Background Information on RAPTOR

In 2009, the Science and Technology Directorate (S&T) of the U.S. Department of Homeland Security (DHS) launched the Virtual USA (vUSA) initiative, which is helping to create a future where jurisdictions at all levels have the capabilities necessary to voluntarily share information with each other, as appropriate and authorized, regardless of the data format. The states of Alaska, Idaho, Montana, Oregon and Washington agreed to partner with the U.S. Department of Homeland Security (DHS) on a component of the Virtual USA Initiative, the Pacific Northwest (PNW) Pilot. The pilot advanced a technical and cultural shift in how the Nation shares information during an emergency.

Within Oregon, the State’s Office of Emergency Management (OEM), Department of Transportation (ODOT), the Department of Administrative Services Geospatial Enterprise Office (DAS GEO) and Multnomah County’s Department of Emergency Management agreed to partner on the development of a GIS-enabled situational awareness prototype (i.e. VENOM – the Virtual Emergency Network of Multnomah). On behalf of their partners, Multnomah County took the lead on technical development of the prototype while OEM, ODOT, and DAS GEO provided business requirements, access to vital information and geospatial datasets, and subject matter expertise. The prototype furnished a much needed virtual interoperability platform that allows collaboration and a coordinated response across the State’s Emergency Management community. The tool was the first step towards new emergency management capabilities, offering real-time situational information in combination with ‘traditional’ Geospatial Information Systems (GIS) layers to create a comprehensive picture of existing and potential situations. VENOM also served as a prototype for Oregon’s contribution to the Virtual USA (vUSA) Pacific NW Pilot.

As of October 2011, the State of Oregon’s OEM and DAS rebranded the tool as RAPTOR – the Real-time Assessment & Planning Tool for Oregon.

RAPTOR is the statewide version of the VENOM tool, built on the original concepts and stakeholder needs that were defined in VENOM. RAPTOR will allow OEM to spatially display interrelated and aggregated information from various systems such as OR-IRIS, SAFE, Bridge, Ops Center, WebEOC, Computer Aided Dispatch (CAD), ODOT T-TIP and the National Weather Service in a geospatial platform. This allows for real-time comprehensive situational picture. Examples of this include:

- Displaying the location of hospitals around a rapidly escalating traffic incident
- Showing the location of schools or childcare centers around a hazardous material spill
- Showing the infrastructure affected by a storm or natural disaster
- Providing predictive modeling tools to support ‘what-if’ scenario development and related planning activities
- Facilitated improved regional coordination and interoperability

RAPTOR’s potential value is in that it instantly displays the relationships between events, allowing emergency operations centers (EOC’s) to be alerted to potential issues and providing real-time analysis for decision support. As this tool will compliment other existing systems, it is intended to promote a multi-platform model of GIS information sharing amongst all levels of government via standardized feeds and data services such as GeoRSS, .xml and map services. This allows maximum information sharing with OEM regardless of which system agencies and localities are using for daily operations and in emergencies, therefore maximizing existing investments and minimizing potential costs.

RAPTOR System Support
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Real-time Assessment & Planning Tool for Oregon (RAPTOR)