

# VxBlock 1000 Converged Infrastructure

Foundation for Mission-Critical Cloud

VxBlock 1000



## ESSENTIALS

- **Consolidate, optimize and protect high-value workloads** – benefiting from improved application performance and reduced downtime
- **Deliver cloud operations** – with a system designed to help you automate and proactively manage daily IT tasks
- **Simplify life cycle management** – with a turnkey system that dramatically reduces the time, effort and risk involved in patching and upgrades

## Simplify IT with a turnkey system for workload consolidation

VxBlock is the proven leader in converged infrastructure, providing enterprises worldwide the amazing simplicity of a turnkey engineered system experience that allows them to focus on innovating rather than spending time on maintenance.

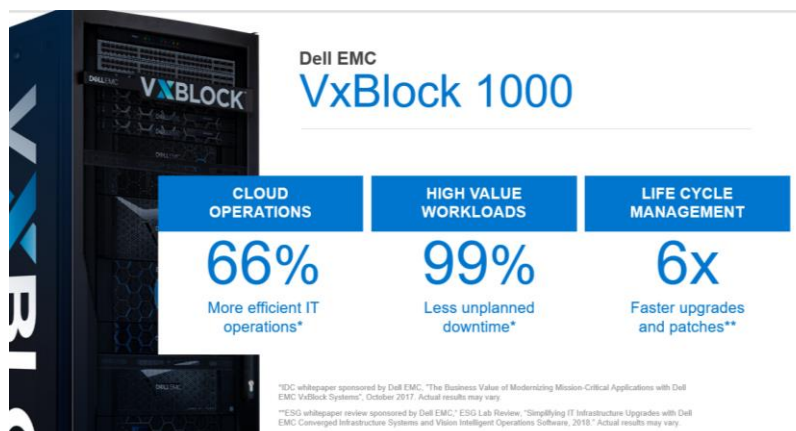
The VxBlock System 1000 combines industry-leading technologies – including powerful Dell EMC storage and data protection options, Cisco UCS blade and rack servers, Cisco LAN and SAN networking, and VMware virtualization – into one fully integrated system. It’s the converged infrastructure foundation for the Dell Technologies Cloud, leveraging its deep VMware integration to simplify automation of everything from daily infrastructure provisioning tasks to delivery of IaaS and SaaS.

Why is that important? VxBlock 1000 takes the complexities out of component integration. It simplifies upgrades and daily operations, comes with converged management and a simplified path to a cloud operating model. All with single-call support.

VxBlock business outcomes really shine with high-value applications like SAP, Oracle, Microsoft SQL and Epic where “good enough” will not get the job done. With VxBlock, you can rely on the rich data services, high availability and data efficiency absolutely required to keep your mission-critical business up, running and protected at any scale.

## Delivering real business results

Enterprises using Dell EMC VxBlock Systems report significantly better business outcomes, including more efficient IT operations, dramatically less unplanned downtime, and much faster upgrades and patches than with a DIY approach.



## Delivering Real Business Results

“Installing the converged VxBlock System allowed us to take a 10-year step forward in technology with a single purchase. By using the VxBlock System to transform our data center, we now have the ability to deploy solutions in hours as opposed to weeks.”

— Ryan Deppe, Network Operations Supervisor, Cianbro Corporation

“With VxBlock 1000, we get one source of support and always know we’re running the latest gold-standard code stack. Dell EMC removes so much of the time and risk of managing IT. We love it.”

— Darell Schueneman, Team Lead, Cloud Operations, Plex Systems

“The VxBlock has enabled us to make tremendous positive changes. Our users are thrilled with the IT team’s responsiveness and with the accelerated application performance. It’s also changed the relationship between IT and the college. Business units now engage us to consult early in their decision process. We’ve become an integral partner in college business.”

— Mark Wiseley, Senior Director of IT, Palmer College

“We’re now 100 percent responsive to the business.”






