AAtS Standards Harmonization
RFI Information Webinar

Nadine Alameh, Ph.D.
Executive Director, OGC Interoperability Program
Oct 1, 2013

Everyone but the panelists is muted

To ask a question, “raise your hand” on the webinar

Or write your question in the Questions box

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AATs Standards Harmonization Guidance Initiative

OGC Requests

Status:

Please note: Proposals must be received by OGC no later than 1700 EST 15th October 2013.

Description:
The Open Geospatial Consortium (OGC) has issued a Request for Information (RFI) to engage the aviation community in identifying standards efforts relevant to the provision of aircraft connectivity to the FAA's System Wide Information Management (SWIM) infrastructure.

RFI information:

- Responses are due by 5 pm EST on 15 October 2013.
- A public Q&A webinar is scheduled for 1 October 2013 to provide the community with more information on the context and objectives behind this RFI. Register for the webinar at https://www4.gotomeeting.com

http://www.opengeospatial.org/standards/requests/111
Agenda

• Introduction – Nadine Alameh, OGC

• AAtS Context – Lockett Yee, North Star Group (on behalf of FAA)

• SC 206 Overview – Matt de Ris, Panasonic/SC-206 representative

• AGIE Overview – Rick Wilber, Boeing/ARINC 830/839 AGIE/MAGIC Co-Chair

• OGC Standards Overview – Johannes Echterhoff, Interactive Instruments/OGC

• Recap – Nadine Alameh, OGC

• Q&A
What is OGC?

- 480+ members
- 38 adopted standards
- Hundreds of product implementations
- Broad user community implementation worldwide
- Alliance partnerships with 30+ standards & professional orgs
OGC – Geospatial Standards for and by Multiple Domains

Geospatial and location standards for:

- Aviation
- Built Environment & 3D
- Business Intelligence
- Defense & Intelligence
- Emergency Response & Disaster Management
- Geosciences & Environment
- Government & Spatial Data Infrastructure
- Mobile Internet & Location Services
- Sensor Webs
- University & Research

Spatial Policy - Open
Interoperability - Situational Awareness - Real Time
Information Integration - Data Quality - Weather

Earth Observation - Proximity - Points of Interest

Analysis - Navigation - Open Source - GIS
Crowdsourcing - Location - Sensor Web

Map - Time - Shared Understanding - Linked Data

Global - Place - Geoweb - Geosemantics

Indoor/Outdoor - Metadata

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• A setting that aligns technology users and providers to work **collaboratively**

• An **agile** development environment to evolve, test, and validate standards under marketplace conditions

• An effective way to **share** the costs of developing well-crafted standards that provide concrete foundations for **future** enterprise architectures

• A repeatable process for building & exercising **private-public** partnerships to drive global trends in technology and interoperability
A series of initiatives

Testbed 6 (2008-2009)
- AIXM, WFS, DNOTAMs

SAA Pilot (2010-2011)
- SAA, SWIM

Testbed 9 (2012-2013)
- Metadata, DMS, Performance

Testbed 10 (2013-2014)
- Dev tools, FIXM, Portrayal

Testbed 7 (2010)
- Portrayal, WXXM, WFS

Testbed 8 (2011)
- Temporality, Compression, access control

AAtS Harmonization Effort (2013-2014)
- SC206, AGIE, OGC

MOSIA SJU Project (2013-2014)
- ISRM mapping, Temporality, Registry

This is not just about research but rather about hands-on engineering efforts to determine the ability of standards to solve real interoperability problems and assess if they’re mature enough for deployment in operational environments.
Harmonization Strategy

• **Objective**
  – Evaluate the industry standards applicable to AAtS air/ground information exchange
  – Identify requirement similarities/gaps/integration points
  – Create a framework to recommend and test a harmonized architecture to address both domestic and international interests

• **Open Geospatial Consortium (OGC) Led Team**
  – Air/Ground Information Exchange/Manager of Air-Ground Interface Communications (AGIE/MAGIC)
    • Application-level information interchange standard, including protocols, functions and interfaces that enable application-to-application information exchange between aircraft and ground applications
  – RTCA Special Committee (SC) 206
    • Description of AIS and MET data link services, intended to provide information for pilot decision support, collaborative decision making between ground services, flight deck, ATC, etc
  – OGC
    • Discovery, access, integration, filtering, portrayal, notification of location-based information (AI, MET, Flight, terrain, etc)
Harmonization Strategy

• **Approach**
  – Engage the community in the process
  – Identify relevant standards, areas of overlap/gaps/conflicts/connections
  – Perform a deep dive into relevant standards
  – Recommend a harmonized architecture guidance
  – Prototype high-priority aspects of the architecture using community-provided assets

• **Limited scope, time and funds**
  – This project is NOT about harmonization of all standards across all organizations…
  – The team will attempt to identify the general problem domain
    • Responses encouraged to focus on data exchange, services and applications issues per the direction of the sponsoring organization

• **Expected Outputs**
  – Specific recommendations to the relevant standards group to relieve areas of conflict
  – Standards community guidance for a harmonized approach
  – NOT
    • Requirements, specifications or standards
      – Responsibility of the standards groups who can assess/choose how to apply and execute the recommendations
Community Input

1. Technologies, standards and general trends relevant to AAtS
2. Practical recommendations on harmonization opportunities and challenges
3. Insights on how to best craft an interim path for the community and to develop a technical architecture that is forward thinking and can accommodate this emerging and evolving environment.
4. Global harmonization considerations

Responses will guide the discussion at a community workshop, scheduled for 5-6 November 2013 in Washington DC, and will be considered in the development.

Information about the workshop will be available at http://www.opengeospatial.org/standards/requests/111
# Preliminary Schedule

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• For more info:
  – Dr. Nadine Alameh, email: [nalameh@opengeospatial.org](mailto:nalameh@opengeospatial.org)

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