Where Our National Security Begins...
Agenda

- Welcome & Introductions
- Government Perspective*
- “Snapshots”
- “S2P Corner” & “C2S Corner”
- Action team discussions
- No-Host Social
Government Perspective
Snapshots
Annual State & Future of GEOINT Report kicking off
- Industry Participation highly desired
- Goal this year to tie in USGIF Working Groups

Working Groups are encouraged to submit topics
- Max of 3 per Working Group
- Submissions to potentially be posed for discussion at SFOG Content Exchanges

Potential NRO IAWG Topics apropos to Future of GEOINT
- Fact of Life: DevOps operating and business models vs Legacy ORR and Waterfall
- Acquiring GEOINT capability in a cloud economy: segmentation, systems vs software integration & software business models
- Implications of COTS vs GOTS vs OSS Make Buy Decisions
Snapshot: DevOps “Starter Kit” Update

✓ Provisioned/Accessible S2P services using C2S instances
✓ C2S Instance Provisioning & On-boarding
❑ CWAN & SCIF Access
❑ Security Clearance sponsorship

Jarvis Initiative: Coordination Update

• Indirect vehicles numbers: facilities staff, vendor support, SME access
• Perception that direct vehicles pose inherently less risk exposure than indirect
• Policy for network access requires “Direct Contract” vehicles
• To make this work:
  • Government must authorize “industry bench” on contracts with related scope
  • Contract CLIN must be established to provide traceability and mitigate any impacts to Award Fee contract holder
  • Criteria for clearance must be contractual requirements on industry partner
“S2P Corner”

*Latest & Greatest…Fact vs Fiction*

*Topics & Issues Discussion*

CWAN Accounts available @ HTTPS://S2P.proj.nro.ic.gov

Check out Confluence without an account @ HTTPS://S2P.proj.nro.ic.gov/confluence
S2P News

- Release 2.1 (end of Sept)
  - Test Rail – Test Management software
  - ServiceNow – Workflow Mgmt and Incident Mgmt/ITSM
  - Selenium GRID as a DIA Collaboration
  - Windows AMI – hardened and documented
  - Atlassian availability & scalability: JIRA & Confluence Data Center
  - API Gateway updates
  - [deferred] Openshift Container Platform

- Upcoming Events: Sep 19 – Platform forum

- S2P Use Cases
  - Software Services: currently 16 online tools
  - Development Tools: AMI’s & 250+ tools available for use and/or download
  - Hosting in S2P: for example “Einstein” CDRL-View tool

- DISCUSSION: Hosted Applications business model
“C2S Corner”

Latest & Greatest…Fact vs Fiction

Topics & Issues Discussion
DevOps Action Team

Jay Eward (Team Lead)

Clark van Buskirk

Pete Epstein

John Farrell

Ken Laskey

Shawn Lucas

Andy Murren

Jared Putman

Suzanne Sincavage

Jeff York

Observations:

• DevOps is a culture shock to developers and programs
• DevOps has great promise but faces major obstacles

Questions:

• Is DevOps fundamental to cloud adoption by NRO?
• How does DevOps impact the NRO Operating Model?
• Does DevOps change the NRO business model?
Why DevOps at NRO?

Modeled after LEAN manufacturing process

- Improve Quality
  - Iterative development and smaller code segments make it easier to detect and resolve code defects
  - Code is fixed rapidly before it can be duplicated elsewhere
- Reduce Time to Deployment
  - No waiting weeks to get access to a VM
  - No waiting for Privileged Access
  - Developers are better equipped to correct code defects from code written several weeks ago than several months/years ago
  - Time to ATO is reduced by involving DAO/SKA during development
- Eliminate Waste
  - Eliminates monthly review boards (Work In Progress can be tested and deployed when ready)
DevOps and Bi-Modal IT?