— Michael Tomkins, Chief Technology Officer, Fox Sports Australia

## VxBlock 1000 Overview

VxBlock 1000 redefines the converged infrastructure market, enabling you to free up resources, focus on innovation and accelerate IT transformation. Traditional converged infrastructure systems often require you to choose different systems for different applications’ performance, capacity and data services needs. VxBlock 1000 breaks those boundaries by offering the industry’s first converged system designed for all workloads in the modern data center with

- Unprecedented **choice** to mix, share and adapt pools of market-leading storage, data protection and compute resources for all workloads to maximize performance and utilization.
- **Converged management** and **automation** that simplifies daily operations thanks to Dell EMC VxBlock Central software and its enriched integration with VMware vRealize Operations (vROPS) and vRealize Orchestrator (vRO), providing a simplified path to a cloud operating model.
- **Simplified life cycle management** with a turnkey infrastructure that is created, managed, supported and sustained as one – including ongoing certified code upgrades.
- **A future proof design** to ensure that your system is able to support next-generation technologies to address extreme performance, scalability and ongoing simplicity requirements.

## Turnkey Engineered System Experience

 <b>Engineered</b>	Engineered according to your needs
 <b>Manufactured</b>	Built in ISO-certified factory
 <b>Managed</b>	Centralized management
 <b>Supported</b>	Single call support
 <b>Sustained</b>	Ongoing certified code upgrades

In 2009, Dell EMC created the converged infrastructure (CI) market when we introduced the first Vblock System. Dell EMC continues to innovate in the CI market with the next-generation VxBlock System, the VxBlock 1000. The VxBlock 1000 is not a reference architecture and it’s not a bill-of-materials (BOM); it’s a fully integrated system that brings together leading technologies, including

- Dell EMC Unity, XtremIO, PowerMax, VMAX and Isilon storage options that you can mix and match
- Dell EMC Avamar, Data Domain, NetWorker, RecoverPoint and VPLEX protection options
- Cisco UCS B-Series and C-Series server options
- Cisco Nexus LAN and MDS SAN switches
- VMware (including vRealize, vSphere, NSX and vCenter)

## Unprecedented Choice of All-Flash Storage



### Unity

Midrange unified storage with proven reliability AFA or cost-effective hybrid option



### XtremIO

Performance, in-line all the time and data reduction



### PowerMax

Mission critical AFA with NVMe best performance, lowest latency



### VMAX

Mission critical performance, scale up and out



### Isilon Gen 6

Unstructured data with linear scalability

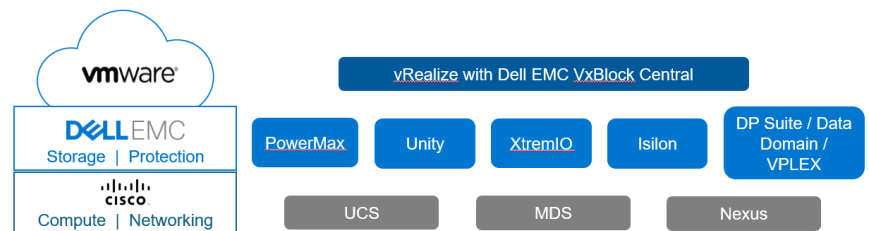
Using the Logical Configuration Survey (LCS) to customize integration and deployment options, all system elements are pre-integrated, pre-configured, and then tested and validated before shipping. Turnkey integration allows you to operate and manage your system as a single engineered product, rather than as individual, siloed components. Ongoing, component-level testing and qualification result in a drastically simplified update process.

## Converged Management and Automation

VxBlock Central software provides a single unified interface and access point for converged infrastructure operations. It dramatically simplifies daily administration by providing enhanced system-level awareness, automation and analytics. VxBlock Central includes Dell EMC launch points to VMware vRealize Orchestrator (vRO) with workflows for automating daily operational tasks and to vRealize Operations (vROPs) for deep VxBlock analytics and simplified capacity management.

## Integrated Data Protection

Dell EMC Data Protection for Converged Infrastructure simplifies backup, recovery and failover of your VxBlock 1000. Dell EMC offers the most advanced data deduplication, replication and data protection technologies for achieving your Recover Point Objective (RPO) and Recover Time Objective (RTO) requirements.



