Overview

HPE Nimble Storage dHCI

HPE Nimble Storage dHCI an intelligent platform with the flexibility of converged and the simplicity of HCI. It disaggregates compute and storage and integrates hyperconverged control to give enterprises simple infrastructure management on a flexible architecture. Built with the world's best-selling server, HPE ProLiant, and the self-managing

Flash storage of HPE Nimble Storage, this platform provides the flexibility to scale compute and storage independently for unpredictable growth and the data resiliency and performance needed for business-critical apps.

Powered by HPE InfoSight, this platform is intelligently simple, absolutely resilient, and efficiently scalable.

Intelligently simple with native, full-stack intelligence from storage to VMs and policy-based automation for virtualized environments. Features include a fast, self-service experience include hyperconverged control with simple setup and auto-discovery for the entire cluster via VMware vCenter. All data services integrated with VMware vSphere and VMware Virtual Volumes for a native VM experience. Also included are what-if simulations that eliminate guesswork when consolidating new applications, as well as app-aware recommendations for self-optimizing performance and resources.

Absolutely resilient and ready for demanding apps on a platform designed for 99.9999% availability (HPE Nimble Storage) and sub-ms of low-latency at consistent, high performance. Features include data-centric visibility extends across the infrastructure and across every VM. Performance bottlenecks are diagnosed with root cause from storage to VMs identified easily. Advanced data services, like QoS and synchronous replication, ensure applications stay on and are always fast.

Efficiently scalable to eliminate overprovisioning and lower TCO compared to competitive platforms. Features include the ability to independently scale compute and storage non-disruptively with industry-leading data efficiency guaranteed. Scale extends to the public cloud with native integration with Google Cloud's Anthos for a true hybrid cloud for containers.

With HPE Nimble Storage dHCI, enterprises can run faster with rack-to-apps in less than 15 minutes, end the fire-fighting with predictive analytics delivering 99.9999% data availability by HPE Nimble Storage, and optimize everything with higher productivity and maximum resource efficiency.

HPE Nimble Storage dHCI

Overview

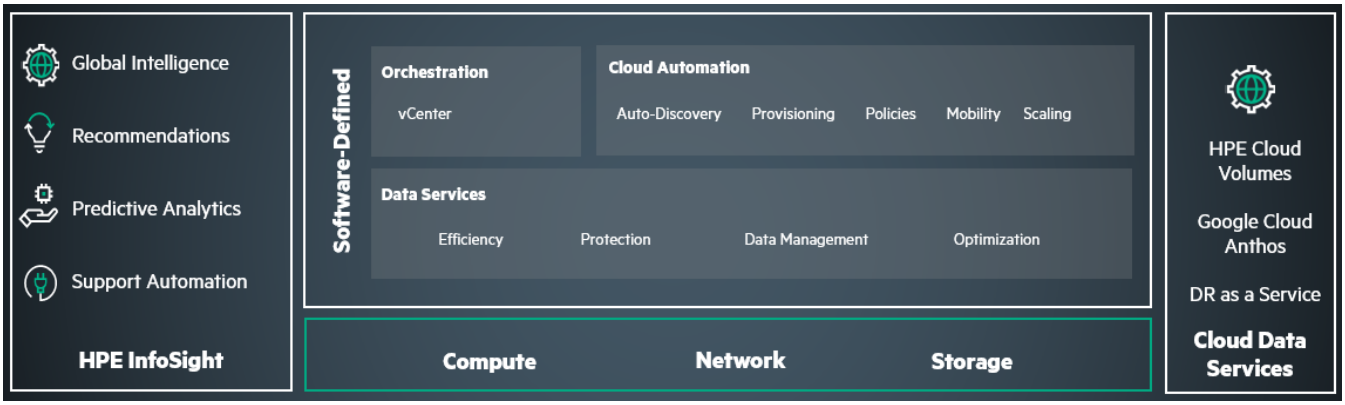
At a Glance

Hyperconverged infrastructure has revolutionized IT, delivering an experience that radically simplifies how infrastructure is managed, deployed, and scaled. It's an architecture ideal for workloads with predictable growth as compute and storage scale together.

