 2030 Q4
FY 2020		
Release long-term Technology Roadmap and Architecture Strategy.	FY 2020 Q1	FY 2021 Q4
Update cyber security requirements and work with DHS S&T to identify relevant technologies and projects that can meet CISA R&D requirements.	FY 2020 Q2	FY 2021 Q4

Type of Research

Basic

Technical Readiness Level

The program will be Technology Readiness Level 6 “System/Application/Deliverable Adequacy Validated in Simulated Environment” in FY 2020. The program will begin at TRL 6 “System/Application/Deliverable Adequacy Validated in Simulated Environment” in FY 2020 and will end at TRL

6 “System/Application/Deliverable Adequacy Validated in Simulated Environment” in FY 2021.

Transition Plans

- The research would transition to DHS Component(s) or Homeland Security Cybersecurity stakeholder(s) into new and/or existing capabilities as appropriate. A successful transition will be the ownership and operation of the research, technology, or knowledge by a DHS Component(s) or Homeland Security Cybersecurity stakeholder(s).

Cybersecurity Technology Strategic Initiative

Project Description

Cybersecurity Technology Strategic Initiative is responsible for supporting the collection of requirements from all stakeholders and identification of federally funded projects to satisfy CISA’s Architecture and Standards requirements, protecting and securing cyberspace within CISA’s mission area requires cutting edge techniques, processes, systems, and strategies. Cybersecurity Technology Strategic Initiative supports the adoption of technologies, international standards, and specifications to promote rapid technical innovation, enables information sharing to improve the effectiveness of cybersecurity solutions, and the promotion of cybersecurity awareness, training, and education.

No funding is requested in FY 2020 for this project.

Sub-Projects

- There are no sub-projects for this effort.

FY 2018 Key Milestone Events

- Continued collection of R&D requirements from CISA stakeholders and identified federally funded research projects.

FY 2019 Planned Key Milestone Events

- Develop baseline for CISA major initiatives and create roadmap for strategic outlook of the 3-5 year technology space.
- Align CISA initiatives into comprehensive architecture view.

FY 2020 Planned Key Milestone Events

- N/A

Overall Project Funding

<i>(Dollars in Thousands)</i>	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Project Funding	-	\$2,030	\$4,695	\$4,695	-
Obligations	-	\$2,030	\$4,360	-	-

Project Schedule

Research & Development Description	Plan Start Date	Planned Completion
FY 2018		
Collect R&D requirements from CISA stakeholders.	FY 2018 Q3	FY 2019 Q3
Identify research projects that can satisfy CISA R&D requirements.	FY 2018 Q4	FY 2019 Q4
FY 2019		
Build CISA future capabilities architecture, based on the changing landscape, and incorporate into the enterprise architecture roadmap and develop requirements for new capabilities identified through the gap analysis to improve/enhance CISA cybersecurity mission.	FY 2019 Q1	FY 2020 Q4
Identify gaps in current cybersecurity capabilities prioritized based on threat and risk and align CISA investments based on prioritized capabilities.	FY 2019 Q1	FY 2020 Q4
FY 2020		
N/A		

*Infrastructure Security - PPA***Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Infrastructure Security	-	-	\$6,431	-	-	\$2,431	-	-	\$1,216	-	-	(\$1,215)
Total	-	-	\$6,431	-	-	\$2,431	-	-	\$1,216	-	-	(\$1,215)
Subtotal Discretionary - Appropriation	-	-	\$6,431	-	-	\$2,431	-	-	\$1,216	-	-	(\$1,215)

PPA Level I Description

The Infrastructure Security (IS) R&D PPA supports the research, development, and application of innovative technology for community-based critical IS and develops a pragmatic approach for protecting critical infrastructure against terrorist attacks and other emergency situations. This program also develops homeland security technologies that may be transitioned to commercialization.

IS includes the following R&D projects:

Improvised Explosive Device Precursor (IEDP): The IEDP R&D is an initiative by which CISA, in a cooperative effort with our international partners, scientifically assesses and quantifies the threat posed by an array of improvised explosive device precursor chemicals. The intended outcome is to inform the basis of security risk management programs in the U.S., including both the Chemical Facility Anti-Terrorism Standards (CFATS) program and the ongoing development of a combined regulatory and voluntary approach to Ammonium Nitrate (AN)/IEDP security.

Infrastructure Development and Recovery (IDR): The IDR R&D program encourages an integrated, holistic approach to decision-making that incorporates resilient strategies, policies, and best practices and informs the planning, design, construction, and day-to-day operations of critical infrastructure. A cohesive effort across the Federal interagency community and various stakeholders, including critical infrastructure owners and operations, urban/regional planners, building safety and public works officials, academia, professional organizations, and non-profit/non-governmental organizations, is necessary to address threats and risks, opportunities, and solutions.

Infrastructure Security – PPA

Budget Authority and Obligations

Budget Authority (Dollars in Thousands)	FY 2018	FY 2019	FY 2020
Enacted/Request	\$6,431	\$2,431	\$1,216
Carryover and/or Recoveries (Actual/Estimates/Projections)	\$16	\$3,987	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	-	-	-
Supplementals	-	-	-
Total Budget Authority	\$6,447	\$6,418	\$1,216
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	\$6,447	\$6,418	\$1,216
Obligations (Actual/Estimates/Projections)	\$2,443	\$6,418	\$1,216
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Infrastructure Security – PPA Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	-	-	\$6,431
FY 2019 President's Budget	-	-	\$2,431
FY 2020 Base Budget	-	-	\$2,431
Transfer to Risk Management Operations	-	-	(\$1,215)
Total Transfers	-	-	(\$1,215)
Total Adjustments-to-Base	-	-	(\$1,215)
FY 2020 Current Services	-	-	\$1,216
FY 2020 Request	-	-	\$1,216
FY 2019 To FY 2020 Change	-	-	(\$1,215)

Infrastructure Security – PPA Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Infrastructure Security	\$6,431	\$2,431	\$1,216	(\$1,215)
Total	\$6,431	\$2,431	\$1,216	(\$1,215)
Discretionary - Appropriation	\$6,431	\$2,431	\$1,216	(\$1,215)

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
25.5 Research and Development Contracts	\$6,431	\$2,431	\$1,216	(\$1,215)
Total - Non Pay Object Classes	\$6,431	\$2,431	\$1,216	(\$1,215)

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers <i>Dollars in Thousands</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Improvised Explosive Device Precursor	\$798	\$798	\$793	(\$5)
Infrastructure Development and Recovery	\$4,423	\$423	\$423	-
Position, Navigation, and Timing	\$570	\$570	\$0	(\$570)
Technology Development & Deployment Program	\$640	\$640	\$0	(\$640)
Total Non Pay Cost Drivers	\$6,431	\$2,431	\$1,216	(\$1,215)

Explanation of Non Pay Cost Drivers

Improvised Explosive Device Precursor (IEDP): This funding that will help decision-makers make informed decisions on the direction of IED-related programs. Funds will be used to continue performing small-scale physical explosive testing on approximately 21 IEDP chemicals. The results of this testing will provide CISA, the Department, and our committed international partners with information that can be used to inform decision makers as it relates to the security and control of IEDP chemicals. This cost driver reflects a decrease in funds due to an ISD internal adjustment of funds.

Infrastructure Development and Recovery (IDR): This funding needed to continue working with its varied stakeholders to provide a platform to discover, develop, share, and implement best practices, knowledge, and ideas for the development of new or improved products and processes that enhance the security and resilience of critical infrastructure. Areas of interest and collaboration include the development of tools, guidance, and technical assistance offerings that support critical infrastructure security and resilience considerations in infrastructure long-term planning and investment, design, operations and maintenance, and recovery planning. There is no change in the cost driver.

Positioning, Navigation, and Timing – This cost driver reflects a decrease in funds due to transfer of Positioning, Navigation, and Timing (PNT) efforts to the NRMC.

Technology Development & Deployment Program – This cost driver reflects a decrease in funds due to the transfer of Technology Development & Deployment Program (TDDP) efforts to the NRMC.

Infrastructure Security – PPA Research and Development

Technology Readiness Level Exhibit

Improvised Explosive Device Precursor

Project Description

The IEDP R&D is an initiative by which CISA, in a cooperative effort with our international partners, scientifically assesses and quantifies the threat posed by an array of improvised explosive device precursor chemicals. The intended outcome is to inform the basis of security risk management programs, including both the CFATS program and the ongoing development of a combined regulatory and voluntary approach to Ammonium Nitrate (AN)/IEDP security.

- **Problem:** The United States and other nations are facing concerns over the potential use of certain chemicals to create Homemade Explosives (HME) used in Improvised Explosive Devices (IEDs) for terrorist activities. There is little scientific data on many of the precursor chemicals used, and the chemicals used evolve and change over time. As an organization that is responsible for regulating the security of certain chemical facilities, CISA must scientifically understand and stay educated on the potential misuses of chemicals.
- **Solution:** In FY 2019 and beyond, the Infrastructure Security R&D PPA will continue to fund, as needed, the IEDP scientific testing effort. For this purpose, \$793,000 is included in the FY 2020 President's Budget. This funding will help decision-makers make informed decisions on the direction of IED-related programs. Funds will be used to continue performing small-scale physical explosive testing on approximately 21 IEDP chemicals. Medium-scale testing being completed and large-scale testing will be performed as needed. The results of this testing will provide CISA, the Department, and our committed international partners with information that can be used to inform decision makers as it relates to the security and control of IEDP chemicals. Overall funding for the testing effort includes IEDP R&D funding and matching amounts committed by the international partners. As such, the IEDP effort is a joint international testing project with global implications.
- **Impact:** The IEDP scientific testing effort will provide the data necessary to inform decisions on measures to protect against the IEDP threat. Without this data, program offices involved with protecting against the IEDP threat may be disadvantaged in making informed, risk-based decisions to ensure successful threat mitigation.

Sub-Projects

- There are no sub-projects for this effort.

FY 2018 Key Milestone Events

- Completed a literature search of all 22 HME precursors. This literature search provided information on formulations of each active species/fuel/diluent mixtures, and enabled CISA to identify and set the priority order for active species testing for Small Scale Safety Testing (SSST).

FY 2019 Planned Key Milestone Events

- The HME precursors will undergo SSST to determine sensitivity and potential tests will be performed on the precursors in groups of four, which will occur concurrently.
- The SSST experiments will be conducted by international partners and Quick Look Reports will be issued upon completion (approximately every two to four months) of each SSST group.

FY 2020 Planned Key Milestone Events

- The HME precursors will continue to undergo SSST to determine sensitivity and scale up potential; tests will be performed on the precursors in groups of four and will occur concurrently.
- The SSST experiments will be conducted by international partners and Quick Look Reports will be issued upon completion (approximately every two to four months) of each SSST group.

Overall Project Funding

<i>(Dollars in Thousands)</i>	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Project Funding	\$800	\$800	\$798	\$798	\$793
Obligations	\$800	\$800	\$798	-	-

Project Schedule

Research and Development Description	Plan Start Date	Planned Completion
FY 2018		
Literature Review for Limits of Explosivity and Formulation Section.	FY 2018 Q4	FY 2019 Q4
Small-scale Characterization Testing.	FY 2018 Q4	FY 2019 Q4
Intermediate-scale Thermal Stability & Performance Testing.	FY 2018 Q4	FY 2019 Q4
Large-scale Explosivity Testing.	FY 2018 Q4	FY 2019 Q4
FY 2019		
Small-scale Characterization Testing.	FY 2019 Q4	FY 2020 Q4
Intermediate-scale Thermal Stability & Performance Testing.	FY 2019 Q4	FY 2020 Q4
Large-scale Explosivity Testing.	FY 2019 Q4	FY 2020 Q4
FY 2020		
Perform small-scale testing of the 22 precursors listed in the Statement of Work (SOW) per IAA Number HSHQPM-17-X-00205.	FY 2018 Q4	FY 2020 Q1
Produce quick-look reports on 22 precursors based on testing performed in FY 2018 and 2019.	FY 2020 Q1	FY 2020 Q2
Cook off tests and technical reporting (Task 4).	FY 2020 Q1	FY 2020 Q4

Type of Research

Applied

Technical Readiness Level

The program will be at Technology Readiness Level (TRL) 5: “Validation in Lab Environment; TRL 6: “System Prototypes in Relevant Environment;” and 7: “System Prototypes in Operational Environment” in FY 2020. Multiple readiness levels are referenced as the program consists of the testing of multiple individual chemicals, each of which will be in varying stages. The TRL levels have not changed since the previous year, and are expected to remain in these phases through at least FY 2021 as testing continues.

Transition Plans

- This research does not lead to the purchase of CISA equipment.

Infrastructure Development and Recovery (IDR)**Project Description**

The IDR program encourages an integrated, holistic approach to decision-making that incorporates resilient strategies, policies, and best practices and informs the planning, design, construction, and day-to-day operations of critical infrastructure. A cohesive effort across the Federal interagency community and various stakeholders, including critical infrastructure owners and operations, urban/regional planners, building safety and public works officials, academia, professional organizations, and non-profit/non-governmental organizations, is necessary to address threats and risks, opportunities, and solutions.

- **Problem:** Successful implementation of critical infrastructure security and resilience across the Nation requires the identification and/or development of cross-sector, multi-threat resilience solutions that expand the Federal Government's capabilities to further the long-term security and resilience of the Nation's critical infrastructure. Accomplishing this mission presents significant challenges in an environment of evolving threats, hazards, and risks.
- **Solution:** With \$423,000 included in the FY 2020 President's Budget, CISA will continue working with its varied stakeholders to provide a platform to discover, develop, share, and implement best practices, knowledge, and ideas for the development of new or improved products and processes that enhance the security and resilience of critical infrastructure. Areas of interest and collaboration include the development of tools, guidance, and technical assistance offerings that support critical infrastructure security and resilience considerations in infrastructure long-term planning and investment, design, operations and maintenance, and recovery planning
- **Impact:** These efforts help integrate critical infrastructure security and resilience considerations into infrastructure long-term planning, investment, design, and recovery that directly aligns with the DHS' mission for protecting and enhancing the Nation's critical infrastructure from all threats and hazards and managing the risks to the nation's assets and systems.

Sub-Projects

- **Critical Infrastructure Resilience Toolkit (CIRT):** CIRT is a web-based capability that enables IS to promulgate resilience enhancement capabilities across stakeholders. CIRT includes a content library of infrastructure resilience resources, to include analytic tools, capabilities, and informational resources that Federal, State, local, tribal, territorial governments and private sector partners can apply to enhance resilience.
- **Data Analytics and Cooperative Resilient Ports Efforts:** Funds support the cooperative resilient port efforts and data analytics related to vulnerability and consequence assessments.

FY 2018 Key Milestone Events

- Completed automation and hosting of CIRT version 1.

FY 2019 Planned Key Milestone Events

- Complete automation and hosting of CIRT, version 2, including the integration of the Infrastructure Resilience Planning Framework, corresponding Decision Support/Quick Guides, and associated resources into the content library.

