

**Q: What is HC3 Cloud Unity?**

**A:** HC3 Cloud Unity combines the private cloud capabilities of Scale's HC3 appliance-based infrastructure platform with Google's Cloud Platform to create an Infrastructure as a Service (IaaS) solution that supports applications and virtual machines that run on HC3.

**Q: What is HC3 Cloud Unity DRaaS?**

**A:** HC3 Cloud Unity DRaaS is the first service planned within the HC3 Cloud Unity suite, which gives users the ability to utilize the native replication feature built into HyperCore to replicate VMs to an HC3 VM running on the Google Compute Platform. This service includes:

- A dedicated cloud-based HC3 node running on the Google Compute Engine
- Assistance configuring protection for customer VMs, and ground-to-cloud networking to ensure user access to application workloads (no reliance on complex VPN hardware/software)
- Disaster Recovery testing
- Assistance with failover in the event of a disaster, and
- The creation of a Disaster Recovery 'runbook' that will serve as an atlas for your disaster recovery testing and engagements

**Q: When will HC3 Cloud Unity DRaaS be available?**

**A:** HC3 Cloud Unity DRaaS will be available in Q2 of 2018

**Q: Where will customer's replicated data / VM actually reside and run?**

**A:** A dedicated, cloud-based HC3 node will reside on GCE infrastructure which can be located in any of the following regions supporting nested virtualization:

**United States**

- Iowa
- South Carolina
- Oregon

**Canada**

- Montreal

**Europe**

- Belgium
- London
- Frankfurt



**Q: How is data transfer handled for intra-eu zones?**

**A:** The data will remain solely in the zone chosen to run the instance in. For example, instances running in Belgium will only have their data physically reside on hosts in Belgium.

**Q: How is the data transmission secured?**

**A:** All traffic between the on-premises environment and the cloud utilizes an encrypted connection, authenticated via pre-shared key.

**Q: How much bandwidth is required for replication?**

**A:** Only changed blocks that are detected between snapshot intervals are transmitted. A 30Mbit Internet connection is recommended as the minimum bandwidth. If the change rate exceeds 5GB an hour for all VMs, a higher-speed link would be recommended in order to accommodate the data.

**Q: How long does the initial mirror take?**

**A:** This will vary, depending on how much data must be seeded, and what the Internet speed is at a given user's location. Generally, with a 50Mbit link, initial seeding of 500G will take 4-5 days. There is no option to pre-stage data with an external drive at this time

**Q: What is the pricing for HC3 Cloud Unity DRaaS?**

**A:** HC3 Cloud Unity DRaaS starts around \$510 per month for the first year for a virtual node with 2TB of storage plus an initial DR Planning Service fee. The monthly costs will vary depending on your resource needs.

**Q: How would one fail-back from Cloud Unity to their on-premises cluster?**

**A:** If a cluster remains intact during an outage, failing back means simply reversing the replication job. Failing back means only data within the VM which changed is sent back to your primary site, greatly expediting and simplifying the failover process. After the failback is initiated the GCE instance will be resized to the Passive Mode size.

**Q: What is the SLA on the DR site for outages?**

**A:** Maximum 4 hours for recovery of the first VM.

**Q: What are egress fees? How are they assessed?**

**A:** Egress is bandwidth that leaves your Cloud Unity instance. There is a static amount of egress included, 12.5% of your purchased storage, which should be enough to cover the 6-days of runtime in most instances. Once you have exceeded your annual egress allocation, additional egress credits can be purchased in 1TB Blocks.

**Q: What are ingress fees? How are they assessed?**

**A:** Ingress is data coming in to your Cloud Unity instance. There is no charge or metering for inbound data. (Replication data, for example.)

**Q: What applications or VMs will not work?**

**A:** Applications that have been customized to work with physical hardware, such as a licensing dongle, or that are not licensed to run in a DR capacity. Applications or programs which have been locked or restricted with other customizations, or have MAC Address restrictions may not function well in a DR scenario.

**Q: How do I size my DR environment?**

**A:** It is important to consider all required VMs that would be involved in protecting applications with multiple dependencies (DNS, DHCP, time, etc.). Setting up a snapshot schedule will provide insight into change rates within the guest VMs to help plan for storage needs. Scale Computing's Sales Engineers can help in sizing for each unique customer's requirements.

ATTRIBUTES		HC3 CLOUD UNITY - DRaaS					
Storage (Usable TB)		2	4	8	16	32	64
Storage (Usable TB)		.25	.5	1	2	4	8
Passive Mode	vCPUs	2					
	RAM	13					
Active Mode <i>Compute Resources (6 days included/yr)</i>	vCPUs	16	32	64			
	RAM	124	252	416			

The easiest way to size is to match the usable onsite cluster resources at 100%. An example mapping of resources can be found here with the S/M/L active VM equating to:

**Active Mode**

- S = 16C, 124GB
- M = 32C, 252GB
- L = 64C, 416GB

**Q: How will users access virtual machines in the event of a disaster?**

**A:** Running the Scale Cloud Gateway (whether on prem or at a disaster recovery location) will allow access to the HC3 system running on the Google Cloud Platform. Please see the HC3 Cloud Unity Theory of operations for more information on this setup.

**Q: Is it offered through AWS or Azure?**

**A:** Not at this time.

**Q: What are the advantages of HC3 Cloud Unity DRaaS vs a physical single-node?**

**A:** HC3 Cloud Unity DRaaS is a complete cloud service, that provides our DR run-book, unified networking, testing facilitation, and hosting. The virtual node and data exist only as long as the cloud service subscription is maintained.

A physical single-node HC3 system allows for a customer to deploy and manage their own hardware and disaster recovery in any data center they choose. The node and data are theirs to keep.

**Q: Is Cloud Unity DRaaS available for service providers?**

**A:** Yes. Cloud Unity DR is a great solution for service providers and resellers to offer a full service DRaaS offering without requiring existing or additional infrastructure.

**Q: Who should I contact for more information if a prospect is interested?**

**A:** Contact your Scale sales representative

**Q: What are the overage fees and how are they accessed? How are they billed? Will there be a quote and PO or will it auto-bill? Can users pick how they are charged for these fees?**

**A:** Overage fees are incurred when the amount of included network egress has been exhausted, and/or the amount of active-mode compute runtime has been exhausted. The overage “fees” are addressed through purchasing additional network egress, and/or additional compute runtime. We will automatically generate an opportunity when those thresholds are exceeded and include the appropriate SKUs. There is not an option to elect how the fees are charged.

**Q: What is included in the service?**

**A:** The HC3 Cloud Unity DRaaS subscription includes:

- 6 days of Active Mode testing
- Run Book outlining DR procedures
- 1 Runbook failover test and 1 separate Declaration
- Network egress equal to 12.5% of Storage
- ScaleCare Support

For end-users and first-time service providers, DR Planning Service to be purchased (QDRPSm - \$2,000 USD).

**Q: What licenses are required for running at a DR site?**

**A:** It is a “BYOL” or Bring Your Own License model. It is the responsibility of the end-user to be in compliance with Microsoft Windows licensing as it relates to operating in a disaster-recovery scenario.

Microsoft licensing requirements and rules change frequently, so please see the Scale guide to Microsoft Licensing.

Additionally, applications (such as Microsoft SQL Server, for example) also may have different requirements for running and/or testing DR. Questions regarding specific applications’ licensing requirements for a DR scenario should be directed to the specific software or application vendor.

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