

# VDI and HCI, a match made in heaven

## Summary

Hyperconverged Infrastructure (HCI) and Virtual Desktop Infrastructure (VDI) are two of the hottest topics being discussed in IT today.

Neuralytix believes the combination of HCI and VDI make the most powerful, cost effective argument for enterprises to deploy VDI for the first time.

Both HCI and VDI combine the benefits of simplicity, scalability, and standardization. These are the three key tenets to deploying a successful VDI strategy.

## Insight

### Introduction

Neuralytix is partial to both virtual desktop infrastructure (VDI) and hyperconverged infrastructure (HCI). It is for this reason that we believe the combination of the two is a “match made in heaven.”

Optimal VDI implementations demand highly standardized modules of hardware infrastructure, capable of scaling to hundreds or thousands of nodes. This ensures that every VDI session has the appropriate (and often the same) level of computing, networking and storage capability and capacity to ensure the user experience is the same as with physical desktops.

HCI delivers this. Additionally, HCI provides simple, effective scaling as the needs of the VDI grow predictably, reliably, and economically.

### Simple, Scalable, Standardized

#### Simplicity

A main driver for HCI is simplicity – the simplicity of the actual infrastructure (combining compute, network and storage), and the simplicity of management (managing the entire HCI as a single unit). The management of HCI is further simplified in the areas of provisioning and monitoring.

Like HCI, VDI also emphasizes simplicity. Rather than having separate images for each endpoint, VDI simplifies provisioning by creating one (or at least minimal) number of images that can be deployed and provisioned without the need to procure new equipment, test compatibility, etc. Instead, VDI abstracts the endpoint away from the “gold” image that is shared between

terminals. Therefore, instead of days to provision a new endpoint (e.g. a laptop), endpoints can be provisioned in a matter of seconds.

As such, the combination of hyperconverged and virtual desktop infrastructures exponentially improves the simplicity and time to productivity of each client.

### Scalability

One of the key tenets of contemporary IT is scalability. HCI scales based on the specific needs of each enterprise – some need more computing capacity, while others need more storage capacity. HCI takes the guesswork out of scalability, by allowing enterprises to procure only the modules that reflect what is absolutely required, and allows enterprises to move resources between modules.

VDI is scalable too. There is no real limit to the number of clients that can share the same image of the endpoint, so long as there is sufficient memory, compute and storage capacity. When this runs out, the enterprise can rely on the scalability of HCI and only invest in the net new capacity that is required without over provisioning resources.

Again, the combination of HCI and VDI work in tandem. HCI and VDI work to leverage the scalability aspects of each other to protect investment, maximize utility, and provide the maximum return on investment (ROI), while minimizing the total cost of ownership (TCO).

### Standardization

For any infrastructure to be scalable and simple, there must be some level of standardization. HCI is designed with scalable modules in mind. When resources run out, enterprises can make a marginal investment of the same standardized module that runs the same software defined datacenter software. This standardization is the foundation of the simplicity and scalable nature of HCI.

VDI takes standardization one-step further. Instead of having to maintain a separate image for each endpoint configuration, make and model, and operating system level, VDI abstracts the endpoint hardware to deliver a virtual hardware endpoint, and deploys a standard image across all endpoints.

The combination of HCI and VDI standardization is the basis for the proverbial “match made in heaven.”

## Why do it at all?

Commoditization of hardware has led to some enterprises to take the do-it-yourself (DIY) route. While this can be slightly less costly in the initial investment, much of the cost comes by way of having to maintain software levels, compatibility matrices, etc.

HCI vendors, such as Gridstore, have taken the guesswork out of infrastructure architecture. Gridstore combines the cost effectiveness of “common-off-the-shelf” (COTS) hardware, with a software layer that is fully maintained and supported by Gridstore, ensuring compatibility and quality.

Combine this with the cost effectiveness of Microsoft’s Hyper-V (that ships with all modern versions of Windows) and this synergy becomes a strong foundation for enterprises large and small, as they take the first steps towards, or expand, a VDI strategy.

## Conclusion

As mentioned earlier, Neuralytix believes strongly in both HCI and VDI. We further believe that the combination of the two makes a very strong and powerful architecture for enterprises of all sizes to take advantage of the all the benefits of virtual desktop at an investment price point that is compatible with the DIY route.

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