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

Working Session
October 30, 2018
Agenda

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

11/1 App Developer Day @ NCE
11/14 S2P Platform Forum @ JD Hill
11/19 NGA IAWG (NAWG) Reverse Industry Day
NGA Industry Engagement Officer: Rick Myllenbeck

Objectives
- Unify various disjointed government-industry dialog
- Improve alignment of industry capabilities to NGA needs…find the “right” person
- Normalize industry interactions at different echelons of NGA…stop “whack a mole”
- Extend opportunities to other IC agency and DoD mission partners
- Provide feedback & Follow up with industry to improve transparency and value

IAWG Task
- Review & comment on the process concept and flow
- Provide ideas for improvement and implementation
- What are the pros and cons from industry perspective?
- Should the NRO do something similar?
NGA’s “Top 20” Issues w Industry (1 of 3)

**PERFORMANCE**
- Overpromising capability and capacity, resulting in protracted vacancies and/or unnecessary turnover/churn in personnel (enterprise contracts)
- Recycling subpar talent and/or passing known problem employees from vendor to vendor, especially on FTE contracts
- Assigning untrained FTE staff who require months of training by NGA before they can perform the task they were expected to do on day one
- Perception that some vendors search for reasons to request extensions to delivery dates
- Invoicing NGA before a deliverable is accepted

**BUSINESS PROCESSES**
- Overbearing Primes
- Not allowing Subs to innovate
- Exclusive Teaming – Industry practice that locks small businesses into teaming arrangements with single prime. Stifles competition by binding teams together competition after competition, limits government access to small business expertise except through specific primes.
- Requesting green IC badges to support contracts, but instead using them to conduct business development with NGA and, as a result, often restricting access to limited overhead badges from subs who need them
NGA’s “Top 20” Issues w Industry (2 of 3)

RFI/RFP PROCESS

- Not sending helpful feedback to RFIs
- RFI responses provide marketing pitches regarding overall corporate capabilities rather than thoughtful responses to the questions posed
- Price or cost proposals are lacking in content and detail (e.g., basis of estimates not congruent with technical approach or other volumes of the proposal)
- Incomplete proposals
- Increasing number of protests strains limited government resources

MARKETING

- Guerilla marketing – tendency to haphazardly reach out to anyone within NGA, at any time, at various technical and leadership levels – creates confusion and mixed communication
- Direct marketing to NGA seniors; responding to requests by submitting proposals or white papers directly to Seniors rather than following established processes
- Sending BD people to Tech Days
- Rebranding products without prior notification to NGA, leading NGA to learn of the change at the time of contract renewals.
NGA’s “Top 20” Issues w Industry (3 of 3)

COMMUNICATION/FEEDBACK

- Inadequate communication during contract administration (e.g., taking action on direction received from the program offices or customers that is outside the authority of the COR or Task Manager)
- Latency in reviewing and signing contractual documentation (e.g., ECPs, bi-lateral modifications, etc.)
- Delays in providing required notices under Limitation of Funds provisions (e.g., alerting the CO when 75% of available funds have been expended)
“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)
Highlights of Recently Deployed C2S Features and Services

Top Secret Region
- EC2: Switch the tenancy of your VPC from Dedicated to Default instantly
- EC2: Create a new default subnet instantly using the CLI/SDK
- S3: One Zone - Infrequent Access
- KMS: KMS TPS Limit Increase
- Diode: Now supports data transfer for JSON files
- Amazon ElastiCache in the Third Availability Zone

**Amazon VPC NAT Gateway:** Managed NAT service

Secret Region
- EC2: Modify Default VPC Tenancy
- EC2: Create Default Subnet
- S3: One Zone - Infrequent Access
- KMS: KMS TPS Limit Increase
- EC2: Auto Recovery for Dedicated Instances
- EC2: P3 Regional Expansion
- EC2: G3 Instances

**AWS Step Functions:** Design and run workflows
NAT Gateway Basics

A highly available, managed service providing Network Address Translation

Automatically scales to meet bandwidth requirements (5 Gbps – 45 Gbps)

