Session 10D: Multimission Ground Systems: Approaches and Challenges

- **Easy Agreement:**
  - **Multimission Ground Systems are the right way to go for many mission sets**
  - **It often is not a technological challenge**
    - **Culture, Mission-Oriented Funding Paths, Organizational Structures often restrict multimission plans. Really need a organization focused on common needs.**
- **Interesting Discussions**
  - **Are many systems so "special" that COTS solutions and other multi-mission solutions need not be considered?**
  - **There are several key architectural approaches**
    1. **Home grown systems that meet the core needs of an organization's many missions**
    2. **End-to-End systems provided by a COTS vendor**
    3. **Open architecture which allows mix of multiple vendor products and in-house products**

    Regardless of approach, systems need to be modular with clean interfaces and few dependencies – SOA and message-oriented middleware systems both support this approach. The right granularity is important.

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- **Are there sufficient business incentives for vendors to invest their own money for a specialized niche product that NASA may find useful?**
  - **The chances are better if systems are composed of parts and the niche areas are separated from the common areas**
- **What can we do to make multimission support a strategic goal with support from management and the missions?**
- **Standards are essential, but can't answer all concerns. We do not believe than a predominant architecture standard will emerge – we've heard about many great ideas**

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They have “cylinders of excellence”