EnCloudEn Hyper-Converged Infrastructure (ECN HCI)

A native platform that vertically integrates for maximum performance

KEY BENEFITS

COMMODITY HARDWARE

ECN HCI is a complete hardware agnostic solution. The software platform can convert any commodity server to an HCI box. You can also reuse your existing hardware.

COMPLETE CLOUD PLATFORM

Move beyond just in-built hypervisor in your HCI box. With ECN HCI, you have the benefits of a comprehensive native cloud with all of orchestration, monitoring and networking

PACKING ADVANTAGE

You can now custom build your HCI storage. Depending on your application and consumptions, we design a perfect ratio and size of SSDs and HDDs to maximize your VM packing per node with custom processors.

What is ECN HCI?

Enterprises today are rapidly evolving and are in desperate need to keep up with the ever changing digital landscape. A prime bottleneck has been the rigidity in which storage architectures have been designed and the need of the hour is to be able to incorporate solutions which can both scale out and up on demand.
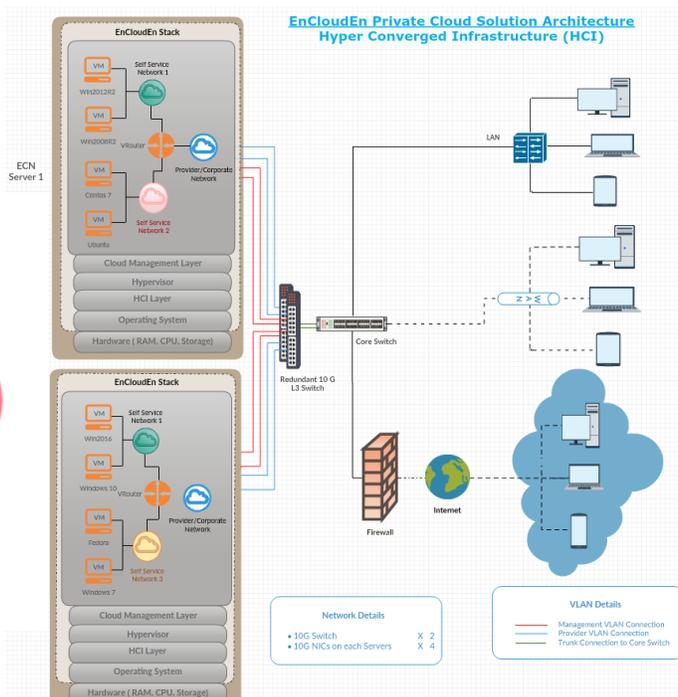
ECN HCI combines your compute and storage needs into a single box to give you a modular and scalable design. It is a native hyper-converged stack that vertically integrates with the ECN Private Cloud or VDI solutions to give your applications and desktops the best speed and access to its data with minimal overheads. What you get at the end of the day is the flexibility of growing your deployment in tandem with your business needs along with the assurance of guaranteed performance.

Why ECN HCI?

ECN HCI gives you a hyper-converged storage platform that completely liberates you from the need to plan ahead. You can now re-imagine on-premises storage also as a grow only as per your need model. You can now start from only 3 nodes with no restrictions on the size of each node. And you have full control on your growth trajectory with the freedom to add nodes, jbods or simply larger individual disks as per your exact needs.

TIGHTLY INTEGRATED WITH CLOUD STACK: The hyper-converged solution is tuned to work best for its cloud layer. The cloud stack is built upon the KVM hypervisor and has been designed to ensure that solutions which are compatible on KVM will also work fully on EnCloudEn.

STORAGE PERFORMANCE: Equipped with best-in-class features like fastest compression, in-line erasure coding, data locality etc., ECN HCI not only delivers greater storage performance metrics, but is also able to provide maximum storage utilization to give you industry leading RoI per TB.

EnCloudEn Private Cloud Solution Architecture
Hyper Converged Infrastructure (HCI)

GRANULAR SCALABILITY: From megabytes to petabytes, you now have full control on how you grow your cluster. You can either scale out by adding new nodes (each can be of variable storage configurations) or simply scale up an individual node by adding new drives.

AUTOMATION: You can now set VM specific policies to automate storage service parameters for individual VM provisioning. The load balancer running automatically in the cluster ensures that there is dynamic balance between storage resources to comply to the set policies.

Key Features & Capabilities

FASTEST COMPRESSION: ECN HCI stack runs with LZ4 compression to give you one of the fastest storage compressions in the world today.

IN-LINE ERASURE CODING: Erasure coding is provided as an in-line activity unlike others. This reduces your CPU overheads for the activity by up to 50% by omitting the duality of the same task carried out by offline erasure coding vendors.

DISTRIBUTED STORAGE CONTROLLERS: You now have multiple storage controllers within a node that can also work with individual drives. Not only is this a much more resilient architecture, also the storage controllers are no longer a bottleneck for the number of drives that your node can support.

SSD TIERING/CACHING: You can now reduce your storage latency by built-in caching on your SSDs. You can also preferentially automate SSD tiering for your specific data to give an immediate boost in performance.

DEDUPLICATION: Deduplication can be enabled for workloads which might actually benefit from deduplication. Generally, deduplication comes with a CPU penalty and may not be advisable in cases where compression and thin provisioning results in adequate savings. Also, though Deduplication can be run on hybrid workloads, it is generally recommended to run on all flash storage.

DATA LOCALITY: ECN HCI gives you the best performance in VM data storage by ensuring that data is written locally in the node where the VM resides. This omits all latency otherwise arising from any inter-node traffic.

OBJECT, BLOCK & FILE STORAGE: One of the only vendors worldwide to give you full flexibility in your storage preference by enabling all three. Now, whether you need to enable file sharing or run databases or do archival backup, you will have the best storage architecture for a specific activity.

DATA REDUNDANCY: You do not need to step outside of your cluster if you are looking for data safety. ECN HCI has data redundancy in-built, so whether an individual drive fails or an entire node, you know that your data is safe on another node and drive in the cluster.

GRANULAR QoS: You can now set individual storage metrics for each VM. For example you can set the IOPs limit for each VM thereby giving preferential hierarchy of storage to individual VMs and applications based on their profile.

THIN PROVISIONING: BY default, thin provisioning is enabled. This allows for the creation of a virtual disk that is provisioned in full with respect to the inputted storage requirements for a VM.

SOFTWARE DEFINED STORAGE FOR BOTH YOUR SAN & SERVERS: The software defined storage part is not restricted to just the HCI servers. You can now use the same solution to combine both your HCI servers as well as the SAN and manage them from the same platform

NON-DISRUPTIVE UPGRADES: Rolling upgrades to the platform are now achieved without the need for any downtime.

SINGLE CONTROL PANE: ECN HCI provides with you with an integrated management platform, from where you can both monitor these in real time as well carry out any orchestration.

For more information, please contact us at engage@enclouden.com or +91-9535091837

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