Supports TCP, UDP, ICMP traffic
AWS Step Functions

Configure
Define your workflow as a series of steps, such as tasks, choices, parallel execution, and timeouts

Populate
Connect tasks to code hosted in functions, containers, instances and on-premises servers

Run
Provide any needed input and run your workflow as many times as needed, for up to one year

Evolve
Swap out tasks, change the order of steps, or add new steps—all without changing code
IC Marketplace

New product offerings
LexisNexis – high-performance cluster computing platform for big data
Basis Rosette – high-volume software for human language processing

Private Offers - Custom pricing and terms for volume or longer term agreements for listed products
ICMP Private Offers

- AWS Manages ISV offering, price and terms via ICMP interface
- Multi-year negotiated pricing for larger value contracts
- All done using the C2S AWS Account and Bill, on the current contract
- AWS Marketplace Deal Desk to facilitate subscriptions
Monday C2S sessions limited to Customers due to overwhelming response.

Keynotes will be live streamed. Session videos posted after the event.

**Global Partner Summit Keynote**
Tuesday 27 November: 8:30am–10:30am PT

**Keynote, Andy Jassy**
Wednesday 28 November: 8am–10:30am PT

**Keynote, Dr. Werner Vogels**
Thursday 28 November: 8:30am–10:30am PT
“S2P Corner”

Latest & Greatest...

Topics & Issues Discussion

Explore on CWAN/JWICS @ https://jportal.S2P.proj.nro.ic.gov
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NRO IAWG
Action Teams & Topics

Discussions & Updates
Speed to Capability

Action Team Update to IAWG

30 October 2018

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

Ben Chicoski
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Flight Plan

Now:
- Continued brainstorming, picking out common themes
- Reacting to IAWG input
- Homing in on the problem definition and desired outcomes
- 25 Oct: in-person whiteboarding session to shortlist the highest-priority issues

Next:
- ID real-world examples to cite and learn from; connect where possible.
- Connect with NRO staff for buy-in and guidance. Start with SPO Directors (top down).
- Build out issues and recommendations

Qs to ask:
- What do acquisition staff want to improve? What frustrates them?
- Who is receptive to change?
- What resonates? (e.g., more $ for the mission, not bureaucracy)

What can we realistically expect to influence?
Defining the Problem

Inertia of current hybrid infrastructure and lack of end user involvement lead to inconsistent capability delivery chain and clunky transition to ops

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

- **Need**: Create a nexus where the confluence of technologist (industry), operator/analyst (gvt), 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**: End users more involved in agile development process (e.g., sprints) in order to fine-tune requirements and tailor system being developed.

- **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.
  - Structure incentives wisely. Measured on: # of relevant ideas for govt adoption; # of ideas that govt deems qualified.
  - Needs strong leadership backing.
  - Incumbent on govt to sniff out anything self-serving.
  - Example: DDF – unclass/class facility right off campus; port from unclass to class (with agency data)
  - Example: T-REX incubator in STL
  - Example: Zeus brokerage concept (part of NGA Olympus) goes part of the way: FSI as trusted agent canvassing for best-of-breed technology solutions.
Dearth of analysis of contracting performance – even metrics to show what’s “right” or “wrong” – means less chance for concrete actions to improve.....and the status quo wins

- **Need:** Metrics on contracting performance. For example: cycle time, # of CDRLs, # of unnecessary compliance docs, # of formal program reviews required, # contracts that are objectives-based vs requirements-based, time from RFI to award, etc) that have been used to demonstrate either improvement or degradation in contracting efficiencies over time?

- **Need:** Scoring methodology (red/yellow/green) against which to gauge contracting practices.
  - Measure two distinct things: Contracting Office performance, SETA performance
Defining the Problem, cont.

Acquisition-Related

“Solicitation Bloat” drives away qualified performers (mostly SBs) and creates extra work (on both sides) without necessarily providing benefit. Could be a category in scoring methodology.

- **Need**: RFPs go lighter on “compliance” documents, esp. docs listed as “reference.” Can be misleading, overly onerous, or unnecessary.

