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Case Study

NetApp HCI

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Review by a Real User
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What is our primary use case?

We are using it currently for all our "Tier 2 and Tier 3 storage" for all our business units.

On the storage nodes, we're using 11.0. On the VMware side we are currently @ 6.5 moving to 6.7 after our annual freeze period ending late January 2020.

How has it helped my organization?

From an infrastructure standpoint, we needed to have more cohesiveness between our teams. We set that out as a goal for our HCI team - realizing that's a concern and/or issue. We solved that, which helped us to deploy in a more efficient manner. Therefore, we can get the capacity for the customer in a more efficient manner in a much faster time frame than former methods.

We've done a lot of consolidation with far fewer storage side manipulations. Cluster-wise, I've been able to put more compute resources into one cluster versus maybe three or four in the older environment. It helps our organization from the standpoint of less administration.

The solution has resulted in a more efficient use of compute resources, because as far as our compute nodes go, we've diminished them by probably 35 percent. This solution reduced our maintenance costs. We were going to have to pay one to two million dollars to put in for storage and compute nodes. We are avoiding those costs.

What is most valuable?

When you are doing lifecycle management on your storage platforms, you can just swap out pieces of equipment - since it's a modular design from the ground up. We used to do one big iron to another big iron, and that's a major migration workload/resource effort. Whereas, with this environment, you can go with small nodes, one at a time, and do a refresh.

What needs improvement?

There have been some drive type of issues where we have to apply a new code level. Storage nodes kick certain drives until they act as though they have failed when really they haven't. You just have to reinsert them, then they go on about their happy way. It is a bug fixed in 11.0 of the code for Element OS/Solidfire.

The option to pull in a config/text file to be used as input to the NDE process; rather than going through a lot of screens. The manual effort there is error-prone. This something NetApp engineering has been made aware of as a request and they say they're looking at that as a future enhancement.

As far as SolidFire, if you use the GUI, you can only create one line at a time or device at a time. That's ludicrous. I referenced earlier today to the NetApp feedback panel that this needs to be fixed. They said, "Yep. I understand that."

In terms of bandwidth and IOPS along with availability - we have not managed this environment long enough to put TIER1 environments under this umbrella; yet don't see why it couldn't handle the aforementioned especially if you create dedicated pods for those 'heavy hitters' (I'll just call it that.) Thus, in time we'll look for more deployments upon the converged infrastructure of NetApp.

For how long have I used the solution?

Almost one year now

What do I think about the stability of the solution?

So far, (nearly one year) the stability has been good.

What do I think about the scalability of the solution?

We've grown both compute and storage and do it all online. There are no concerns around scaling. Only in the factor of how large do you scale before hitting limits within VMware and Element OS/Solidfire re: performance and bandwidth (# of channels for IO).

How are customer service and technical support?

We have used technical support a few times, but

not a lot.

I don't have any concerns at this time.

Which solution did I use previously and why did I switch?

Some of our applications were on solid-state/flash disks, and some of them were on a mix (hybrid). This configuration is all-flash/solid-state. Nobody should have any complaints about performance so long as you have the proper host-side settings as optimal for your environment.

The solution reduced our TCO since a big piece of our former infrastructure was Cisco SAN Fabric Switches, and those are pretty pricey per port. We were using Fibre Channel, and now we're using iSCSI. Able to use lower-end Cisco switches and rid ourselves of the costly per port value of a Director-class switch.

How was the initial setup?

The initial setup is lengthy and complex. However, there are some ways that we have talked to some of the guys at NetApp about how they're going to try to make things better and more efficient. They have done some of that already.

A lot of the complexities have to do with when you're initially setting the equipment up, there are a lot of values that you have to plug into various screens. Then, you also have to do a reboot to pick whether it's going to be a storage node or compute node. The NDE process only needs to inspect 2 files to determine it's personality (compute or storage). The NetApp engineers are looking to fix status too. You have to do a reboot after it pulls those 2 aforementioned values. There you lose 45 minutes as part of a needing-2-b-refined build process.

If you have a large install, that's a lengthy time frame for onsite CE/implementer to put it into the stage of the process.

What about the implementation team?

We used some of the professional services which were tied into some of the bundled packages.

We also obtain our hardware resources through a third-party called WWT. They're a big partner of ours, and everything is great with those guys.

What was our ROI?

The solution has reduced our ESX node footprint by 35 percent.

From an all-flash standpoint (vs hybrid), performance has mostly likely increased anywhere from 10 to 20 percent.

We have seen two to three million dollars of OPEX savings by deploying this and getting rid of older equipment.

What's my experience with pricing, setup cost, and licensing?

Setup costs in terms of resources (man-hours) is dramatically reduced via the NDE effort from NetApp; yet our organization still has to modify multiple parameters after the NDE is complete. Thus, still takes some TLC to make the environment prod-ready.

Which other solutions did I evaluate?

We evaluated various converged and non-converged platforms before making the NetApp converged decision over other top players in the magic quadrant (IBM, Dell/EMC, Infinidat, Pure Storage). What's missing from all products is the need for better tools to bring capacity, performance, and upgrade planning together for viewing in one pane of glass.

What other advice do I have?

I would rate the solution a nine out of 10.

Which deployment model are you using for this solution?

On-premises

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