

DELL EMC VXBLOCK 1000

Your foundation for mission-critical cloud

DELL EMC VXBLOCK 1000



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 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 a proven and trusted foundation for a VMware-based private or hybrid cloud, simplifying 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.

ESSENTIALS

- **Deliver cloud operations** – with a system designed to simplify VMware cloud operations across stack
- **Consolidate, optimize and protect high-value workloads** – benefiting from improved application performance and reduced downtime
- **Simplify lifecycle management** – reducing upgrade and patching effort with a turnkey system and ongoing certified code upgrades

Dell EMC VxBLOCK 1000

Turnkey System for High Value Workload Consolidation
Built on Powerful Dell EMC Storage and Data Protection

Cloud Operations

High Value Workloads

Lifecycle Management

<p style="font-size: 2em; font-weight: bold; color: #0056b3;">66%</p> <p style="font-size: 0.8em; color: #0056b3;">More efficient IT operations*</p>	<p style="font-size: 2em; font-weight: bold; color: #0056b3;">99%</p> <p style="font-size: 0.8em; color: #0056b3;">Less unplanned downtime*</p>	<p style="font-size: 2em; font-weight: bold; color: #0056b3;">6X</p> <p style="font-size: 0.8em; color: #0056b3;">Faster upgrades and patches**</p>
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*IDC whitepaper sponsored by Dell EMC, "The Business Value of Modernizing Mission-Critical Applications with Dell EMC VxBLOCK Systems", October 2017. Actual results may vary.

**ESG whitepaper review sponsored by Dell EMC, ESG Lab Review, "Simplifying IT Infrastructure Upgrades with Dell EMC Converged Infrastructure Systems and Vision Intelligent Operations Software, 2018." Actual results may vary.

#1 FOR A REASON

Delivering real business results

“Installing the converged VxBlock System allowed us to take a ten 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

“Dell EMC VxBlock Central's unique converged infrastructure workflows and analytics give our team back even more time for strategic initiatives.” — John Grieco, CTO, The University of Vermont Health Network

“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

The VxBlock 1000 redefines the converged infrastructure market, allowing you to mix, pool and share multiple different resource types, so you can free up resources, focus on innovation and accelerate your IT transformation. Benefits include

- **Deliver cloud operations faster** – by automating the entire stack with Dell EMC VxBlock Central and VMware vRealize.
- **Consolidate, optimize and protect high-value workloads** – through flexible resource pools that improve application performance and reduce downtime.
- **Simplify life cycle management** – with a trusted single source of support and ongoing validation of all technologies across the stack.

VxBlock 1000 overview

Traditional converged infrastructure systems often require you to choose different systems for different applications' performance, capacity and data services needs. The 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.

Simplify life-cycle management
Turnkey infrastructure: Created, managed, supported & sustained as one

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

6X
Faster upgrades and patches*

VMware vRealize
VxBlock Central
DELL EMC
Storage | Protection
Compute | Networking
cisco

The graphic illustrates the 'Simplify life-cycle management' benefits of the VxBlock 1000. It features a table with five categories: Engineered, Manufactured, Managed, Supported, and Sustained. The Sustained category is highlighted in blue and includes 'Ongoing certified code upgrades'. To the right, a stack of components is shown: VMware vRealize, VxBlock Central, Dell EMC Storage | Protection, and Compute | Networking (Cisco). A large blue cloud contains the text '6X Faster upgrades and patches*'. The background is light blue with a subtle grid pattern.

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 from Dell EMC (including mixing Dell EMC Unity, XtremIO, PowerMax, VMAX, Isilon, Avamar, Data Domain, NetWorker, RecoverPoint and VPLEX options), Cisco (including mixing Cisco USC B-Series and C-Series servers, Cisco Nexus LAN and MDS SAN switches), and VMware (including vRealize, vSphere, NSX and vCenter).