HPE Nimble Storage dHCI extends the hyperconverged experience to workloads with unpredictable growth, allowing independent scaling of compute and storage. This gives enterprises the flexibility of converged and the simplicity of HCI – accelerating time-to-market on an architecture built for the unpredictable.

Hyperconverged control collapses storage and compute silos and all data services can be managed exclusively in VMware vCenter.
Resilient design center for 99.9999% availability (with Nimble Storage) with no single point of failure and advanced data integrity to tolerate three simultaneous dive failures
Low-latency performance as low as 200 microseconds data response with automatic QoS to ensure fast performance for every app

Industry-leading data efficiency with advanced data reduction and a modern OS providing up to 21x data reduction



dHCI Automation Software features

Standard Features

dHCI setup software
Deploying the dHCI solution can be accomplished by going through the following simple steps with the help of the dHCI setup software:

- Physical infrastructure layout
- Completion of the configuration Worksheet
- Network configuration
- Initialize and configure the HPE Nimble storage
- Deploy a new vCenter (or) Use existing vCenter
- Add HPE ProLiant to the Nimble Storage dHCI stack
- Create VMFS and/or VVOL datastores

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vCenter plugin
After the deployment completes successfully, you can perform different task from the vCenter plugin for HPE Nimble Storage dHCI. This section highlights the task you can perform using the dHCI vCenter plugin.

Adding a new server to dHCI can be accomplished by the following quick steps:

- Rack the server and perform the cabling
- Review section Ethernet Switch Configuration
- Configure the switch and assign the correct VLAN
- Assign IP address to ESXi management interface
- Add server in vSphere cluster using vCenter plugin

In the background, dHCI software automates tasks such as the configuration of vSwitch, iSCSI software initiator and VMDK binding during deployment saving additional cycles for administrators

dHCI plugin could also be utilized to create & grow VMFS and/or VVOL based datastores that are mapped to volumes on HPE Nimble AF / HF array configured as part of the dHCI deployment. Additional operations such as clones, snapshots on the datastores could also be performed directly from the Nimble dHCI plugin on to vCenter

For additional information related to managing VMFS/VVOL based datastores on HPE Nimble Storage dHCI, please refer to the VMware integration guide available at Infosight.hpe.com**.**

HPE Nimble Storage dHCI is natively integrated with HPE InfoSight
The industry's most advanced AI for infrastructure. Through cloud-based machine learning, HPE InfoSight predicts and prevents problems from storage to VMs and takes the guesswork out of managing infrastructure. In the HPE InfoSight web portal for HPE Nimble Storage dHCI, VM admins are provided complete, VM-centric visibility and full-stack analytics into their VM environment. These analytics diagnose performance bottlenecks and root cause issues in the storage, the host, and even the network with recommendations that eliminate noisy-neighbor VMs, repurpose unused VMs, and self-optimize performance and resources.

Standard Features

For more information about HPE Nimble Storage: **https://www.hpe.com/us/en/storage/nimble.html**
For more information about HPE Infosight: **https://www.hpe.com/us/en/solutions/infosight.html**
For more information about HPE ProLiant DL360: **https://h20195.www2.hpe.com/v2/getpdf.aspx/a00008159enus.pdf?v**
For more information about HPE ProLiant DL380: **https://h20195.www2.hpe.com/v2/getpdf.aspx/a00008180ENUS.pdf**
For more information about HPE M-Series switches: **https://buy.hpe.com/b2c/us/en/storage/storage-networking/c/304608?q=%3Arelevance%3Afacet_subbrand%3AM-series&text=&textSearch=&pageSize=10**
For more information about HPE Aruba switches: **https://www.arubanetworks.com/products/networking/switches/**

For more information about HPE FlexFabric switches:

https://h50146.www5.hpe.com/products/networking/datasheet/HPE_5710_Switch_Series.pdf

For additional information, please refer to the HPE Nimble Storage dHCI deployment guide

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How to order HPE Nimble Storage dHCI
Your HPE account rep (or) channel partner can help guide you through the solution pre-requisites. The dHCI sizer on HPE Infosight can be utilized towards sizing recommended dHCI configuration with details on server count, server configuration, Nimble AF/HF storage platform and storage capacity by determining the workload characteristics.

