Where Our National Security Begins...
NRO
Industry Advisory Working Group

Working Session
September 25, 2018
Agenda

- Welcome & Introductions
- “Snapshots”
- “S2P Corner” & “C2S Corner”
- Action Team discussions
- Government Perspective
- Open Dialog
- No-Host Social
“Snapshots”

Trends, Events, & Good Rumors...
“From Cloud First” to “Cloud Smart”
New Federal Cloud Computing Strategy

https://cloud.cio.gov/strategy/

• Addresses shortcomings in “Cloud First” strategy

• Focus on outcomes rather than “potential benefits”
  • Making informed technology decisions in accordance with their mission needs
  • Leverages private sector solutions to provide best services to American people
  • Decisions must consider end-user impact balanced against cost and risk management criteria

• Key Components: Security, Procurement, Workforce (previously isolated by policy)
  • These are linked: requires integrated, interdisciplinary approach NOT a one-size-fits-all
  • Cloud Smart combines disciplines into cohesive strategy for savings, security, and speed to mission

• Redefining Cloud Computing…in “practice”
  • Technologies enabling rapid provisioning of systems/services from shared pool
  • Range: from COCO SaaS email to GOGO scalable application container
  • Decision criteria: not a question of who owns the infrastructure. Rather, can it improve mission?
  • Lift and shift is insufficient and missed the point: must consider refactoring needed
“From Cloud First” to “Cloud Smart”
Workforce Considerations

• Agencies cannot outsource risk. Nor can they outsource critical decision making
  • Workforce requires key skills to enhance quality, security, and impact of services delivered
  • Skill gaps must be examined, forecast and addressed
  • Ex: less IT hardware management, more programming skills in use of Infrastructure as Code

• Migration planning is a discipline requiring training and experience
  • Agency CIOs to conduct skills gap analysis
  • Encouragement to leverage industry projections to predict future workforce skill/position requirements

• Reskilling & Retaining Cloud-Savvy Federal Employees
  • National Initiative for Cybersecurity Education (NICE) Workforce Framework
  • Reskilling initiatives should include SES employees to provide fundamental understanding of Cloud
  • Acquisition PM/CO personnel leverage cloud procurement resources/guidance, e.g. TechFAR HUB
  • Exemplar initiative: OMB Digital Info Technology Acquisition Professional (DITAP) program
“C2S Corner”

Latest & Greatest…

Topics & Issues Discussion

Re:Invent Conference
Nov 26-30, 2018

Key Dates
• Sept 27: Session schedule goes live for registered attendees to preview
• Oct 11: Reserved seating goes live (Must be registered for re:Invent to reserve)
“S2P Corner”

Latest & Greatest…

Topics & Issues Discussion

CWAN accessible @ HTTPS://S2P.proj.nro.ic.gov

Unclassified S2P JPortal @ https://www.s2p.cloud
NRO IAWG
Action Teams & Topics

Discussions & Updates
Speed to Capability

Action Team Update
25 September 2018

Ben Chicoski (Team Lead)
Scott Lawler    Joe Chioda    Marlu Oswald
Andy Cibula    Pete Epstein   Mike Moran

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Flight Plan

Now:
Still setting our foundation. Before jumping to answers and/or trying to solve the wrong problems, we need to more tightly define:

- Problem Statement
- Desired Outcomes

Next:
- ID real-world examples to cite and learn from; connect where possible. For example:
  - Kessel Run
  - GAO Contracting and Nat’l Security Acquisition Team
  - DHS / US Digital Services Procurement Innovation Lab
  - Coalition for Government Procurement (http://thecgp.org/about-us)
- Connect with NRO staff for input, buy-in, guidance
Defining the Problem

DFAR/FAR

- **Problem:** An ever-increasing bureaucracy that probably cannot be altered, as a seemingly ever-growing inventory of the deficiencies and shortcomings has overtaken the conversation, while simultaneously instantiating a risk-averse culture

- **Need:** Change the narrative to what can be done within regulations, along with process and logistical barriers

- **Need:** More two-way exchanges, allowed by FAR §15.201, (which addresses exchanges with industry) but detested by many Acquisition officials and Lawyers, except in large “Industry Day” forums (where vendors won’t talk about their IP)

Inconsistent SW delivery chain

- **Need:** Create the agile dev/ops “enterprise” environment – even just a starting point – common to all ops sites upon which mission apps can be conceived, built, tested, deployed….and scaled rapidly.

