Hitachi Cloud - Compute as a Service

Resources and Flexibility of Public Cloud With Security and Control of Private Cloud

Hitachi Cloud - Compute as a Service is a managed private cloud solution that brings the best attributes of the public cloud inside your firewall. Based on enterprise-grade, converged, Hitachi Unified Compute Platform (UCP), Compute as a Service brings the flexibility of cloud computing to your secure, on- or off-premises data center for VMware and Microsoft® environments.

Overview

Many businesses are re-evaluating how they purchase, manage and deliver IT resources. Reducing risk, improving application time to market, and focusing on core business activities have driven the shift from traditional data center ownership and management models to more flexible public cloud options (see Figure 1). These options are characterized by reduced or eliminated upfront capital expenditures (capex), predictable monthly operating expenditures (opex), and out-tasked administration and management.

Unfortunately, in many cases, the technical, operational and financial benefits associated with public cloud offerings can be quickly overshadowed. Public cloud faces the challenges that are inherent with any asset in the public domain: namely security and control of data. So, Hitachi Data Systems has developed an innovative solution to provide a zero-compromise approach to cloud computing: Hitachi Cloud - Compute as a Service. This solution combines the resources and financial flexibility of public clouds with the security and control provided by on- or off-premises private clouds, with guaranteed service levels (see Figure 2).
The Best of Cloud in Your Secure Data Center

Hitachi Cloud - Compute as a Service is a comprehensive solution, based on service level agreements (SLAs), for the management of compute resources. It includes around-the-clock remote monitoring and administration of infrastructure, from the hypervisor down. Hitachi Data Systems fully owns, manages and is accountable for the operation of Compute as a Service. HDS leverages a complete suite of software automation tools to customize the solution to fit your business needs. This service and support translates into improved operational efficiency, increased resource utilization and enhanced performance. We alleviate critical staff and skill set gaps to help you attain your service level objectives (SLOs). And, most importantly, Compute as a Service accomplishes all these things cost-effectively, helping you to achieve a better total cost of ownership (TCO).

Organizations with highly sensitive data are often unable to utilize public cloud offerings due to regulatory and compliance requirements mandated by their geography or industry. It is for this reason that Hitachi Cloud - Compute as a Service provides a unique solution to not only address these control requirements, but also benefit from resource and technical flexibility. In the Compute as a Service deployment model, Hitachi Data Systems owns the hardware and software; however, these assets reside inside your organization’s data center or, alternatively, could be hosted in a secure off-premises data center. This approach eliminates many of the concerns around privacy, data sovereignty and security. HDS manages these assets, as well as associated delivery and any transformation services required, with a combination of remote and on-premises resources.

Elasticity of the Financial Model

Compute as a Service includes all costs associated with asset delivery, transformation and management. The deployment requires no upfront capex, and is delivered via a monthly consumption or usage-based model. The required minimum-spend commitment, which can be utilized against any service offering contracted, allows you to have flexibility between service tiers (see Table 1). This shifting of resources from traditional ownership to a vendor-owned model eliminates hardware costs, software-licensing fees, and maintenance and support costs. It restructures the entire compute cost model to support predictable, pay-as-you-go consumption.

Guaranteed Service Levels

With Compute as a Service, your business is ready to respond with exactly the right compute resources when you need them. Hitachi Data Systems provides a differentiated service catalog with committed SLAs (see Table 2). This approach protects your business and application needs through

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**Figure 1. Promises of the Cloud**

**Figure 2. This managed private cloud solution from Hitachi Data Systems brings the best attributes of public cloud computing to your secure, on- or off-premises data center for VMware and Microsoft environments.**
24/7 expert management, monitoring and reporting, with up to 99.9% availability. This management also reduces the need for staff, process, change and resource management, and eliminates responsibility for labor-intensive tasks associated with architectural design and technical refresh.

How You Can Benefit From Compute as a Service

- Designed to meet your needs. Resources are custom designed, deployed and managed to meet your changing business requirements.
- Flexibility and choice. It provides the ability to change service at any time and allows menu-style choice for performance characteristics. Also, it allows you to turn more resources on immediately.
- Shared risk model. A shared risk model is used to determine pricing and financial commitment. This model reduces technological and financial risk by eliminating traditional ownership and providing the benefit of predictable monthly costs.
- Fully inclusive unit pricing. Hardware, software, support, administration and management are all included in the per-unit pricing. There are no hidden costs.
- No upfront costs. Align your costs to your business model. There are no upfront charges for the solution. You pay for the resources you consume, and you can upgrade quickly and easily when needed.
- Improved performance and SLAs. HDS managed means resources are quickly aligned to the (unpredictable) demands of operating departments and users.
- Cost reduction. In many cases, Compute as a Service offers a significantly reduced total cost of ownership based on the efficiencies of paying only for what you use and management of economies of scale.
- Maintain control. You have the highest levels of security and control available because the solution resides in your secure on- or off-premises data center.

