Preparing for Software Negotiations: Adding Value Through the IGCE Process

Ryan Webster: IT Portfolio Manager – Augur Consulting
Stephen Koellner: Cost Analyst – Augur Consulting
Speakers

- **Ryan Webster**: Augur Consulting IT Portfolio Manager
  - 10+ Years of Experience in DoD Cost Estimation
  - LCCEs/POEs, IGCEs, Cost-Benefit Analysis for IT Acquisitions, Business Case Analysis
  - BS in Finance, Contributor to GAO Cost Guidebook, CCE/A through ICEAA

- **Stephen Koellner**: Augur Consulting Cost Analyst
  - 3+ Years of Experience in DoD Cost Estimation
  - LCCEs/POEs, IGCEs, Cost-Benefit Analysis, Analysis of Alternatives
  - BS in Mathematics, Mathematical Modeling, Contributor to GAO Cost Guidebook
Agenda

- Speakers Introduction
- IGCE Overview
- Scenario/Problem Statement
- How Reasonable Cost was Determined
- Volume Unit Cost Analysis
- Evaluation of vendor proposal
- Cost team recommendation
- Meeting with Vendor
- Conclusion
Preparing for Software Negotiations:
Adding Value Through the IGCE Process

- Independent Government Cost Estimates (IGCE)
  - Crucial document in the acquisition process
  - Facilitates vendor negotiation/fair & reasonable determination

- Representative application using generated data
  - Generated/clean data for larger audience
  - Representative of a real-world IGCE experience
IGCE Overview

- IGCE: Simply a cost estimate for a specific contract
  - Done prior to seeking proposals from industry
  - “An aid in achieving best value and shared contract risk” – DAU

- Cost Team pretends to be a *reasonable* potential vendor
  - Base IGCE off same info provided to the vendor
  - Estimate should be as vendor agnostic as possible
  - Validate assumptions/inputs with PM team

- IGCEs have 2 distinct purposes:
  - Check to see if quotes cover the intended scope
  - Determine if proposed pricing is “fair and reasonable”
Independent Government Cost Estimate (IGCE) Overview

- Independent cost team develops estimate concurrently with RFP
  - Iterative review process improves both documents
  - Estimate reveals unintended consequences of content in RFP/RFQ

- IGCEs must precede vendor proposals to be credible
  - Government should fully establish an understanding of scope/cost
IGCE Challenges in IT/Cybersecurity Projects

- Requirements documentation intentionally vague
  - Technology/Government needs rapidly evolve
  - Multiple solutions to single requirement
  - Leads to reliance on vendors to define solutions

- Requirement owners may want/need specific solutions
  - Specific products need J&A for sole source award
  - Variance in IGCEs for specific products observed in resellers

- Limitations may impact validity of IGCE
  - Intended scope will not be fully defined by Gov.
  - Resulting cost implicitly can not be verified
  - Lose the “Independence” of an IGCE
Additional Considerations

▪ Common Cost Drivers:
  ▪ Endpoints
  ▪ Seated/named users
  ▪ Concurrent (floating) users
Additional Considerations

- **Common Cost Drivers:**
  - Endpoints
  - Seated/named users
  - Concurrent (floating) users

Poll Question:
What are other cost drivers for IT systems?
Additional Considerations

- Common Cost Drivers:
  - Endpoints
  - Seated/named users
  - Concurrent (floating) users
  - Data Throughput/Database size
  - Virtual Machines
  - Maintenance: Renewal vs subscription
  - License terms: Uninstall/reinstall
  - Volume licenses
  - New functionality (potential offsets)
  - Overlapping capabilities

Poll Question:
What are other cost drivers for IT systems?
For an IGCE, these will come from an RFP and input from the PMO/Requirements owners.
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Tied to CLIN structure. Account for optional CLINs as a method to avoid buying ahead of need.
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Tied to CLIN structure. Account for optional CLINs as a method to avoid buying ahead of need.

IGCE is the final document for presenting costs. Follow guidelines/templates of contracting office if applicable.

Crucial step, contracting office may use this document with limited interaction with cost team. IGCE must clearly articulate cost methodology/justification so outside organizations can leverage the content of the estimate.
Representative sample scenario begins at this step of the process.
Sample Scenario

Scenario and Vendor Info generated for this brief; representative of real-world scenario

- Network Data Ingest (NDI): PoR to gather data from nodes
  - Had 1 year of legacy SW licenses from Proof-of-Concept contract
  - Planning a contract award to support Initial User Testing
  - PoR had limited funding for this (~$600K for testing)

Node = Data collecting HW deployed at networks
Management Console = Manages flow of data from nodes to Data Repository
Data Repository = Stores/Runs analysis on data gathered from nodes
How a Reasonable Cost was Determined

- Scope was determined with Requirement owners
  - 3 locations, 50 nodes per location for testing
  - Month long testing at each site, non-concurrently
- Sole source vendor for this acquisition
- Varied data sources on bundled node license costs

