

## Hitachi Data Systems Cloud Vision

Fully realize the increasing potential of data and information by joining Hitachi Data Systems in driving solutions to enable infrastructure cloud, content cloud and information cloud, and, ultimately, to inspire innovation.

### All Data Has Value

At Hitachi Data Systems, we believe all data has value. And as the explosion of data, applications and access continues to gather momentum, opportunities likewise accelerate, making it imperative to manage information as an asset. Doing so will spur increasingly sophisticated insight and drive the innovations of tomorrow. This requires uninhibited yet appropriate interaction with data and content so that it can be a fluid basis of actionable and more intelligent information. In turn, this requires improved dynamic infrastructure to provide unconstrained resources that are ready when and how we need them.

Hitachi Data Systems is driving solutions and services to support infrastructure cloud, content cloud and information cloud (see Figure 1). Our cloud vision defines a path forward so you can transform data into actionable information and harness its power as a strategic asset for insight and innovation.

#### Infrastructure Cloud

Today's organizations need the agility to act and react to internal and external demands in a more timely fashion. To support this, infrastructure cloud consists of hardware, software and management components that use a cloud delivery model to provide dynamic infrastructure and one platform for all data. This enables infrastructure that can dynamically scale in concert with business needs, ideally without technology limits. To accomplish this, the underlying infrastructure must be able to quickly flex using the appropriate resources and simple management and business interfaces. You can build an infrastructure cloud today with:

- Virtualized and abstracted infrastructure
- Converged solutions
- Infrastructure as a Service and Platform as a Service
- Rapid, on-demand deployment
- Metering and chargeback

- Elastic scalability within and across private, hybrid and public cloud
- Policy-based automation and autonomic management

#### Content Cloud

To effectively manage the exponential growth of data and information, it is critical to handle content with more intelligence. Content cloud consists of content (data along with its representations, metadata and added information) that is managed based on the very intelligence that surrounds the data. The content is fluidly delivered in a way that enables a unified environment for all data. To do this, both structured and unstructured content must be unencumbered by application types, formats and time. With content cloud, you can intuitively access data and information with the confidence to freely consume and share, which requires governance and lifecycle management that is respectful of intent and policies. To realize its full value, content cloud should leverage the

dynamic foundation of infrastructure cloud. Technologies and solutions exist today to start building content cloud:

- Virtualization of content
- Intelligent data tiering and placement
- Appropriate global access to content from any device
- Discovery and search independent of applications and media
- Archiving as a Service and other Content Management as a Service
- Correct data for the correct use, on demand
- Advanced, scalable and flexible metadata
- Integrated content lifecycle management and consistent governance

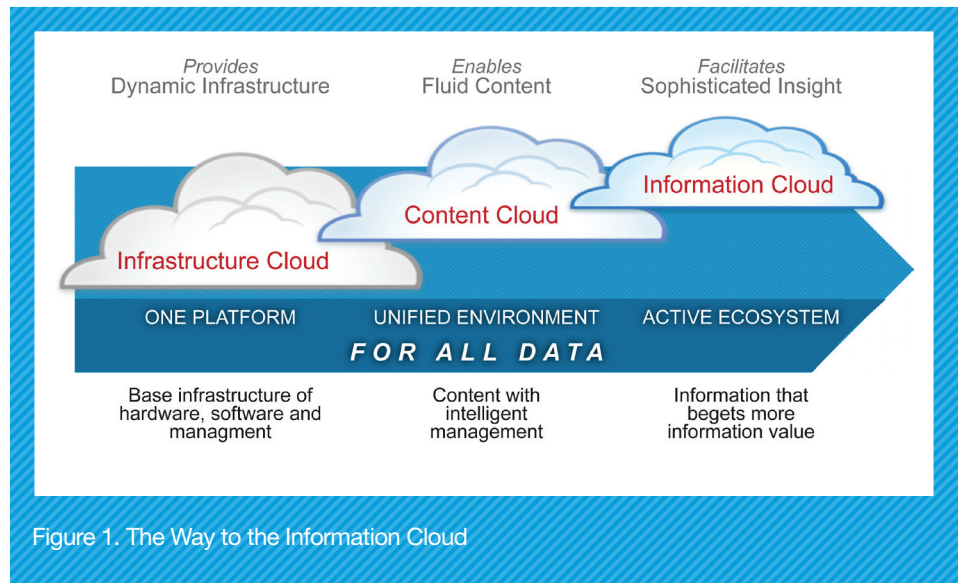


Figure 1. The Way to the Information Cloud

### Information Cloud

Organizations would like to better capitalize on their increasingly expansive and complex data for more advanced insight and innovation. To facilitate this, information cloud consists of data and information with an inclination to replicate and inherent analytics; this data and information is then managed to provide sophisticated insights and an active ecosystem for all data. By permitting more natural interaction across various data types and sources, information cloud allows data to be transformed into actionable information to be harnessed for competitive and strategic advantage. This will require more advanced analytics, extreme information management and use of organic concepts, such as self-similar replication and self-direction. To realize its full value, information cloud must be built upon content and information clouds. Foundational components exist today, but more capabilities are required to build information cloud:

- Data recombination for new value
- Solutions for “Big Data”\*\*
- Advanced analytics blending structured and unstructured data
- Analytics independent of applications and media
- Information as a Service
- Intelligent metadata
- Self-directed analytics and replication

### Integrated Cloud Portfolio

The bottom line is that organizations need to increase their agility, improve response times and better utilize information as strategic assets in order to identify and react faster to the needs of their customers, markets and competitors.

Hitachi Data Systems delivers the most integrated set of storage and computing resources that provide elastic, virtualized

and highly available cloud environments for all data. Many of the foundational technologies, such as virtualization, intelligent tiering, metering, searchability and discoverability exist within our products and solutions today. As you build your roadmap to the information cloud, we will continue to offer flexibility and choice through cloud-enabled products, consumption-based cloud services and integrated solutions.

Join us in promoting a vision that inspires innovation through infrastructure cloud, content cloud and information cloud. If you'd like to learn more about our cloud vision and portfolio and how it may help you maintain your edge in both today's and tomorrow's competitive marketplace, please contact your Hitachi Data Systems representative or visit us at [www.hds.com/cloud](http://www.hds.com/cloud).



\* Wikipedia defines big data as datasets that grow so large that they become awkward to work with using on-hand database management tools.

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