- **START WITH ONE AREA** (e.g., security). Involve security teams 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 prepares better proposals, deliver SW faster, shrink ATO timeline.

- **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)
  
  - Example: TAC DSR (rapid acquisition – limited scale)
  
  - Proposed approach:
    1. Draft RFP with SOO and as much compliance burden as NRO wants
    2. Bidders submit mini tech volume
    3. Down select
    4. Two-way exchanges with down-selected vendors; weigh in on compliance burden
Defining the Problem, cont.

Acquisition-Related

Static requirements “lock in” program and inhibit ability to weave in new capabilities

Related:

- SOWs that “bake out” innovation or don’t articulate means to innovate (e.g., a study CLIN)
- RFC/Change processes biased toward status quo

Need: Dynamic Requirements Management: As requirements (and the state of technology) evolve, there might be a need to rapidly incorporate new elements of a solution while a program is in midstream, without having to initiate new procurement from whole cloth.

Need: End users involved up front to define the “what,” not the “how” – to ensure relevancy and enhance uptake/adoption

“How” options:

- Consider SOO (less prescriptive)
- Government buys X number of sprints
- Create a distinct office (a la Zeus at NGA), with visibility across many programs, charged with canvassing for new technologies to bring into any program that would benefit.
- Start with Mission CONOPS and Capabilities as “requirements” then poll industry for solutions – selected solutions immediately proceed to sole source award to refine/deploy as an app
Defining the Problem, cont.

Acquisition-Related

Other

• **Issue**: Current system of outyear planning isn't flexible enough to respond to risk-taking or unexpected changes in a program. Result: program moving faster than expected ends up being stalled because it doesn't have access to funding that was programmed for future years.

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

• **Need**: Use full power of the FAR. Good example: NIH CIO-CS. Other examples?

• **Rec**: Use more IDIQs (a la OASIS)
  - Broad scope, pools, periodic onramping *and* offramping
NRO IAWG Action Team

Attracting & Retaining Talent: Business & Operating Models

Ann Waynik           Pam Arya               Ben Avicolli
Ken Bonner            Tom Davidson          Keith Morgan
Sonny Sarkar          Marc Snyder
CHALLENGES

• BABY BOOMERS
  – Next 20 years, ~10K People Each Day will Reach age 65
  – 75M Are on the Verge of Retirement
  – Taking Institutional Knowledge with Them

• MILLENNIALS
  – Flooding the Market; Anxious to be on the “Bleeding Edge”
  – Understand the Latest Technology
  – Lack Broad Understand of Processes or Ramifications if Processes are not Implemented Properly
  – Salary Demands are as High as the Retiring Baby Boomers

CHALLENGES: Industry

- VA Unemployment is at ~2.1%
- Talent is Not There – even when offering ~% to 20K Sign-on Bonuses
- We are Chasing our Tails For What the Customer is Asking for in Solicitations
- Willing to Pay for the Cutting-Edge Technology
- Commercial Market is Very Lucrative; able to fill requisitions
- Less able to fill requisitions in IC

CHALLENGES: Government

- Not the Leading Edge Anymore - Commercial is!
- Composite Mixture of SME and Millennials is Required
- Goal is to Save Money (SMEs & Millennials $$ ~ same), no savings
- Bring on Latest Technology without Losing the Institutional Knowledge
- Willing to Pay for the Cutting-Edge Technology
- Security Back-log, Cross-Over, Lag Time balance against Talent Needed
- Willing to Hire Uncleared and Provide Interim Clearances

SETTING THE STAGE - Millennials

**JOBS**

- Vacancies Level Hit 7.14M for the Month\(^1\)
- Hiring Number Reached a Record of 5.78M \(^1\)
- Wages are Higher; Avg Hourly Rose ~2.9% (Aug) & 2.8% (Sept) \(^1\)
- Less Millennials are Willing to Work for “Patriotic” Reasons \(^2\)
- More Millennials are Focused on New Technology & Higher Salaries \(^2\)
- $10K - $20K Sign-on & Referral Bonuses DO Fill Commercial Jobs and in “Bleeding-Edge Technology”, but NOT in Government Projects