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<tr>
<th>Source/Data Point Name</th>
<th>Cost of Bundle</th>
<th>Bundled Nodes</th>
<th>Node Unit Cost</th>
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Volume Unit Cost Analysis

Node Unit Cost vs Bundle Volume

- Node Unit Cost

Volume of Nodes in Bundle

$12,000
$10,000
$8,000
$6,000
$4,000
$2,000
$ -

10
100
1,000
10,000
100,000
Volume Unit Cost Analysis - Trendline

Node Unit Cost vs Bundle Volume

\[ y = 159904x^{0.755} \]
\[ R^2 = 0.9959 \]
Volume Unit Cost Analysis – New Proposal

Node Unit Cost vs Bundle Volume

- **Node Unit Cost**
- **Reasonable Unit Cost**
- **Proposal Unit Cost**
- **Power (Node Unit Cost)**

\[
y = 159904x^{0.755}
\]

\[
R^2 = 0.9959
\]
Volume Unit Cost Analysis – Past Actual

Node Unit Cost vs Bundle Volume

- $12,000
- $10,000
- $8,000
- $6,000
- $4,000
- $2,000
- $1,000
- 1,000
- 10,000
- 100,000

Node Unit Cost
Reasonable Unit Cost
Proposal Unit Cost
Legacy Unit Cost
Power (Node Unit Cost)

y = 159904x^0.755
R^2 = 0.9959
Volume Unit Cost Analysis – Past Actual

Need to determine what is causing this delta:
- Different scope on proposal
- Unique characteristics of proposed licenses
- Vendor proposal is not fair/reasonable

Node Unit Cost vs Bundle Volume

\[ y = 159904x^{0.755} \]
\[ R^2 = 0.9959 \]
Comparing IGCE with Quote

- Proposed unit cost unexpectedly high given volume
  - More expensive than previously procured
  - General Services Administration (GSA) listings cheaper (unusual)
  - Projected “reasonable” unit cost nearly 50% lower

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<th>Ext. Cost</th>
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<tbody>
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<td>Node Licenses</td>
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<td>$545,760.00</td>
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<tr>
<td>Mgmt Console Licenses</td>
<td>3</td>
<td>$194,841.64</td>
<td>$584,524.92</td>
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<tr>
<td><strong>Total</strong></td>
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<td><strong>$1,130,284.92</strong></td>
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<tr>
<td>Mgmt Console Licenses</td>
<td>3</td>
<td>$231,567.92</td>
<td>$694,703.76</td>
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<td><strong>Total</strong></td>
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<td><strong>$1,731,637.26</strong></td>
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- **Major unknown**: are licenses in sample truly analogous?
Cost Team Recommended Course of Action

- Procure bundle packages for each site off GSA
  - Total cost less than vendor proposal
  - Get more nodes (total of 180)
  - Less time to acquire the required SW

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<td><strong>$1,353,326.10</strong></td>
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Support During Vendor Negotiations

- Cost team not always involved during negotiations
  - IGCEs typically leveraged by Contract Office

- Met with Vendor multiple times to discuss the proposal
  - Gained insight into new license structure & SW features
  - Delta in cost vs. proposal explained
    - Learned that high unit cost due to flexible installation

- **Result:** Buy less nodes; leverage re-use feature of license
  - New information changes acquisition approach to meet req.
Awarded Contract

- Continually met with PMO and Vendor
- Vendor proposed licenses can be reinstalled/reused
  - Asked for revised proposal with less endpoints
  - Plan to run consecutive site assessments to reuse licenses
- Remained under budget for this action
- Ensure the program maintained the requirement

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<td><strong>$577,212.42</strong></td>
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What you don’t want to hear:

- Requests for IGCEs after receiving vendor ROM/quote
  - “Need an IGCE for this $20K cost”
  - “Back into this proposal from the vendor”
  - Proposals can skew results of independent estimate

- Relying on vendor to define requirement
  - “Let me ask the vendor how many endpoints we need”
  - Government should establish their own position first

- Buying excessively ahead of need/for convenience
  - “We don’t need to ramp up, we can afford them all now”
  - Should view SW requirements like a HW fielding plan
    - Exceptions when more licenses may be cost effective at margins of pricing structure
Key Takeaways & Lessons Learned

- IGCEs used to determine value/viability of a proposal
  - Scope, Price are the 2 main criteria
  - IGCEs for IT Acquisitions add unique considerations

- Question deltas in cost (positive or negative)
  - May find new information that changes the contract strategy
  - Vendor may adjust proposal during negotiations
  - Might identify shortfalls of the proposal

- Clearly articulate concerns to the PMO
  - Push for inclusion directly in discussions on scope/price
  - Be involved in meetings with the PMO & Vendor
  - Find better value alternatives to clients
Questions

- For additional questions reach out to:
  - skoellner@augurconsulting.net
  - rwebster@augurconsulting.net