

## Company Brief

# Hitachi Announces its Vision for Cloud Computing

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**Abstract:** *Cloud computing is a popular IT trend typically delivered in two ways: internally via private cloud hosted by in-house IT and externally via a cloud service provider with all offerings being delivered and consumed over the Internet. Whatever the case, cloud computing implementations are growing in popularity as the benefits they offer are validated by CIOs across the globe. Moving from tactical to strategic initiatives, organizations are looking to technology providers for guidance. With its recent announcement, [Hitachi Data Systems](#) is positioning itself to help these organizations deploy cloud solutions to alleviate real pain points.*

## Overview

Hitachi Data Systems recently announced a vision for cloud computing that lays out a path for organizations to transform their data into actionable information capable of driving insight and innovation. The path, which is aligned with the general value propositions of cloud computing such as agility, cost containment, and service level objectives, defines a tiered strategy leveraging the engineering strength of HDS and Hitachi Limited. Recognizing that not every organization's application portfolio is cloud-ready, Hitachi complements its cloud vision with Hitachi Cloud Services and Hitachi Cloud Solution Packages to accelerate adoption and customer success while providing a roadmap that will ensure future investment protection.

## The Cloud Market and the HDS Vision

### Cloud Basics

ESG uses the definition for cloud computing provided by the National Institute of Standards and Technology (NIST):

*Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of 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.<sup>1</sup>*

Solutions delivered via the cloud are no longer restricted by the location of the provided resource. IT departments are able to outsource resources externally, paying only for what is consumed, or deploy the cloud internally and meter usage of resources for reporting or chargeback purposes. With cloud computing, users subscribe to a resource as opposed to purchasing it outright.

Cloud service models are defined based on the types of resources offered. Using simplified definitions, these include infrastructure-as-a-service (IaaS) for storage, network, and computing resources (i.e., raw storage capacity); platform-as-a-service (PaaS) for servicing environments to develop applications on (databases, programming platforms, and IDEs); and software-as-a-service (SaaS) which gives the user access to an application via a browser (i.e., web email providers, Salesforce.com). Drivers for moving to cloud operating models internally include reduced cost, higher resource utilization rates, and ultimately more flexibility as resource needs change over time. An organization may shift to an external cloud if its needs to "borrow" resources for a specified period of time or the cost and burden of running a system or application internally warrant a better option.

<sup>1</sup> [http://csrc.nist.gov/publications/drafts/800-145/Draft-SP-800-145\\_cloud-definition.pdf](http://csrc.nist.gov/publications/drafts/800-145/Draft-SP-800-145_cloud-definition.pdf), January 2011.

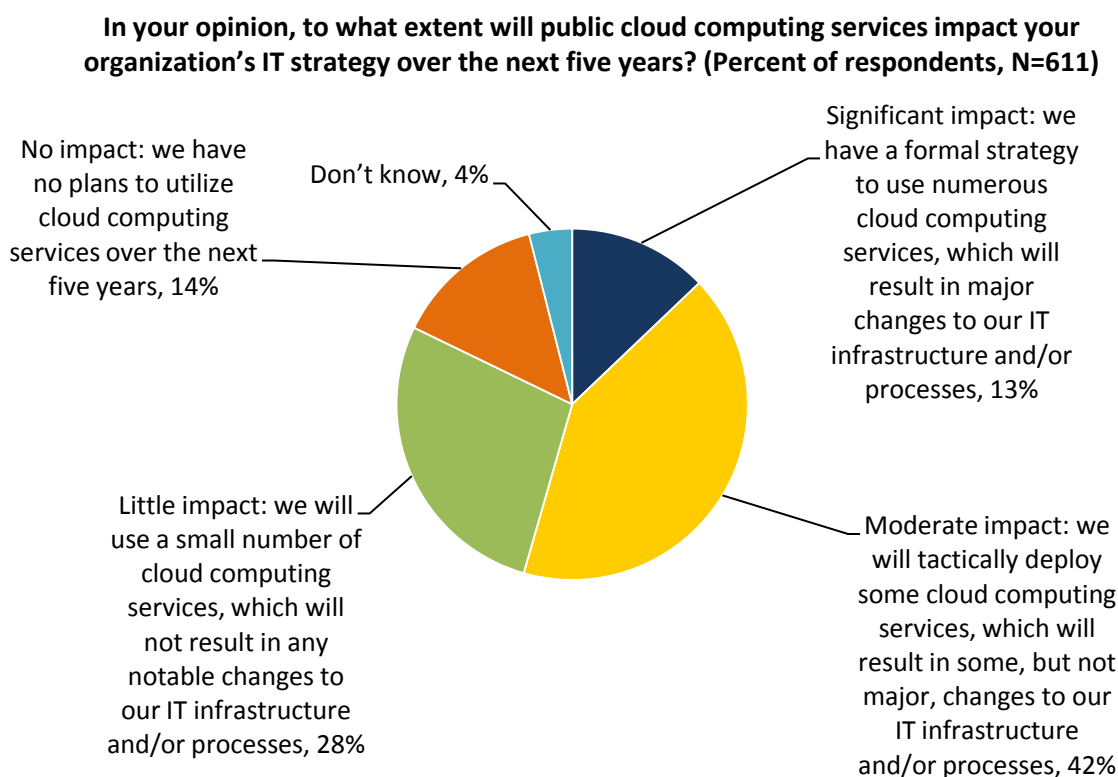
## Hurdles to the Cloud

While the benefits are proven, there are still inhibitors for moving to a cloud-based offering. Legacy applications may not be easily moved to the cloud; IT may be tied financially to existing infrastructure commitments such as maintenance and support contracts; and concerns based on lack of knowledge and perceived risk may still plague IT decision makers. CIOs involved in deciding when and how their organizations move to cloud-based infrastructures—private, public, or a hybrid of the two—will rely on trusted technology providers to provide guidance as they consider their options.

