Web Services & SOA from a PROJECT HOMELAND Perspective

2006 JSEM Conference & GeoSpatial Technologies Symposium

21 March 2006

Dan Vernon, NGA Homeland Security/Defense PM & KPE ACE
Project Homeland Community

DoD

DHS

State & Local

NGA

USGS

Project Homeland
Project Homeland 2005 Objectives

• Broader access to static and temporal GEOINT

• Decrease number of duplicate data stores

• Promote consistency of data presentation

Lay the ground work for a Service Oriented Architecture that promotes the use of web services
Project Homeland 2005

1. DoD
   - Air Force Weather web services
   - Transportation Engineering Agency web services
   - MAD web services
   - NORTHCOM support
   - Defense Installations Spatial Data Infrastructure support

2. DHS
   - IA iCAV implementation

3. NGA
   - Palanterra™ operational & technical capabilities enhancements
   - Mission support

4. USGS/State & Local
   - State of Colorado HLS Pilot
   - GFG – GIS For the Gulf
Project Homeland Partners

[Diagram showing various partners connected to a central node]
Palanterra™ Technology
NGA Brings COTS & COP to HLD/HLS Desktop

GEOINT Decision Support COTS
- ESRI ArcGIS, ArcIMS, ArcSDE,
- Oracle, ERDAS, Red Hen, etc.

Support Disconnected Editing
- Capability to update centralized geodatabase from remote locations.

Web Services for HLS/HLD
- Customer access to real-time data
- Customized Analytical GEOINT
- support

Near Real-Time Field Data Collection
- On-site collection / spatial data integration
- Real-time secure wireless data collection
- Integration of disparate data types

Palanterra™ is Utilized Across HLS/HLD Communities

Project Homeland
NGA Use Only
Know the Earth...Show the Way
Nov. ‘05 Logical Baseline
Summer ‘06 Logical Baseline
FY06 Functional Areas

Palanterra™ Enterprise Functional Areas

- DHS ICAV
- GKB-p
- NGA Gateway
- JSOC

Palanterra Business Unit

- HLS Domestic Operations
  - National Special Security Events (NSSE)
- Global War on Terrorism (GWOT)
- Regional Analysis
  - Iraq Reconstruction Support
- Olympics ‘06
  - Situational Awareness Reporting
- Global Viewer
- ePODS Viewer
- Epidemiology
  - Avian Flu Tracking

Development

Existing

Planned
Why we are having success

For Palanterra Development

• Spiral Development Methodology
  – 3 month rollouts of new application baseline (requirements, design, test & production integration)
  – Integrated development team
  – Customer focused
  – Highly leverage COTS product
  – Adopted OGC standards

For the other tasks

• Establishing mutually agreeable goals and functional interdependency
• Supplementing their development efforts (using their contractor base) to provide their web services
Contact Information

Dan Vernon
Daniel.E.Vernon@nga.mil
703-264-3040

Mark Riccio
Mark.J.Riccio@nga.mil
301-227-9288

http://palanterra.nga.mil