- **Need:** End users more involved in agile development process (e.g., sprints) in order to fine-tune requirements and tailor system being developed.

Clunky transition to ops

- **Need:** Create a nexus where the confluence of technologist (industry), operator/analyst (govt), integrator (MSI contractor), and acquirer (SPO/SETA) can lead to immediate identification and advancement of operationally relevant solutions – seize on immediate opportunities then document “requirements” thereafter.

- **Need:** Unbiased entity (“Capability MSI”) whose sole job (and incentives) are to run the dev/ops environment and get high-quality solutions (not their own!) into ops environment. Measured on: # of relevant ideas for govt adoption; # of ideas that govt deems qualified.
Defining the Problem, cont.

Vague or overly burdensome acquisition documents

• **Need:** RFPs go lighter on “compliance” documents, esp. docs listed as “reference.” Can be misleading, overly onerous, or unnecessary. This burden eliminates many SBs that are capable but find it impossible to comply.

• **Need:** Get security teams involved in solicitation process – in crafting docs (e.g., more detail on A&A process; which security clauses to include) and communicating with industry (e.g., who to go to for answers on security).

  Result: Industry prepare better proposals, deliver SW faster, shrink ATO timeline.

Acquisition hurdles

• **Need:** Rapid acquisition exists through OTAs, but reluctance for widespread use

• **Need:** Fill skills gaps in the acquisition workforce

• **Need:** Connect procurement with contract performance by taking an agile, logic modeling approach (e.g., reverse planning) to acquisition process. This would help speed to capab but also relevancy of it.

• **Need:** Break down process and logistical barriers that slow down even the most innovative acquisition approaches.

  • Example: Multi-year planning system isn’t flexible enough to respond to risk-taking or unexpected changes in a program, sometimes creating situations where a program moving faster than expected ends up being stalled because it doesn’t have access to funding that was programmed for future years.

**IAWG Challenge:**

*What can we realistically expect to influence?*
“Support” organizations are not accountable for speed to mission
  – Culture change required
  – Optimize parts of the organization representing “critical path to capability”

Programmatic Innovation at the mercy of Institutional Culture
  – Leaders must lead: give the innovators top cover through buy-in
  – Innovation >> using new emerging technology

Size matters: affects pre-acquisition timelines
  – Recognize the impact on government and industry
  – Must match requirements (including CDRLs) to scale
  – Integration complexity must be balanced with RFP size (“bundling”)

“Adopt, Buy, Create” is goal, but “Create, Buy, Adopt” is reality
  – Total ownership cost to maintain code must be considered in make-buy trades
  – COTS Integration via open APIs in mission use cases reduces time to IOC
  – “Hybrid COTS + OSS development” model = speed + unique requirements
NRO IAWG Action Team

Attracting & Retaining Talent:
Business & Operating Models

Ann Waynik
Keith Morgan  Tom Davidson  Ben Avicolli  Marc Snyder
Ken Bonner  Sonny Sarkar  Pam Arya
Attracting/Retaining Talent

<table>
<thead>
<tr>
<th>Generation</th>
<th>Age in 2009</th>
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<tr>
<td>Millennial</td>
<td>28 &amp; younger</td>
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<tr>
<td>Gen X</td>
<td>29-44</td>
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<tr>
<td>Boomer</td>
<td>45-63</td>
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<td>Silent</td>
<td>64-81</td>
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- born 1928-45
- born 1946-64
- born 1965-80
- born after 1980