FY 2020 Planned Key Milestone Events

- Complete automation and hosting of CIRT version 2.1, including the integration of Regional Resiliency Assessment Program (RRAP) resources and tailored analytic products to support infrastructure-specific response and recovery resources into the CIRT.

Overall Project Funding

<i>(Dollars in Thousands)</i>	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Project Funding	\$424	\$424	\$423	\$423	\$423
Obligations	\$424	\$424	\$438	-	-

Project Schedule

Research and Development Description	Plan Start Date	Planned Completion
FY 2018		
Developed CIRT framework diagrams to enable toolkit visualization.	FY 2018 Q1	FY 2018 Q4
Developed CIRT v.1 website.	FY 2018 Q2	FY 2018 Q4
Developed a framework to organize and manage CIRT content.	FY 2018 Q2	FY 2018 Q4
FY 2019		
Develop and finalize CIRT content library and associated search functions.	FY 2019 Q1	FY 2019 Q4
Develop and integrate Infrastructure Resilience Planning Framework into the CIRT.	FY 2019 Q1	FY 2019 Q4
Develop and integrate CIRT decision support capability for asset identification and criticality indexing.	FY 2019 Q2	FY 2019 Q4
FY 2020		
Develop and integrate RRAP resources into the CIRT.	FY 2020 Q1	FY 2020 Q4
Develop and integrate post-disaster response and recovery resources into the CIRT.	FY 2020 Q1	FY 2020 Q4

Type of Research

Applied

Technical Readiness Level

The program began at Technical Readiness Level-2 “Technology Concept/Application Formulated” in FY 2017 and will end at Technical Readiness Level-7 “System Prototypes in Operational Environment” in FY 2020.

By the end of 2020, the CIRT version 2.0 will be developed and demonstrated in an operational environment with a regional planning authority and will frame development of a consistent methodology for assessment of port resilience via three case studies. These two applications will provide valuable data that will inform version 2.1 of the CIRT and position it for broader application.

Transition Plans

- This research does not lead to the purchase of CISA equipment.

Risk Management Operations – PPA**Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Risk Management Operations	-	-	\$4,000	-	-	\$4,000	-	-	\$5,215	-	-	\$1,215
Total	-	-	\$4,000	-	-	\$4,000	-	-	\$5,215	-	-	\$1,215
Subtotal Discretionary - Appropriation	-	-	\$4,000	-	-	\$4,000	-	-	\$5,215	-	-	\$1,215

PPA Level I Description

The Risk Management Operations program funds R&D activities to develop capabilities to model, simulate, and conduct other advanced analysis of cyber and physical risks to critical infrastructure across all sectors. These activities, including activities conducted by NRMIC through the NISAC, inform homeland security decision making in support of both steady-state operations and crisis action.

Risk Management Operations includes the following R&D projects:

National Infrastructure Simulation and Analysis Center (NISAC): NRMIC leverages the advanced modeling and simulation capabilities of technical performers, including the National Laboratories, to model and understand regional and national-level direct and cascading impacts of failures and disruptions to infrastructure. Through the NISAC, NRMIC conducts modeling, simulation, and advanced analytics to support planning and risk management, including in-depth studies on critical infrastructure dependencies and interdependencies. NISAC enables homeland security decision makers to leverage modeling and simulation capabilities to support both operational efforts and strategic planning.

Positioning, Navigation, and Timing (PNT): The DHS National Critical Infrastructure PNT Project Management Office (PMO) works to fully map PNT back-up and complementary requirements, and to work with the interagency and private sector to identify an appropriate backup and complementary capability approach. These efforts will ensure that sufficient research and analysis is available to inform Federal government decisions on solutions for the backup and complementary to the Global Positioning System (GPS) disruption/interference issues. The PMO will also continue its work with interagency partners to address known vulnerabilities in commercial GPS receivers.

Technology Development and Deployment Program (TDDP): CISA, through a competitive process administered by the National Institute of Hometown Security (NIHS), issues the National Infrastructure Protection Plan (NIPP) Security and Resilience Challenge (“NIPP Challenge”). Through the TDDP R&D program, the NIPP Challenge provides an opportunity for the critical infrastructure community to identify

and develop state-of-the-art, cost-effective projects that address near-term needs that strengthen the security and resilience of critical infrastructure. Projects funded under the NIPP Challenge are meant to have tangible, near-term results that can be quickly developed and implemented that are also sustainable so that they can enhance the security and resilience of critical infrastructure across multiple sectors for years to come.

Risk Management Operations – PPA

Budget Authority and Obligations

Budget Authority (Dollars in Thousands)	FY 2018	FY 2019	FY 2020
Enacted/Request	\$4,000	\$4,000	\$5,215
Carryover and/or Recoveries (Actual/Estimates/Projections)	-	\$4,000	-
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	-	-	-
Supplementals	-	-	-
Total Budget Authority	\$4,000	\$8,000	\$5,215
Collections – Reimbursable Resources	-	-	-
Total Budget Resources	\$4,000	\$8,000	\$5,215
Obligations (Actual/Estimates/Projections)	-	\$8,000	\$5,215
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Risk Management Operations – PPA

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	-	-	\$4,000
FY 2019 President's Budget	-	-	\$4,000
FY 2020 Base Budget	-	-	\$4,000
Transfer from Infrastructure Security	-	-	\$1,215
Total Transfers	-	-	\$1,215
Total Adjustments-to-Base	-	-	\$1,215
FY 2020 Current Services	-	-	\$5,215
FY 2020 Request	-	-	\$5,215
FY 2019 To FY 2020 Change	-	-	\$1,215

Risk Management Operations – PPA

Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Risk Management Operations	\$4,000	\$4,000	\$5,215	\$1,215
Total	\$4,000	\$4,000	\$5,215	\$1,215
Discretionary - Appropriation	\$4,000	\$4,000	\$5,215	\$1,215

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
25.3 Other Goods and Services from Federal Sources	\$4,000	\$4,000	\$5,215	\$1,215
Total - Non Pay Object Classes	\$4,000	\$4,000	\$5,215	\$1,215

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
National Infrastructure Simulation and Analysis Center	\$4,000	\$4,000	\$4,000	-
*Positioning, Navigation, and Timing	-	-	\$575	\$575
*Technology Development and Deployment Program	-	-	\$640	\$640
Total – Non Pay Cost Drivers	\$4,000	\$4,000	\$5,215	\$1,215

*Prior to FY20, the Positioning, Navigation, and Timing (PNT) project and the Technology Development and Deployment Program (TDDP) were funded under the Infrastructure Security PPA instead of the Integrated Operations PPA. This is a net-zero transfer of budgetary authority within the R&D appropriation.

Explanation of Non Pay Cost Driver

National Infrastructure Simulation and Analysis Center: No change. NISAC will continue to leverage a diverse group of expert performers, including the National Laboratories, to develop capabilities to better understand regional and national-level direct and cascading impacts of failure and disruptions to infrastructure. This includes a continuation of prior year work focused on quantifying the mission impacts of cyber disruptions to information technology networks, developing a model to estimate the impacts of emerging man-made attack vectors on life-saving commodity supply chains, and developing a framework to support sector and cross-sector modeling and simulation of critical infrastructure assets and systems able to identify infrastructure dependencies/interdependencies based on single and multiple asset failure analysis. The FY 2020 request is reflective of the funding required to support priority requirements.

Positioning, Navigation, and Timing: \$0.6M is being transferred in FY 2020 Budget from the Infrastructure Security PPA to coincide with the standup of NRMC, formerly the Office of Cyber and Infrastructure Analysis (OCIA).

Technology Development and Deployment Program: \$0.6M is being transferred in FY 2020 from the Infrastructure Security PPA to coincide with the standup of NRMC.

Risk Management Operations – PPA Research and Development

Technology Readiness Level Exhibit

National Infrastructure Simulation and Analysis Center

Project Description

NISAC leverages the advanced modeling and simulation capabilities of technical performers, including the National Laboratories, to model and understand regional and national-level direct and cascading impacts of failures and disruptions to infrastructure. Through the NISAC, NRMC conducts modeling, simulation, and advanced analytics to support planning and risk management, including in-depth studies on critical infrastructure dependencies and interdependencies. NISAC enables homeland security decision makers to leverage modeling and simulation capabilities to support both operational efforts and strategic planning.

- **Problem:** Originally focused on the consequences associated with terrorist threats, analysts who leverage NISAC’s capabilities are now called upon to provide homeland security decision makers with timely, relevant, high-quality analysis of cyber and physical risks to critical infrastructure across all sectors, during steady-state operations and crisis action. In order to support these decisions, analysts require innovative tools and frameworks that are able to cope with sparse data environments, can be used to provide analysis within acceptable timeframes, and provide reliable outputs.
- **Solution:** The FY 2020 President’s Budget includes \$4.0M for R&D performed by the NRMC. This entity leverages a diverse group of expert performers, including the National Laboratories, through the NISAC program to develop capabilities to model, simulate, and conduct other advanced analysis of cyber and physical risks to critical infrastructure across all sectors.
- **Impact:** The Nation’s most significant cyber and physical infrastructure homeland security decisions are informed by expert, innovative analysis and modeling.

Sub Projects

- There are no sub-projects for this effort.

FY 2018 Key Milestone Events

- Methods identified to improve existing capabilities to model the impacts of homeland security events on infrastructure.
- Completed system prototype demonstration of a functional analytic workflow in a laboratory environment to model the consequence of an electromagnetic pulse event to electric power infrastructure.
- Conducted experimental proof of concept of an analytic workflow in a laboratory environment to model the consequences of a cyber-event on computer networks in a repeatedly and analytically-sound way.

FY 2019 Planned Key Milestone Events

- Validation of components of a model in a laboratory environment to estimate the impacts of emerging man-made attack vectors on life-saving commodity supply chains in a non-crisis or incident response context.
- Validation of components of a model in a relevant environment that discretely quantifies the mission impacts of cyber disruptions to information technology networks and a model to estimate the impacts of emerging man-made attack vectors on life-saving commodity supply chains in a non-crisis or incident response context.
- Validation of components of a framework in a laboratory environment that can support sector and cross-sector modeling and simulation of critical infrastructure assets and systems and can provide single asset (n-1) and multiple asset (n-k) failure analysis to identify sector-level and cross sector dependencies/interdependencies of infrastructure assets and systems.

FY 2020 Planned Key Milestone Events

- System prototype demonstration of a model in an operational environment to estimate the impacts of emerging man-made attack vectors on life-saving commodity supply chains in a non-crisis or incident response context.
- System prototype demonstration of a model in an operational environment that discretely quantifies the mission impacts of cyber disruptions to information technology networks and estimates the impacts of emerging man-made attack vectors on life-saving commodity supply chains in a non-crisis or incident response context.
- System prototype demonstration of a framework in an operational environment that can support sector and cross-sector modeling and simulation of critical infrastructure assets and systems and can provide single asset (n-1) and multiple asset (n-k) failure analysis to identify sector-level and cross sector dependencies/interdependencies of infrastructure assets and systems.

Overall Project Funding

<i>(Dollars in Thousands)</i>	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Project Funding	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000
Obligations	\$4,000	\$4,000	\$4,000	-	-

Project Schedule

Research & Development Description	Plan Start Date	Planned Completion
FY 2018		
Submission of deliverables identifying methods to improve existing capabilities to model the impacts of homeland security events on infrastructure.	FY 2019 Q4	FY 2019 Q4
System prototype demonstration of individual segments of an analytic workflow in a laboratory environment to model the consequence of an electromagnetic pulse event to electric power infrastructure.	FY 2019 Q1	FY 2019 Q3
System prototype demonstration of a functional analytic workflow in a laboratory environment to model the consequence of an electromagnetic pulse event to electric power infrastructure.	FY 2019 Q1	FY 2019 Q4

Research and Development**Risk Management Operations – PPA**

Submission of deliverables identifying methods to improve existing capabilities to model the consequences of a cyber-event on computer networks in a repeatedly and analytically-sound way.	FY 2019 Q1	FY 2019 Q3
Experimental proof of concept of an analytic workflow in a laboratory environment to model the consequences of a cyber-event on computer networks in a repeatedly and analytically-sound way.	FY 2019 Q1	FY 2019 Q4
FY 2019		
Proof of concept for a model in a laboratory environment to estimate the impacts of emerging man-made attack vectors on life-saving commodity supply chains in a non-crisis or incident response context.	FY 2020 Q1	FY 2020 Q2
Validation of components of a model in a laboratory environment to estimate the impacts of emerging man-made attack vectors on life-saving commodity supply chains in a non-crisis or incident response context.	FY 2020 Q1	FY 2020 Q4
Proof of concept for a model in a laboratory environment that discretely quantifies the mission impacts of cyber disruptions to information technology networks.	FY 2020 Q1	FY 2020 Q2
Validation of components of a model in a relevant environment that discretely quantifies the mission impacts of cyber disruptions to information technology networks.	FY 2020 Q1	FY 2020 Q4
Proof of concept for a framework in a laboratory environment that can support sector and cross-sector modeling and simulation of critical infrastructure assets and systems and can provide single asset (n-1) and multiple asset (n-k) failure analysis to identify sector-level and cross sector dependencies/interdependencies of infrastructure assets and systems.	FY 2020 Q1	FY 2020 Q2
Validation of components of a framework in a laboratory environment that can support sector and cross-sector modeling and simulation of critical infrastructure assets and systems and can provide single asset (n-1) and multiple asset (n-k) failure analysis to identify sector-level and cross sector dependencies/interdependencies of infrastructure assets and systems.	FY 2020 Q1	FY 2020 Q4
FY 2020		
Validation of components of a framework in a DHS-managed environment to estimate the impacts of emerging man-made attack vectors on life-saving commodity supply chains in a non-crisis or incident response context.	FY 2021 Q1	FY 2021 Q2
System prototype demonstration of a model in an operational environment to estimate the impacts of emerging man-made attack vectors on life-saving commodity supply chains in a non-crisis or incident response context.	FY 2021 Q1	FY 2021 Q4
Validation of components of a framework in a DHS-managed environment that discretely quantifies the mission impacts of cyber disruptions to information technology networks.	FY 2021 Q1	FY 2021 Q2
System prototype demonstration of a model in an operational environment that discretely quantifies the mission impacts of cyber disruptions to information technology networks.	FY 2021 Q1	FY 2021 Q4
Validation of components of a framework in a DHS-managed environment that can support sector and cross-sector modeling and simulation of critical infrastructure assets and systems and can provide single asset (n-1) and multiple asset (n-k) failure analysis to identify sector-level and cross sector dependencies/interdependencies of infrastructure assets and systems.	FY 2021 Q1	FY 2021 Q2
System prototype demonstration of a framework in an operational environment that can support sector and cross-sector modeling and simulation of critical infrastructure assets and systems and can provide single asset (n-1) and multiple asset (n-k) failure analysis to identify sector-level and cross sector dependencies/interdependencies of infrastructure assets and systems..	FY 2021 Q1	FY 2021 Q4

Type of Research

Developmental

Technology Readiness Level

The program will be Technology Readiness Levels (TRLs) 4 “Validation in Lab Environment”, 5 “Validation in Relevant Environment”, 6 “System Prototypes in Relevant Environment”, and 7 “System Prototypes in Operational Environment” in FY 2019 and FY 2020. The program will continue to operate at TRL 7 “System Prototypes in the Operational Environment” in FY 2021.

