SCALE COMPUTING

The Shortest Distance to Virtualization Excellence

Why Migrating to Scale Computing is the Smart Choice

Introduction

When it comes to virtualization platforms, you have more options than you probably realize. And with the number of options available, you have the opportunity to choose an IT infrastructure platform that offers a simplified, highly-automated infrastructure that keeps your applications and organization running efficiently.

Many of today's virtualization solutions are comprised of multiple vendor products—one each for the hypervisor, servers, and storage hardware—making it more complicated and expensive than it needs to be. Configuring those disparate server and storage components in just the right way eats up valuable time. Then you have to install and configure the hypervisor. Then you have to add time to test for compatibility and performance, further delaying deployment. To be successful, you need expertise in all those different platforms, some of which are so complicated, you're expected to be certified in them.

Once you've got it all up and running, it can be hard to scale out when you need more resources, especially if you're not able to add the exact same components. You may need to bring in yet more expertise and conduct yet more testing. And then you have the ongoing cost of licensing renewals, support and maintenance for multiple pieces from multiple vendors, including different licenses for different features. And then you have disaster recovery—an additional piece of the puzzle that can add yet another vendor, requiring more expertise and further complicating matters. There goes more time and more money.

Whether you're considering migrating from your existing virtualization platform or are virtualizing from scratch for the first time, there's now a better way to do it. Whether you are looking at a single location or implementing an edge computing platform across hundreds of sites, Scale Computing's hyperconverged approach is the shortest path to affordable virtualization that's easy to deploy, easy to manage, and easy to scale.

Scale Computing's HC3 virtualization software and appliances are based on patented technologies designed from the ground up to minimize infrastructure complexity and cost. HC3 has helped IT organizations across all industries deploy robust virtualization solutions.

This white paper explores the advantages HC3 offers over competing virtualization solutions, looks at potential migration options, and shows how Scale Computing is making a difference in organizations like yours and in the industry at large.

The Advantages of HC3

Scale Computing's innovative HC3 virtualization platform is often delivered as a complete "datacenter in a box" with server, storage, and virtualization components, as well as DR capabilities, integrated into a single appliance. Backed by 24 patents, this unique virtualization solution offers dramatic IT and business advantages.

A super-simple platform

Right off the bat, HC3's integration of compute, storage, and hypervisor into a single architecture eliminates complexity. The solution requires no specialized storage, virtualization, or disaster recovery expertise, making it:

Easy to deploy

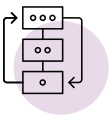
Because the solution is pre-integrated, pre-configured, and pre-tested, you can deploy the whole infrastructure in less than an hour. From there, deploying new VMs takes only minutes.

Easy to manage

It offers simplified, unified, browser-based management of the entire infrastructure, including backups and disaster recovery, from a single console. There's no need to monitor multiple consoles, and no need for a separate management server to buy and maintain.

Easy to maintain

HC3 was built to be resilient, and to autonomously monitor, predict and even correct a wide range of issues on it's own to keep your applications running. When intervention is needed, any IT generalist can perform maintenance on the cluster, including replacing failed drives, adding or replacing HC3 nodes, or initiating "one-click" non-disruptive rolling HC3 software updates for an entire cluster. No need to call in an expensive technician.



Easy to migrate

HC3 also makes it easy to migrate your existing systems. Any workloads can be migrated easily from any type of system—physical servers, VMs, or cloud. Most anything that runs on x86 hardware as a Windows or Linux application can be moved to HC3 including modern container based applications and all those single purpose appliances such as firewalls, wifi controllers or network video recorders. You can perform the migration yourself or bring in precisely the level of service you need.

Right size, right price

Many HCI solutions on the market today don't "scale down" well due to their high system overhead needs - but Scale Computing IT infrastructure can run efficiently on everything from small form factor, low cost "edge" devices and scale up to high performance NVMe, GPUs and ultra fast networking based on your evolving needs. With the powerful flexibility and scalability features of HC3, there's no need to overprovision at the outset—or ever—which is a major source of cost savings over traditional cluster configurations. Its right-sized footprint means there's no reason to "go big or go home." You don't even need data center space and cooling. And thanks to an innovative, lightweight platform, HC3 provides powerful virtualization at a fraction of the processing overhead of competing solutions. And don't forget, you've already saved budget by eliminating the need for specialized skillsets for deployment, management, and maintenance.

