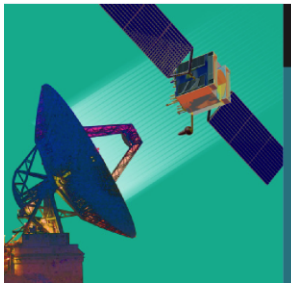
Working Group Outbrief

Ground System Architectures Workshop

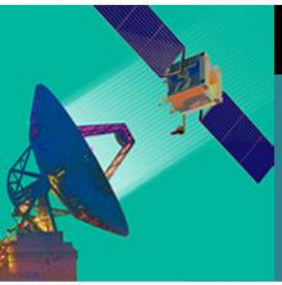


Session 11B

Cloud Computing for Ground Systems IV

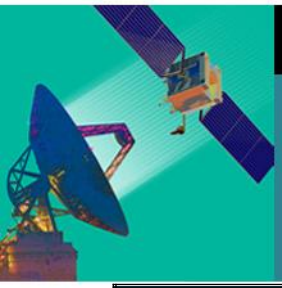
Ramesh Rangachar, Creative Information Technology, Inc.
Craig Lee, The Aerospace Corporation

AEROSPACE



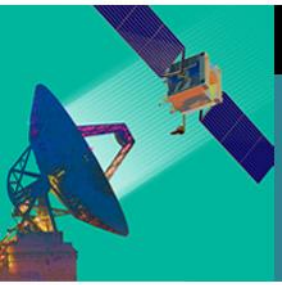
Session Goals

- Examine the "State of the Art" in cloud computing
  - Talks from across industry on the “State of the Possible”
  - Potential benefits – mission effectiveness & cost effectiveness
  - Outstanding challenges
- Evaluate the impact of cloud and big data on ground systems
  - Design, deployment, procurement, utilization
  - A generic hosting environment for multi-tenant missions
- Panel discussion to better understand the adoption issues programs have, and how to address them
- Identify major issues and set possible goals for the Ground COI to investigate in a year's time



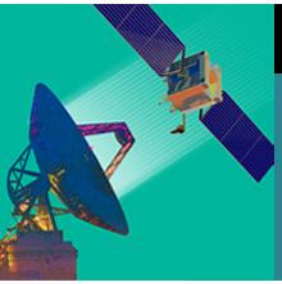
Presenters/Panelists

Title	Presenter	Organization
Cloud Service Level Agreements and Cloud Federation	Craig Lee	The Aerospace Corporation
The NGA/NCOIC GeoInt Community Cloud Prototype	Wil Regier	NCOIC
Data Storage and Analysis Using Big Data technologies	Gert Villemos	CGI
Authentication in the Cloud	Ramesh Rangachar	Creative Information Technology
Panel Discussion: Implementing Ground in a Cloud Environment	Moderator: Samuel Cantrell	The Aerospace Corporation



Key Points

- Political and economic issues of cloud adoption are enormous
- After technical presentations and discussion covering performance, security, and big data, the issue became how to architect policies and economic incentives to manage the ISP/ASP interface
- How can technical capabilities be integrated with, and used to support or enforce, policies and economic incentives?
- The distinction between "public" and "private" cloud is a relative distinction
  - How much responsibility and trust is a consumer delegating to their provider? A lot or a little?



Conclusions

- A Spectrum of Responsibility Delegation and Trust Can Be Defined

Cloud "Type"	Level of Trust Required
Commercial Public Cloud	Commercial provider with many, unknown tenants
Government "Public" Cloud	Run by the gov (or a contractor for the gov) just for other gov agencies/users
Enterprise Private Cloud	Run at the organizational level, hosts multiple user
Program Private Cloud	Run for an individual program, but to realize some cloud benefits

- Focus for next year:
  - Keep the conversation going with the Ground System Community of Interest!