Transition Plans

- This research does not lead to the purchase of CISA equipment.

Risk Management Operations – PPA Research and Development

Technology Readiness Level Exhibit

Positioning, Navigation, and Timing (PNT)

Project Description

The DHS National Critical Infrastructure PNT Project Management Office (PMO) works to fully map PNT back-up and complementary requirements, and develop prioritized risk mitigation strategies. DHS will conduct research to determine where and how public and private sector resources can be applied to reduce risk. The research will focus on areas where the denial or corruption of PNT data will have cascading impacts on multiple critical infrastructure sectors or on national critical functions. The PMO will also continue its work with interagency partners to address known vulnerabilities in commercial PNT receivers through the testing of GPS/PNT receivers and understanding how the integration of new PNT systems creates opportunities and risk.

- **Problem:** There are known vulnerabilities to commercial GPS receivers, but an appropriate backup and complementary approach is not yet in place should existing solutions fail. Recently the FCC approved the use of the European Union's (EU) equivalent of GPS within the US. We have indications that PNT receivers in the US will not only include the approved EU signals but will also include the ability to receive and process signals from the Russian and Chinese Global Navigation Satellite Systems (GNSS) as well. Users are likely to adopt the use of these systems as they perceive it increases accuracy and builds resilience through redundancy. The risk associated with the use of foreign systems is not understood.
- **Solution:** The FY 2020 President's Budget includes \$575,000 for CISA to continue working with the critical infrastructure community to increase awareness of the risk associated with dependence on PNT capabilities provided by GPS and other sources such as Foreign GNSS. This effort will continue to develop products, programs, and mitigation strategies for critical infrastructure owners and operators. Focus areas for research and development will include the identification of emerging threats and wide-ranging efforts to reduce risk through technology, procedures and policy. These efforts are conducted in coordination with private industry, interagency partners and DHS's Science and Technology Office. The PMO, in coordination with interagency partners, develops standards for GPS receivers and ensures Federal agencies reliant on GPS have options to mitigate vulnerabilities.
- **Impact:** Failure to complete this work will result in decisions regarding the fielding of a backup and complementary system based on conjecture and/or an incomplete understanding of requirements and market needs. Without proper oversight and planning, it is possible that a backup signal will be unusable by large segments of the community unless private infrastructure invest to augment the system. In addition industry may be creating unrealized risk through the use of foreign PNT signals. Investments in additional infrastructure by the private sector may assume undue risk due to broad perceptions that GPS will always be available.

Sub-Projects

- There are no sub-projects for this effort.

FY 2018 Key Milestone Events

- Completed FY 2017 National Defense Authorization Act (NDAA), Section 1618 Requirements Validation, Market Research, Studies and Analysis of Alternatives for PNT.

FY 2019 Planned Key Milestone Events

- Implement Findings of Requirement Validation Study as directed by leadership.
- Complete FY2018 NDAA, Section 1606- Demonstration of Backup and Complementary Positioning, Navigation, and Timing Capabilities of Global Positioning System.

FY 2020 Planned Key Milestone Events

- Follow-up on the Congressional Guidance from the FY 2018 NDAA, Section 1606- Demonstration of Backup and Complementary Positioning, Navigation, and Timing Capabilities of Global Positioning System.
- Complete NDAA FY 2019 actions for PNT which have not been published.

Overall Project Funding

<i>(Dollars in Thousands)</i>	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Project Funding	\$865	\$575	\$570	\$570	\$575
Obligations	\$865	\$575	\$570	-	-

Project Schedule

Research and Development Description	Plan Start Date	Planned Completion
FY 2018		
Conduct the Positioning, Navigation, and Timing Requirements and Market Assessment Study.	FY 2018 Q1	FY 2019 Q3
Develop a Request for Information for the Analysis of Alternatives (AoA) and Develop the PNT AoA.	FY 2018 Q3	FY 2018 Q4
Develop an Interim Executive Summary and Congressional Report of the findings of the PNT Requirements and Market Assessment.	FY 2018 Q3	FY 2018 Q4
Develop, in cooperation with Department of Defense (DOD) and Department of Transportation (DOT), the plan for conducting a Backup and Complementary Capability to the Global Positioning System Demonstration for a Report to Congress.	FY 2018 Q3	FY 2018 Q4
FY 2019		

Research and Development**Risk Management Operations – PPA**

Develop the Final Executive Summary and Congressional Report of the findings of the PNT Requirements and Market Assessment.	FY 2019 Q1	FY 2019 Q2
Using the Requirements Study and the S&T Receiver Testing Data develop a Congressional Report on the results and the next steps including cost and time line to publish a Request for Proposal (RFP) to meet the validated requirements for Critical Infrastructure.	FY 2019 Q1	FY 2019 Q3
Using an FFRDC performer develop a more defined PNT way-ahead that pertains to acquisition events (Operational/Mission Needs Statement, Capability Analysis Report and a Capability Development Plan), policy development/change, and organizational requirement for those identified PNT requirements.	FY 2019 Q2	FY 2019 Q4
Conduct analysis, and validation of the R&D findings/requirements that could change national PNT policy and organizational structure to support the need for a PNT backup/complementary solution set(s), to include information for the Resource Allocation Plan (RAP) build and modifications of TOs or new TOs.	FY 2019 Q3	FY 2020 Q4
FY 2020		
Develop a plan for a Proof of Concept of the selected solution set(s) following the required acquisition events from FY19 that are approved for providing a backup and complementary capability to Critical Infrastructure/Key Resource facilities.	FY 2020 Q1	FY 2020 Q2
Conduct the Proof of Concept using the selected solution set for backup and complementary capability to Critical Infrastructure/Key Resource facilities.	FY 2020 Q3	FY 2020 Q4

Type of Research

Applied

Technical Readiness Level

The program will be Technology Readiness Level (TRL) 7 “System Prototypes in the Operational Environment” in FY 2020. The program will continue to operate at TRL 7 “System Prototypes in the Operational Environment” in FY 2021.

Transition Plans

- This research does not lead to the purchase of CISA equipment.

Risk Management Operations – PPA Research and Development

Technology Readiness Level Exhibit

Technology Development and Deployment Program (TDDP)

Project Description

CISA issues the NIPP Challenge annually through a competitive process administered by the National Institute of Hometown Security (NIHS). Through the TDDP R&D program, the NIPP Challenge provides an opportunity for the critical infrastructure community to identify and develop state-of-the-art, cost-effective projects that address near-term needs that strengthen the security and resilience of critical infrastructure. Projects funded under the NIPP Challenge are meant to have tangible, near-term results that can be quickly developed and implemented that are sustainable so that they can enhance the security and resilience of critical infrastructure across multiple sectors for years to come.

- **Problem:** There is a need for a unique and innovative program that conducts and applies cutting edge research to advance proofs of concept focused on enhancing infrastructure security and resilience.
- **Solution:** With \$640,000 of FY 2020 President’s Budget funding, the TDDP program will continue to capture innovative solutions that address knowledge gaps/emerging threats, which are identified by CISA and the critical infrastructure community, and are selected via a transparent, competitive process. These solutions/proofs of concept can then be brought to market and disseminated broadly to support the critical infrastructure community and government. Initiatives are, in part, selected based on the criteria and capability of the proposed research and development project to benefit a broad range of critical infrastructure community members. This competitive selection process enables small amounts of funding to achieve substantial benefits in the near term.
- **Impact:** Similar to previously selected TDDP projects were funded via the aforementioned competitive process and have demonstrated significant impacts within critical infrastructure protection. It is expected that these projects will provide results similar to these earlier successes:
 - The development of shared public/private common operating pictures and supporting systems which were deployed during the Hurricane Harvey response;
 - Expanded capability to monitor cyber security for smaller utilities;
 - Substantial progress in establishing emergency services voluntary standards.

Sub-Projects

- NIPP Security and Resilience Challenge: This project is an annual white paper solicitation from TDDP that calls for innovative research and development solutions to address a sector/council knowledge gap or emerging threat. Of the submitted proposals, 6-12 are usually selected for action and include in-kind contributions.

FY 2018 Key Milestone Events

- Completed FY 2018 Challenge White Paper Call, providing funding to an array of critical infrastructure security efforts, including:
 - Conducted a landscape research assessment of training and emergency preparedness planning material for convenience stores. These stores deliver 80% of the gasoline and 50% of the bottled water consumed by Americans, as well as sell food out of 154,958 outlets, serving 165 M people and generating \$601B in annual revenue. Current emergency preparedness training for these stores is virtually nonexistent. A training program is being developed now, and transition-to-use for this training will be sponsored and presented by the National Association of Convenience Stores.
 - Published a CERRA framework and Standard Operating Procedure to provide a broad-based, cross-sector consensus on best practices for a nationwide CERRA program through the establishment of tools and member boards. The CERRA framework is the first step toward resolving differing credentials and access requirements across state-lines – a challenge which hinders utility response activities following disasters.
 - Developed cyber risk management tools for non-profit organizations. Includes Education, Budget Sizing, and Risk Assessment Tools. Transition-to- use plan has been implemented. If 15 percent of nonprofit executives use these tools for cyber risk management planning, the reduction in damages nationwide will be estimated to exceed \$330M.
 - Developed a Conduct of Operations (CONOPS) for cyber security reporting and information sharing among public/private partnerships. The CONOPS has reached the transition-to-use phase by beta-testing to share current and ongoing cyber-incidents in the NW Region of the US in the maritime industry. Now being expanded to all sectors.
 - Provided improved capability in sharing sensitive information between public/private entities. Enhanced decision making and operational coordination for regional disaster response by provided an improved framework for data exchange, and formed a Sustained Integrated Planning Work Group to create joint solutions. Implemented Transition-to Use plan by developing business models that established a financial base for which a service can be developed and incorporated an outreach mechanism for business community.
 - Developing algorithms for determining the location of rogue base stations, which are devices that masquerade as legitimate cell phone towers, tricking cell phones within a certain radius into connecting to the device rather than a tower. There is a need to detect rogue base stations to protect the mobile communications critical infrastructure. The use of detection signatures to identify rogue activity and recommend best practices has been prototyped.
 - Created a design report and research event to collect critical data to improve federal visibility and public-private sector coordination during medical emergencies. An on-line mapping tool that allows federal access to the location of the nation's medical product distribution centers, as well as providing insight to key product inventory levels has been prototyped.

FY 2019 Planned Key Milestone Events

- FY 2019 Challenge White Paper Call.

FY 2020 Planned Key Milestone Events

- FY 2020 Challenge White Paper Call.

Overall Project Funding

<i>(Dollars in Thousands)</i>	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Project Funding	\$2,000	\$2,460	\$640	\$640	\$640
Obligations	\$2,000	\$2,460	\$640	-	-

Project Schedule

The below provides the major calendared milestones for the NIPP Challenge. Each year the priorities and selections vary, depending on the current nature of priority risks or infrastructure systems of concern. Following selection of the project, specific deliverables are outlined through the contract process and will determine the subsequent timelines and accomplishments of individual project selections.

Research and Development Description	Plan Start Date	Planned Completion
FY 2018		
Publicize the FY 2018 Challenge and open the Challenge submission process	FY 2018 Q2	FY 2019 Q2
Close FY 2018 Challenge and begin reviewing submissions	FY 2018 Q3	FY 2018 Q3
Select FY 2018 Challenge projects and issue contracts for selected submissions	FY 2018 Q4	FY 2018 Q4
FY 2019		
Publicize the FY 2019 Challenge and open the Challenge submission process	FY 2019 Q2	FY 2019 Q2
Close FY 2019 Challenge and begin reviewing submissions	FY 2019 Q3	FY 2019 Q3
Select FY 2019 Challenge projects	FY 2019 Q4	FY 2019 Q4
FY 2020		
Announce FY 2020 Challenge and open the Challenge submission process	FY 2020 Q2	FY 2020 Q2
Close FY 2020 Challenge and begin reviewing submissions	FY 2020 Q3	FY 2020 Q3
Select FY 2020 Challenge projects and issue contracts for selected submissions	FY 2020 Q4	FY 2020 Q4

Type of Research

Applied

Technical Readiness Level

The program will be Technology Readiness Levels (TRLs) 2 “Technology Concept / Application Formulated”, 3 “Critical Function or Characteristic Proof of Concept”, 4 “Validation in Lab Environment”, 5 “Validation in Relevant Environment”, 6 “System Prototypes in Relevant Environment”, and 7 “System Prototypes in Operational Environment” in FY 2019 and FY 2020. The program will continue to operate at TRL 7 “System Prototypes in the Operational Environment” in FY 2021.

Transition Plans

- Selected projects are required to establish transition plans to ensure product effectiveness and sustainability. Metrics are captured and validated to ensure successful transition to implementation.

Department of Homeland Security
Cybersecurity and Infrastructure Security Agency
Federal Protective Service



Fiscal Year 2020
Congressional Justification

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Federal Protective Service

Budget Comparison and Adjustments

Comparison of Budget Authority and Request

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
FPS Operations	1,602	1,507	\$360,079	1,602	1,507	\$359,196	1,602	1,507	\$387,500	-	-	\$28,304
Countermeasures	-	-	\$1,115,976	-	-	\$1,167,914	-	-	\$1,172,430	-	-	\$4,516
Total	1,602	1,507	\$1,476,055	1,602	1,507	\$1,527,110	1,602	1,507	\$1,559,930	-	-	\$32,820
Subtotal Discretionary - Offsetting Fee	1,602	1,507	\$1,476,055	1,602	1,507	\$1,527,110	1,602	1,507	\$1,559,930	-	-	\$32,820

The Federal Protective Service (FPS) is a non-appropriated, revenue collection, provider of security and law enforcement services within the United States (U.S.) Department of Homeland Security (DHS) under the Cybersecurity and Infrastructure Security Agency (CISA).

When Congress passed the Homeland Security Act of 2002, FPS moved from the U.S. General Services Administration (GSA) to the newly formed Department of Homeland Security. DHS was charged with safeguarding the employees, buildings, grounds, and property owned, occupied, or secured by the Federal Government. The transfer to DHS also resulted in new expanded responsibilities for the FPS officers. With enactment of the Homeland Security Act, FPS officers were granted the powers to:

- Carry firearms;
- Serve warrants and subpoenas;
- Conduct investigations on and off Federal property for offenses that may have been committed on or against Federal property and persons;
- Make arrests without warrants for any offense against the United States committed in the presence of FPS officers or for any Federal felony if they have reasonable grounds to believe the suspect committed or is committing a criminal offense;
- Perform other activities for the protection of Homeland Security as prescribed by the Secretary of DHS; and
- Enforce other Federal, State, and local laws concurrently with other law enforcement officers for the protection of Federal property and employees, and visitors on the property.