Most of the generation is 18-28
IDEAS: Attracting/Retaining Talent

Challenge:
- Attracting/Retaining Talent; Impacts to Business Model/Ops

Assumptions:
- Not Addressing Clearance Process

Background:
- Populous is getting older, more difficult to Attract/Retain Talent
- Commercial Offering “More”…work life balance, flexibility, faster upward mobility, $$, benefits

Study:
- How to get more “Young in Career” interested in the IC/USGIF/Development/SETA

Findings (What isn’t working):
- Empowering employees, ingenuity, creativity, job security, mentoring and stocks
- USGIF Marketing lacks outreach to “Young in Career”
- BOGSAT is not handing off knowledge to “Young in Career”

Findings (What Young in Career is Looking for):
- Higher Salaries
- Quicker “Up the Chain” Movement/Mobility

Business Model Ops Challenges
- Higher Salaries for “Young in Career” disrupts Salary Boundaries for Existing Careers
- Higher Salaries Not Given to “Young in Career” causes loss of “Young in Career”

Discussion: feasibility, viability, barriers?
Attracting Talent: Challenge Points & Suggestions

- Creating a “talent pipeline” requires a program for sponsorship
  - No sponsorship, no pipeline
  - IC has successful models...leverage them

- ROI awaiting investigations and adjudication
  - IR&D “low side to high side” can attract talent and prime the pump for TS work
  - Requires sponsor buy-in...connecting project content to RFA justification

- Millennials aren’t about $$$...but government can’t compete on salary?
  - Creating a sense of mission is imperative, e.g. Defense Digital Service
  - Accelerating time to capability is a retention tool
  - Career paths with “slopes and waypoints” vs. single program career

*The opportunity to see results of your work is a game changer*
IDEAS: Attracting & Retaining Talent

• Challenge: Security Clearance “chicken & egg” + timelines
  • Must have a contract for RFA approval but can’t win the contract without cleared staff
  • Onboarding talent ahead of contract award raises G&A/Overhead rates

• Idea 1: implement “Security Clearance” contract ala Agency precedent

• Idea 2: Leverage Agency-focused IR&D projects to create cleared talent pipeline
  • Authorize RFAs for agency-focused IR&D (projects aligned to government needs)
  • Initiate research on AWS, move to C2S IR&D instances purchased via IPA when ready
  • Uncleared personnel conduct unclass research on AWS pending adjudication
  • Project can move to high side and personnel can follow upon gaining clearance

Discussion: feasibility, viability, barriers?
IDEAS: Attracting/Retaining Talent

- Two fold responsibility: Both Government and Industry
- Unemployment is 3.6%; everyone who want a job has a job.
- Gov needs to contract for services not LOE/resume.
- Lack of career path; come in and if good, get locked into same position for 3-4 years and THEN have to recompete contract and be told might have to take a pay cut.
- Managers don’t want to let good folks move because customer is happy with them. Again, locked into position.
- Customer requirements for clearance, poly, then certifications narrows pool of available talent immensely.
- Can work some contracts with unclassified CLIN/development environment to prime the pipeline?
- No phones is a deterrent for younger workers; mission can only attract/keep so many.
- According to Ben, 10 year old technology in many places (AS&T may be exception) is not attractive to hard charging engineers who want to be on cutting edge.
- Need to go to ATT/Verizon model; buying a service.
- Customer culture of rewarding and justifying Grade levels by # of people/$$ a position manages drives the LOE mind set.
NRO IAWG Action Team

Incentivizing adoption of FGA
Framework & Services approach

Gavin Greene
Incentivizing Adoption of FGA Framework & Services Action Team

Gavin Greene (Team Lead)
Alex Fox, Marlu Oswald, Clark van Buskirk
Linda Dinga, John Hays, Myles Nakamura

Action Team Purpose/Objectives:

1. Define and help government exploit advantages of finely segmented enterprises (Alex)
2. Characterize institutional FGA adoption challenges and how to overcome them (Clark)
3. Capture different industry perspectives based on business type/size/breadth and provide a recommended path forward (Gavin)
4. Identify pros and cons of where OCI boundaries are set, provide recommendation to government on OCI in the future (Myles)
NRO IAWG Action Team