In the case of server configurations, note that the ProLiant DL servers selected as part of dHCI would come with a pre-loaded VMware ESXi image in HPE factory.

For additional information please refer to the HPE Nimble Storage dHCI ordering guide

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Configuration Information

What's Included?

- **dHCI Automation Software:** HPE Nimble Storage dHCI software stack (no additional fee)
  - dHCI setup software (runs natively on the Nimble array)
  - vCenter plugin [HPE Nimble Storage dHCI requires vCenter "Standard" (or) "Essential" license]
  - HPE Infosight for dHCI
- **Storage:** 1 HPE Nimble AF (or) HF platforms (Gen 5)
  - HPE Infosight maybe used with HPE Nimble Storage (no additional fee)
- **Computing resources:** Existing (or) new HPE ProLiant DL360 or DL380 (Gen9 or Gen10)
  - Server count per dHCI configuration: 2 – 20 ProLiant DL servers
  - HPE Infosight maybe used with HPE ProLiant DLs (no additional fee)
- **Ethernet switches:** The Choice of HPE M-Series, HPE FlexFabric 5710, 5945 switches, HPE Aruba 8325 (or) Cisco Nexus 3k and 5k (Purchase of Cisco switches is not available through dHCI ordering on HPE web pages)
  - Switch count per dHCI configuration: 2 Top of the Rack switches
- **Hypervisor:** VMware vSphere 6.5 or VMware vSphere 6.7

Note:

For Greenfield configurations, Nimble storage array (AF/HF array that needs to be ordered to include dHCI software through OCA) and ProLiant DL server products and corresponding support mandatory components; Customers can optionally order HPE Switches (supported list above) at the time of purchase

For Brownfield configurations, 1 Nimble storage array (AF/HF array that needs to be ordered to include dHCI software through OCA) is the mandatory component; The storage array would be deployed adjacent to existing HPE ProLiant DL servers (gen 9 or gen 10) and customers can optionally order additional DL servers and/or HPE switches (supported list above) at the time of purchase

HPE Nimble Storage dHCI solution only support iSCSI based connectivity and does not support Fiber Channel (FC) in this release

More details on ordering in the "Ordering" section below

Service and Support

Nimble Storage dHCI component products will retain their currently defined service level recommendations – Basic, Standard and Optimized (BSO). A key point to note here is that no dHCI "solution level" support (or) service packages are created.

Though the overall support is a component centric model, it is important to consider that the one call center entry for dHCI will be Nimble support. At this point, if product issue lies with non-Nimble component, Nimble will "warm transfer" the call to the appropriate Pointnext L2 queue. At that point, Pointnext call center will own the call with the customer, notifying Nimble upon call closure.

Additional considerations

- Nimble packages are not equivalent to Pointnext services and Proactive Care support is not available on Nimble
- Standard support BSO level will be auto-quoted
- All non-Nimble components in the configuration can use standard channel enablement as set up for that component
- However, channel partners will NOT be enabled for Nimble Break/fix support and it is performed by Source Support Services

Note: One call support will be provided for Nimble Storage and Servers by Nimble Support, escalations to PointNext will be initiated by Nimble support
Note: If an existing ProLiant customer decides to purchase Nimble Storage dHCI, existing ProLiant support contracts (from PointNext) will be retained and no co-term option is available
Note: All switch support is provided by PointNext (or) the appropriate vendor. However, Nimble support is always available to help review the configuration, best practices, or work in a consultative fashion with switch vendors to resolve issues
Note: Delivery of firmware, OS patches will be managed at component level in the first release of Nimble Storage dHCI.

Services

Nimble Storage dHCI comes with "installation service" offered by Pointnext for "base configurations" (or) full stack configurations (storage + server + switch). Such service would not be available for "expansion configurations" of dHCI. Here is additional detail on the service offering from Pointnext:

Full stack Nimble dHCI is simple to setup and is customer self-installable. To this end, the installation service is an optional service

Parts and Materials

Hewlett Packard Enterprise will provide HPE-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction.

Summary of Changes

Date	Version History	Action	Description of Change
05-Aug-2019	Version 1	New	New QuickSpecs

Sign up for updates

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