The FPS budget structure has two Program, Projects, and Activities (PPA):

FPS Operations: FPS Operations provides funding and support services that include:

- Salaries and Benefits for the Federal staff compensation and benefits;
- Protective Services for Law Enforcement Operations, Investigations, Criminal Intelligence, Information Sharing, K-9 Operations, MegaCenter Operations, Critical Incidents and Special Security Operations, Fleet, and Facilities;
- Training for Law Enforcement including entry-level training, Law Enforcement advanced and refresher training, Law Enforcement standards and certification training, and administrative training; and
- Agency-wide support for Policy and Planning, Acquisition Management, Personnel Security (Background Investigations and Adjudications), Homeland Security Presidential Directive-12 (HSPD-12), Budget, Finance, Revenue, Workforce Planning (Human Capital), Information Technology, Fleet Management, Logistics and other business support services.

Countermeasures: Countermeasures includes the pass-through of countermeasure contracts direct costs that are funded by customer agencies for both Protective Security Officers and Technical Countermeasures:

- **Protective Security Officers (PSOs):** A nation-wide program that provides professionally trained and certified guards stationed onsite at FPS-protected Federal facilities. PSOs are trained in the protection of life and property and are certified in the use of firearms, batons, magnetometers, and X-ray machines.
- **Technical Countermeasures (TCMs):** TCMs are project services that provide technical and subject matter expertise to the design, implementation, and operations and maintenance of TCM projects and equipment at FPS-protected Federal facilities.

FPS is a full-cost recovery/revenue collection agency and funds all expenses from offsetting collections. The following three revenue sources fund all expenses associated with law enforcement, security management, and support activities:

- **Basic Security Services:** Effective October FY 2020, FPS will use a statistically driven, risk-based and operationally focused model to assess customer agencies for FPS basic security services. The model is the result of statistical analysis of three years of historical workload data (eventually five) for each building, to determine what drives FPS security costs. The annual assessment applies to all GSA-controlled space and agreements with non-GSA Federal facilities covered by FPS basic protective security services.
- **Building-Specific Security Services:** FPS uses building-specific security services to implement and maintain security requirements specifically designed for a facility in accordance with standards set by the Interagency Security Committee (ISC). Building-specific security services include acquisition, oversight, and administration of PSOs, security equipment installation, operations, maintenance and repair, consultation on security fixtures, and contractor suitability determinations. FPS charges customer agencies for all direct costs incurred for the acquisition and procurement of PSO and TCM contracts within the requested building, facility, or campus for this service.
- **Agency-Specific Security Services:** Security Work Authorization (SWA) agreements between FPS and another Federal agency fund agency-specific security services. These security services are similar to building-specific services, but FPS performs these for an individual customer. Agency-specific security agreements may also include other reimbursable activity, such as Federal Emergency Management Administration

(FEMA) mission assignments. FPS charges customer agencies for the direct costs incurred in the acquisition and procurement of PSO and TCM contracts within the tenant agency's portion of a building, facility, campus or temporary location.

FPS relies entirely on revenue collections from customer agencies for its annual funding. FPS basic security revenue funds FPS operations and mission support. Starting in FY 2020, FPS is replacing the antiquated cents per square footage charge and the eight percent oversight charge for building-specific security and agency specific security services with the new revenue model discussed above. FPS will continue to collect separately for direct costs on contracts or equipment under building-specific and agency-specific security agreements.

The new FPS approach to basic security is a security oriented, risk-based approach that equitably aligns fees to basic security work. This new approach is based on FPS historical workload data for each building. Beginning in FY 2020, FPS will use this new method to assess and collect basic security service fees. The implementation includes a three-year phase-in period before all customer agencies fully realize the new cost allocation method in their respective invoices from FPS.

Every year, FPS will continue to collect data on its security and law enforcement activities and perform the same statistical modeling. FPS will then apply that resulting model to calculate the annual customer assessments. Because FPS bases the assessment on prior year data (averaged over three years in FY 2020 and eventually five years), once the assessment is made, most assessments will not change during the year of collection. An individual customer's basic security service assessment is subject to change year-over-year based on the building inventory and changes in the overall revenue level, which the Administration approves. This method facilitates planning for both FPS customers and FPS, which enables FPS to align resources to support security services in order to address the ever-evolving threat environment.

The table on the following page includes a list of the projected revenue by FPS customer agency for the FY 2018 Enacted, FY 2019 President's Budget, and the FY 2020 President's Budget. The table accounts for the change from the previous fee structure to the new revenue method.

Agency / Bureau (\$ in Thousands)	FY 2018				FY 2019				FY 2020			
	Basic	PSO	TCM	Total	Basic	PSO	TCM	Total	Basic	PSO	TCM	Total
Department of Homeland Security	\$49,126	\$226,377	\$9,443	\$284,946	\$49,005	\$237,069	\$9,727	\$295,801	\$63,275	\$242,672	\$5,078	\$311,025
Social Security Administration	\$35,138	\$203,096	\$8,472	\$246,707	\$35,052	\$212,688	\$8,727	\$256,467	\$48,341	\$217,715	\$4,556	\$270,612
Department of Justice	\$49,111	\$119,463	\$4,984	\$173,557	\$48,990	\$125,106	\$5,133	\$179,229	\$51,202	\$128,063	\$2,680	\$181,945
Department of the Treasury	\$30,331	\$89,031	\$3,714	\$123,076	\$30,257	\$93,236	\$3,825	\$127,318	\$28,216	\$95,439	\$1,997	\$125,653
Department of Health and Human Services	\$19,044	\$77,504	\$3,233	\$99,782	\$18,998	\$81,165	\$3,330	\$103,493	\$18,459	\$83,083	\$1,738	\$103,281
Judiciary	\$38,096	\$48,260	\$2,013	\$88,369	\$38,002	\$50,539	\$2,074	\$90,615	\$34,954	\$51,733	\$1,083	\$87,770
General Services Administration	\$21,748	\$56,763	\$2,365	\$80,876	\$21,694	\$59,444	\$2,436	\$83,574	\$19,887	\$60,847	\$1,269	\$82,003
Department of Veterans Affairs	\$7,753	\$25,364	\$1,058	\$34,174	\$7,734	\$26,562	\$1,090	\$35,385	\$8,047	\$27,189	\$569	\$35,805
Environmental Protection Agency	\$6,905	\$25,624	\$1,069	\$33,599	\$6,889	\$26,834	\$1,101	\$34,824	\$6,573	\$27,469	\$575	\$34,616
Department of Agriculture	\$11,503	\$20,903	\$872	\$33,277	\$11,474	\$21,890	\$898	\$34,263	\$13,741	\$22,408	\$469	\$36,617
Department of Defense	\$8,231	\$18,605	\$776	\$27,612	\$8,211	\$19,484	\$799	\$28,494	\$9,026	\$19,944	\$417	\$29,387
Department of the Interior	\$11,724	\$13,809	\$576	\$26,109	\$11,695	\$14,461	\$593	\$26,750	\$15,054	\$14,803	\$310	\$30,166
Department of Commerce	\$9,348	\$14,787	\$617	\$24,752	\$9,325	\$15,485	\$635	\$25,446	\$9,173	\$15,851	\$332	\$25,356
Agency for International Development	\$1,827	\$15,064	\$628	\$17,520	\$1,823	\$15,775	\$647	\$18,246	\$1,793	\$16,148	\$338	\$18,279
Department of Labor	\$5,566	\$11,171	\$466	\$17,203	\$5,552	\$11,699	\$480	\$17,731	\$7,293	\$11,975	\$251	\$19,518
Department of Transportation	\$5,911	\$9,910	\$413	\$16,234	\$5,896	\$10,378	\$426	\$16,700	\$5,697	\$10,623	\$222	\$16,543
Nuclear Regulatory Commission	\$1,885	\$11,987	\$500	\$14,372	\$1,880	\$12,553	\$515	\$14,948	\$1,557	\$12,849	\$269	\$14,675
Department of Education	\$2,071	\$9,353	\$390	\$11,815	\$2,066	\$9,795	\$402	\$12,263	\$1,787	\$10,026	\$210	\$12,023
Independent US Government Offices	\$2,255	\$8,478	\$353	\$11,087	\$2,250	\$8,879	\$363	\$11,492	\$2,827	\$9,087	\$188	\$12,101
Department of Defense - Army	\$8,034	\$19,207	\$802	\$28,042	\$8,014	\$20,114	\$825	\$28,954	\$9,148	\$20,590	\$431	\$30,168
Department of Housing and Urban Development	\$3,667	\$5,960	\$249	\$9,875	\$3,658	\$6,241	\$256	\$10,155	\$3,184	\$6,389	\$134	\$9,707
Department of Energy	\$5,208	\$3,192	\$133	\$8,533	\$5,195	\$3,343	\$137	\$8,675	\$3,457	\$3,422	\$72	\$6,950
Department of State - Department of State	\$6,269	\$1,901	\$79	\$8,249	\$6,253	\$1,991	\$82	\$8,325	\$5,417	\$2,038	\$43	\$7,498
National Archives and Records Administration	\$4,469	\$3,435	\$143	\$8,047	\$4,458	\$3,597	\$148	\$8,203	\$3,808	\$3,682	\$77	\$7,567
Small Business Administration	\$1,446	\$4,154	\$173	\$5,773	\$1,443	\$4,350	\$178	\$5,971	\$2,261	\$4,453	\$93	\$6,807
Department of Defense - Navy, Marine Corps	\$1,716	\$3,616	\$151	\$5,483	\$1,711	\$3,787	\$155	\$5,654	\$1,952	\$3,877	\$81	\$5,909
Postal Service	\$1,609	\$3,489	\$146	\$5,243	\$1,605	\$3,654	\$150	\$5,409	\$1,358	\$3,740	\$78	\$5,177
Executive Office of the President	\$535	\$3,645	\$152	\$4,332	\$533	\$3,817	\$157	\$4,507	\$737	\$3,907	\$82	\$4,726
National Labor Relations Board	\$746	\$2,961	\$124	\$3,830	\$744	\$3,101	\$127	\$3,972	\$661	\$3,174	\$66	\$3,902
Equal Employment Opportunity Commission	\$923	\$2,202	\$92	\$3,217	\$921	\$2,306	\$95	\$3,322	\$987	\$2,361	\$49	\$3,397
National Science Foundation	\$629	\$2,277	\$95	\$3,001	\$627	\$2,385	\$98	\$3,110	\$438	\$2,441	\$51	\$2,930
Architect of the Capitol	\$432	\$1,939	\$81	\$2,452	\$431	\$2,031	\$83	\$2,545	\$135	\$2,079	\$43	\$2,258
Federal Trade Commission	\$576	\$1,614	\$67	\$2,257	\$575	\$1,690	\$69	\$2,334	\$566	\$1,730	\$36	\$2,332
Office of Personnel Management	\$1,255	\$283	\$12	\$1,550	\$1,252	\$296	\$12	\$1,561	\$1,388	\$303	\$6	\$1,698
International Trade Commission	\$235	\$1,255	\$52	\$1,542	\$234	\$1,314	\$54	\$1,602	\$270	\$1,345	\$28	\$1,643
United States Congress	\$320	\$794	\$33	\$1,147	\$319	\$832	\$34	\$1,185	\$389	\$851	\$18	\$1,258
Department of Defense - Air Force	\$653	\$339	\$14	\$1,007	\$651	\$355	\$15	\$1,021	\$590	\$364	\$8	\$961
Consumer Product Safety Commission	\$212	\$623	\$26	\$861	\$211	\$653	\$27	\$891	\$140	\$668	\$14	\$822
Export-Import Bank of the United States	\$181	\$617	\$26	\$824	\$181	\$646	\$27	\$853	\$191	\$661	\$14	\$866
Federal Communications Commission	\$759	\$27	\$1	\$787	\$757	\$29	\$1	\$787	\$549	\$29	\$1	\$579
US Tax Court	\$330	\$449	\$19	\$798	\$329	\$471	\$19	\$819	\$257	\$482	\$10	\$749
Federal Maritime Commission	\$77	\$550	\$23	\$650	\$77	\$576	\$24	\$676	\$136	\$590	\$12	\$738
Railroad Retirement Board	\$355	\$231	\$10	\$596	\$354	\$242	\$10	\$606	\$411	\$248	\$5	\$663
National Aeronautics and Space Administration	\$470	\$54	\$2	\$526	\$469	\$57	\$2	\$528	\$397	\$58	\$1	\$456
Smithsonian Institution	\$133	\$232	\$10	\$375	\$132	\$243	\$10	\$386	\$127	\$249	\$5	\$381
Government Accountability Office	\$165	\$195	\$8	\$368	\$164	\$205	\$8	\$377	\$186	\$209	\$4	\$399
Securities and Exchange Commission	\$220	\$129	\$5	\$354	\$219	\$135	\$6	\$360	\$310	\$138	\$3	\$451
Federal Mediation and Conciliation Service	\$167	\$109	\$5	\$281	\$167	\$114	\$5	\$286	\$443	\$117	\$2	\$563
Library of Congress	\$243	\$0	\$0	\$243	\$243	\$0	\$0	\$243	\$204	\$0	\$0	\$204
National Endowment for the Humanities	\$123	\$0	\$0	\$123	\$122	\$0	\$0	\$122	\$74	\$0	\$0	\$74
Federal Labor Relations Authority	\$55	\$61	\$3	\$118	\$55	\$64	\$3	\$121	\$67	\$66	\$1	\$134
Federal Retirement Thrift Investment Board	\$90	\$0	\$0	\$90	\$90	\$0	\$0	\$90	\$82	\$0	\$0	\$82
Office of Special Counsel	\$42	\$34	\$1	\$78	\$42	\$36	\$1	\$79	\$42	\$37	\$1	\$80
Government Publishing Office	\$9	\$24	\$1	\$34	\$9	\$26	\$1	\$35	\$8	\$26	\$1	\$35
Selective Service System	\$19	\$0	\$0	\$19	\$19	\$0	\$0	\$19	\$51	\$0	\$0	\$51
American Battle Monuments Commission	\$13	\$0	\$0	\$13	\$13	\$0	\$0	\$13	\$16	\$0	\$0	\$16
Merit Systems Protection Board	\$84	\$75	\$4	\$162	\$84	\$78	\$4	\$166	\$111	\$82	\$4	\$198
Miscellaneous Commissions	\$34	\$62	\$6	\$101	\$34	\$65	\$6	\$105	\$38	\$68	\$6	\$112
All Other Legislative	\$6	\$0	\$0	\$6	\$6	\$0	\$0	\$6	\$11	\$0	\$0	\$11
Grand Total	\$360,079	\$1,071,286	\$44,690	\$1,476,055	\$359,196	\$1,121,883	\$46,031	\$1,527,110	\$387,500	\$1,148,400	\$24,030	\$1,559,930