Reference: 1) White House, JOLT & CNBC, Job Openings and Labor Turnover Survey  
2) Industry Findings for Millennial Hiring Preferences
SETTING THE STAGE - Millennials

- **AWS**
  - Job Fair 17 October 2018 in Herndon
  - Plan to Build Additional 2M sq ft Data Center Space in Ashburn (Home Of Cloud Computing Infrastructure)

- **GOOGLE**
  - Better Wages & More Flexibility with Benefits
  - Provides Multiple Internships Every Summer
  - Outcome is One Year Experience at a 4-Year Salary

- **INSA**
  - Building a 21st Century Trusted Workforce 30 Oct
SETA VS DEV OPS

**SETA:**
- Solicitations Must Remain More “Best Value”
- Reliant on SME Experience, Years and Knowledge “Networking”
- Costs tend to be Inherently Higher (because of years of Experience)
- Sponsor “Interim” Cross-overs and Clearance to Get Skill Mix
- Set-aside “Jr and uncleared portions” within solicitation

**Dev Ops:**
- Solicitations to be More “Technical Significantly More Important than Cost”
- Focus on & larger Emphasis on Latest Technology (~ 5 to 10 Years)
- Provide Weighed Factors in Solicitation for XX% for Uncleared Support
- Reward Offerors who are Innovative with Their Use of “Waiting for Clearance” Staff

**Government - Solicitations Must Differentiate between SETA & Development**
CONSIDER OTHER BUSINESS MODELS

- Contracts
  - Should be more FFP for Development and Services or Performance Based (award by deliverables or milestones met)
  - Contract like a Commodity (cost as a service rather than people)
  - Re-competes Should be Labor Hours vs Development
  - Puts the onus on Offerors/ Industry/ Contractors

- Contractors
  - Must Work within c/s/p Constraints
  - Look at Functional versus Technical Experience
  - Deliverable Contracts Should be Performance Based
  - Apply Training and Educations to Real Problems
  - Similar Pay Scales for those with “Functional” Experience
  - Offer Payoff of School Loan
  - Offer Quicker/Different Promotion Track
  - Offer More Flexibility in Mobility
GOVERNMENT’S ROLE: Attract Talent

INDUSTRY’S ROLE: Train & Retain Talent
ATTRACT VS RETAIN

GOVERNMENT - You “Attract” the Talent
- Modifications to Contracts, Skill Set, Security Waivers (Interim Security Clearances), Latest Technology Work

INDUSTRY - We “Retain” the Talent
- Meet “Salary” Needs (Rates, Benefits, Other Offerings)
- Offer to Pay Off Student Loans
- Referral/Sign-on Bonus
- Mobility in Career
- Continuing Training, Renewal of Certificates
- Send to the Latest Seminars/Conferences
- Working IRADs
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)
Government Perspective
Open Dialog

Additional Topics for Consideration

Actions & Next Steps

No-Host Social
NRO IAWG Contact Information

• Nick Buck: nick@buckgroup.net (703) 801-3405
• Ann Waynik: ann.m.waynik@saic.com (703) 975-4456
• Mike Moran: mmoran07@peraton.com (571) 524-1184
• Alex Fox: afox02@harris.com (703) 203-0243

USGIF coordination:
• Shai Sobrino: shai.sobrino@usgif.org (571) 392-7205
Defining the Problem, cont.

Acquisition-Related

Other

• **Need**: Fill skills gaps in the acquisition workforce. **Good model**: OMB Digital IT Acquisition Professional (DITAP) program

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

• **Need**: Use full power of the FAR. Good exemplars?

• **Need**: Current system of outyear planning isn't flexible enough to respond to risk-taking or unexpected changes in a program. Result: program moving faster than expected ends up being stalled because it doesn't have access to funding that was programmed for future years.
“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

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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## Agile & DevOps Contracting Approaches

### Action Team

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### 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