

DHS Science and Technology Directorate

Incident Management Information Sharing (IMIS)

Capability Maturity Model (CMM)

Seamless Information Sharing Saves Lives and Property

The public safety community has a limited ability to consistently and securely share information as needed, on demand, and as authorized at all levels across public safety disciplines. Information sharing during any event has a direct impact on lives and property saved. Any improvement in information sharing capability has a measurable effect on emergency response and recovery; however, reliable solutions to improve intra-agency, multi-agency, multi-discipline and multi-jurisdictional information sharing have been limited.

The problem faced by first responders is a common one as expanding technological capabilities empower more efficient and enhanced response. Effectively, that means information sharing gaps will only widen without strategic intervention. There is a critical need for first responders to be able to objectively assess information sharing capabilities and gaps, so that baselines can be identified and action planning for future improvement can be strategically implemented.

The IMIS CMM Assessment

To address this capability gap, the Department of Homeland Security (DHS) Science and Technology Directorate (S&T) developed, in coordination with the public safety community, the Incident Management Information Sharing (IMIS) Capability Maturity Model (CMM) framework. The IMIS CMM is a tiered series of questions, customized to the information sharing role and aligned to the SAFECOM Interoperability Continuum. A completed assessment provides the user with an objective picture of their current information sharing capabilities and gaps, and provides resources to inform strategic action planning to improve information sharing.

CMM Distribution and Delivery

To most efficiently deliver the IMIS CMM directly to the intended stakeholder audience, S&T is building a knowledge management core that houses the complete authorized IMIS CMM. That core maintains the data collected by the IMIS CMM, and provides national insights about information sharing capabilities across all levels of government. S&T is building an application program interface (API) to serve the IMIS CMM to developers. Once built, the API will enable DHS S&T to can distribute the IMIS CMM assessment through multiple web-based channels. Access to the IMIS CMM will be achieved

through licensing and formal agreements with technology partners from government and industry.

Stakeholder Access

The IMIS CMM API and licensing opportunity will allow S&T to target key stakeholders. Specifically, licensing API access on an individual basis for DHS component partners, private industry firms and non-governmental organizations, developer can build custom interfaces tailored to their end users. Mission and scope for each stakeholder group will be tailored to their needs.

By distributing services through an API, S&T spurs innovation through multiple delivery channels. The first responder community will be able to personalize the IMIS CMM assessment to their own requirements. That customization ensures that the IMIS CMM will not fall short in providing intra-agency, multi-agency, multi-discipline and multi-jurisdictional information sharing improvements.

Pilots

Two demonstration pilots are currently operational. The first is the Information Sharing Assessment Tool (ISAT). The ISAT, built with the guidance of a federal, state and local working group, uses a phased approach to the IMIS CMM. Respondents start with an easy-to-use assessment that establishes a baseline. Respondents can then scale the complexity of the IMIS CMM to their level of need, yielding progressively more detailed and thorough assessment data. Testing at the state level is underway to validate the approach.

The second pilot is represented by ResponderCQ™. Unlike ISAT, ResponderCQ™ does not use a phased approach and is only available as the long form IMIS CMM. As a private-sector solution, it will be capable of providing highly personalized recommendations and support additional implementation efforts. Taken together, both pilots will fully vet the IMIS CMM and prepare it for transition.

Transition

When the IMIS CMM API is fully vetted, it will be transition ready. The significant demand from the stakeholder community dictates that the API will need to transition to a partner who will provide long-term hosting and maintenance. There, it will serve as a lasting tool for first responders to assess their information sharing capabilities and make strategic improvements to improve operations.



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