Federal Protective Services Budget Authority and Obligations

Budget Authority (Dollars in Thousands)	FY 2018	FY 2019	FY 2020
Enacted/Request	\$1,476,055	\$1,527,110	\$1,559,930
Carryover and/or Recoveries (Actual/Estimates/Projections)	\$171,614	\$62,259	\$40,295
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	-	-	-
Supplementals	-	-	-
Total Budget Authority	\$1,647,669	\$1,589,369	\$1,600,225
Collections – Reimbursable Resources	-	-	-
Collections – Other Sources	\$50,524	(\$31,200)	(\$15,160)
Total Budget Resources	\$1,698,193	\$1,558,169	\$1,585,065
Obligations (Actual/Estimates/Projections)	\$1,650,658	\$1,541,474	\$1,571,674
Personnel: Positions and FTE			
Enacted/Request Positions	1,602	1,602	1,602
Enacted/Request FTE	1,507	1,507	1,507
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	1,602	1,602	1,602
FTE (Actual/Estimates/Projections)	1,507	1,507	1,507

Federal Protective Service Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	1,602	1,507	\$1,476,055
FY 2019 President's Budget	1,602	1,507	\$1,527,110
FY 2020 Base Budget	1,602	1,507	\$1,527,110
Contributions to ICE - IT Infrastructure	-	-	\$57
FERS Agency Contribution Enhancement	-	-	\$3,138
Forecasted Contract Cost Increases for PSO	-	-	\$26,517
Total, Pricing Increases	-	-	\$29,712
Forecasted Reduction to TCM Program	-	-	(\$22,001)
Total, Pricing Decreases	-	-	(\$22,001)
Total Adjustments-to-Base	-	-	\$7,711
FY 2020 Current Services	1,602	1,507	\$1,534,821
Enhancement Due to FPS Fee Increase	-	-	\$25,392
Enhancement of Operational Data and IT Support	-	-	\$9,956
Total, Program Increases	-	-	\$35,348
Reduction to FPS TACCOM Equipment and Support	-	-	(\$10,239)
Total, Program Decreases	-	-	(\$10,239)
FY 2020 Request	1,602	1,507	\$1,559,930
FY 2019 To FY 2020 Change	-	-	\$32,820

Federal Protective Service Justification of Pricing Changes

Pricing Changes (Dollars in Thousands)	FY 2020 President's Budget		
	Positions	FTE	Amount
Pricing Change 1 - Contributions to ICE - IT Infrastructure	-	-	\$57
FPS Operations	-	-	\$57
Operating Expenses	-	-	\$57
Pricing Change 2 - FERS Agency Contribution Enhancement	-	-	\$3,138
FPS Operations	-	-	\$3,138
Operating Expenses	-	-	\$3,138
Pricing Change 3 - Forecasted Contract Cost Increases for PSO	-	-	\$26,517
Countermeasures	-	-	\$26,517
Protective Security Officers	-	-	\$26,517
Pricing Change 4 - Forecasted Reduction to TCM Program	-	-	(\$22,001)
Countermeasures	-	-	(\$22,001)
Technical Countermeasures	-	-	(\$22,001)
Total Pricing Changes	-	-	\$7,711

Pricing Change 1 – Contributions to ICE – IT Infrastructure: This increase accounts for the increase in the agency’s portion of the Immigration and Customs Enforcement (ICE) contribution for IT infrastructure support.

Pricing Change 2 – FERS Agency Contribution Increase: Per OMB Circular A-11, agency FERS contributions increased. The regular FERS agency contribution increased by 2.3% from 13.7% in FY 2019 to 16.0% in FY 2020. The Law Enforcement FERS agency contribution increased by 3.3% from 30.1% to 33.4%. The agency contribution amount for CSRS did not change.

Pricing Change 3 – Forecasted Contract Cost Increases for PSO: This increase supports emerging new customer requirements and contract wage adjustments to FPS guard services.

Pricing Change 4 – Forecasted Reduction to TCM Program: This decrease in TCM is to adjust for the lower forecasted demand in the number of planned projects.

Federal Protective Service Justification of Program Changes

Program Changes (Dollars in Thousands)	FY 2020 President's Budget		
	Positions	FTE	Amount
Program Change 1 - Enhancement Due to FPS Fee Increase	-	-	\$25,392
FPS Operations	-	-	\$25,392
Operating Expenses	-	-	\$25,392
Program Change 2 - Enhancement of Operational Data and IT Support	-	-	\$9,956
FPS Operations	-	-	\$9,956
Operating Expenses	-	-	\$9,956
Program Change 3 - Reduction to FPS TACCOM Equipment and Support	-	-	(\$10,239)
FPS Operations	-	-	(\$10,239)
Operating Expenses	-	-	(\$10,239)
Total Program Changes	-	-	\$25,109

Program Change 1 – Enhancement Due to FPS Fee Increase:

Description

The FY 2020 request includes an increase of approximately \$25.4M in budget authority under FPS Operations/FPS Operating Expenses PPA for the establishment and implementation of the FPS new revenue model for Basic Security Services. The baseline staffing levels of 1,602 Positions and 1,507 FTE will remain the same in FY 2020.

Justification

This reflects a 7.1% fee increase in FY 2020 from FY 2019 for FPS Basic Security Services to address resource gaps in protective security at Federal facilities protective by the agency. The increase is critical to the deployment and operationalization of the new statistically driven risk-based revenue model. Further, the increase in resources enables FPS to meet its operating expenses for providing mission essential services to Federal customers, while simultaneously transitioning to the new revenue model for Basic Security Services.

Performance

This increase will have a significant impact on the agency's ability to meet customer requirements for Basic Security Services, which includes general law enforcement and surge support, criminal investigations, intelligence sharing, and other protective security capabilities.

Program Change 2 – Enhancement of Operational Data and IT Support:**Description**

The FY 2020 request includes an increase of \$10.0M in budget authority under FPS Operations/FPS Operating Expenses PPA for Operational Data and IT Support involved with the new revenue model. The baseline staffing levels of 1,602 Positions and 1,507 FTE will remain the same in FY 2020.

Justification

This reflects a 2.8% increase in FY 2020 from FY 2019, providing FPS with subject matter expertise to ensure data integrity and process development involved with implementation of the new revenue model for Basic Security Services. This includes IT systems data processing and internal controls as well as business operations and standards support.

Performance

This increase will have a significant impact on the agency's ability to formalize the auditability of the procedures and methods for information produced by the agency in support of the new revenue model. The increase will provide FPS with new capabilities for information sharing and data requests to supply internal and external stakeholders with material regarding protective security services.

Program Change 3 – Reduction to FPS TACCOM Equipment and Support:**Description**

The FY 2020 request includes a reduction of \$10.2M in offsetting collection authority in FPS Operations/FPS Operating Expenses PPA for FPS Tactical Communication (TACCOM) Equipment and Support. FPS has a baseline of 7 Positions and 7 FTE that support TACCOM, which are included within the existing staffing levels under the FPS Operations/FPS Operating Expenses PPA.

Justification

This decrease is reflective of scheduled programmatic plans regarding investment cycles from the FY 2019 President's Budget into the FY 2020 Budget. This is a reduction from the acquisition phase to sustainment phase of the TACCOM program.

Performance

This proposed decrease will not have an impact on agency performance, as the baseline will reflect planned operations and maintenance (O&M) levels for TACCOM.

Federal Protective Service Personnel Compensation and Benefits Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
FPS Operations	1,602	1,507	\$180,541	\$119.79	1,602	1,507	\$208,232	\$138.16	1,602	1,507	\$211,545	\$140.36	-	-	\$3,313	\$2.2
Total	1,602	1,507	\$180,541	\$119.79	1,602	1,507	\$208,232	\$138.16	1,602	1,507	\$211,545	\$140.36	-	-	\$3,313	\$2.2
Discretionary - Offsetting Fee	1,602	1,507	\$180,541	\$119.79	1,602	1,507	\$208,232	\$138.16	1,602	1,507	\$211,545	\$140.36	-	-	\$3,313	\$2.2

* The FTE Rate calculation does not include Object Class 11.8-Special Personal Services Payments or 13.0-Benefits for Former Personnel.

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$139,060	\$131,306	\$131,481	\$175
11.3 Other than Full-Time Permanent	\$57	\$3,205	\$3,205	-
11.5 Other Personnel Compensation	\$1,635	\$23,474	\$23,474	-
12.1 Civilian Personnel Benefits	\$39,772	\$50,224	\$53,362	\$3,138
13.0 Benefits for Former Personnel	\$17	\$23	\$23	-
Total - Personnel Compensation and Benefits	\$180,541	\$208,232	\$211,545	\$3,313
Positions and FTE				
Positions - Civilian	1,602	1,602	1,602	-
FTE - Civilian	1,507	1,507	1,507	-

Federal Protective Service

Permanent Positions by Grade-Appropriation

Grades and Salary Range (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
Total, SES	8	10	12	2
GS-15	40	44	43	-1
GS-14	150	157	156	-1
GS-13	373	380	380	-
GS-12	621	560	560	-
GS-11	90	91	91	-
GS-10	2	3	3	-
GS-9	140	135	135	-
GS-8	16	17	17	-
GS-7	121	181	181	-
GS-6	1	1	1	-
GS-5	40	23	23	-
Total Permanent Positions	1,602	1,602	1,602	-
Unfilled Positions EOY	95	95	95	-
Total Perm. Employment (Filled Positions) EOY	1,507	1,507	1,507	-
Position Locations				
Headquarters	273	303	303	-
U.S. Field	1,329	1,299	1,299	-
Averages				
Average Personnel Costs, ES Positions	171,126	171,394	174,698	3,304
Average Personnel Costs, GS Positions	91,131	91,656	87,371	-4,285
Average Grade, GS Positions	12	12	12	-

**Federal Protective Service
Non Pay Budget Exhibits**

Non Pay Summary

Organization <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
FPS Operations	\$179,538	\$150,964	\$175,955	\$24,991
Countermeasures	\$1,115,976	\$1,167,914	\$1,172,430	\$4,516
Total	\$1,295,514	\$1,318,878	\$1,348,385	\$29,507
Discretionary - Offsetting Fee	\$1,295,514	\$1,318,878	\$1,348,385	\$29,507

Non Pay by Object Class

Non-Pay Object Classes <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$13,522	\$8,924	\$10,924	\$2,000
22.0 Transportation of Things	\$12,628	\$10,653	\$10,653	-
23.1 Rental Payments to GSA	\$26,384	\$25,504	\$25,504	-
23.2 Rental Payments to Others	\$5	\$6	\$6	-
23.3 Communications, Utilities, and Misc. Charges	\$5,460	\$21,518	\$8,712	(\$12,806)
24.0 Printing and Reproduction	\$2	\$143	\$143	-
25.1 Advisory and Assistance Services	\$1,392	\$19,041	\$45,157	\$26,116
25.2 Other Services from Non-Federal Sources	\$1,203,992	\$1,177,977	\$1,199,261	\$21,284
25.3 Other Goods and Services from Federal Sources	\$11,479	\$5,552	\$5,552	-
25.4 Operation and Maintenance of Facilities	\$51	\$678	\$678	-
25.6 Medical Care	\$22	\$5	\$5	-
25.7 Operation and Maintenance of Equipment	\$5,030	\$32,200	\$30,725	(\$1,475)
25.8 Subsistence & Support of Persons	-	\$5,484	\$47	(\$5,437)
26.0 Supplies and Materials	\$4,355	\$3,068	\$2,893	(\$175)
31.0 Equipment	\$11,192	\$4,023	\$4,023	-
32.0 Land and Structures	-	\$4,087	\$4,087	-
42.0 Insurance Claims and Indemnities	-	\$15	\$15	-
Total - Non Pay Object Classes	\$1,295,514	\$1,318,878	\$1,348,385	\$29,507

FPS Operations - PPA**Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Operating Expenses	1,602	1,507	\$360,079	1,602	1,507	\$359,196	1,602	1,507	\$387,500	-	-	\$28,304
Total	1,602	1,507	\$360,079	1,602	1,507	\$359,196	1,602	1,507	\$387,500	-	-	\$28,304
Subtotal Discretionary - Offsetting Fee	1,602	1,507	\$360,079	1,602	1,507	\$359,196	1,602	1,507	\$387,500	-	-	\$28,304

PPA Level I Description

FPS is the DHS Secretary's resource for addressing Federal facility security across the homeland. FPS law enforcement operations encompass all aspects and resources required to deliver law enforcement protective services. To fulfill this critical mission, FPS Operations PPA provides the necessary funding for the agency's operational and mission support capabilities.

This PPA contains the following Level II PPA:

Operating Expenses: Salaries and benefits for the Federal staff; protective services for law enforcement operations, investigations, criminal intelligence, information sharing, K-9 operations, MegaCenter operations, critical incidents and special security operations, vehicles, and facilities; training for law enforcement including entry-level training, law enforcement advanced and refresher training, law enforcement standards and certification training, and administrative training; agency-wide support for policy and strategic planning; personnel security (background investigations and adjudications), HSPD-12; acquisition management, budget, finance and revenue; workforce planning (human capital), information technology (IT), fleet management, logistics and other business support services.

FPS Operations – PPA

Budget Authority and Obligations

Budget Authority (Dollars in Thousands)	FY 2018	FY 2019	FY 2020
Enacted/Request	\$360,079	\$359,196	\$387,500
Carryover and/or Recoveries (Actual/Estimates/Projections)	\$88,848	\$39,015	\$18,000
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	-	-	-
Supplementals	-	-	-
Total Budget Authority	\$448,927	\$398,211	\$405,500
Collections – Reimbursable Resources	-	-	-
Collections – Other Sources	\$17,594	-	-
Total Budget Resources	\$466,521	\$398,211	\$405,500
Obligations (Actual/Estimates/Projections)	\$438,800	\$398,211	\$405,500
Personnel: Positions and FTE			
Enacted/Request Positions	1,602	1,602	1,602
Enacted/Request FTE	1,507	1,507	1,507
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	1,602	1,602	1,602
FTE (Actual/Estimates/Projections)	1,507	1,507	1,507

FPS Operations – PPA

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	1,602	1,507	\$360,079
FY 2019 President's Budget	1,602	1,507	\$359,196
FY 2020 Base Budget	1,602	1,507	\$359,196
Contributions to ICE - IT Infrastructure	-	-	\$57
FERS Agency Contribution Enhancement	-	-	\$3,138
Total, Pricing Increases	-	-	\$3,195
Total Adjustments-to-Base	-	-	\$3,195
FY 2020 Current Services	1,602	1,507	\$362,391
Enhancement Due to FPS Fee Increase	-	-	\$25,392
Enhancement of Operational Data and IT Support	-	-	\$9,956
Total, Program Increases	-	-	\$35,348
Reduction to FPS TACCOM Equipment and Support	-	-	(\$10,239)
Total, Program Decreases	-	-	(\$10,239)
FY 2020 Request	1,602	1,507	\$387,500
FY 2019 To FY 2020 Change	-	-	\$28,304

FPS Operations – PPA

Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Operating Expenses	1,602	1,507	\$180,541	\$119.79	1,602	1,507	\$208,232	\$138.16	1,602	1,507	\$211,545	\$140.36	-	-	\$3,313	\$2.2
Total	1,602	1,507	\$180,541	\$119.79	1,602	1,507	\$208,232	\$138.16	1,602	1,507	\$211,545	\$140.36	-	-	\$3,313	\$2.2
Discretionary - Offsetting Fee	1,602	1,507	\$180,541	\$119.79	1,602	1,507	\$208,232	\$138.16	1,602	1,507	\$211,545	\$140.36	-	-	\$3,313	\$2.2

* The FTE Rate calculation does not include Object Class 11.8-Special Personal Services Payments or 13.0-Benefits for Former Personnel.