**New Title for discussion:**

Standardizing RFP & NAM language to increase speed to capability

Team Lead: Sonny Sarkar
### NRO IAWG Objectives & “To Do” List

1. Facilitate business models/arrangements to accelerate FGA2025
2. Identify Business Model impacts & changes ensuing from Cloud Adoption

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<td>☐ DevOps TTO in NSIS waterfall (DEFER)</td>
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Agile & DevOps Contracting Approaches
Action Team

TBD (Team Lead)
Betsy Mack  Jared Stauffer  Pete Epstein  Scott Lawler  Chris Arroyo
Jeff Sander  Tom Davidson  Marc Kriz  Ken Laskey
Sam Stollar  Dave Wade  Steve Thomas  Shawn Lucas

Action Team Objectives:
• Sprint 1: Research and dialog on existing alternative contracting approaches, identify range of contracting approaches with pro’s and con’s
• Sprint 2: Research existing DevOps contract language used within USG, recommend NAM language appropriate for NRO DevOps
• Sprint 3: Industry-government roundtables to codify “enabling factors” for industry-wide coordination
Government Perspective
Open Dialog

Additional Topics for Consideration

Actions & Next Steps

No-Host Social
NRO IAWG Contact Information

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USGIF coordination:

• Shai Sobrino: shai.sobrino@usgif.org (571) 392-7205
Some Context:

- **Speed to Capability** must address “Links of Acquisition”:
  - Three (3) distinct sets of NRO Acquisitions: SETA, Services, Development
    - Suspect these are different sets of players/different sets of requirements/different approaches
      - i.e., IT/Services often looked at as “Commodity”
    - Appears sometimes that delays in Services/Development are tied to the SETA effort getting in place prior to awards of Services/Development efforts
      - E.G., Transformers vs. Chromia (a 5-plus-year journey so far….)
  - Note that requirements are sometimes unrealistic and no one pushes back from Govt/SETA side, resulting in DSOW/DRFP’s receiving hundreds of clarification questions from confused contractors
  - Sometimes overly ambitious requirements are drawn up by people in isolation from the people who’d actually have to build the requirements into something.
  - Desire from Gov’t to “get something out” w/o regard to maturity just seems to prolong the process, resulting in time/dollars wasted on both sides (e.g., Broadside: 4 DSOWs/DRFPs over 2.5 years, multiple field visits, all in the name of “getting something out”)

- **Sometimes it takes a fresher perspective to Move Forward:**
  - During one meeting at Google, Lt. Gen (ret.) Spoehr lamented how much worse the Army was at innovating. Everyone in the room agreed — except for one ex-Army captain who’d joined Google after multiple combat tours. In his experience, the former officer said, Army soldiers on the front line innovated constantly, trying out new tactics and new technologies, particularly to counter roadside bombs. In his experience, the young veteran told Spoehr, it was Google that was less innovative than the Army.
    - (A case for interviewing NRO Acquisition folks – what do they see as the root cause that the bureaucracy won’t let them fix?)
Action Team: “Speed to Capability”

Some Possible areas to Investigate:

– **Acquisition Cross Functional Teams**: Experts in technology, requirements, operations and acquisition from disparate bureaucracies and in one room under one leader to solve a particular high-profile problem (*DevOps on steroids?*)
  
  - Army is doing this with their “Futures Command”: Operators, technologists, and acquisition professionals working together to develop what the Warfighter wants, vice what they “think” the Warfighter needs
  
  - Army’s current senior leaders — Secretary Mark Esper, Undersecretary Ryan McCarthy, Chief of Staff Gen. Mark Milley, Vice-Chief McConville, and senior acquisition executive Jette — are working closely together and paying “unprecedented” attention to fixing acquisition. **Perhaps this is something we can build on?**

– Funding scheme to completely firewall-off an activity from budget realignments?