- Gartner coined term bimodal IT - the practice of managing two separate but coherent styles of work:
  - Mode 1: optimized for areas that are more predictable and well-understood. It focuses on exploiting what is known, while renovating the legacy environment into a state that is fit for a digital world
  - Mode 2: exploratory, experimenting to solve new problems and optimized for areas of uncertainty
- Idea is far from universally accepted
  - Gartner argues
    - Both modes are essential to create substantial value and drive significant organizational change, and neither is static.
    - Marrying a more predictable evolution of products and technologies (Mode 1) with the new and innovative (Mode 2) is the essence of an enterprise bimodal capability.
  - Unconvinced are concerned
    - If Mode 2 is looked at as preferred, does Mode 1 become neglected stepchild?
    - If Mode 2 not looked at as preferred, does Mode 1 have an excuse to never change?
    - Mode 1 has no mechanism for learning, i.e. finding better ways to do things
    - If Mode 1 “renovating legacy”, when does that conflict with Mode 2 experimentation?
    - “Both sides are essential” assumes significant legacy. If “neither static”, likely have conflict on who resourced for which changes.
    - If not fully commit to Mode 2, culture change will be half hearted
DevOps Culture Change Can Benefit NRO

- DevOps is more than the use of tools / services to automate workflows:
  - Requires evolution of an organization’s culture and business processes on both sides of the Government / Contractor paradigm
  - Emphasis on close collaboration between development, operations, and security

- Organizational culture must evolve to enable DevOps
  - Best practice is to start small but significant, learn, grow
  - Build firm foundation with growing body of success, not Big Bang
  - Overcoming the reluctance to automate the build/test/delivery of software
  - Developers must embed security compliance behaviors into their DevOps teams

- NRO operating model requires changes for DevOps
  - Waterfall based NSIS approach appropriate for systems with well-known requirements, but not appropriate for software intensive activities with evolving requirements
  - “One size fits all” readiness, A&A, and change management limits ability to deliver and sustain software services in a cost- or time-effective manner

- Non-Productive activities can be addressed collaboratively
  - NRO needs to evaluate what infrastructure is appropriate for program operations (Cloud/ Virtual/Bare Metal) - One size doesn’t fit all
  - NRO/Developer community must accept use of GFE where appropriate
DevOps Culture Change Impact to NRO Business Model

- **Redefine what is meant by requirements**
  - User feedback validates or corrects what has been built (delivered outcomes)
  - Requirements are really a collection of agreements over course of development
  - How to we measure this as progress?

- **Evolution of Contracting approaches to account for DevOps**
  - Outcome based contracting
    - Deliver desired solution, not list of CLINs
  - Incentivize collaboration and timely, accurate, secure delivery
  - Incentivize risk taking and fast failure on way to success
  - Payments based on development velocity
    - Developer/PM/AO bid and assign points for sprint
    - Developer is paid on delivery and commitment accuracy
    - Identify and encourage stretch goals

- Periodically schedule sprint to burn off technical debt that bothers team most
What does NRO Acquisition need to do?

- **RFP language:**
  - Should include use of GFE from NASP
  - Needs requirement to bid agile approach using DevOps best practices
  - Should avoid asking for agile processes but requiring waterfall deliverables

- **Contracts need to require end results, not instructions on how to do things**
  - Are SOO/PWS more applicable than SOW?

- **Contract needs to reflect how developers get to picture of the end state**
  - Importance of defining collaboration expectations, expected communications mechanisms
  - Specify details on the collaboration required between developers/ops/security and all other stakeholders as part of the solicitation

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Don’t write an RFP with instructions on how to build a horse to get you to NYC. Write the RFP to purchase transportation to NYC. Henry Ford might bid a new fanged car.
NRO IAWG
2017 Action Teams & Topics

“CASTLE” Cloud Guide
Cloud Center of Excellence “CASTLE” Guide*
Open Dialog

Additional Topics for Consideration

Actions & Next Steps

No-Host Social
IAWG Contact Info & Additional Information

- Nick Buck: nick@buckgroup.net  (703) 801-3405

- Co-Chair Position vacant: consider volunteering!

