SOLUTION BRIEF

VCE VXRAIL™ APPLIANCES: MEETING THE VIRTUALIZATION CHALLENGE FOR STATE AND LOCAL AGENCIES

THE CHALLENGE

For state and local agencies, the promises of new technology come with unique new challenges as well. New applications, including those for remote and mobile computing, for example, can boost user productivity, but they confront an aging IT infrastructure with performance and data-storage demands that the original planners could not have foreseen.

Yet, state and local systems are barely able to keep up with the refresh cycles of their various hardware and software components, much less adjust to today's demands for tightened service level agreements, shorter project deadlines, and shrinking budgets. Pressured to keep costs low, agencies have difficulty requisitioning specialized IT technicians—or even new real estate—to support an upgrade in IT infrastructure.

THE SOLUTION: VIRTUALIZE YOUR STATE/LOCAL AGENCY IT INFRASTRUCTURE WITH THE VCE VXRAIL APPLIANCE

For a fast-growing segment of state and local agencies, virtualizing compute resources is an effective solution to the problems of high expectations and lowered budgets. State agencies have frequently shown the desire to reduce physical servers through virtualization. According to recent data, state and local agencies have reduced their server hardware as much as 68% in a given year through virtualization.

Going one step further, leveraging hyper-converged solutions for virtualization can do more than help cut hardware expenses, however. They can eliminate conflicting system-refresh cycles and redundant software, and can greatly reduce the need for specialized IT technicians. For example, deploying a virtualized desktop infrastructure (VDI) on a Hyper-Converged Infrastructure Appliance (HCIA) gives you the ability to put computer resources where they are most needed at any given time. Virtualization and HCIA can save you the costs of over-provisioning IT systems, of hiring expensive IT consultants, and of building out new office space for larger servers, storage, or networking gear. Now, with the emergence of VCE VxRail Appliances, virtualization and the benefits of a Software-Defined Data Center (SDDC) are within the reach of state and local agencies.

INTRODUCING VCE VXRAIL APPLIANCES

The VCE VxRail Appliances offer hundreds of configuration options across a portfolio of powerful units that can be used individually or in combinations to deploy and manage dozens or hundreds of virtual servers or virtual desktops. VxRail Appliances include a full suite of industry-leading data services, including replication, backup and recovery for data protection in a simple "2U, 4-node" building block. A single VxRail Appliance has the power, with integrated compute, storage, and VMware software, to simplify IT operations while reducing costs. Expansion is as simple as plugging in another node or another whole appliance. VxRail™ Manager software will automatically discover the new unit or units without skipping a beat.

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VXRAIL APPLIANCES VIRTUALIZATION ADVANTAGES

- Delivers a simple and proven building block for the SDDC based on VMware Hyper-Converged Software

- Handles peak performance requirements

- Rapid and automated deployment reduces operational burden

- Application uptime ensured through high-availability Virtual SAN and VMware software

- Scale from as few as 40 VMs up to 200 VMs per appliance, for a maximum deployment of 3200 VMs

- One-click non-disruptive patch and upgrades

- Only HCI appliance offering QoS to eliminate "noisy neighbors" and confidently run multiple applications on the same appliance or within the same cluster without sacrificing performance

- EMC software for Data Protection, EMC CloudArray, and EMC Secure Remote Support

FAST DEPLOYMENT, EASY EXPANSION

With conventional IT systems, deployment can take months, for planning, procurement, installation, and setup, provisioning and testing. And it can require the services of technicians skilled in servers, storage, networking and applications. The more time it takes for deployment, the higher the costs—and the more likely the project will be stopped in its tracks or diminished in scope by budget-conscious regulators.

VxRail Appliances avoid these pitfalls because they are totally self-contained and thoroughly tested by EMC/VCE before they are shipped. Wizard-based automation helps non-technical managers set up pools of virtual machines for users. Once complete, it takes just 15 minutes from power-on to creation of a new virtual machine.

Expansion is a simple matter of plugging in a new node or adding another appliance. New nodes are hot swappable, so you do not have to power them down or add any new software to grow your infrastructure. In addition, VxRail Appliances give you a system architecture that is predictable and repeatable, so you can install new versions of your master configuration into other offices without requiring new testing or troubleshooting.

SIMPLIFIED MANAGEMENT

More than 200 automated workflow processes help non-technical people adjust to your virtual infrastructure for maximum benefit. Clear, user-friendly wizards guide you through assigning resources, restructuring user pools, moving workloads, building out clusters, evaluating performance, and activating new software updates. With VMware Virtual SAN software at the heart of VxRail Appliances, you can be confident in managing your VxRail Appliance infrastructure with the same off-the-shelf VMware management and operations tools you already know. This familiarity makes it easy to respond quickly to sudden demands for greater capacity—the kind that can come from I/O storms caused by VDI users suddenly logging in on Monday mornings or after a holiday, for instance.

From a VDI perspective, in addition to managing VMware Horizon with View, VxRail Appliances can manage non-VMware desktops from Citrix and other popular vendors. As an integral solution in the VCE converged infrastructure portfolio, VxRail Appliances can be managed with VCE Vision™ Intelligent Operations, enabling IT visibility across the distributed solution from the same management console as they manage their data center infrastructure.

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UNYIELDING AVAILABILITY AND SUPPORT

Benefit from availability and reliability features for VxRail Appliances, such as

- 24/7 global support for all appliance hardware and software

- Remote "heartbeat" monitoring, diagnostic, and repair with proactive fault detection

- High-availability system design with maximum component redundancy

- Automated operational and disaster-recovery orchestration for VMs, including local and remote hypervisor-based replication and continuous data protection for per-VM recovery to any point in time

- World-class support from EMC's single-point-of-accountability philosophy

THE IMPORTANCE OF IT CONFIDENCE

VxRail Appliances promote confidence in your IT infrastructure because it is a pre-configured, pre-tested solution jointly developed by EMC/VCE and VMware who are trusted by large and small organizations around the world, and backed by a single point of 24/7 global support for all appliance hardware and software. With VxRail Appliances, you can be confident that your virtual infrastructure will work today and will keep you on the path to more innovative technologies, from cloud computing to the software-defined data center (SDDC) in the future.

ABOUT VCE

VCE, an EMC Federation Company, is the world market leader in converged infrastructure and converged solutions. VCE accelerates the adoption of converged infrastructure and cloud-based computing models that reduce IT costs while improving time to market. VCE delivers the industry's only fully integrated and virtualized cloud infrastructure systems, allowing customers to focus on business innovation instead of integrating, validating, and managing IT infrastructure. VCE solutions are available through an extensive partner network, and cover horizontal applications, vertical industry offerings, and application development environments, allowing customers to focus on business innovation instead of integrating, validating, and managing IT infrastructure.
For more information, go to vce.com.