System Wide Information Management (SWIM) Workshop Session

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SWIM

1. What issues from other sessions (not SWIM) need to be considered as part of SWIM? (certification, policy)

2. What holes and differences were noted in the SWIM architectures presented? How can NASA help with technologies to close these gaps? How should the data be modeled and validated?

3. How might SWIM take advantage of the work done in support of DoD’s GIG?

4. What is the killer application for SWIM? What is the ROI? (operating costs)

5. What are the transition issues? (current activities, future ATC capabilities)

6. Security architecture?

7. International harmonization?
SWIM

- What issues from other sessions (not SWIM) need to be considered as part of SWIM?
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- What holes and differences were noted in the SWIM architectures presented? How can NASA help with technologies to close these gaps?
SWIM

- How might SWIM take advantage of the work done in support DoD’s GIG?
SWIM

- How should the data be modeled to validate/enhance the publish/subscribe concept?
SWIM

- What is the killer application for SWIM? What is the ROI?
SWIM

- What are the transition issues?
Policy Issues and Strategies

- Objectives, scope and boundaries of SWIM need to be clearly defined and articulated.
- How will international harmonization be achieved? (information standards, architecture, policy)
  - EUROCAE WG 59 Interoperability
  - EUROCAE WG 61 Architecture
- What is the security policy and its objectives? (access, ownership, levels, strategy)
  - Needs to be identified early and coordinated
- How might SWIM take advantage of the work done in support of DoD’s GIG?
- How can we simplify the safety certification process?
- What are the data and information approval requirements for specific applications?
- Does the SWIM team understand the implications of certification on development?
- How will standards be influenced, adapted and enforced?
- What is the strategy for performance management and metrics?
Technology Issues and Strategies

- How will architecture address the four domains: oceanic, en route, terminal, airport?
  - Physical, data, and application
- How should the data be modeled and validated?
- Security architecture should be developed in concert with technology architecture.
- Business case needs to be identified and articulated.
- Scalability, flexibility, evolvability are key considerations for the architecture.
- How will SWIM architecture accommodate COTS end systems for NAS subsystems with proprietary interfaces?
- What are the technology gaps?
Transition Issues and Strategies

- Is there a sufficient understanding of the current architectures?
- What are the current activities and how will they be leveraged to benefit SWIM?
  - How will the East Coast broadcast services migrate to SWIM?
  - Investigate UAL’s EFB for applicability to SWIM.
- What are the defined future ATC capabilities?
- How will existing operational capabilities be maintained?
- How can we gain early buy-in from aviation industry and other stakeholders?
  - Develop business case to improve ROI.
  - Identify early benefits.
  - Conduct outreach to stakeholders.
Transition Issues and Strategies

- What are the windows of opportunity for SWIM?
  - What is the ROI?
  - How will operating costs be reduced and/or services be improved?

- What are the plans for vulnerability and security analysis and risk management?

- What are the plans for program management and evaluation criteria to be incorporated in the transition plan?
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