What's more, HC3 is a complete stack, including KVM hypervisor, tightly integrated software defined storage and HyperCore management software, and it's priced right for any size organization or implementation. It's integrated to include everything you need for a strong and stable IT infrastructure platform, which means there are no additional third-party licensing costs, and no extra costs for extra hypervisor features. With HC3, you aren't taxed for every feature—including features you don't even use—but instead get a full solution at a reasonable up-front price. In fact, based on Scale Computing's TCO calculator, most customers save around 40% over traditional virtualization solutions. The solution also saves time (and therefore money) by eliminating virtualization license management and renewals.

KVM: Did You Know?

KVM-based alternatives are the fastest-growing sub-segment within hyper-converged infrastructure.[1] Even large enterprises are taking advantage of it. A few years ago, Apple famously canceled its Enterprise License Agreement with VMware to start using KVM as its hypervisor, anticipating cost savings of $20 million.[2] Today, with an integrated KVM-based hypervisor, Scale Computing's HC3 virtualization technology has five-star ratings on the Spiceworks Community and on Gartner Peer Insights, and is the top-rated HCI solution on TrustRadius.

Flexibility + scalability

The HC3 platform is designed to accommodate a wide range of implementation needs, providing more flexibility than traditional cluster configurations—yet another way it can save you money. It offers the flexibility to mix-and-match to build and expand clusters with different nodes, or you can deploy a single-node configuration, such as for re-mote and branch offices, edge environments, and other use cases that used to be treated separately. HC3 allows you to address the need for very small infrastructure requirements at locations that support a small number of users and specialized systems. And with your choice of processor, RAM, and an array of storage and networking options, you can dial in the right configuration for your workloads.

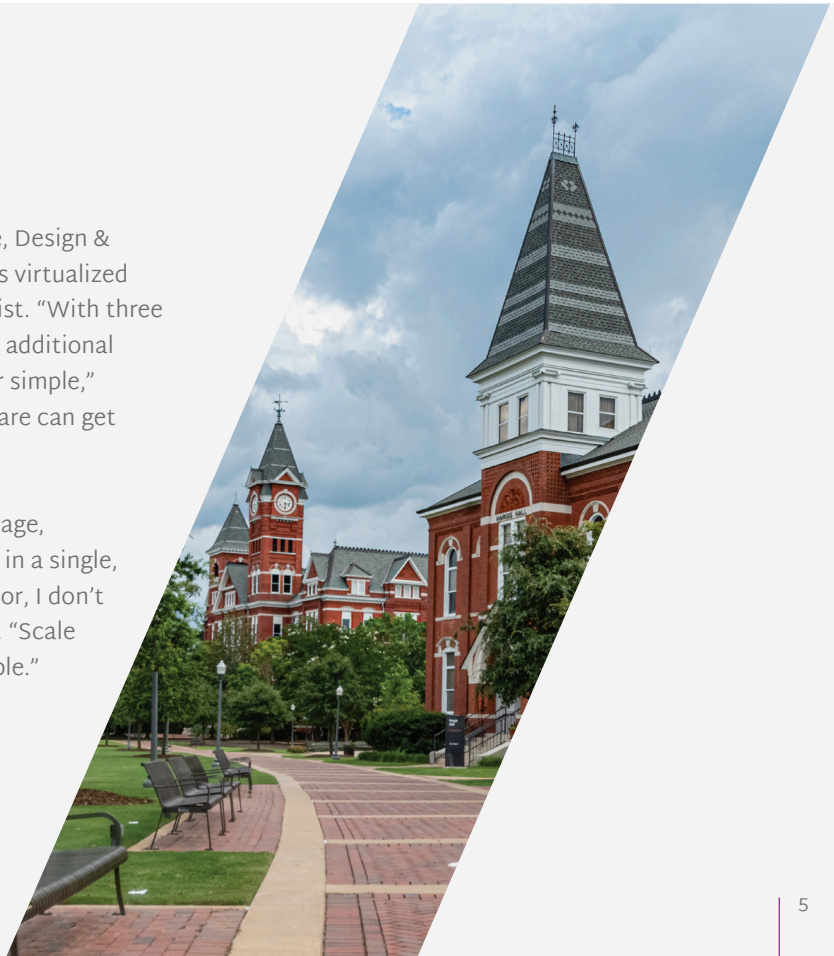
When it's time to scale capacity or boost performance, it's a seamless process, and there are no additional licensing requirements. HC3 offers a scale-out architecture that easily expands with no downtime. That means there's no need to provision for the future now, wasting valuable power and space, or to make guesses as to future requirements. You pay for only what you need now, then grow as your business grows by quickly adding resources to your infrastructure—without disrupting business operations.

