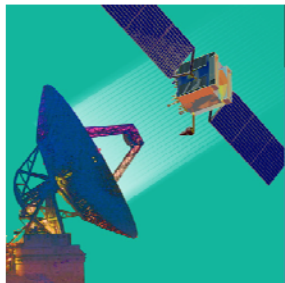


Working Group Outbrief

Ground System Architectures Workshop

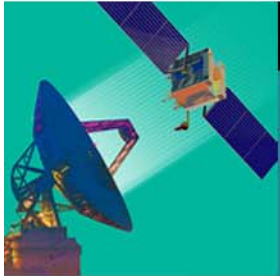


Session 11F

Embracing Change via the Use of Service-Based Frameworks and Products in an Enterprise

Don Sather, The Aerospace Corporation

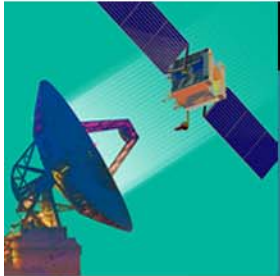
Ground System Architectures Workshop



Session Goals

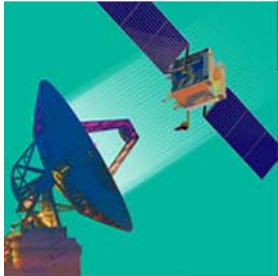
- Inform the workshop participants (panelists and audience) about enterprise developments across the US Government
- Present the challenges faced by those developing the enterprises
- Get feedback and exchange between the participants regarding those challenges

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Presenters/Panelists

- Dan Smith, NASA Goddard, GMSEC
- Eric Gottshall, NOAA, NESDIS
- Col. James Planeaux, USAF SMC/ADY
- Nancy Holt, USAF SMC/ADG
- Brad Kizzort, Harris Corp (representing the OMG Space Domain Task Force)

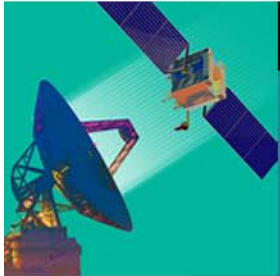


Identified Challenges to Enterprise Development

1. Ground Enterprise and Specification Definition

1. Should an enterprise develop a common system or a common architecture/framework?
2. Should an enterprise enable a shared enterprise with distributed services?
3. Should an enterprise provide a shared component catalog and common products?
4. What level should an enterprise specify apps & services (e.g. OS or interface/functional)?
 1. Where is the appropriate balance of owning/controlling the interfaces without killing off industry (and programmatic) innovation and evolution?
5. Should the transition to an enterprise be incremental evolution or big bang?
 1. How much enterprise functionality/infrastructure really needs to be initially deployed?
6. What is the value of a well conceived common presentation layer specification for heterogeneous satellite enterprises?
 1. If of value, how could one be adopted or developed?
7. Can or should we strike a balance between satellite and ground complexity?
 1. Could joint standards help?
 2. Is there a forum for doing this?
 3. Should one be started?

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Identified Challenges to Enterprise Development (cont 2/3)

1. Push or Pull?

1. Should the common solutions be required? (PUSH)
 1. Could be specified in RFPs; required for in-house efforts
2. Should “golden nugget” capabilities be made available to all users so they can better create efficient systems? (PULL)

2. Technology, processes and/or people and awareness?

1. Which is the key component for success the ability to develop a flexible common-use system to meet the needs of many organizations or programs?
2. Is the need for policies and procedures for moving to the new paradigm the limiting factor?
3. Is it really about changing culture, raising awareness, and encouraging collaboration and teamwork across organizations?
4. Can we assign percentages to these 3 areas to reflect the emphasis we should place on our strategy meetings and planning?
5. How can we foster and incentivize “enterprise thinking & behaviors” across the Government & Contractor communities?

3. Gaining Sustained Senior Support

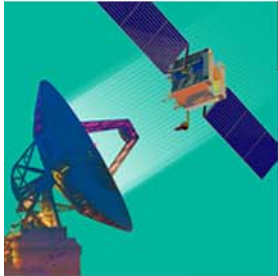
1. How to express benefits of enterprise architecture to senior management?
2. How to budget and perform long term planning while maintaining agility?





Identified Challenges to Enterprise Development (cont 3/3)

- 1. Maintaining acquisition agility in a government acquisition paradigm**
 1. How can we prudently tailor the acquisition processes, or can we?



Conclusions

- Although the challenges are similar, there is no one size fits all answer to building an enterprise
 - Thoughts and opinions on many different approaches were shared by the various groups which included DoD industry, ESA, commercial industry as well as other US government agencies
 - Choices are organization and goal driven (What is the purpose of migrating toward an enterprise for the given organization?)
- A common consistent presentation layer can help insulate operators from changes occurring “under the hood” and across programs during enterprise transformation
- While technology and processes were important, the change to an enterprise culture for both Contractor and Government is by far the most important and the most difficult