DELL EMC

DATA SHEET

Modern Data Center Architecture

Seamlessly Scalable

Seamlessly scales your IT infrastructure across systems and locations to support digital transformation of your business.

Agile

Makes elastic resources available to meet dynamically changing workload demands and evolving capacity requirements.

Economical

Maximizes resource utilization and cost-effective use of shared resources, while simplifying operations.

Real-World Deployment Outcomes

Continuous Optimization: Workloads able to always use the most cost-effective technologies and freely move between compute and storage types and virtualized and container paradigms.

Policy-Driven IT: Network, compute, and storage teams are able to define guardrails and classes while not making them the bottleneck to business agility. Retroactively monitor effectiveness and optimize behind the scenes.

Return on Investment: More cost-effective use and management of IT assets through resource-sharing.

Incremental Scalability: Add links, switches, increase speed of links as needed without a big initial investment.

Easier Refresh Cycles: Compute, storage, network, and virtualization technologies refreshed in modular increments with less effort, while assuring interoperability.

DELL EMC VSCALE ARCHITECTURE

MODERN DATA CENTER ARCHITECTURE FOR DYNAMICALLY CHANGING WORKLOAD DEMAND AND DIGITAL TRANSFORMATION

Dell EMC Vscale Architecture is a modular, pre-engineered architecture for modern, scalable, and flexible data centers to meet evolving workload demands and support digital transformation of businesses.

It combines the market-leading Dell EMC portfolio of converged infrastructure systems with pools of compute, storage, and data protection resources; a common network fabric; a common layer of management software; and a path for further data center transformation through integration with existing legacy IT investments.

The architecture enables the most flexible and optimal way to scale out modern data centers and share resources across multiple converged systems, including systems across distributed sites:

- Providing a standardized, high-performance network fabric
- Converting islands of converged systems into a highly leveraged pool of resources
- Serving up shared compute, storage, and data protection resources
- Allowing third-party legacy systems to integrate with converged system resources

EXTENDING THE VALUE OF CONVERGENCE TO DATA CENTER SCALE-OUT

Dell EMC offers well-documented IT operational and business advantages of buying versus building infrastructure by providing compute, storage, and network technologies that are engineered, manufactured, managed, supported, and sustained together as one product.

Customers of Dell EMC converged infrastructure transform IT and their businesses quickly with phenomenal results: Deploying 4.6 more applications, introducing new services to market 4.4 times faster, reducing downtime by 96 percent, and saving 41 percent in IT operations.[1]

The Vscale Architecture extends the scope and value of a single converged infrastructure system (engineered, manufactured, managed, supported, and sustained as one product) to the entire data center comprised of multiple converged systems and to systems distributed across multiple data centers:

- Engineering and manufacturing all systems and the network fabric according to a common standard that assures interoperability across shared resources
- Managing all systems through a common layer of monitoring software and common provisioning/configuration tools
- Supporting all systems, including the network fabric, through a single call
- Sustaining all systems through scheduled firmware and hypervisor release upgrades, pre-tested/pre-validated for interoperability across shared resources

[1]Source: IDC doc#255798, The Business Value of Dell EMC Vblock Systems, May 2015

Architectural Components

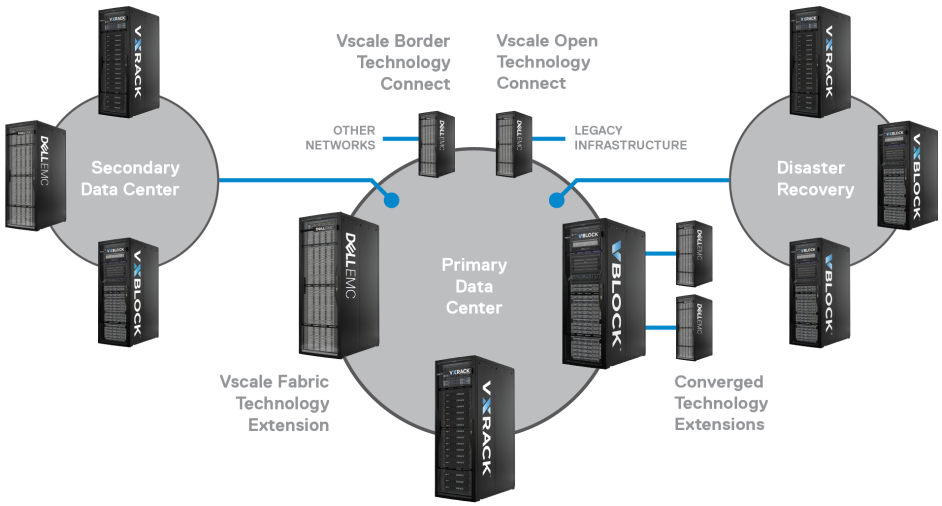
- Dell EMC Converged and Hyper-Converged Systems: Vblock Systems, VxBlock Systems, VxRack Systems, and associated Dell EMC Converged Technology Extensions for compute, and storage.
- Dell EMC Vscale Fabric: A scalable, Cisco network fabric that connects multiple Dell EMC systems and modular components to create a shared pool of resources: Contains either a spine-leaf LAN and/or core-edge SAN fabric.
- Dell EMC Vscale Fabric Technology Extensions: Compute, storage, and data protection resources that are connected to the Vscale Fabric as shared resources.
- Dell EMC Vscale Border Technology Connect: Provides defined points of entry between the Vscale Fabric and enterprise security zones.
- Dell EMC Vscale Open Technology Connect: Provides a defined point to connect Vscale network services and legacy, third-party systems to the fabric.
- Dell EMC Vision Intelligent Operations: Software tool for converged infrastructure health and life cycle management (including Release Certification Matrix Management and Security Management).
- Common Automation: Cisco UCS Director, Dell EMC ViPR, and Cisco ACI. Compatible with VMware NSX and VMware Virtual SAN and Dell EMC ScaleIO.

MODERN DATA CENTER ARCHITECTURE DELIVERS VALUE TO STAKEHOLDERS ACROSS THE ENTERPRISE

- CEOs: Gives you best path to evolve IT so you can digitally transform your business for top-line growth while saving operational costs that you can directly apply to the bottom line – or reinvest savings into IT for further advantage.
- CFO: Enables data center modernization, growth, and operations in the most cost-effective way – plus resource-sharing that maximizes the utilization and return on existing and new investments.
- Line of Business Owners: Provides the availability, performance, and capacity elasticity to assure that service delivery meets your goals and customer expectations.
- CTOs/VPs of Infrastructure and Operations: Provides a policy-based, flexible, and simple operational model that enables you to continually optimize delivery of your current mission-critical workloads and free up capacity to support your business' further digital transformation.
- Operations Staff/System Administrators: Provides a pre-engineered solution with standardized tooling that enables you to execute your day-to-day tasks with confidence and count on single-call support and a single-source for pre-validated release upgrades.

Vscale Architecture

The gold standard architecture for modern data centers extends the scope and value of an individual Dell EMC engineered converged infrastructure system to Dell EMC multi-system, multi-data center environments.



Common network fabric and set of monitoring, provisioning, and configuration tools.

ABOUT DELL EMC

As a member of the Dell Technologies unique family of businesses, Dell EMC serves a key role in providing the essential infrastructure for organizations to build their digital future, transform IT and protect their most important asset, information. Dell EMC enables our enterprise customers' IT and digital business transformation through trusted hybrid cloud and big-data solutions, built upon a modern data center infrastructure that incorporates industry-leading converged infrastructure, servers, storage, and cybersecurity technologies.

For more information, go to dellemc.com/ci.

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