Ground Systems Standardization and Commonality: Continuing the Dialogue

Session 10B
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Session Goals

- Share experience with standards and commonality in ground systems
- Identify lessons learned from real world projects
- Discuss innovative approaches to increasing standardization
- Recommend ways to do things better
Presenters/Panelists

- Jonathan Gal-Edd, NASA Goddard Space Flight Center
- Mike Hogan, The Aerospace Corporation
- Mario Merri, European Space Agency
- Deane Sibol, The Johns Hopkins University / Applied Physics Laboratory
- Joe Wysocki, The Scitor Corporation
Key Points - 1

- Standards and commonality are not the same thing
  - Different types of standards
  - Can be standards compliant with no commonality
- Leadership is critical to being able to implement standards and commonality
  - Advocate needs to be supported and empowered
  - Culture is biggest barrier and can only be changed if supported from the top
  - Mandates are often needed
  - Accountability to be sure mandates are followed
Key Points - 2

- Education and knowledge capture are key areas to address
  - Implementations are often shared via word of mouth
  - Users group / formalized lessons learned would help capture user perspective on CCSDS (and other standards), as well as providing feedback to standards organizations

- Need to be more specific about what standards should be used
  - Specify versions and / or past implementations, e.g. CFDP vs. CCSDS
  - Providing software libraries, not just books, may be a solution but need to pay attention to licensing issues
What Wasn’t Discussed

- Testing
  - How to minimize time, effort associated with regression testing of common ground systems
- Information assurance
- Metrics
  - Touched on question of whether everything boils down to cost
Conclusions

- Projects are using standards and developing common ground software despite obstacles
- Bridging gaps between standards developers and users would help both sides
- Culture change requires leadership, discipline and accountability