

# *Ground System Architectures Workshop*



## *Working Group D: Cloud Computing and Big Data Technologies for Ground Systems*

*Ramesh Rangachar  
The Aerospace Corporation*

*February 28, 2024  
1:00 PM to 5:00 PM PT*



# Session Goals

- Discuss the current trends, best practices, and lessons learned in using Cloud Computing and Big Data technologies
- Key Focus Areas:
  - *State of the art in Cloud Computing and Big Data*
  - *Cloud and Big Data reference models*
  - *Cloud-based ground systems*
  - *Cloud and Big Data technologies*
  - *Cloud security, standards, and compliance*
  - *Acquisition strategies for cloud-based systems*
  - *Cloud computing economics*
  - *Cloud performance management*
- **Special Topic for GSAW 2024: Suitability of Cloud Computing for Satellite Mission Operations**

# Suitability of Cloud Computing for Satellite Mission Operations



- Satellite mission operations is usually slow to integrate new technologies; cloud computing (public or private) is not an exception
- Discuss the suitability of cloud computing for Satellite mission operations
- Topics of discussion include:
  - *State of the art of mission operations in the cloud*
  - *Maturity and feasibility of cloud services for mission operations*
  - *Mission operations functions/services best suited for cloud adoption*
  - *Enabling mission operations in the cloud for various classes of satellites*
  - *Future trends/plans*

# Agenda



Time	Presentation	Presenter
1:00 PM to 3:00 PM	Introduction	Ramesh Rangachar The Aerospace Corporation
	Command and Control in the Cloud: Leveraging Cloud Technology While Remaining Cloud Agnostic	Ryan Melton CEO, OpenC3, Inc.
	Satellite Operations in the Cloud – GMV Perspective	Amaya Atencia Division Head, Mission Data Systems and Products, GMV
	Hybrid approach to IT cloud infrastructure	Michel Horny, EUMETSAT
	Kratos' experience in enabling mission operations in the cloud	Scott Criley Vice President, Mission Solutions Development, Kratos
	Commercial Cloud for DoD Satellite C2 Operations	Jannell Villegas The Aerospace Corporation
	Evaluating Utilization of Commercial Cloud Services for Satellite Mission Operations	Justin Gronert JPSS Mission Operations Manager, NOAA/NESDIS/OSPO
3:00 PM to 3:15 PM	<b>Break</b>	
3:15 PM to 5:00 PM	<b>Panel Discussion:</b> Suitability of Cloud Computing for Satellite Mission Operations Panelists: Amaya Atencia, Scott Criley, Justin Gronert, Michel Horny, Ryan Melton, and Jannell Villegas Moderator: Sheryl Olguin, Systems Director, The Aerospace Corporation	