Software-Defined Networking: The Army Prepares to Reap the Rewards of Joint Modernization

Posted At : March 10, 2015 7:26 AM | Posted By : Alex Rossino

Related Categories: Department of Defense, Technology Trends, Software-Defined Networking, Efficiency Initiatives, Joint Information Environment (JIE), Federal, Army, Emerging Technologies

For many years the U.S. Army has been the butt of jokes about the antiquated state of its information technology infrastructure. Army personnel returning from deployments had better connectivity and IT services available to them in the field than they have in garrison and bandwidth into and out of Army camps, posts, and stations has been measured in megabytes, not gigabytes. Dedicated Army IT professionals from the CIO/G-6 down to the Program Executive Offices have worked hard to change this situation by implementing initiatives like Defense Enterprise Email and by leading the move to a Joint Information Environment. In doing so, they have changed the game for the U.S. Army and put the service in an excellent position to advance rapidly down the timeline of technology evolution.

Lest readers think I overstate the case for the Army's advancements in modernizing its IT infrastructure, I refer them to a procurement that recently appeared. The Global Enterprise Fabric acquisition (**Solicitation #W91RUS15GEF1**) demonstrates that the Army's Network Enterprise Technology Command also sees the advancements that have been made. NETCOM is seeking to take advantage of those advancements by implementing a software-defined infrastructure that enables centralized management of the JIE, Joint Regional Security Stacks, and Multi-Protocol Label Switching architecture.

That NETCOM is researching the possibility of implementing an enterprise SDN solution speaks volumes about how far the Army's network modernization has come and where it is going. The CONUS deployment of MPLS routers across the enterprise is targeted for completion sometime later this calendar year. Similarly, the standing up of Joint Regional Security Stacks in the CONUS is also slated for later this year. Add the Army's recent transition to Defense Enterprise Email and you have a much more secure network with much higher bandwidth. These network upgrades will also allow the Army to take advantage of cloud computing services offered by the Defense Information Systems Agency and commercial partners.

The Global Enterprise Fabric envisioned by NETCOM will help deliver computing enterprise services in three broad areas - Infrastructure-as-a-Service, Network Services, and Computer Network Defense – all of which are managed and monitored within a software-defined framework. NETCOM's turn to SDN is a harbinger of things to come across the DoD. Deltek's recent *Emerging Federal Technology Markets, 2015* report documented that throughout the federal government two steps are leading agencies to SDN: modernizing IT infrastructure and planning for/adopting cloud computing. Cloud computing is not necessary for an agency to implement SDN, but in evolutionary terms the adoption (or desired adoption) of cloud may be decisive because it spurs on other foundational investments.

As agencies grow more comfortable with cloud computing, their adoption of SDN will increase or, as NETCOM's Global Enterprise Fabric concept illustrates, their adoption of SDN and cloud computing will go hand-in-hand. Herein lays the opportunity for those seeking new business. Agencies already walking the path toward the cloud, particularly the use of Infrastructure-as-a-Service, will already have some idea of the viability of SDN. Seek out those agencies making IaaS investments and you'll find those most interested in discussing SDN as the next step.