



OUR SENIOR PRE SALES ARCHITECT MARC BINGHAM EXPLAINS WHAT dHCI IS AND HOW IT CAN IMPROVE YOUR INFRASTRUCTURE

HPE's annual partner summit HPE Discover is always a great showcase for new storage technologies but one particular announcement at this week's event in Las Vegas has been of special interest for myself, my colleagues at Cristie Data, and our customers.

This was the launch of HPE Nimble Storage dHCI, a compelling new infrastructure solution, that we've been heavily involved in beta testing and providing product feedback on to HPE for the past six months.

We've been delivering solutions based on HPE servers and storage for a long time. Cristie Data is one of HPE's primary partners in the UK, focused on Nimble Storage, providing solid, reliable and expert advice to our customers. We see this as a solution that will be of serious interest to our customers and the storage market in general. It's fantastic to see it hit the market so we can finally talk about it!



■ What is dHCI?

Well let's start with the name. dHCI stands for "disaggregated hyper converged infrastructure". Catchy huh? What does that actually mean? Well dear reader, it's not Hyper Converged Infrastructure (HCI) and it's not just Converged Infrastructure (CI) either. It's a blend of both. HPE Nimble Storage dHCI pulls together the best elements of each type of infrastructure. Combining the simplicity of HCI management with the reliability, familiarity and flexibility of scale of our beloved 3-tier architecture. Before we get under the hood of dHCI, let's pause to consider the differences between HCI and Converged infrastructure. This is important because dHCI is neither of these things and the distinction is key to understanding the bold position HPE is taking here.

■ What is Converged Infrastructure?

For many years now, hardware vendors have pulled together stacks of servers, SAN switches and storage products and presented them as converged (or referenced) architecture. The main selling point being that the component parts are certified to work together with a hypervisor (such as VMWare vSphere) and the vendor often includes a wrap-around support model, supporting the entire stack as one unit. This reduces complexity, avoiding that horrible situation of one vendor passing the blame to other when issues arise. Fundamentally, Converged Infrastructure is still a 3-tier stack, but one vendor is pulling it together via a partnership.

■ What is Hyperconverged Infrastructure?

In my opinion, HCI is predominantly a management and purchasing experience moreover, from a technical standpoint, it's a scale out architectural design rather than the familiar 3tier design. Normal HCI has three major benefits. Ease of operation, (near) infinite scale and finally an operational cost model rather than big lumpy capital expenditure – sometimes called cloud cost models.

HCI also has its drawbacks. For the technician running the infrastructure there's sometimes a leap of faith in terms of underlying technical architecture. The software defined storage layer that removes the need for a SAN array, can often be difficult for a new customer to grasp and can be seen as a bit of an “unknown”. HCI is often more costly when compared directly to the same capacity as its 3-tier counterparts. This is often combated by suggesting the replacement of the hypervisor software (removing VMware and replacing with a free hypervisor) but again this brings more unknowns or further leaps of faith. The reason it's generally more costly is because HCI needs to replicate data between nodes to maintain data resilience - this is wasteful in terms of the amount of data drives needed to reach the usable capacity required. It also generally requires far more licensing (VMware/Hyper-V) because we add more and more nodes to gain capacity.

These are generalisations but fundamentally, the increased cost of HCI brings with it the flexibility to scale massively, with easy management, and gets away from lumpy five -year refresh cycles.

■ How is dHCI Different?

dHCI aims to bring some of the benefits of HCI to the 3-tier model. dHCI is essentially high performance HPE Nimble Storage, FlexFabric SAN switches and ProLiant servers converged together into a stack and then a significant amount of work has been invested in bringing ease of operation and management to the party. Simple deployment, operation and day-to-day management tasks have been hugely simplified.

The out-of-box experience is wizard driven and requires very little technical experience to use and deploy the stack. Once up and running, day-to-day tasks, such as adding more hosts or provisioning more storage, are simple “one click” processes that are simple and take up very little technician time. Storage, compute and networking can be scaled independently of each other, further reducing the requirement for VMware/ Hyper-V licensing at scale and reducing costs as there isn't a need to scale out all the components when you simply need more storage or compute, for example.

Furthermore, the whole stack plugs directly into the HPE Infosight portal and support model. Those of you familiar with Infosight will know that this technology revolutionised the storage market. Automating simple support tasks so that 1st and 2nd line support were no longer needed to triage issues, it meant that Nimble Storage gained the best customer satisfaction rating of any storage vendor and other vendors struggled to replicate its success. dHCI plugs into this to bring this first-class support and analytics to VMware, ProLiant and FlexFabric as well as the Nimble Storage platform. With dHCI it's now possible to deploy an entire virtualisation stack and have it monitored and supported 24/7/365 by skilled HPE engineers. Nirvana!

In essence, I think dHCI could carve out a new Gartner quadrant all of its own. It's not HCI and it's not CI. It's dHCI. It's Converged Infrastructure with significant improvement to the management experience. Or, you could think of it as HCI without that dreaded technical leap of faith or the significant cost of scaling. The flexibility of scaling what you need within the stack, with the reassurance of the single vendor point of contact, coupled with the simplicity of management with HPE InfoSight, is a truly compelling solution and one that I can personally see benefiting many Cristie Data customer environments.

**For more information about HPE dHCI or to discuss your IT Infrastructure requirements
call the team at Cristie Data**