Army Network Modernization, Cloud Services, and the Joint Information Environment

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As the Department of Defense moves toward the Joint Information Environment (JIE), it is becoming clear that the Army is leading the way. The Navy and Marines have expressed agreement with the concept of the JIE, but each remains wary about the approach. Despite a directive from the DoD Chief Information Officer, the Navy has resisted transitioning Defense Enterprise Email. The Marines, meanwhile, have gone so far as to argue that the rest of the DoD should adopt *their* network approach because the current Marine Corps Enterprise Services (MCES) environment is already a joint environment. Then there is the Air Force, which is slowly falling into line with the Army behind the JIE concept.

This leaves the Army (and the Defense Information Systems Agency) as the "tip of the spear" when it comes to building the JIE. Why the Army has assumed this role is known only to those at the heart of the effort. My own speculation is that the Army was chosen to lead the JIE effort because it was the Service in the direst need of network consolidation and modernization. After more than a decade of fighting overseas, Army network capabilities in the continental U.S. had become sub-par and were open to cyber-attack from any number of directions. This was a potential disaster waiting to happen so addressing it became priority number one.

The Army's network modernization efforts to enable interoperability and enhance security began in fiscal 2011 and accelerated in FY 2012 as it pushed toward the "Network 2020" goals set out by the CIO/G-6. These goals coincide conveniently with the goals of the JIE, including

- **Application Inventory** – Planned for completion in FY 2014 and leading to the elimination of duplicate applications and consolidation of widely used apps into enterprise services.
- **Data Center Consolidation** – Planned to begin in FY 2014 and continue into FY 2015 with the goal of consolidating 185 Army data centers into the DISA DECCS and a handful (# unknown) of Core Data Centers (CDCs), supplemented by Installation Processing Nodes (IPNs) for Army and DoD customers.
- **Network Consolidation** – In FY 2013/2014, deploy new network equipment (i.e., Multi-Protocol Label Switching technology) to create an MPLS "cloud" that increases bandwidth, reduces latency, and enables provision of standardized capabilities.
- **Cloud-Based Enterprise Services** – From FY 2014 to FY 2019 utilize some DISA-provided enterprise services like Defense Enterprise Email, but also provide a large number of enterprise services in Army Core Data Centers.

The Army and DISA's CDCs and IPNs are expected to operate as the cloud infrastructure that the Army, Air Force, and other DoD components will use for cloud-based shared services. But while the enterprise services to be delivered by DISA are generally well known – email, directory, unified capabilities, collaboration, etc. – less well known are the capabilities that the Army intends to procure for hosting in its cloud. Pardon me, "Core Data Centers." Some of these capabilities include the following:

- Security Information Management System (SIMS)
- Network Intrusion Protection System (NIPS)
- Policy Based IP Network Management
- Crypto Security Management
- **Enterprise Service Management System (ESMS)**

Competition for the ESMS is just starting, but procurement of the other capabilities should only be a matter of time. By my count there are as many as 25 other capabilities that the Army says it will need. I'll be listing these capabilities in a forthcoming report on Defense IT that Deltek has scheduled for publication just before Christmas.

Cloud services are critical to the shape that the JIE eventually assumes. These services will be delivered from the Core Data Centers run by DISA and by the MILDEPs, so there will be business opportunity in both places. The opportunity in the Army for cloud providers may in fact be better than that presented by DISA's Commercial Cloud Services procurement, even though the DISA competition gets more press. Who knows? Maybe it is the Army's cloud strategy *and* the Navy and Air Force's stated intent to use commercial cloud services that are the reasons why DISA found less demand across the DoD for the commercial cloud services it intended to provide.