

VxRack™ System
1000 Series

Modular hyper-converged infrastructure system that delivers extreme scalability and flexibility

- Start small and grow to data center scale in flexible discrete increments.
- Add compute and storage linearly or independently to scale to hundreds or thousands of nodes.
- Easy to manage and provision new resources.
- VxRack™ System 1000 series and VCE pre-engineering, manufacturing, life cycle assurance, and support greatly simplify data center operations.

VCE VXRACK™ SYSTEM 1000 SERIES

Hyper-Converged Infrastructure at scale

Converged infrastructure brings together the disparate infrastructure elements that power IT, including servers, data storage devices, networking functions, virtualization, management software, orchestration, and applications. The purpose: to simplify IT by breaking down the silos in the data center, reversing the status quo of static and inflexible pools of resources. Converged infrastructure solutions are proven to significantly speed deployments, make infrastructure more agile, and simplify IT operations—all of which is critical to successfully deliver IT as a service.

In contrast to traditional converged infrastructure solutions, hyper-converged infrastructure (HCI) is a software-defined architecture with integrated compute, networking, software-defined storage and virtualization. It enables compute, storage, and networking functions to be decoupled from the underlying infrastructure and run on a common set of physical resources that are based on industry-standard x86 components. Using hyper-converged infrastructure, customers can start with a small deployment, and then flexibly scale out to support dynamic workloads and evolving business needs.

The VxRack™ System 1000 series is a new hyper-converged platform that complements VCE converged infrastructure systems. These self-contained units of servers and networking are well suited for use cases that require a highly scalable infrastructure. It has a flexible, modular design that meets the scalability, performance, and efficiency requirements of modern data centers.

KEY FEATURES AND BENEFITS

The VxRack 1000 is the only hyper-converged system that satisfies the scalability and management requirements of today's data centers. IT organizations that are moving toward a software-defined architecture can utilize the VxRack 1000 for a diverse set of use cases, especially in situations where application growth is unpredictable. This includes, but is not limited to, Infrastructure as a Service (IaaS) at scale, Platform as a Service (PaaS), non-mission critical mixed workloads, agile test and development environments, centralized Virtual Desktop Infrastructure (VDI) deployments, hybrid cloud solutions, and cloud native services (OpenStack).

- **Agility.** Integrated compute, network, and storage in a modular system, not discrete hyper-converged units.
- **Unparalleled Performance.** Experience performance that scales linearly as you expand.
- **Scale as you Grow.** Start with a minimal number of nodes and rapidly scale to hundreds or thousands of nodes as needed.
- **Flexible Configurations.** Add compute enclosures with various CPU, memory, and storage options to meet specific application or workload requirements.
- **Unified Management.** Simplified operations and management through integrated provisioning, configuration, and a unique management toolset from VCE.
- **Data Protection.** Options to integrate EMC Avamar, EMC Data Domain, EMC RecoverPoint for Virtual Machines.
- **Same VCE Experience.** VxRack 1000 is engineered, manufactured, managed, supported, and sustained as one by VCE. VCE Release Certification Matrix (RCM) validation and VCE™ Support for all system components help mitigate risk.

MULTIPLE SOFTWARE OPTIONS

The VxRack System 1000 can be manufactured and configured with three different software options.

VxRack™ System 1000 with Neutrino Nodes

- Turnkey IaaS platform for cloud native services (OpenStack, Photon OS, Hadoop)
- IaaS – provisioning of open source technology resources in hours vs. weeks/months
- PaaS – The IaaS foundation for the Native Hybrid Cloud solution from EMC with Pivotal Cloud Foundry's industry leading open source PaaS
- Purpose-built for cloud native (P3) applications

VxRack™ System 1000 with FLEX Nodes



- Leverages EMC ScaleIO to virtualize the server's direct-attached storage into a shared network-based storage pool that is similar to SAN storage
- Creates a flexible foundation for delivering IaaS at scale that can support a wide range of use cases (separately or in combination)
- Makes it easy to achieve extreme scale—1000+ nodes
- Capable of supporting multiple hypervisors

VxRack™ System 1000 with SDDC Nodes



- Delivers a turnkey, fully optimized VMware private cloud that is easy to deploy and operate
- Ideal for general purpose IaaS and VDI, supporting up to 1,000 virtual machines (VMs) or 2,000 virtual desktops per physical rack
- Start small and scale incrementally to hundreds of nodes
- Simplified deployment, configuration, and ongoing operations management with the EVO SDDC Manager, resulting in greater simplicity and faster time-to-value

Enhanced network and security capabilities with VMware NSX™ network virtualization.

SIMPLIFIED MANAGEMENT EXPERIENCE

VCE Vision™ VxRack™ Manager

VCE Vision™ VxRack™ Manager is provisioning and management software for the VCE VxRack 1000 that gives you the agility to meet your business's dynamically changing workload demands, drives effective utilization of system resources to maximize return on investment, and simplifies operations to reduce OPEX.

VxRack™ Manager provides system administrators with a single user interface to efficiently deploy, monitor, sustain and, support VxRack™ Systems physical and virtual resources.

- **Deploy.** Enables logical partitioning of resources for specific users, reallocation of resources for new users and expansion of capacity for existing users, and installation of server virtualization (base operating system/hypervisor) and virtual storage-area software to scale out the system with new compute and storage nodes.
- **Monitor.** Tracks the health of all system compute, storage, and network components, including key performance indicators, so you can proactively assure workload availability, manage performance, and plan capacity.
- **Sustain.** Provides Release Certification Matrix (RCM) compliance reports to identify drift from desired firmware and software release levels and facilitate system updates with new releases to optimize system performance and fix bugs.
- **Support.** Accelerates problem resolution by aggregating log and configuration data for VCE Customer Support and provides knowledge base, 24/7 VCE support contact and process information.
- **Single Pool of Resources.** VxRack™ Manager is integrated with VCE Vision™ Intelligent Operations, which provides a dashboard for managing all VCE Systems as a single pool of resources. VCE Vision™ software also delivers VxRack System health and performance monitoring, RCM (firmware/software), and compliance information to ensure a consistent view of the VxRack System across their respective dashboards.

VCE EXPERIENCE

VCE is a leading innovator of intelligent converged infrastructure systems. Customers rely on VCE Vblock® Systems, VxBlock™ Systems, and VxRack Systems for the fastest deployment of data center infrastructure. VCE Systems are engineered to deliver the highest performance, operational simplicity, and scalability for the lowest TCO. Every system is a true converged infrastructure—each is engineered, manufactured, managed, supported, and sustained as ONE product.

- VCE Systems are standardized architectures based on best-in-breed technologies.
- VCE manufacturing completes integration, testing, and validation of every VxRack System. This ensures that it is delivered within 45 days and is operational within hours of arrival
- Every VxRack System includes VxRack™ Manager and VCE Vision software, which together enable standardized, more efficient, continuous processes for system provisioning, health management, and life cycle management.

Every VxRack System is sustained by a Release Certification Matrix (RCM), a documented set of firmware and software releases for all VxRack System components, pre-tested and certified for interoperability, and regularly delivered to customers to simplify upgrades and keep systems stabilized and optimized.

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.

