



Information Technology Laboratory

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Latest News

- [Announcement of Cloud & Accessibility Public Working Group Formation](#)
- [The Intersection of Cloud and Mobility Forum and Workshop - October 1-3, 2013](#)
- [Cloud Computing Forensic Science Workshop October 3, 2013](#)

Cloud Collaboration Site Information

- [NIST Cloud Computing Collaboration Site \(Twiki\)](#)
- [Registration for Twiki & Email Lists](#)
- [Useful Information for Cloud Adopters](#)

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NIST Cloud Computing Program

Cloud computing is a model for enabling convenient, on-demand network access to configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. This model promotes availability and is composed of five essential characteristics (On-demand self-service, Broad network access, Resource pooling, Rapid elasticity, Measured Service); three deployment models (Software as a Service (SaaS), Cloud Platform as a Service (PaaS), Cloud Infrastructure as a Service (IaaS)); and, four deployment models (Private cloud, Community cloud, Public cloud, and Hybrid cloud). Key enabling technologies include: (1) fast wide-area networks, (2) powerful, inexpensive commodity hardware, and (3) high-performance virtualization for commodity hardware.

The Cloud Computing model offers the promise of massive cost savings combined with increased flexibility. It is considered critical that government and industry begin adoption of this technology to overcome difficult economic constraints. However, cloud computing technology challenges many traditional approaches to datacenter and enterprise application design and management. Cloud computing is currently being used; however, security, interoperability, and portability are cited as barriers to broader adoption.

The long term goal is to provide thought leadership and guidance around the cloud computing model to catalyze its use within industry and government. NIST aims to shorten the adoption cycle, to enable near-term cost savings and increased ability to quickly create and deploy enterprise applications. NIST aims to foster cloud computing systems and practices that support interoperability.

NIST Home > ITL > Cloud Computing > Reference Architecture

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Reference Architecture

- NIST will lead interested USG agencies and industry to define a neutral cloud reference architecture and taxonomy to extend the NIST cloud computing model...

Meetings

- Meeting #1: This announcement is to inform you of the kickoff meeting for the Computing Reference Architecture & Taxonomy Working Group. It will be held Monday, January 10, 2011 from 1100-1300 EST.

NIST Home > ITL > Cloud Computing > Business Use Cases

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Business Use Cases

- NIST will lead interested USG agencies and industry to define target USG Cloud business use cases (set of candidate deployments to be used as examples) model options, to identify specific risks, concerns and constraints. For example, deployment might be employee email or migration of a specific application system to a cloud computing model option. NIST will lead and facilitate this effort via the sponsored Cloud Computing Standards Working Group and working groups.

Meetings

The Business Use Cases Working Group holds regular meetings via telecon every 2 weeks at 10:00 am eastern time.

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More information can be found at the NIST Cloud Computing Twiki site.