Implications to Business Model & Industry Base
Due to Organizational Conflict of Interest
Separation of Software Framework Integration from
Software Development

NRO ASP Industry Advisory Working Group
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### Software Integration Model OCI

#### Action Team

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**Cross Functional Mix from Large, Medium, and Small Businesses**
As the NASP gets instantiated and providers are defined – the questions will be:
- ASP-ISP: What is the NASP Relationship to Services from CME, C2S?
- Intra-ASP: What is the tie between Frameworks and the applications that ride on them?

Contrasting integration models
- Software system (M2C2) riding on an ISP (CME/C2S)
- “Composed” systems on ASP (S2P) core services on ISP

Impacts to consider
- NRO industry base composition
- Size and number of opportunities
- Roles and expertise of “Mission SMEs”

Is the issue really OCI or is it actually technical objectivity?

What unique business challenges exist for NASP that are influenced by OCI?

**NASP IAWG Action Team Question:**

*What are the industry base and business model implications of an OCI between frameworks/integration and development/products?*
Why OCI?

- Balance between “twin risks” of insufficient competitive field and unfair advantage
- Government imposes OCI to prevent an unfair advantage to any party – for example, those who assist in creation or development of a need or "requirement" have an advantage and may not compete for that work.

- Types of OCI and related questions:
  - Unequal access to information – companies or personnel have access to information that results in an unfair advantage and dampens competitive environment
    - What type of NASP information would result in an unfair advantage?
    - Can that information be published to prevent unequal access?
    - Are there unequal access situations that can not be mitigated?
  - Biased Ground Rules - Unequal treatment due to differing roles or position
    - Would a Framework Integrator be able to influence the ground rules?
  - Impaired Objectivity – personnel have business interests in program decisions
    - What NASP role(s) could be determined to involve impaired objectivity?
OCI: Impact & Industry Perceptions

Why does NISP-NASP Industry Base get worked up over OCI?
- ASP-ISP is a new acquisition construct with many programs & opportunities.
- As “Franchise initiatives” NASP & NISP get a lot of attention.
- No NASP incumbent to be beaten – industry perceives higher probability of win (Pwin).

Observations & Perceptions
- Companies novated contracts or sold/divested portions of business solely due to NRO OCI approach: loss of opportunity to industry AND cost to government (loss of provider).
- NRO’s OCI approach has not been consistent or predictive in time to make a difference in bid/no-bid decisions: it’s not about “liberal or restrictive” policy, it’s about consistency.
- Perception OCI policies are not built on solid foundation drives shaping to overturn them.

What industry partners are impacted by OCI direction?
- Affects large, medium, and small business alike.
- Business is at risk – less expensive to win as incumbent than breaking into a new area.
- Industry bases organizes around it, self-selecting in/out based on risk.

Significant perception differences exist between Program SETA & Industry Base regarding predictability and consistent application of OCI.
Observations: Commercial IaaS, PaaS, SaaS Offerings

Is a commercial business model & competitive environment acceptable? Commercial analogies only go so far in FAR-based acquisitions.

- Companies offer services on top of Competitor services
  - Example: Microsoft and IBM Platform all running on AWS

- Platforms are built on top of other Platforms
  - “Frameworks within Frameworks”
  - Platforms utilize lower platforms to save development investments

- Platforms become more mission specific as they are higher in the “stack”
  - Topologies change over time

- A variety of business models exist across the ecosystem
  - Many models are blended (i.e. stacked on top of each other)

Framework/App OCI creates artificial boundary where none exists
Industry Considerations: Business Pursuit
Applies to Businesses of All Sizes

- “Addressable Market” drives investment decisions
  - # of opportunities for which we can legitimately compete
  - $ available on individual opportunities or in total across a market

- “Reasonable ROI” is main justification to pursue (invest in) opportunities
  - Applying resources ahead of revenue requires working capital
  - Industrial base won’t survive without Return on Capital

- Predictability is a fundamental tenet to future business planning
  - Impacts ability to retain cleared expertise
  - Can be rationale for investment or justification to exit a market

- Uncertainty & wasted B&P impacts cost to government
  - Getting OCI’d out late in RFP process after a $1M+ B&P investment is very difficult
  - Companies organize around risk/reward and will build in costs
  - Self-selection driven by opportunity and perceived Pwin
  - Dilutes industry ability to focus on pure play, what they’re best at
  - Potential loss of vetted providers to government and increased wrap rates
Large Company: “Common NASP Services is big enough to justify investment”
Small Company: “I can’t win the whole thing so I like the smaller scope RFPs”

“Component” acquisition approach opens up more opportunities (good) but OCI policy can preclude business and shrink the addressable market.

What is the role the NASP is trying to provide? Why is the NASP providing that Role?
What is the intended outcome?

