Virtualization Vroom: Converged Infrastructures for VMware Environments

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Satisfied with your virtualization efforts? You could be.

How to get more out of infrastructure resources? That’s a question many CIOs ask themselves. With hundreds or even thousands of virtual machines, increasing complexity and massive data growth, you need new, reliable ways to deliver IT services in an on-demand, flexible and scalable fashion. Then there are requests for faster delivery of business services, competition for resources and trade-offs between IT agility and vendor lock-in.

To meet the demands of the business, you’ve probably adopted some level of virtualization, implemented private or hybrid clouds to improve IT services, increased efficiency, improved flexibility and reduced the cost of delivering services. If so, you’re in good company. It’s expected that server virtualization rates will increase from approximately 50% to more than 80% over the next 3 years.

However, migrating business-critical applications to virtualized environments and to private or hybrid clouds has risks, with concerns around service level agreements, performance, availability and scalability. You need predictable platform reliability to move your business-critical workloads with confidence. To get the full benefits of virtualization while minimizing risks, some CIOs are turning to converged infrastructures from a single vendor as a turnkey solution.

Reality check: Server sprawl and other virtualization spinouts

VMware has become a vital component of private or hybrid cloud environments. But several infrastructure challenges in VMware environments can create headaches for your IT staff—and prevent you from reaping the full benefits of virtualization.

Server sprawl

Virtual server sprawl impacts applications and SLAs for performance, backup and replication. And it can make deploying, monitoring and maintaining a complete infrastructure more difficult. With more virtual machines, there is more complexity and there may be a
lack of visibility across IT functional
teams covering servers, storage,
networks and applications.

**Long deployment time**
A converged infrastructure takes the 4 
basic components of server, storage,
network and software, and pack-
ages them together as one pretested 
stack. The main objective behind 
this solution is to take the complex-
ity, time and cost out of the current 
approaches to deployment. And it 
provides a much easier and faster 
approach to implementing and man-
aging compute solutions within a 
VMware vSphere environment. You 
can then consolidate maintenance 
and support and have a single vendor 
to call for your service and support 
needs. The converged infrastructure 
reduces your implementation risk and 
costs, and collapses your deploy-
ment time from months to days.

**Overloading or overprovisioning**
When server, network or storage 
capacity becomes overloaded, bottle-
necks appear across multiple servers 
and performance suffers. Managing 
the infrastructure is a time-consuming 
operation across numerous admin-
istrative teams. To avoid the risk of 
overloading or servicing frequent 
requests for hardware, some orga-
nizations overprovision hardware to 
ensure adequate capacity. However, 
that approach is costly because you’re 
deploying and supporting additional 
infrastructure you may not need.

**Underutilization**
To avoid service disruption, fast 
growing IT environments usually 
acquire hardware to support new ini-
tiatives before previous investments 
are fully utilized. This approach also 
increases the data center footprint 
and power and cooling costs.

**Virtualizing business-
critical applications**
You have every right to be hesitant 
about this one. Prior to virtualization, 
organizations would typically have a 
single business-critical application run-
ning on a single server. However, when 
servers are virtualized, resources are 
shared and business-critical applica-
tion performance may suffer and the 
required SLAs might not be realized.

**Recovery of business-critical data**
Here again, it’s understandable to 
have concerns about recovering 
business-critical data in virtualized 
environments in a timely fashion. 
Virtualization may prevent you from 
meeting the recovery time objec-
tives that your business requires.

Since overcoming these challenges is 
critical for a successful cloud strategy, 
you may want to look at other options 
to support VMware environments—so 
your organization can reap the ben-
efits while managing the risk. That’s 
where fully integrated, converged 
infrastructures should be considered.

**Reality check: Converged 
infrastructures deliver the 
full value of virtualization**
To relieve the virtualization head-
aches that come with homegrown 
environments for VMware, see what 
converged infrastructures offer with 
flexible and robust platforms for 
quickly capitalizing on cloud benefits. 
Converged infrastructures for VMware 
ensure the consistency and level of 
control required for business-critical 
workload environments. Converged 
infrastructures are integrated solu-
tions composed of servers, storage, 
networking components, hypervisor 
and unified orchestration software. 
They’re pretested to optimize perfor-
mance and then preconfigured to your 
organization’s requirements, which can 
dramatically reduce deployment time.

Converged infrastructures save you the 
time, expense and complexity around 
architecting, building, testing and 
deploying virtualized infrastructures. 
Choosing a converged infrastructure 
transfers those challenges, along with 
their associated risks, cost and time, to 
the certified vendor. So, the selection 
of hardware, software and integration 
work is already completed, and your 
solution can be up and running quickly.

The shift to converged infrastruc-
tures is happening fast. In the next 
4 years, over half of data center 
hardware will be purchased as a 
converged infrastructure. You can 
bring the most critical workloads to a 
cloud environment with a converged
infrastructure that provides predictable reliability, quick time to value, and the ability to rapidly expand your private cloud environment as your requirements evolve. A converged infrastructure improves the utilization of IT resources while streamlining management within VMware environments.

If you rely on VMware as your virtualization environment, a converged infrastructure from Hitachi Data Systems can give you the performance, scalability and reliability you need. But more important, it provides unified orchestration to simplify management, monitoring and provisioning.

**Hitachi Data Systems and VMware put the vroom in virtualization**

Hitachi Unified Compute Platform (UCP) Pro for VMware vSphere is a turnkey solution that’s pre-configured at the factory and delivered to your site racked, cabled and configured, with all the software pre-loaded. It can be up and running in 5 days or less after it hits the data center floor.

Unified orchestration via Hitachi UCP Director software provides comprehensive and simplified management. The innovative software is uniquely integrated with VMware vSphere and significantly reduces time to value and operational costs for even the most demanding applications. UCP Director enables faster deployment of cloud infrastructure and efficient resource allocation which prevents over-provisioning, optimizes your utilization and its automation reduces current time and cost spent on routine administrative processes.

UCP Pro for VMware vSphere simplifies and accelerates the build-out of robust private cloud infrastructures. It assures that the underlying server, storage and networking resources are in place and aligned to the appropriate business service levels. The innovative software efficiently and reliably coordinates the management of all components and operating software as collective resources.

If you’re contemplating a converged infrastructure that provides everything from servers to storage, Hitachi UCP Pro is the perfect platform for your VMware environments.

**Hitachi Data Systems can help**

Hitachi Data Systems and VMware can help you improve IT agility, lower infrastructure costs and move to the cloud with predictable reliability, accelerated value and exceptional flexibility.

Together, we achieve these results by creating a streamlined, tightly integrated turnkey platform that provides the infrastructure you need and the reliability and speed your enterprise demands.

UCP Pro for VMware vSphere provides a robust option to fit your environment and the changing landscape of business and information technologies. It supports your business needs today and lets you establish a flexible foundation for the data center of the future. Interested in learning more? Make the call today to understand how quickly you can start seeing the benefits of HDS converged infrastructures.