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$139,060	\$131,306	\$131,481	\$175
11.3 Other than Full-Time Permanent	\$57	\$3,205	\$3,205	-
11.5 Other Personnel Compensation	\$1,635	\$23,474	\$23,474	-
12.1 Civilian Personnel Benefits	\$39,772	\$50,224	\$53,362	\$3,138
13.0 Benefits for Former Personnel	\$17	\$23	\$23	-
Total - Personnel Compensation and Benefits	\$180,541	\$208,232	\$211,545	\$3,313
Positions and FTE				
Positions - Civilian	1,602	1,602	1,602	-
FTE - Civilian	1,507	1,507	1,507	-

**FPS Operations –PPA
Non Pay Budget Exhibits**

Non Pay Summary

Organization <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Operating Expenses	\$179,538	\$150,964	\$175,955	\$24,991
Total	\$179,538	\$150,964	\$175,955	\$24,991
Discretionary - Offsetting Fee	\$179,538	\$150,964	\$175,955	\$24,991

Non Pay by Object Class

Non-Pay Object Classes <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$13,522	\$8,922	\$10,922	\$2,000
22.0 Transportation of Things	\$12,628	\$10,644	\$10,644	-
23.1 Rental Payments to GSA	\$26,384	\$25,442	\$25,442	-
23.2 Rental Payments to Others	\$5	\$6	\$6	-
23.3 Communications, Utilities, and Misc. Charges	\$4,114	\$3,716	\$3,716	-
24.0 Printing and Reproduction	\$2	\$143	\$143	-
25.1 Advisory and Assistance Services	\$1,392	\$18,801	\$44,917	\$26,116
25.2 Other Services from Non-Federal Sources	\$100,840	\$38,838	\$37,363	(\$1,475)
25.3 Other Goods and Services from Federal Sources	\$3,892	\$2,919	\$2,919	-
25.4 Operation and Maintenance of Facilities	\$51	\$678	\$678	-
25.6 Medical Care	\$5	\$5	\$5	-
25.7 Operation and Maintenance of Equipment	\$4,999	\$30,919	\$29,444	(\$1,475)
25.8 Subsistence & Support of Persons	-	\$31	\$31	-
26.0 Supplies and Materials	\$4,355	\$3,050	\$2,875	(\$175)
31.0 Equipment	\$7,349	\$2,748	\$2,748	-
32.0 Land and Structures	-	\$4,087	\$4,087	-
42.0 Insurance Claims and Indemnities	-	\$15	\$15	-
Total - Non Pay Object Classes	\$179,538	\$150,964	\$175,955	\$24,991

Operating Expenses PPA – Level II**Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Operating Expenses	1,602	1,507	\$360,079	1,602	1,507	\$359,196	1,602	1,507	\$387,500	-	-	\$28,304
Total	1,602	1,507	\$360,079	1,602	1,507	\$359,196	1,602	1,507	\$387,500	-	-	\$28,304
Subtotal Discretionary - Offsetting Fee	1,602	1,507	\$360,079	1,602	1,507	\$359,196	1,602	1,507	\$387,500	-	-	\$28,304

PPA Level II Description

FPS is a national organization with Headquarters (HQ) in Washington, DC. FPS operates across 12 regions, two training facilities, and four MegaCenters (dispatch centers) that are geographically dispersed across the nation. FPS HQ provides agency administration and communications, policy and strategic planning, budgetary and fiscal direction, oversight, training, and mission support to the regions, dispatch centers, and training facilities. FPS regions are operational entities and perform the mission of the organization. There is a shared responsibility between HQ and Regional offices for mission support, training and oversight of agency activities.

Operating Expense: FPS' new revenue model for basic security services provides funding for annual operating expenses within the FPS Operating Expenses PPA. FPS may use any available prior year carryover or recovery funds for operations or other expenses related to activities involved with protecting Federal facilities. Categories for FPS operations are described below:

Protective Security: FPS provides Basic Security Services including law enforcement operations, investigations, criminal intelligence and information sharing, K-9 operations, MegaCenter operations, critical incidents, and special security operations. Recent threats and attacks, both internationally and domestically, require FPS to invest an increasing amount of its law enforcement resources to respond rapidly to various locations across the country.

Facility Security Assessments: The cornerstone of FPS' protective security mission is the assessment of government facilities and their associated infrastructure. A Facility Security Assessment (FSA) is the FPS process to identify, analyze, and document the security related risks to a Federal facility, to communicate effectively those risks to facility tenants, and to recommend and monitor feasible and effective security solutions that mitigate the impact of any undesirable event, from terrorist attacks to natural disasters. FPS completes approximately 1,850 FSAs annually for Federal facilities with nearly 30 percent of those on high-risk facilities.

Law Enforcement Operations: FPS law enforcement personnel respond to thousands of incidents per year at Federal facilities and perform visible deterrence through mobile patrol and response activities. FPS law enforcement personnel analyze criminal intelligence, investigate threats made against Federal officials, and investigate incidents occurring in Federal facilities. Training, firearms, ammunition, and uniforms all support the ability of FPS law enforcement personnel to deploy each day to protect Federal facilities. Furthermore, FPS law enforcement provides on-going tenant awareness training in active shooter response, crime prevention, and occupant emergency planning.

Operation Shields are an FPS initiative that systematically deploy a full array of law enforcement and security personnel to test and validate the effectiveness of FPS countermeasures at facilities. This FPS initiative includes assessing the effectiveness of PSOs in detecting the presence of unauthorized individuals or potentially disruptive or dangerous activities in or around Federal facilities, and their ability to prevent the introduction of prohibited items or harmful substances into the facilities. Operation Shields are performed periodically to enhance the protection of a Federal facility and the safety of the people inside. A Mega Shield event occurs when FPS teams up with Federal and non-Federal law enforcement partners to perform a joint operation.

FPS law enforcement also engages and provides security support during National Special Security Events, Special Event Assessment Rating, and other critical situations affecting the Federal community and the secure functioning of government services, including natural or man-made disasters. In support of these and for other protective security efforts, FPS employs 83 explosive detection canine teams, eight large mobile command vehicles (MCVs) and four smaller command vehicles. FPS also supports FEMA's hurricane disaster recovery and relief efforts, such as those activities that took place in Puerto Rico.

Investigations, Criminal Intelligence, & Information Sharing: The FPS Protective Investigation Program (PIP) is part of a larger system that FPS uses to protect government facilities and occupants through threat mitigation, criminal investigation, and a training program that strengthens agents' knowledge and skills in available threat mitigation strategies. The key functions of the PIP are to identify individuals that might pose a threat, investigate and assess those individuals, and implement a mitigation strategy designed to prevent an attack.

FPS strategically assigns agents to the FBI Joint Terrorism Task Forces (JTTF) nationwide program. FPS leverages the resources of the 184 FBI JTTFs and thousands of Federal, State, and local law enforcement agencies to mitigate threats and other criminal activity directed at Federal facilities. FPS agents serve as Task Force Officers (TFO) and participate in all aspects of JTTF activities and counterterrorism (CT) investigations. On a monthly basis, TFOs are directly involved in CT investigations with a nexus to Federal facilities. Under the FPS Suspicious Activity Reporting (SAR) Program, FPS law enforcement officers and other Federal, State and local agencies use FBI eGuardian or directly contact JTTFs to report suspicious activity related to Federal facilities with a potential nexus to terrorism.

FPS HQ intelligence analysts produce reports and briefings to apprise law enforcement officers and key stakeholders of the emerging threats and trends, basing these analyses on Intelligence Community and DHS Intelligence Enterprise raw and finished intelligence. In the regions, agents designated as Regional Intelligence Analysts collaborate with Federal, State, local and tribal law enforcement intelligence units and the national network of fusion centers to provide the most up-to-date local intelligence data to FPS law enforcement officers. The blending of national and local intelligence shapes FPS' protective security operational activities, including support to local special events that may pose risks to Federal facilities, employees and visitors seeking government services.

MegaCenter and Dispatch Radio Communications: FPS MegaCenters provide a vital national radio communications link between FPS law enforcement personnel, the PSOs at posts, while patrolling Federal facilities, and other Federal, State, and local law enforcement entities. FPS' MegaCenters also facilitate the swift and efficient flow of information across the nation and territories. Throughout the year, the MegaCenters monitor multiple types of alarm systems, closed-circuit television, and wireless dispatch communications within Federal facilities throughout the country. In fiscal year 2018, the MegaCenters handled over two million incoming alarm signals requiring action.

Fleet Vehicles: FPS tracks and maintains a fleet of around 1,200 vehicles to ensure that FPS officers are in a position to respond and protect the people and buildings under its protection. FPS leases the vast majority of its fleet through GSA, with the exception of specialty vehicles (e.g., MCVs, X-ray vehicles, motorcycles) because they are not available to lease through GSA.

The FPS fleet management program also includes eight large 42-foot MCVs and four smaller SUV-based mobile communications vehicles called "Rabbits." Strategically located at regional offices around the nation, each of the full-service MCVs supports a 600-mile response radius to ensure that FPS can provide service to any area of the continental U.S. within 24 hours driving time. FPS has deployed MCVs during natural disasters and for special security events, including political party conventions, presidential inaugurations, major sporting events, and terrorist trials.

Cyber-Physical Security Support: The automation of facility systems has generated increased demand for technological capabilities within traditional security and law enforcement duties. Facilities and supporting systems continue to evolve, blurring the lines between physical and IT security. FPS' Advanced Technology Security Program (ATSP) inspectors address these risks to Federal facilities, securing building and security technology against potential threat to unauthorized access to information or control devices that could cause harm. FPS is upgrading its capabilities in order to prepare for the near future, as facilities now contain internet-connected, wireless, and mobile systems that control cameras, elevators, heating, ventilation, and air conditioning (e.g., HVAC) systems. As a result, understanding the "Cyber hygiene" of facilities is essential. Facilities and supporting systems continue to evolve and blur the lines between physical and IT security. FPS' ATSP inspectors address these risks to Federal facilities and secure building and technology against potential threat to unauthorized access that may cause harm.

FPS' ATSP inspectors are responsible for Tier 1 and 2 activities. The CISA Cybersecurity Division conducts Tier 3 activities. The following table illustrates the Tier levels and primary responsibilities:

Level	Description	Output	Primary Responsibility
Tier 1	Data Collection and Triage	<ul style="list-style-type: none"> Utilizes existing assessment method, but evaluates system connectivity Structured inputs added to existing evaluation in the FPS Gateway/Modified Infrastructure Survey Tool. 	FPS Inspectors
Tier 2	Initial Cybersecurity Assessment	<ul style="list-style-type: none"> Evaluation of cyber specific threats toward systems, agencies, and facility coupled with vulnerability research and Interagency Security Committee specific countermeasures as applied to each system 	Advanced Technology Security Specialist (Inspectors w/Net+)
Tier 3	Advanced Cybersecurity Assessment	<ul style="list-style-type: none"> Industrial Control Systems Cyber Emergency Response (ICS-CERT) Cybersecurity Evaluation Tool/Design Architecture Review/Network Architecture Validation 	CISA (with FPS coordination)

Law Enforcement / Protective Security Training: FPS maintains training facilities at the Federal Law Enforcement Training Center (FLETC) and within the National Capital Region (NCR). At FLETC, FPS coordinates and conducts initial training for Inspectors through a 37-week comprehensive training program, which certifies them as Federal law enforcement officers and provide certificates in national weapons detection training, use of electronic control devices, alarm and video surveillance systems technology, and facility security assessments. At the NCR facility, FPS provides ongoing certification training for firearms qualifications and other law enforcement officer requirements. FPS also requires each law enforcement officer to attend in-service training annually and complete a more rigorous one-week training course every five years.

Mission Support: FPS mission and business support activities include HQ leadership; management and operations; field operations oversight; resource management to include budget, finance, revenue, and performance management; logistics contracting and procurement; workforce planning/human capital coordination; program management; and acquisition program and information technology system planning and oversight. Financial and internal controls are critical to the achievement of the FPS mission. This focus is reflected in the planning and analytical rigor that underlies the emphasis placed on budgets, revenue and performance management, particularly with respect to ensuring: (1) financial transparency, (2) operational continuity, (3) responsiveness to customer demand and FPS direction, including surges, critical incidents, special events, and (4) the continuous realization of spending efficiencies.

FPS Modified Infrastructure Survey Tool: The FPS Modified Infrastructure Survey Tool (MIST) is an enhanced system that provides law enforcement with an automated capability to capture vulnerability information about a Federal facility and generate a vulnerability assessment as part of the overall FSA. MIST provides FPS with the means to conduct FSAs in a consistent, streamlined manner in accordance with the standards and criteria set forth by the ISC, and provide a defensible deliverable for inspectors to use when presenting their findings and making recommendations to stakeholders. Additionally, FPS has a MIST Question Set that incorporates cyber elements into FSAs contributing to an overall implementation strategy to integrate agency-wide cyber-physical security concepts across the workforce.

In FY 2020, the projected cost of O&M efforts for the FPS MIST system is \$4.1M, which is included within the budget authority for offsetting collections. FPS Federal staff in support of the MIST system are included in the FTP/FTE numbers under FPS Operations PPA.

FPS MIST System (Dollars in Thousands)		
FY 2018	FY 2019	FY 2020
\$3,927	\$4,044	\$4,115

FPS Law Enforcement Information Management System: The FPS Law Enforcement Information Management System (LEIMS) is a modernized case management system designed as a single system to track all incidents, case management, and non-traditional law enforcement and security activities. FPS requires a robust, enterprise, activity-based law enforcement information management system that will capture the full complement of physical security and law enforcement tasks. In May 2018, LEIMS obtained an Authority to Operate (ATO) from CISA and it will serve as a next generation tool for all FPS law enforcement documentation and reporting needs.

FPS projects \$1.4M for O&M of the LEIMS system in FY 2020. This is included within the budget authority for offsetting collections. FPS Federal staff that support LEIMS are included in the FTP/FTE numbers under FPS Operations PPA. Throughout FY 2020, FPS will maintain and sustain use of the LEIMS system.

