The Computerworld Honors Program

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Final Copy of Case Study

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Boston, MA, US

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STATUS:
Laureate

CATEGORY:
Collaboration

ORGANIZATION:
TM Forum

ORGANIZATION URL:
http://www.tmforum.org

PROJECT NAME:
Federated Service Level Management to Support Multi-National Preparedness in Crisis – Rapid Communications Deployment Project

PROJECT OVERVIEW

The TM Forum Defense Interest Group Catalyst , formally known as the "Federated Service Level Management to Support Multi-National Preparedness in Crisis – Rapid Communications Deployment Project," was a multi-vendor technology demonstrator (Catalyst) developed within the TM Forum in 2010. This Federated SLA Catalyst project used crisis situations, such as the Haitian Earthquake response effort, to demonstrate rapid establishment of communications services across a multi-national coalition-focusing on the agile and rapid build out of the end-to-end information and communication technologies (ICT) service chain and security. The project was championed by NATO C3 Agency (NC3A) and the UK MOD Defence Science and Technology Laboratory (DSTL). Primary requirements for the multi-vendor team included dynamic discovery of services and creation of complex service value chains based on discovered elementary national contributions; secured information exchange across the coalition partners on a multi-lateral basis, and automated end-to-end service management. Key deliverables for the demonstration included: - Reduced service delivery lifecycle (mission planning functions/interfaces between partners) - Dynamic discovery of services - Application of automated policy (flexible, dynamic architecture) - Secured messaging between coalition partners (across the entire lifecycle) - Identity Management with distributed access rights - Secured services - Translation of Service Level Agreement data from a proprietary form (coalition partner) to a common, standard-based form Requirements of all TM Forum Catalyst projects are the use of Commercial Off-The-Shelf Products along with industry standards and best practices. The TM Forum's Information Framework (SID), Service Level Agreement Handbook, Active Catalogue, and IPsphere Framework were applied to the solution. In the type of scenario demonstrated, a quick response force would arrive on the scene, a command structure would be established, and there would be little or no communications infrastructure available. Execution of the mission plan requires a well coordinated response effort – making certain that the right resources are available at the right time in the right location – all of

which is dependent on the rapid establishment of telecommunications services. Bandwidth is often constrained, and when problems arise – a well coordinated response ensures minimal mission impact. A flexible architecture, which applies configurable policy and cross domain communication, makes managing services across a federation much more efficient.

SOCIETAL BENEFITS

Primary stakeholders for this work include Defense agencies, Governments, Value Chain Service Providers, and Cloud buyers. The team chose a natural disaster scenario, because it was understandable to non-military persons. Coalition partners could be substituted with an ad-hoc incident response team formed by emergency services and/or volunteers.

PROJECT BENEFIT EXAMPLE

From Tamas Halmai, Principal Scientist NATO C3 Agency, "Current military operations require close co-operation between coalition partners in order to smoothly and rapidly establish complex end-to-end ICT services spanning through heterogeneous national sub-networks. Once services are delivered it is equally important to build very close Service Level Management relationship amongst the involved service operators (military or commercial) to maintain high-level service quality. Without standardized management solutions and interfaces it would not be possible to achieve these goals. Therefore the NATO C3 Agency is strongly supporting this TM Forum Defense Interest Group Catalyst and pleased to work with the industry on proving and maturing the federated service management concept that Nations shall be able to reuse."

IS THIS PROJECT AN INNOVATION, BEST PRACTICE? Yes

ADDITIONAL PROJECT INFORMATION

The Catalyst program is the TM Forum's innovative approach to launching and creating leading-edge solutions. Think of it as a rapid prototyping environment where service providers, system integrators, and hardware/software suppliers work together to solve common, critical industry challenges culminating in a series of live demonstrations. A Catalyst begins with one or more service providers, or Government/Defense Agencies, placing their requirements on the table. The multi-company, multi-national teams then work together using existing and emerging technologies to solve some of the most pressing operational and interoperability issues.