How Compute as a Service Works in Practice

Hitachi Data Systems provides the full compute solution, implemented on your premises, while retaining ownership of the solution. A suite of services is offered to wrap around the solution.

Pricing Structure

In reflecting the commercial principles and service flexibility outlined above, the following pricing structure applies to Compute as a Service:

- Pricing is based on a unit level per month: for example, for CPUs or virtual machines (VMs).
- Pricing is set against an agreed service catalog.
- All prices are fully inclusive. There are no hidden or additional costs.
- Pricing is agreed for a fixed contract term.
- Pricing can include migration.
- Pricing does not include storage. Compute as a Service leverages Hitachi Cloud Storage as a Service, existing HDS storage, or newly acquired HDS storage to provide a total solution.

HDS storage solution must already be in place or newly procured, under a Storage as a Service model (or possibly another procurement method) to support the storage part of the converged solution.

TABLE 1. COMPUTE AS A SERVICE FINANCIAL MODEL ELASTICITY

<table>
<thead>
<tr>
<th>Feature</th>
<th>Purchase</th>
<th>Compute as a Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price per Unit per Month</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Elasticity</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Architecture</td>
<td>Customer</td>
<td>Hitachi</td>
</tr>
<tr>
<td>Capacity Management</td>
<td>Customer</td>
<td>Hitachi</td>
</tr>
<tr>
<td>Operational Management</td>
<td>Customer</td>
<td>Hitachi</td>
</tr>
<tr>
<td>Customer Commitment</td>
<td>Full Configuration</td>
<td>Minimum Commitment to Price Over Contract Duration</td>
</tr>
<tr>
<td>Asset Ownership</td>
<td>Customer</td>
<td>Hitachi</td>
</tr>
</tbody>
</table>

TABLE 2. EXAMPLE SERVICE CATALOG

<table>
<thead>
<tr>
<th>Service Class</th>
<th>Compute Platinum</th>
<th>Compute Gold</th>
<th>Compute Silver</th>
<th>Compute Bronze</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Description: Performance</td>
<td>Business-Critical: Highest</td>
<td>Business-Critical: High</td>
<td>Medium</td>
<td>Basic</td>
</tr>
<tr>
<td>Service Availability</td>
<td>99.9%</td>
<td>99.9%</td>
<td>99.9%</td>
<td>99.9%</td>
</tr>
<tr>
<td>Resource Commitment</td>
<td>100%</td>
<td>50%</td>
<td>25%</td>
<td>None</td>
</tr>
</tbody>
</table>
Minimum Commitment

Fundamental to a partnership approach and, therefore, to the sharing of risk, is a minimum commitment. In simple terms, the principles of a minimum commitment are:

- Term is based on optimal balance between client assurance and flexibility in order to realize the benefits or mitigate the risk of material changes. This term is custom fit, based on the joint client and vendor requirements.
- Minimum commitment is expressed as a value to be spent annually over the contract term, and allows full commutability across the service catalog.

To align Compute as a Service with your requirement to adjust the minimum commitment as your business evolves, we provide for price discounting when a minimum commitment is increased.

The shifting of resources from traditional ownership to a vendor-owned model eliminates hardware costs, software-licensing fees, and maintenance and support costs.

Transition, Migration and Operations

Transition and migration objectives include allocation of resources and migration of servers from the existing infrastructure into a new Hitachi environment. Typically, the activities of a transition project will enable you to move smoothly to your new environment with little or no disruption to business. A typical transition activity is comprehensive, but it will include the following activities:

- Baseline.
  - Understand existing environment and operational service model.
- Service transition.
  - Alignment to service catalog.
  - Detailed design.
- Delivery readiness.
- Migration schedule establishment and prioritization.
- Day-to-day operations.
- Operational transition of the existing services and the service desk.
- Definition of migration schedule, phased rollout.
- Transition to Service Operations Center.

Next Steps

For further information regarding Hitachi Cloud - Compute as a Service, please contact your Hitachi Data Systems representative or visit www.HDS.com.