

By bringing enterprise-class solutions to OpenStack, Hitachi Data Systems continues its commitment to leverage open source technology to create best-in-industry cloud solutions.

DATASHEET

Hitachi Brings Cloud Expertise and Enterprise-Class Products to OpenStack

OpenStack Advances in the Enterprise, Hitachi Adds Enterprise Innovation

OpenStack is attractive for enterprise cloud computing. As a private cloud platform, it holds the promise of more agile development, reduced management overhead and improved resource utilization. OpenStack speeds feature development, fueled by thousands of individuals and hundreds of vendor companies across the globe.

Still, OpenStack as the foundation for enterprise IT projects is relatively new in the big timeline of information technology evolution. Most deployments are in “green-field” environments for next-generation applications because re-architecting legacy applications to work with OpenStack can be operationally complex.

Key performance indicators for OpenStack should be measured over a longer period than more mature technologies. A report by Gartner recommends measuring return on investment over three to five years.¹ Hitachi Data Systems (HDS) is helping to foster enterprise adoption for OpenStack through integration and innovation with its own technologies, and sharing those with the OpenStack community.

OpenStack isn't a turnkey cloud platform quite yet, but working with Hitachi can make OpenStack pay off sooner rather

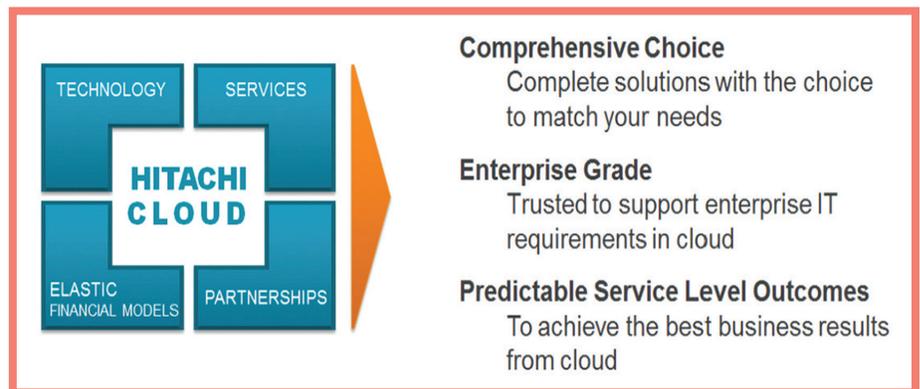


Figure 1. The Hitachi cloud strategy combines tested, proven platforms and technologies with services, elastic financial models and partnerships to deliver comprehensive cloud capabilities to our customers, without vendor lock-in.

than later. Hitachi brings years in software development and system implementation to cloud projects. With a vast knowledge of technologies and applications used in the enterprise, Hitachi also brings a deep expertise leading and managing large-scale technical solution development efforts and consulting teams for full-featured cloud solutions. Hitachi's enterprise experience spans a wide range of industries, including financial services, telecommunications, high-tech manufacturing, healthcare, software development and many more.

Hitachi Data Systems and OpenStack Today

Hitachi Data Systems is an official Gold Member of the OpenStack initiative. This support reflects our commitment to your

efforts to leverage open source technology to create best-in-industry cloud solutions and to avoid vendor lock-in (see Figure 1). We also see OpenStack support as a way to establish standards for cloud implementations and to help create an ecosystem of cloud providers and the technologies they offer.

We Deliver Open Source Benefits to You

Hitachi has a long and productive history of supporting the open source community. With our hardware and middleware products, as well as services, we have created an industry-leading operating environment for Linux applications.



¹Gartner: Assessing OpenStack's Viability for Top Use Cases

As Linux development progresses, Hitachi continues to work to maintain compatibility between Linux and our products, ensuring that you can take full advantage of Linux advancements. In addition, as a sponsor of The Linux Foundation (formerly the Open Source Development Laboratory), we provide the development environment for open source projects focused on making Linux enterprise-ready. We participate in performance and reliability assessments as well as tool development for Linux and open source middleware through the Northeast Asia OSS Promotion Forum. Our contributions to open source software include Linux kernel tracing infrastructure (SystemTap), Disk Allocation Viewer for Linux (DAVL), and Branch Tracer for Linux (btrax).

Hitachi is now building on its commitment to open source through its involvement with OpenStack.

Hitachi Solutions for OpenStack

Hitachi tests, certifies and publishes solutions against the Red Hat OpenStack distribution. As a result, Hitachi servers are certified for Red Hat OpenStack Compute ([see specifications](#)).

Most importantly, we help you to use our cloud-enabled, enterprise-tested platforms and solutions as part of an OpenStack cloud implementation. To that end, we have created a variety of drivers for our products ([see specifications](#)).

Hitachi Block Storage Driver for OpenStack delivers Hitachi reliability with common, open-standard application program interfaces (APIs) for volume creation, snapshots, replication and more. It exposes superior Hitachi data services and data protection using OpenStack Cinder support.



Hitachi NAS Platform Driver for OpenStack provides file storage for OpenStack environments via common open APIs for NFS or iSCSI support. These APIs cover volume management, snapshot management, pool-aware scheduling and SSH communication, leveraging OpenStack Cinder support. This driver exposes OpenStack environments to Hitachi NAS Platform storage advantages like continuous availability, virtualization and consolidation for high efficiency and data migration to the cloud.

Hitachi Content Platform Driver for OpenStack brings enterprise functionality to object stores using OpenStack Swift support. Cloud tiering, in-system tiering and fast, intelligent metadata search with compliance, make data access seamless for a mobile workforce. Powerful efficiencies like deduplication and compression keep data growth under control.

Hitachi File Services Driver for OpenStack dispenses file shares in OpenStack cloud environments using OpenStack Manila support. This assures a secure connection to files for providers and clients alike and introduces a way to provide self-service, multitenant methods for consuming file-based infrastructure from the cloud.

Hitachi drivers for OpenStack add value by supporting open-standards ways of provisioning heterogeneous infrastructure and attracting organizations to OpenStack clouds.

Our Continuing Commitment to OpenStack

We remain committed to giving you the support you need to use OpenStack in your cloud efforts. Over time, HDS will work to provide drivers for more of our platforms, including both storage and compute systems. We are also working on complete OpenStack solutions that address your most important cloud use cases, while working with our partners to ensure joint certification of our solutions.

Our Commitment to Bringing You Complete Cloud Solutions

HDS has been helping organizations transform and modernize their infrastructures for many years. Our storage virtualization products and converged solutions make it possible for organizations to create the agile, efficient infrastructures they need to fully leverage cloud benefits.

The open HDS approach to cloud means addressing your needs with a variety of cloud delivery and consumption models. Our support for OpenStack is a strong example of our commitment to provide you with comprehensive cloud solutions that are flexible, efficient and trusted. We combine proven cloud platforms and technologies with the services you need to build and support your cloud implementations. Our support for open APIs, widely used and standards-based interfaces (such as Amazon S3 and REST), and other access methods and protocols further demonstrate our commitment to openness and your efforts to build the cloud you need.

Adding our flexible financial models and partnerships that expand our available cloud services ensures comprehensive choice, enterprise-grade solutions and predictable service-level outcomes. Our goal is to help you achieve your best business results from the cloud.

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