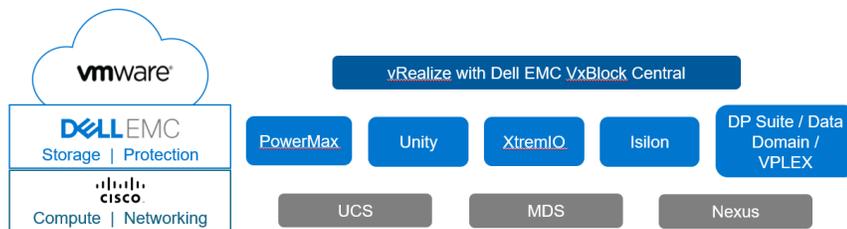
Using the Logical Configuration Survey (LCS) to customize integration and deployment options, all system elements are pre-integrated, pre-configured, and then tested and validated before shipping. Turnkey integration allows you to operate and manage your system as a single engineered product, rather 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.

WITH LEADING ALL-FLASH STORAGE

Unity
General-purpose workloads
Unified file & block
Proven reliability
Scale-up / dual active SP

XtremIO
Enterprise workloads
Purpose-built all flash
Consistent perf.
Scale-up and scale-out

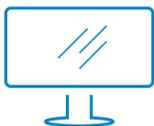
PowerMax
Tradition and modern workloads
Highest availability
Built-in ML/AI
Best perf. w/NVMe

VMAX
Mission-critical workloads
Gold standard availability
Rich data services
Scale-up and scale-out

Isilon
Big-data & analytic workloads
All flash, hybrid, archival
Linear scale
Scale-out NAS

VxBlock System 1000 support specification summary

Component	Details
COMPUTE (Note: mixing blade servers and rack servers in one system is supported)	Chassis: Cisco UCS 5108 Cisco UCS B-Series blade servers: B200 M5, B480 M5 Cisco UCS C-Series rack servers: C220 M5, C240 M5, C480 M5 Cisco Fabric Extenders (FEX): Cisco UCS 2304 XP, Nexus 2348 UPQ Cisco Fabric Interconnect (FI): Cisco UCS 6454, 6332-16UP Cisco UCS Virtual Interface Card (VIC): 1225, 1227, 1340, 1380, 1385, 1387
MAXIMUM NUMBER OF SERVERS PER SYSTEM	Cisco chassis: 50 Cisco blade servers: up to 500 Cisco rack mount servers: up to 1,120
NETWORKING	LAN: Cisco Nexus 9336C-FX2 SAN: Cisco MDS 9148S, 9396S, 9706, 9710 (16G) Management connectivity: Cisco Nexus 31108TC-V, Nexus 3232C
STORAGE (Note: mixing multiple storage types in one system is supported)	Dell EMC Storage 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
VIRTUALIZATION	VMware: Vsphere Enterprise Plus (includes VDS), NSX, ESXi, vCenter Server Note: Bare metal deployments are also supported
DATA PROTECTION	Integrated Backup, Integrated Replication, Integrated Business Continuity Dell EMC: Avamar, NetWorker, Data Protection Search, Data Protection Advisor, Data Protection Central, CloudBoost, RecoverPoint and RP4VM, Data Domain, VPLEX VMware: Site Recovery Manager
SYSTEM MANAGEMENT	Compute: AMP-VX for multi-system management includes 4 to 8 rack servers, VMware vSAN and vRealize Log Insight, and Avamar Virtual Edition that is integrated with Data Domain 6300 for protection of the AMP-VX AMP-3S for single system management support only, includes 2 to 6 blade servers and a Dell EMC Unity hybrid storage array Software: Dell EMC VxBlock Central software, Unisphere, InsightIQ (Isilon), Secure Remote Services (SRS) and PowerPath. Cisco Data Center Network Manager (DCNM) for LAN and SAN and Cisco UCS Manager,
CABINET	Intelligent Physical Cabinet Solution from Dell EMC



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