ITL CLOUD COMPUTING PROGRAM

Cloud computing offers the promise of cost savings and increased IT agility. The paradigm of cloud computing has evolved as underlying technologies have matured to enable more efficient IT models to leverage resources. The paradigm emerged as a result of the ability to use pooled IT resources, and the convergence of IT trends that enable more effective data center utilization, including: (1) fast wide area networks, (2) powerful, inexpensive server computers, and (3) high-performance virtualization for commodity hardware. The cloud computing model upends traditional approaches to datacenter and enterprise application design and management. Cloud computing is in use, however, security, interoperability, and portability are cited as barriers to broader adoption.

Consistent with its mission, NIST plays a central role in defining and advancing standards, and collaborating with U.S. government agency Chief Information Officers, private sector experts, and international bodies to identify and reach consensus on cloud computing technology and standardization priorities. NIST has a technology leadership role in support of United States Government (USG) adoption of the cloud computing model to reduce costs and improve the ability to quickly create and deploy enterprise applications.

NIST has developed a *Strategy to collaboratively build a USG Cloud Computing Technology Roadmap* to define and prioritize USG interoperability, portability, and security requirements, collaborate with stakeholders, and accelerate progress. The roadmap is a vehicle to define and communicate prioritized technical requirements that must be met in order to get from point-a to point-b in terms of secure and effective U.S. government agency cloud computing deployment.

Focusing its efforts using these priorities, NIST is working with other stakeholders to develop the standards, guidance, and technology needed to satisfy these requirements. This approach ensures that NIST is not only doing good work, but working on the “right things” in the sense of reflecting and leveraging broad cloud computing stakeholder community perspectives and efforts. NIST also integrates its cloud computing efforts with other broad initiatives such as Cyber Security, Smart Grid, Health IT, and Voting.

NIST Cloud Computing Program information, including useful information for cloud adopters, is available through the Information Technology Laboratory Cloud Computing Web site, http://www.nist.gov/itl/cloud/index.cfm . Public stakeholder participation in the collaborative roadmap development is encouraged. All parties are invited to register as public working group members, and to directly contribute through the NIST ITL Cloud Computing collaboration Web site http://collaborate.nist.gov/twiki-cloud-computing/bin/view/CloudComputing/WebHome.