There are no forklift upgrades here. You can expand by adding the latest and greatest HC3 nodes, mixing and matching node types with different storage, RAM, and CPU footprints. Scale offers a range of nodes to let you expand your cluster with the resources you need whether it's more CPU and RAM, simply expanding storage capacity or even increasing the storage performance of your existing applications by adding more high performance flash to your HC3 cluster. It's a turnkey, out-of-the-box, plug-and-play expansion.

HC3 in Action: Auburn University

When Auburn University's College of Architecture, Design & Construction decided to update and streamline its virtualized environment, Scale was at the top of the vendor list. "With three people supporting 5,000 users—and no money for additional personnel—I had to find a solution that was super simple," says Phil Forrest, an IT Manager at Auburn. "VMware can get complicated really fast."

The department chose HC3 because it brings storage, servers, virtualization, and management together in a single, comprehensive system. "With its built-in hypervisor, I don't have to deal with or pay another vendor," he says. "Scale Computing hits the sweet spot with what's possible."



High availability and built-in disaster recovery

All VMs created on HC3 are highly available, thanks to:

- Fully self-healing technology, including automatic failover of VMs
- Automatic restriping of data for failed disks
- Non-disruptive software upgrades and patching
- No single point of failure

HC3 also provides native backup and replication as well as DRaaS capabilities, solving a major problem for many IT organizations—disaster recovery. These features also save you yet more time and money. Key features include:

- Remote, snapshot-based, VM-level replication with manual failover
- Point-in-time rollback with application-consistent snapshots
- Instant VM restore using agentless VM-level snapshots
- Instant cloning for file-level and object-level recovery
- Five-minute recovery point objective (RPO) and recovery time objective (RTO)

No matter the size of your environment, you can protect your workloads down to the individual VM level. Ready to implement a disaster recovery strategy? Simply add another appliance at your DR location, and all the rest is built-in at no additional cost. No need to add on any other products or pay additional licensing fees.

HC3 also works with an ecosystem of best-in-class backup products such as Aconis with their agentless integration into HC3 to provide additional functionality beyond the built-in features of HC3.

Single vendor, superior support

The HC3 all-in-one solution means you're dealing with a single vendor—Scale Computing. Eliminating multiple vendors automatically reduces complexity, and it eliminates the finger-pointing and support run-around you often experience with a multi-vendor solution. Having a single source of support accelerates issue resolution, minimizing downtime, and it reduces the number of support contracts you have to manage and renew, saving you—you guessed it—time and money.

Scale Computing provides comprehensive 24/7/365 US-based support. Full warranty coverage is included in the cost of the solution, as is installation and your first year of ScaleCare support. Scale Computing also offers the specialized support services you may need, including premium installation, switch configuration, workload migration, disaster recovery planning, and cloud-based disaster recovery as a service (DRaaS).

Migration: Have It Your Way

As with any migration, moving to HC3 can take many forms, from non-disruptive in-place migrations to do-it-yourself migrations using free migration tools. Scale Computing can provide precisely the level of help you need, whether that's showing you how to do it, migrating a single VM, or migrating every VM and workload in your environment. With different levels of service and support at different price points, you can develop a migration strategy that works for your organization.

Scale Computing offers many advanced migration capabilities, including:

- Updating DNS for migrations across network subnets
- Migrating to HC3 VMs that have a different number of drives, drive sizes, CPUs, or memory than the original source
- Capturing all changes users make during the migration and replicating them to the HC3 VM in real-time
- Cutting over to the new HC3 VM manually or automatically
- Migrating the entire system or just file or application data for file and application servers—and even domain controllers

Migration can be performed at any time that makes sense for your business, including during business hours. A simple interface lets you efficiently manage large migration projects. With full control over the migration, you can take advantage of Test Cutover Capabilities to proactively validate that your migration cutover will work as planned.

Explore the Possibilities

Every day, IT organizations like yours choose Scale Computing and HC3 to reduce complexity and cost from IT infrastructure—so they can stay focused on the projects that matter most. Explore how Scale Computing solutions can help your organization find the shortest, easiest path to virtualization excellence.

Learn more at www.scalecomputing.com.

Sources

[1] Management estimate based on Scale Computing and Nutanix Acropolis growth.
[2] Ward, Keith, "Report: Apple Drops VMware's ESXi for KVM," Virtualization & Cloud Review, October 5, 2015. https://virtualizationreview.com/blogs/mental-ward/2015/10/apple-drops-vmwares-esxi-for-kvm.aspx

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