Recommendation/Takeaway:
*Find the “sweet spot”: the mix of System/Component acquisitions using a segmentation model coupled with consistently applied OCI policy.*
**Alternative Segmentation & Integration Models**

- Segmentation model must precede OCI model
- Key OCI Issues:
  - Who writes requirements?
  - Who makes make-buy decisions?
- Mission-specific OCI ok if consistently applied

*For illustrative purposes only.
Not intended to reflect govt architecture*
Scaling Out: Segmentation Decisions, Integration Models and OCI Complexity*

“Segmentation ≠ OCI”

“START WITH THE END IN MIND”
- Segmentation based on scope, complexity, & program objectives
- Balance between # of opportunities & integration complexity
- Emergence of multiple “integrator” roles: Program, S/W, System
- Complexity of program-by-program OCI is risk to industry base

*For illustrative purposes only. Not intended to reflect govt architecture
Fundamental Issues

• Requirements & Spec generation vs development, product selection, and warranty
  – If F/W integrator generates specs for services and products ➔ may pose OCI
  – If Govt/SETA generates specs for services and products ➔ avoids OCI
• It's ok to have different OCI models for different functions if:
  – It's clearly articulated, explained, and consistently (predictably) applied
  – “SETA vs ASP vs ISP” is easy enough to apply
  – Function-specific or Directorate-specific gets a lot harder
• The lower OCI boundaries are driven the harder and less realistic they are to apply
  – Industry focus shifts to OCI, away from innovation
  – Affects both large and small business: 1st opportunity may preclude future business
  – Requires government to assume additional accountability for mission delivery
• Lack of feedback on mitigation plans undermines confidence, creates uncertainty
  – More concrete guidance, earlier, on what’s acceptable would help a lot
Industry Observations & Takeaways

- Govt interprets market research and industry exposure as “unfair access”
  - Dialog has all but shut down as early as RFI stage
  - Technology discussions do not breach threshold of Sensitive/Proprietary discussions in market research phase, pre-Draft RFP

- OCI has changed/shifted the NRO Industry base and capacity
  - Use of OCI to change supplier base (versus requirements a la C2S)
  - Bounded competitive environment may have been goal; inconsistency & delay are reality

- OCI picture in ASP-ISP world differs from vertically integrated system world
  - OCI critical to government development programs
  - Different landscape for non-developmental and COTS integration programs

- ISP-ASP OCI picture differs from ASP-ASP picture
  - ISP-ASP involves performance measurement of applications, unequal access to info
  - Framework Integrator to ASP OCI eliminated if government decides on products/specs

OCI policy and implementation should be reviewed in light of move from legacy “development” model to the new “integration” model
Recommendations (1 of 2)

• Recognize difference between software development vs COTS integration
  – Development: built uniquely to government requirements (Higher OCI potential)
  – Non-developmental: built to industry-wide requirements (Lower OCI potential)

• Recognize new integration model = new roles & OCI picture
  – Multiple versions of “integrator”: Program, System, Framework, Application
  – Government as “Program Integrator”: direct schedules, content, and product selection
  – Fundamental issue: who decides vs. who implements in a non-developmental program

• Determine/Evaluate ASP segmentation options & review ecosystem roles
  – This should be a long-term decision to provide continuity and predictability
  – SETA vs SI, who owns architecture, who creates/owns design?
Recommendations (2 of 2)

• Provide predictability to industry base via consistent application of OCI
  – Applied consistently at Agency, Directorate, or Program/Functional levels
  – Based on a clearly defined, consistently followed (thus predictable) segmentation

• Establish Vetted Avoidance/Mitigation Strategies to Foster Consistency
  – Publish acceptable mitigation constructs for use in proposals
  – Doesn’t preclude offerors from proposing different strategies but they’d have to explain
  – Currently provided for corporate OCI plans…should be able to provide for RFPs
  – Should not be source selection sensitive or company proprietary (GPR requirement)

• Provide more specific and earlier feedback on industry mitigation proposals
  – Currently provided for corporate OCI plans…should be able to provide for RFPs
  – Create and publish acceptable mitigation constructs for use in proposals; others may be proposed but offeror must explain it meets the criteria.

• Further discussion:
  – Where may OCI occur in Non-developemental COTS integration efforts?
  – Consider a temporal component to OCI as it applies to Framework Integration
A few things we need to look at:
Why is there an OCI conflict?
What can the Gov do other than limit competition?

**Problem**: Framework provider creating requirements for future ASP capabilities

**Potential Solution**: SETA’s developing requirements, future capabilities, SETA’s and Gov sign off on all design documents and put in Gforge – addresses impaired objectivity, unequal access

**Problem**: Framework provider shows favoritism to their own company ASP and/or creates issues with competitor ASP

**Potential Solution**: SETA’s/Gov approve SLA’s and schedules between Framework and ASP – addresses impaired objectivity

**Problem**: Framework provider know more than ASP which provides a pricing advantage – could create unequal access

**Potential Solution**: SETA/FFRDC capture all design data, reports, and PMRs, design reviews opened to all contractors at their expense (a la SIGINT Quarterly Design Review)
A few things we need to look at:
Why is there an OCI conflict?
What can the Gov do other than limit competition?

**Problem**: Framework provider ignores integration issues with their own developed services

**Potential Solution**: SETA’s/Gov and Site witness and sign-off on all test plans and test; SETA’s assure sufficient metrics are being collected as part of the SLA; addresses impaired objectivity

**Problem**: Framework provider could create backdoors, proprietary API’s in order to gain a competitive edge on a ASP – Biased Ground Rules

**Potential Solution**: Utilize standard frameworks being driven by Commercial best practices and GED will have FGA standards and APIs
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• NASP Website: https://ged.svc.nro.ic.gov/NASP/

• S2P Website: https://ged.svc.nro.ic.gov/nasp/softwareservicesplatform
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