FPS LEIMS System (Dollars in Thousands)		
FY 2018	FY 2019	FY 2020
\$1,819	\$896	\$1,419

FPS Post Tracking System: The FPS Post Tracking System (PTS) system is a web application to support PSO oversight and management. PTS provides FPS with the capabilities to monitor remotely thousands of FPS guard posts in real time to ensure that the post has a qualified PSO. This feature streamlines FPS' oversight efforts as well as integration of suitability and security clearance data for making eligibility determinations to staff guard posts. Additionally, this feature is possible through the enhanced capability of allowing users to use their DHS PIV cards for verification and authorization for system access. PTS also provides associated business workflows, analytics, and reports in support of FPS operations and mission support users. For instance, PTS allows FPS to gather automatically and store data needed to validate contract invoices, respond to data calls, provide management reports, and analyze performance.

In FY 2020, the projected cost for remaining investment and O&M efforts in support of the PTS system is \$3.2M. This is included within the budget authority for offsetting collections. FPS Federal staff that support PTS are included in the FTP/FTE numbers under FPS Operations PPA. FPS anticipates that by 2020, PTS will have an ATO and move from the DHS Data Center to the ICE Microsoft Azure Cloud.

FPS PTS System (Dollars in Thousands)		
FY 2018	FY 2019	FY 2020
\$4,989	\$3,470	\$3,241

FPS Training and Academy Management System: The FPS Training and Academy Management System (TAMS) system provides FPS with a platform to manage its training and academy function to include creating, managing, delivering and recording training critical to its workforce of law enforcement officers and contract PSOs. The system also assists with overseeing and validating training and certification requirements. Law enforcement and security agencies are required to demonstrate how they train their law enforcement personnel, to what standards they train their law enforcement staff and how those standards are achieved. Additionally, TAMS provides FPS the capabilities to improve systems for complex training course scheduling and resource management, manage training and certification requirements and records, and assess training effectiveness. FPS long-term plans are to make this automated tool interoperable with both LEIMS and PTS.

FPS projects \$2.5M for O&M of the TAMS system in FY 2020. This is included within the budget authority for offsetting collections. FPS Federal staff that support TAMS are included in the FTP/FTE numbers under FPS Operations PPA. In FY 2020, FPS will focus its TAMS activities on maintaining the systems and renewing its ATO.

FPS TAMS System (Dollars in Thousands)		
FY 2018	FY 2019	FY 2020
\$2,429	\$2,474	\$2,520

FPS Tactical Communications Program: The FPS Tactical Communications (TACCOM) Program provides a centralized dispatch capability that links officer-to-officer communications between FPS HQ and its 12 Regions. The TACCOM Land Mobile Radio communication system is a vital link to performing FPS' mission of securing and protecting Federal facilities and those inside them. TACCOM includes system maintenance provided by contracted operational field support technicians for FPS HQ, regions, and dispatch radio consoles in the four MegaCenters located across the United States, ensuring the best possible reliability of the individual components contained therein.

FPS projects \$11.1M for O&M efforts of the FPS TACCOM Program in FY 2020. This is included in the budget authority for offsetting collections. The FPS Federal staff that support TACCOM are included in the FTP/FTE numbers under FPS Operations PPA. FPS expects to refresh TACCOM in FY 2020 capabilities, following the FY 2019 efforts of radio frequency site installation and acceptance testing and cutover at the MegaCenters.

FPS TACCOM Program (Dollars in Thousands)		
FY 2018	FY 2019	FY 2020
\$11,087	\$21,111	\$11,136

Activity-Based Costing Model: The Activity-Based Costing (ABC) model is a management tool that informs operational decisions and enables the analysis of trade-offs that support a risk-based approach to achieving mission success. FPS uses the ABC tool to regularly review its cost structure, at minimum annually, to provide an understanding of its costs by activity to ensure responsiveness to customer demand and DHS/CISA direction, including surges, critical incidents, and special events.

FPS continues to refine its ABC tool to identify the costs to protect Federal facilities and their occupants. ABC informed the FY 2018 and FY 2019 budget requests and provided information in support of this budget submission by using the most recent full fiscal year data. FPS applies agency expenses to its ABC activities through a distribution of the results from the Federal and Contractor labor survey. FPS has projected an FY 2020 view of resource consumption using the ABC model, which shows the FY 2018 – FY 2020 FPS operating expense requirements. In addition, these projections align to the levels of the total budget resources for FY 2018 – FY 2020 under the FPS Operations/Operating Expenses PPA. The deployment of the 1,602 FTP/1,507 FTE by activity groupings is set forth in the table on the following page. FPS also uses the cost data to support the new revenue model.

Federal Protective Service (FPS) ABC Model Activity Groups	FY 2018		FY 2019		FY 2020	
	Total FTE	Total Cost (\$M)	Total FTE	Total Cost (\$M)	Total FTE	Total Cost (\$M)
Primary	802	\$ 170.0	802	\$ 145.1	802	\$ 147.8
Law Enforcement Response	136	\$ 24.5	136	\$ 20.9	136	\$ 21.3
Protective Investigations	21	\$ 5.0	21	\$ 4.3	21	\$ 4.3
Facility Security Assessments (FSA)	232	\$ 53.6	232	\$ 45.8	232	\$ 46.6
Protective Security Officer Services	136	\$ 27.1	136	\$ 23.1	136	\$ 23.5
Criminal Investigations	37	\$ 8.9	37	\$ 7.6	37	\$ 7.8
Technical Countermeasure Services	40	\$ 9.1	40	\$ 7.7	40	\$ 7.9
Law Enforcement Policing and Protect	106	\$ 19.1	106	\$ 16.3	106	\$ 16.6
Critical Incident and Special Security Operations	64	\$ 17.3	64	\$ 14.7	64	\$ 15.0
Facility Tenant Support	27	\$ 4.8	27	\$ 4.1	27	\$ 4.2
National Infrastructure Protection Plan Government Facilities Sector Support	3	\$ 0.7	3	\$ 0.6	3	\$ 0.6
Secondary	178	\$ 73.0	178	\$ 62.3	178	\$ 63.5
MegaCenter Operations	24	\$ 30.5	24	\$ 26.0	24	\$ 26.5
K-9 Operations	54	\$ 11.7	54	\$ 10.0	54	\$ 10.2
Criminal Intelligence and Information Sharing	23	\$ 5.6	23	\$ 4.7	23	\$ 4.8
PSO Suitability	17	\$ 12.8	17	\$ 10.9	17	\$ 11.1
Covert Security Testing	7	\$ 2.0	7	\$ 1.7	7	\$ 1.7
Operation Shield	19	\$ 3.4	19	\$ 2.9	19	\$ 2.9
Federal, State, and Local Coordination	26	\$ 5.6	26	\$ 4.8	26	\$ 4.9
Contingency Operations	7	\$ 1.5	7	\$ 1.2	7	\$ 1.3
Enabling	223	\$ 53.2	223	\$ 45.4	223	\$ 46.2
Field Entry Level Training	47	\$ 9.5	47	\$ 8.1	47	\$ 8.2
Field Standards and Certifications Training	33	\$ 6.9	33	\$ 5.9	33	\$ 6.0
Field Advanced and Refresher Training	40	\$ 8.8	40	\$ 7.5	40	\$ 7.6
Training Development and Delivery	39	\$ 14.3	39	\$ 12.2	39	\$ 12.4
Administrative Training	11	\$ 3.7	11	\$ 3.1	11	\$ 3.2
Stakeholder Engagement and Liaison	52	\$ 10.1	52	\$ 8.6	52	\$ 8.7
Support	305	\$ 170.3	305	\$ 145.4	305	\$ 148.1
Acquisition and Procurement	68	\$ 20.1	68	\$ 17.2	68	\$ 17.5
Budget, Finance, Revenue, and Performance Management	64	\$ 28.9	64	\$ 24.6	64	\$ 25.1
General Counsel	1	\$ 2.8	1	\$ 2.4	1	\$ 2.4
Human Capital Management	38	\$ 16.9	38	\$ 14.4	38	\$ 14.7
Information Technology	21	\$ 40.0	21	\$ 34.2	21	\$ 34.8
Logistics, Facilities, Fleet, and Property Accountability and Management	46	\$ 35.3	46	\$ 30.1	46	\$ 30.7
National Field Operations Oversight (Headquarters Operations)	37	\$ 15.2	37	\$ 13.0	37	\$ 13.2
Personnel Security Management	12	\$ 5.5	12	\$ 4.7	12	\$ 4.8
Policy	13	\$ 4.1	13	\$ 3.5	13	\$ 3.5
Public Affairs	5	\$ 1.6	5	\$ 1.4	5	\$ 1.4
Grand Total	1,507	\$ 466.5	1,507	\$ 398.2	1,507	\$ 405.5

Note: FPS will use any available prior year carryover and recoveries to support its FY 2018, FY 2019, and FY 2020 operating requirements.
Supplementary Services reflects that FPS no longer conducts GSA and Daycare adjudications.

Operating Expenses – PPA Level II

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	1,602	1,507	\$360,079
FY 2019 President's Budget	1,602	1,507	\$359,196
FY 2020 Base Budget	1,602	1,507	\$359,196
Contributions to ICE - IT Infrastructure	-	-	\$57
FERS Agency Contribution Enhancement	-	-	\$3,138
Total, Pricing Increases	-	-	\$3,195
Total Adjustments-to-Base	-	-	\$3,195
FY 2020 Current Services	1,602	1,507	\$362,391
Enhancement Due to FPS Fee Increase	-	-	\$25,392
Enhancement of Operational Data and IT Support	-	-	\$9,956
Total, Program Increases	-	-	\$35,348
Reduction to FPS TACCOM Equipment and Support	-	-	(\$10,239)
Total, Program Decreases	-	-	(\$10,239)
FY 2020 Request	1,602	1,507	\$387,500
FY 2019 To FY 2020 Change	-	-	\$28,304

Operating Expenses-PPA Level II Personnel Compensation and Benefits

Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted				FY 2019 President's Budget				FY 2020 President's Budget				FY 2019 to FY 2020 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Operating Expenses	1,602	1,507	\$180,541	\$119.79	1,602	1,507	\$208,232	\$138.16	1,602	1,507	\$211,545	\$140.36	-	-	\$3,313	\$2.2
Total	1,602	1,507	\$180,541	\$119.79	1,602	1,507	\$208,232	\$138.16	1,602	1,507	\$211,545	\$140.36	-	-	\$3,313	\$2.2
Discretionary - Offsetting Fee	1,602	1,507	\$180,541	\$119.79	1,602	1,507	\$208,232	\$138.16	1,602	1,507	\$211,545	\$140.36	-	-	\$3,313	\$2.2

* The FTE Rate calculation does not include Object Class 11.8-Special Personal Services Payments or 13.0-Benefits for Former Personnel.

Pay by Object Class

Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 - FY 2020 Change
11.1 Full-time Permanent	\$139,060	\$131,306	\$131,481	\$175
11.3 Other than Full-Time Permanent	\$57	\$3,205	\$3,205	-
11.5 Other Personnel Compensation	\$1,635	\$23,474	\$23,474	-
12.1 Civilian Personnel Benefits	\$39,772	\$50,224	\$53,362	\$3,138
13.0 Benefits for Former Personnel	\$17	\$23	\$23	-
Total - Personnel Compensation and Benefits	\$180,541	\$208,232	\$211,545	\$3,313
Positions and FTE				
Positions - Civilian	1,602	1,602	1,602	-
FTE - Civilian	1,507	1,507	1,507	-

Pay Cost Drivers

Leading Cost-Drivers (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Law Enforcement	1,134	\$141,786	\$125.03	1,134	\$162,623	\$143.41	1,134	\$165,071	\$145.57	-	\$2,448	\$2.16
Non-Law Enforcement	373	\$38,755	\$103.90	373	\$45,609	\$122.28	373	\$46,474	\$124.59	-	\$865	\$2.32
Total – Pay Cost Drivers	1,507	\$180,541	\$119.79	1,507	\$208,232	\$138.16	1,507	\$211,545	\$140.37	-	\$3,313	\$2.20

Explanation of Pay Cost Drivers

Law Enforcement: The increase in this cost driver reflects a FERS contribution increase, which increased agency contributions by 2.3% from 13.7% in FY 2019 to 16.0% in FY 2020.

Non-Law Enforcement: The increase in this cost driver reflects a FERS contribution increase, which increased agency contributions by 2.3% from 13.7% in FY 2019 to 16.0% in FY 2020.

Operating Expenses – PPA Level II

Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Operating Expenses	\$179,538	\$150,964	\$175,955	\$24,991
Total	\$179,538	\$150,964	\$175,955	\$24,991
Discretionary - Offsetting Fee	\$179,538	\$150,964	\$175,955	\$24,991

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	\$13,522	\$8,922	\$10,922	\$2,000
22.0 Transportation of Things	\$12,628	\$10,644	\$10,644	-
23.1 Rental Payments to GSA	\$26,384	\$25,442	\$25,442	-
23.2 Rental Payments to Others	\$5	\$6	\$6	-
23.3 Communications, Utilities, and Misc. Charges	\$4,114	\$3,716	\$3,716	-
24.0 Printing and Reproduction	\$2	\$143	\$143	-
25.1 Advisory and Assistance Services	\$1,392	\$18,801	\$44,917	\$26,116
25.2 Other Services from Non-Federal Sources	\$100,840	\$38,838	\$37,363	(\$1,475)
25.3 Other Goods and Services from Federal Sources	\$3,892	\$2,919	\$2,919	-
25.4 Operation and Maintenance of Facilities	\$51	\$678	\$678	-
25.6 Medical Care	\$5	\$5	\$5	-
25.7 Operation and Maintenance of Equipment	\$4,999	\$30,919	\$29,444	(\$1,475)
25.8 Subsistence & Support of Persons	-	\$31	\$31	-
26.0 Supplies and Materials	\$4,355	\$3,050	\$2,875	(\$175)
31.0 Equipment	\$7,349	\$2,748	\$2,748	-
32.0 Land and Structures	-	\$4,087	\$4,087	-
42.0 Insurance Claims and Indemnities	-	\$15	\$15	-
Total - Non Pay Object Classes	\$179,538	\$150,964	\$175,955	\$24,991

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers <i>Dollars in Thousands</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Nationwide IT Infrastructure Operations and Maintenance	\$42,328	\$42,328	\$42,328	-
MegaCenter Dispatch Service Operations	\$28,860	\$28,860	\$28,860	-
Rent – GSA	\$26,384	\$25,442	\$26,431	\$989
Working Capital Fund	\$11,122	\$10,709	\$10,536	(\$173)
Other	\$70,844	\$43,625	\$67,800	\$24,175
Total – Non Pay Cost Drivers	\$179,538	\$150,964	\$175,955	\$24,991

Explanation of Non Pay Cost Drivers

Nationwide IT Infrastructure Operations and Maintenance: No growth planned in nationwide IT infrastructure O&M from FY 2019 to FY 2020.

MegaCenter/Dispatch Service Operations: FPS does not anticipate any growth in the MegaCenter/ Dispatch service operations between FY 2019 and FY 2020. FPS will maintain current service level support for its four MegaCenters. FPS will offset any service cost increases related to inflationary adjustments and on existing communication systems maintenance through efficiencies.