## Transitioning to Cloud

As with any new technology or reference architecture, organizations will try cloud for specific applications or particular business needs before deploying more broadly. This was confirmed in a recent ESG research study<sup>2</sup> which revealed that more than three-quarters (82%) of organizations have plans to leverage public cloud services to some extent over the next five years (see Figure 1). However, the vast majority of these respondents do not expect cloud computing to have a “significant” impact on their organization’s IT strategy. Instead, respondents expect to use these services in a more tactical manner at least for the foreseeable future, which will likely minimize the short-term impact to existing IT infrastructure and processes. This aligns well with the HDS tiered strategy: supporting organizations’ plans to adopt “cloud at their own pace.”

Figure 1. *Expected Impact of Public Cloud Computing*



Source: *Enterprise Strategy Group, 2011.*

Organizations that have realized significant benefits from a move to a cloud computing services model as part of a strategic initiative would be considered highly advanced in the cloud adoption maturity model. These trailblazers are paving the way for those that are either deploying cloud tactically or starting with a small number of cloud computing services. Vendors like HDS are well situated to help enterprises evolve into advanced adopters of cloud computing.

<sup>2</sup> Source: ESG Research Report, [Cloud Computing Adoption Trends](#), April 2011.

## HDS Delivers a Cloud Vision for Diverse Workloads

HDS has a long-standing reputation as a company that delivers high quality, performance, reliability, and availability. As it executes on its plan, HDS is complementing its reputable assets with strategic investments—investments needed to round out its technology portfolio to support the range of use cases and applications delivered via the cloud, be it infrastructure, content, or analytics. The HDS tiered cloud strategy begins with establishing the Infrastructure Cloud, which is consistent with an Infrastructure-as-a-Service cloud delivery model. As organizations mature, more intelligent content and information cloud services will be needed to address their pain points. Plans for the Content Cloud and the Information Cloud will be timed appropriately and are aligned with Platform- and Software-as-a-Service cloud models.

The Infrastructure Cloud provides the basis for offering dynamic infrastructure—hardware, software, and a management layer—on one platform with elastic scalability. The Content Cloud adds a layer of intelligence across all data in a unified environment for managing and delivering content incorporating data governance and information lifecycle management policies for Content Management as a Service and Archiving as a Service. The Information Cloud, to be built on top of the Content and Infrastructure Cloud foundations, provides advanced feature sets to facilitate extreme information management and big data analytics needs.

HDS recognizes that organizations have existing IT infrastructure and will maintain some level of traditional IT delivery services while it rolls out a cloud strategy. The HDS Cloud stack includes a self-service management portal that incorporates new and existing hardware components for provisioning, billing/metering, and reporting.

## HDS Cloud Services & Solution Packages

HDS is delivering its cloud offering through a set of service offerings and pre-packaged solutions. The HDS Cloud Services and Solution Packages are designed to give organizations the flexibility to adopt cloud at their own pace. Private cloud services are deployed at the customer site, and the environment is remotely managed by HDS and billed on a pay-per-use basis. Additional solution packages referenced in the announcement include the same underlying technology stack and management portal as the service, but are aimed at customers that want to manage or deliver their own cloud services internally.

Both the services and solution packages address practical use cases that can be deployed easily and with low risk to the business—these include file tiering, file serving, and Microsoft SharePoint archiving. More details on the services and solutions can be found on the Hitachi Data Systems website.<sup>3</sup> While storage-centric, these packages enable customers to optimize capacity resources, lowering costs and driving better application performance. It is this combination of benefits that IT departments should be seeking when thinking about making any type of cloud computing investment. More importantly, HDS's cloud strategy ensures that customers who choose to start utilizing cloud deployments can increase that usage of solutions with a trusted partner setting their own pace and success metrics along the way.

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<sup>3</sup> [www.hds.com/cloud](http://www.hds.com/cloud)

## The Bigger Truth

Many organizations are just now embarking on their cloud computing journeys. As they test the waters by tactically moving point applications to the cloud, IT executives will look to their technology vendors to provide education and guidance as they define broader cloud strategies. The benefits of moving to the cloud are continually being tested and validated. Right now, the cloud isn't for every application and should be incorporated into a broader data center transformation project aligned with the business's appetite for change. The adoption curve for cloud computing verifies that organizations are moving toward more strategic deployments of cloud—specifically, toward broader services that better manage content while deriving insight from their information. The HDS vision and tiered cloud strategy are aligned with these desires.

The HDS cloud vision is based on a tiered cloud model with evidence of execution based on a set of solutions and services to facilitate successful adoption. This approach is well aligned with the market in terms of adoption and maturity: organizations want to roll out cloud without sacrificing existing infrastructure investments. The combination of technology, prepackaged solutions, and an expanded services framework establishes the right building blocks upon which HDS can build a solid business. HDS is executing on the first tier—Infrastructure Cloud—now, which makes sense because that is where the maturity is and the needs are. By establishing a foundation and moving forward (Content Cloud and Information Cloud), HDS will be in lock step with a majority of its customers and prospects.

Being a brand that many CIOs rely upon, HDS will need to continue living up to its reputation as it executes on its cloud vision. This announcement comes at a good time: the market is embracing cloud-based solutions to drive cost out of the data center while increasing the value of information assets. Executives will look to HDS for guidance.