## Simplified Life Cycle Management

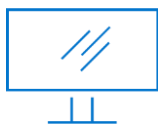
Ongoing life cycle management, including interoperability test, security / patch management and component updates, is one of the cornerstones of VxBlock. This is accomplished through our unique Release Certification Matrix (RCM), where we validate interoperability to ensure your system's health is optimized. We've invested thousands of hours in testing, validation and certification so you don't have to. You get the peace of mind of knowing that Dell EMC delivers full life cycle assurance with every VxBlock 1000.

## Support and Services

Dell EMC delivers fully integrated, 24/7 support with a single call support. There's never any finger-pointing between vendors, and you can always rely on our fully cross-trained team for a fast resolution to any problem. Dell EMC's portfolio of services (including deployment services, migration services and residency services) accelerates speed of deployment and integration into your IT environment and minimizes downtime by ensuring your software and hardware remains up to date throughout the product life cycle.

## VxBlock 1000 Support Specification Summary

Component	Details
<b>COMPUTE</b> (Note: mixing blade servers and rack servers in one system is supported)	<b>Chassis:</b> Cisco UCS 5108 <b>Cisco UCS B-Series blade servers:</b> B200 M5, B480 M5 <b>Cisco UCS C-Series rack servers:</b> C220 M5, C240 M5, C480 M5 <b>Cisco Fabric Extenders (FEX) and IOM:</b> Nexus 2232PP, Nexus 2348UPQ, UCS 2204XP, UCS 2208XP, UCS 2304XP <b>Cisco Fabric Interconnect (FI):</b> Cisco UCS 6454, 6332-16UP <b>Cisco UCS Virtual Interface Card (VIC):</b> 1340, 1380, 1385, 1387, 1440, 1480, 1455, 1457, 1495, 1497
<b>MAXIMUM NUMBER OF SERVERS PER SYSTEM</b>	Cisco chassis: 88 Cisco blade servers: up to 616 Cisco rack mount servers: up to 1,120
<b>NETWORKING</b>	<b>LAN:</b> Cisco Nexus 9336C-FX2 <b>SAN:</b> Cisco MDS 9148T, 9396T, 9148S, 9396S, 9706, 9710 <b>Management connectivity:</b> Cisco Nexus 31108TC-V, Nexus 9336C-FX2
<b>STORAGE</b> (Note: mixing multiple storage types in one system is supported)	<b>Dell EMC Storage</b> Unity All Flash 350F, 450F, 550F, 650F; Hybrid 300, 400, 500, 600 PowerMax 2000 and 8000 VMAX All Flash 250F, 950F XtremIO X2-S, X2-R Isilon All Flash, Hybrid and Archival F800, H600, H500, H400, A200, A2000
<b>VIRTUALIZATION</b>	<b>VMware:</b> vSphere Enterprise Plus (includes VDS), NSX, ESXi, vCenter Server Note: Bare metal deployments are also supported
<b>DATA PROTECTION</b>	Integrated Backup, Integrated Replication, Integrated Business Continuity <b>Dell EMC:</b> Avamar, NetWorker, Data Protection Search, Data Protection Advisor, Data Protection Central, CloudBoost, RecoverPoint and RP4VM, Data Domain, Data Domain Virtual Edition, Data Domain Cloud Disaster Recovery, VPLEX <b>VMware:</b> Site Recovery Manager
<b>SYSTEM MANAGEMENT</b>	<b>Compute:</b> AMP-VX for multi system management includes 4–8 PowerEdge servers, VMware vSAN and Log Insight, and Avamar Virtual Edition integrated with Data Domain 6300 for protection of the AMP-VX; AMP-3S for single system management includes 2–16 Cisco rack mount C220 M5 servers and a Dell EMC Unity 300 hybrid storage array <b>Software:</b> core management software includes VMware vSphere and vCenter, Dell EMC VxBlock Central, Dell EMC Secure Remote Support (SRS), Dell EMC PowerPath, Cisco Data Center Network Manager (DCNM) and element managers
<b>CABINET</b>	<b>Intelligent Physical Cabinet Solution from Dell EMC</b>



[Learn More](#) about VxBlock 1000 solutions



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