Rent – GSA: FPS applied a forecasted increase for rent expenses in FY 2020. FPS occupies approximately 905,000 square feet of operational and support space obtained through GSA. FPS derives rent costs from annual estimates provided by GSA and the DHS Working Capital Fund.

Working Capital Fund (WCF): FPS provides funding to the DHS WCF, a managed account from which a full range of oversight support services such as finance, accounting, and personnel administration. DHS employs algorithms to assess charges.

Other: FPS proposes investments in new capabilities and technology. FPS plans to fund for law enforcement by completing telematics installation in vehicles, non-pay related expenses for special operations surge support (i.e., unplanned protests at Federal facilities), the development of Information Produced by Entity standards and internal controls in support of the new revenue model, and on MegaCenter Modernization activities such as upgrading/refreshing circuits, routers, networks, servers, applications, desktops and dispatch consoles. FPS also plans a return towards FY 2018 levels in other non-pay cost drivers in support of mission services. FPS has already implemented reductions in non-pay expenses that are less essential for agency operations. This has been a primary focus of FPS, particularly after major equipment purchases during acquisition cycles of the last few years. In FY 2020, FPS will focus on employing efficiencies and/or using offsets to sustain and continue mission delivery under the FPS Operations/Operating Expenses PPA.

*Countermeasures - PPA***Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Protective Security Officers	-	-	\$1,071,286	-	-	\$1,121,883	-	-	\$1,148,400	-	-	\$26,517
Technical Countermeasures	-	-	\$44,690	-	-	\$46,031	-	-	\$24,030	-	-	(\$22,001)
Total	-	-	\$1,115,976	-	-	\$1,167,914	-	-	\$1,172,430	-	-	\$4,516
Subtotal Discretionary - Offsetting Fee	-	-	\$1,115,976	-	-	\$1,167,914	-	-	\$1,172,430	-	-	\$4,516

PPA Level I Description

FPS employs both human and non-human countermeasures as a part of its customized protective security services. The human countermeasures are the contracted Protective Security Officers and the non-human capabilities are the Technical Countermeasures. The goal of these services is to provide a comprehensive risk-based approach to facility protection allowing FPS to prioritize its operations to prevent, detect, assess, respond to, and disrupt criminal and other incidents endangering the Federal community.

This PPA contains the following Level II PPAs:

Protective Security Officers (PSOs): This supports the FPS contract guards assigned to designated posts at Federal facilities.

Technical Countermeasures (TCM): This supports the FPS TCM equipment and capabilities located at Federal facilities.

The Countermeasures PPA uses the following two recovery charging categories in FPS' budget authority to collect for security services:

- FPS provides building-specific security services in accordance with security requirements generated through an FSA or customer request. FPS distributes building costs to tenants based on their portion of square footage from the GSA Occupancy Agreements and recovers direct contract costs on a monthly basis.
- FPS negotiates agency-specific security, also called tenant-specific security, via SWAs or reimbursable agreements between FPS and another Federal agency. The security service charges are similar to building-specific, but FPS provides these to an individual customer rather than the facility. FPS collects the direct costs of the security services customers request on a monthly basis.

Countermeasures – PPA

Budget Authority and Obligations

Budget Authority (Dollars in Thousands)	FY 2018	FY 2019	FY 2020
Enacted/Request	\$1,115,976	\$1,167,914	\$1,172,430
Carryover and/or Recoveries (Actual/Estimates/Projections)	\$82,766	\$23,244	\$22,295
Rescissions to Current Year/Budget Year	-	-	-
Net Sequestered Resources	-	-	-
Reprogrammings/Transfers	-	-	-
Supplementals	-	-	-
Total Budget Authority	\$1,198,742	\$1,191,158	\$1,194,725
Collections – Reimbursable Resources	-	-	-
Collections – Other Sources	\$32,930	(\$31,200)	(\$15,160)
Total Budget Resources	\$1,231,672	\$1,159,958	\$1,179,565
Obligations (Actual/Estimates/Projections)	\$1,211,858	\$1,143,263	\$1,166,174
Personnel: Positions and FTE			
Enacted/Request Positions	-	-	-
Enacted/Request FTE	-	-	-
Onboard and Actual FTE; Includes Collections - Reimbursable Resources			
Onboard (Actual/Estimates/Projections)	-	-	-
FTE (Actual/Estimates/Projections)	-	-	-

Countermeasures – PPA

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	-	-	\$1,115,976
FY 2019 President's Budget	-	-	\$1,167,914
FY 2020 Base Budget	-	-	\$1,167,914
Forecasted Contract Cost Increases for PSO	-	-	\$26,517
Total, Pricing Increases	-	-	\$26,517
Forecasted Reduction to TCM Program	-	-	(\$22,001)
Total, Pricing Decreases	-	-	(\$22,001)
Total Adjustments-to-Base	-	-	\$4,516
FY 2020 Current Services	-	-	\$1,172,430
FY 2020 Request	-	-	\$1,172,430
FY 2019 To FY 2020 Change	-	-	\$4,516

Countermeasures – PPA Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Protective Security Officers	\$1,071,286	\$1,121,883	\$1,148,400	\$26,517
Technical Countermeasures	\$44,690	\$46,031	\$24,030	(\$22,001)
Total	\$1,115,976	\$1,167,914	\$1,172,430	\$4,516
Discretionary - Offsetting Fee	\$1,115,976	\$1,167,914	\$1,172,430	\$4,516

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	-	\$2	\$2	-
22.0 Transportation of Things	-	\$9	\$9	-
23.1 Rental Payments to GSA	-	\$62	\$62	-
23.3 Communications, Utilities, and Misc. Charges	\$1,346	\$17,802	\$4,996	(\$12,806)
25.1 Advisory and Assistance Services	-	\$240	\$240	-
25.2 Other Services from Non-Federal Sources	\$1,103,152	\$1,139,139	\$1,161,898	\$22,759
25.3 Other Goods and Services from Federal Sources	\$7,587	\$2,633	\$2,633	-
25.6 Medical Care	\$17	-	-	-
25.7 Operation and Maintenance of Equipment	\$31	\$1,281	\$1,281	-
25.8 Subsistence & Support of Persons	-	\$5,453	\$16	(\$5,437)
26.0 Supplies and Materials	-	\$18	\$18	-
31.0 Equipment	\$3,843	\$1,275	\$1,275	-
Total - Non Pay Object Classes	\$1,115,976	\$1,167,914	\$1,172,430	\$4,516

Protective Security Officers – PPA Level II**Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization <i>(Dollars in Thousands)</i>	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Protective Security Officers	-	-	\$1,071,286	-	-	\$1,121,883	-	-	\$1,148,400	-	-	\$26,517
Total	-	-	\$1,071,286	-	-	\$1,121,883	-	-	\$1,148,400	-	-	\$26,517
Subtotal Discretionary - Offsetting Fee	-	-	\$1,071,286	-	-	\$1,121,883	-	-	\$1,148,400	-	-	\$26,517

PPA Level II Description

FPS PSO Level II PPA provides funding for contract guard services, which are a key ongoing component of FPS' protective security mission. When customer agencies request guard services, FPS deploys PSOs for temporary assignments to assist with protective security activities, such as during high profile trials and in support of the FEMA's hurricane recovery efforts. Individual risk assessments, combined with specific customer requirements drive the placement of PSO posts. With that, PSOs provide:

- Access control by ensuring access to secured areas in accordance to access control procedures;
- Control center operations by integrating multiple countermeasures through monitoring of security equipment and facilitating; communication with other posts or law enforcement as necessary;
- Patrol and response by patrolling and monitoring facilities for safety, security, and enforcement purposes;
- Screening by identifying and interdicting unlawful, dangerous, or prohibited items to ensure that they do not enter a secured area; and
- Visitor processing by identifying and documenting visiting individuals.

Protective Security Officers – PPA Level II

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	-	-	\$1,071,286
FY 2019 President's Budget	-	-	\$1,121,883
FY 2020 Base Budget	-	-	\$1,121,883
Forecasted Contract Cost Increases for PSO	-	-	\$26,517
Total, Pricing Increases	-	-	\$26,517
Total Adjustments-to-Base	-	-	\$26,517
FY 2020 Current Services	-	-	\$1,148,400
FY 2020 Request	-	-	\$1,148,400
FY 2019 To FY 2020 Change	-	-	\$26,517

Protective Security Officers – PPA Level II Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Protective Security Officers	\$1,071,286	\$1,121,883	\$1,148,400	\$26,517
Total	\$1,071,286	\$1,121,883	\$1,148,400	\$26,517
Discretionary - Offsetting Fee	\$1,071,286	\$1,121,883	\$1,148,400	\$26,517

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
21.0 Travel and Transportation of Persons	-	\$2	\$2	-
23.3 Communications, Utilities, and Misc. Charges	-	\$35	\$35	-
25.2 Other Services from Non-Federal Sources	\$1,063,912	\$1,119,369	\$1,145,886	\$26,517
25.3 Other Goods and Services from Federal Sources	\$7,374	\$2,455	\$2,455	-
25.7 Operation and Maintenance of Equipment	-	\$3	\$3	-
25.8 Subsistence & Support of Persons	-	\$16	\$16	-
26.0 Supplies and Materials	-	\$3	\$3	-
Total - Non Pay Object Classes	\$1,071,286	\$1,121,883	\$1,148,400	\$26,517

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Protective Security Officer Contracts	\$1,071,286	\$1,121,883	\$1,148,400	\$26,517
Total – Non Pay Cost Drivers	\$1,071,286	\$1,121,883	\$1,148,400	\$26,517

Explanation of Non Pay Cost Driver

Protective Security Officer Contracts: The services provided under the PSO contracts are a key component of the execution of FPS' protective security mission. Individual risk assessments combined with the specific customer requirements of each facility drive the placement of PSO-staffed security posts at different facilities. PSOs help minimize specific vulnerabilities to identified credible threats. From FY 2019 into FY 2020, FPS forecasted a nominal increase to PSO contracts adjusted for wage adjustments and new customer requirements such as temporary additional services.

Technical Countermeasures – PPA Level II**Budget Comparison and Adjustments****Comparison of Budget Authority and Request**

Organization (Dollars in Thousands)	FY 2018 Enacted			FY 2019 President's Budget			FY 2020 President's Budget			FY 2019 to FY 2020 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Technical Countermeasures	-	-	\$44,690	-	-	\$46,031	-	-	\$24,030	-	-	(\$22,001)
Total	-	-	\$44,690	-	-	\$46,031	-	-	\$24,030	-	-	(\$22,001)
Subtotal Discretionary - Offsetting Fee	-	-	\$44,690	-	-	\$46,031	-	-	\$24,030	-	-	(\$22,001)

PPA Level II Description

FPS TCM Level II PPA allows the agency to provide an integrated and cost-effective level of protection. TCM includes alarm systems, magnetometers, Intrusion Detection Systems, X-ray machines, Video Surveillance System (formerly referred to as Closed Circuit Video) equipment, Physical Access Control Systems and associated infrastructure. TCM program includes design, implementation, project/equipment oversight, and on-going collaboration with Federal partners.

FPS is responsible for installing and maintaining appropriate technical countermeasures to mitigate threats to Federal facilities by enhancing the protective security posture across the facility portfolio. FPS customers reimburse FPS for TCM costs through the monthly invoicing process.

The presence of antiquated technology and equipment that has reached and/or exceeded its intended useful life (much of the equipment is over 10 years old), has created significant risks by degrading the ability to deter, negate, and detect credible threats to Federal facilities, personnel, information and equipment. Older analog technology is not supported by manufacturers, integrators or installers. Therefore, it is necessary for FPS to continue updating TCM projects with digital technology and equipment in order to address the evolving threat environment by enhancing its ability to secure Federal facilities. This upgrade and refresh effort would assist in lowering security risks to facilities by addressing technology obsolescence, TCM requirement gaps, and facilitate real-time intelligence and information sharing. FPS will continue to provide limited ongoing support to TCM modernization efforts by considering facility security levels and operability of existing systems.

Technical Countermeasures – PPA Level II

Summary of Budget Changes

Budget Formulation Activity <i>(Dollars in Thousands)</i>	Positions	FTE	Amount
FY 2018 Enacted	-	-	\$44,690
FY 2019 President's Budget	-	-	\$46,031
FY 2020 Base Budget	-	-	\$46,031
Forecasted Reduction to TCM Program	-	-	(\$22,001)
Total, Pricing Decreases	-	-	(\$22,001)
Total Adjustments-to-Base	-	-	(\$22,001)
FY 2020 Current Services	-	-	\$24,030
FY 2020 Request	-	-	\$24,030
FY 2019 To FY 2020 Change	-	-	(\$22,001)

Technical Countermeasures – PPA Level II

Non Pay Budget Exhibits

Non Pay Summary

Organization (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Technical Countermeasures	\$44,690	\$46,031	\$24,030	(\$22,001)
Total	\$44,690	\$46,031	\$24,030	(\$22,001)
Discretionary - Offsetting Fee	\$44,690	\$46,031	\$24,030	(\$22,001)

Non Pay by Object Class

Non-Pay Object Classes (Dollars in Thousands)	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Change
22.0 Transportation of Things	-	\$9	\$9	-
23.1 Rental Payments to GSA	-	\$62	\$62	-
23.3 Communications, Utilities, and Misc. Charges	\$1,346	\$17,767	\$4,961	(\$12,806)
25.1 Advisory and Assistance Services	-	\$240	\$240	-
25.2 Other Services from Non-Federal Sources	\$39,240	\$19,770	\$16,012	(\$3,758)
25.3 Other Goods and Services from Federal Sources	\$213	\$178	\$178	-
25.6 Medical Care	\$17	-	-	-
25.7 Operation and Maintenance of Equipment	\$31	\$1,278	\$1,278	-
25.8 Subsistence & Support of Persons	-	\$5,437	-	(\$5,437)
26.0 Supplies and Materials	-	\$15	\$15	-
31.0 Equipment	\$3,843	\$1,275	\$1,275	-
Total - Non Pay Object Classes	\$44,690	\$46,031	\$24,030	(\$22,001)

Non Pay Cost Drivers

Leading Non Pay Cost-Drivers <i>(Dollars in Thousands)</i>	FY 2018 Enacted	FY 2019 President's Budget	FY 2020 President's Budget	FY 2019 to FY 2020 Total Changes
Technical Countermeasure Contracts	\$44,690	\$46,031	\$24,030	(\$22,001)
Total Non-Pay Cost Drivers	\$44,690	\$46,031	\$24,030	(\$22,001)

Explanation of Non Pay Cost Driver

Technical Countermeasure Contracts: Funding for TCM contracts allows FPS to procure and maintain technical security equipment, install or upgrade required infrastructure to support equipment networking, and equipment end of life replacement. From FY 2019 to FY 2020, FPS forecast a decrease of 47.8% in requested budget authority for TCM projects in support of customers and tenant agencies, due to a change in business practice customers and tenant agencies will no longer have the option to amortize their TCM requirements across multiple fiscal years.