- Justin Franz (USGIF coord): justin.franz@usgif.org (571) 392-7205
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<thead>
<tr>
<th>ISP-ASP Adoption Challenge Area</th>
<th>IAWG Action Teams</th>
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<tbody>
<tr>
<td>Acquisition processes</td>
<td>✓ Incentivizing gov’t/industry behavior</td>
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<tr>
<td>- Tech cycles shorter than acq cycles</td>
<td>✓ Requirements: Over-ask and Under-Ask</td>
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<td>- Market research &amp; tech currency gaps</td>
<td>☐ Cloud business/revenue models</td>
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<td>Procurement Models (“ABC” vs “CBA”)</td>
<td>✓ Pay-for-Use Licensing &amp; ELA models</td>
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<tr>
<td>- Perceived bias against paid licensing</td>
<td>✓ GOTS/COTS/OSS Business models</td>
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<tr>
<td>- Role of OSS misunderstood</td>
<td>✓ Software Business 101 course</td>
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<tr>
<td>- Contracts: S/W vs Services</td>
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<tr>
<td>Integration Models</td>
<td>✓ FGA Framework segmentation &amp; OCI</td>
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<tr>
<td>- Segmentation &amp; OCI concerns</td>
<td>✓ Software Development vs Integration</td>
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<tr>
<td>- Integration vs Configuration</td>
<td>✓ Adoption of Agile &amp; DevOps</td>
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<td>- Waterfall vs Agile DevOps</td>
<td>✓ Systems Integration vs Software Integration</td>
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What is an IAG?

Industry partners self-organizing to discuss matters of mutual concern and provide pragmatic recommendations regarding the industrial base.

An IAG is:
- Volunteer-based
- Strategic in nature
- Objective (pros & cons)
- Open to participation
- Company-agnostic
- Problem-centric
- Focused on outcomes

An IAG is not:
- Sponsored by the government
- Restricted in participation
- Proprietary
- A pursuit/capture venue
- A shaping & positioning opportunity
- A venue to recommend products
- An open ended discussion forum

*Future Business Models are of Strategic Importance to the Industry Base*
NASP IAWG: Charter & Objectives

**Mission:** Help NRO ASP and Industry jointly achieve transformation objectives
- Identify business models that will support government and industry objectives
- Identify potential pitfalls and recommend potential solution

**Charter:** Provide expert industry resource and sounding board focused on:
- Business aspects of emerging acquisition models used to acquire software services
- Ramifications of componentizing software applications,
- Benefits accrued to the government & industry,
- Intended and unintended consequences against the industry base,
- Limitations and viability as a reasonable course of action

**Objectives:**
- Provide strategic industry input to a changing acquisition landscape
- Provide an objective and neutral venue for discussing approaches to business models
- Foster effective communication between government and industry leadership
Guiding Principles & Deliverables

- **Provide Options, not “answers”**
  - Emphasize trade space and alternatives, not defining or recommending “the answer”:
  - Provide feedback (sometimes confidential) and socialize concepts in a trusted-partner venue

- **Constrain the problem set: Step 1 for Action Teams is defining the deliverable**
  - Emphasize speed and pragmatism over exhaustive research and perfect world scenarios
  - Quick hitting analyses, “Magic-Quadrant”-like outputs, roundtable
  - Timely enough to make the dialog relevant in the issue du jour

- **Remain credible**
  - Discussions must be vendor, supplier, and integrator agnostic, not just by product/company, but by architecture as well. Must self-police to ensure objectivity.
  - Recommendations must be realistic
  - Sweet spot is the bridge between policy and execution

- **Establish a functioning & robust Industry – NASP leadership interface**
  - Know when to defer to other groups or venues
  - Be responsive and objective above all
  - Open and collaborative (not duplicative of other efforts, involve as necessary)