

# Converged IT tailored today for a future fit.

More than unifying servers, storage and networking, a converged solution should be designed with your business challenges in mind. Tailored for your workloads, Dell has one of the most complete converged portfolios—from integrated infrastructure and reference architectures to purpose-built appliances and hyper-converged solutions—ready to tackle your toughest challenges.

## Choose your challenge:

- 1 Simplifying complex architectures ›
- 2 Accelerating applications affordably ›
- 3 Delivering IT services faster ›
- 4 Bringing big office IT to the small office ›
- 5 Setting a software-defined strategy ›

# The challenge: Simplifying complex architectures

## The solution PowerEdge FX: Workload-defined infrastructure, converged

Precisely tailor, quickly deploy and easily manage your infrastructure with the most processing power per rack of any other platform.



See more architecture simplification solutions:

[XC Series](#)

[VRTX](#)

### Typical workloads



Virtualization +



Hosting



SDDC



**Define a path to software-defined**  
Move storage closer to compute to accelerate applications and redefine density.

**Precisely tailor workload performance**  
A modular approach lets you tailor resources to meet specific requirements.

**More workloads, less space**  
Get an entire data center in a single 2U chassis, efficiently integrating shared power, cooling and management.

Up to  
**50%**

more available server side storage<sup>1</sup>

Up to  
**100%**

more processing power per rack<sup>2</sup>

Up to  
**8x**

reduction in networking cables<sup>3</sup>

# The challenge: Accelerating applications affordably

## The solution PowerEdge m1000e: Converged Blade Data Center

Cutting-edge app performance and efficiency

“We continue to rapidly scale our platform ... I see the Dell Converged Blade Data Center as a great way to support that expansion.”

**Phil Dalbeck**

Infrastructure Architect,  
Skyscanner

Learn about more application acceleration solutions:

FX

XC Series

EVO:RAIL

VRTX

### Typical workloads



Oracle



SQL



SAP



#### Streamline management

Manage multiple enclosures and blades from a single console.

#### Reduce power and cooling

Energy Smart thermal design efficiently cools the chassis and enables better performance in a lower power envelope.

#### Accelerate applications

Fully modular 10U blade enclosure features up to 8 full-height, 16 half-height or 32 quarter height PowerEdge blade servers, storage, networking and management.

# 220%

increase in servers  
per U vs. previous generation

Complex architectures

App acceleration

Deliver faster

ROBO

Software-defined

Why Dell

# The challenge: Delivering IT services faster

## The solution Dell Engineered Solutions for EVO:RAIL From virtual to value in minutes

Deploy virtual machines and desktops in minutes.

**View solutions brief >**

Links to other rapid time to value solutions:

[XC Series](#)

[VRTX](#)

## Typical workloads



Virtualization



VDI

### Deliver IT services faster

Plug and play solution includes a Dell 2U/4 node server platform and VMware virtualization software.



### Optimize virtualized workloads

Pre-validated configuration integrates into existing environments without disruption, while maximizing performance and flexibility.

### Scale rapidly

Add additional appliances in minutes, investing only when you need.

Deploy VMs in just

**15 mins**

from power on with Dell Engineered Solutions for VMware EVO:RAIL.

Support up to

**250**

Horizon View desktops per appliance.<sup>1</sup>

Run up to

**100**

VMs per VMware EVO:RAIL appliance.<sup>2</sup>

[Complex architectures](#)

[App acceleration](#)

[Deliver faster](#)

[ROBO](#)

[Software-defined](#)

[Why Dell](#)

## The challenge:

Bringing big office IT to the small office

## The solution

### PowerEdge VRTX: Data center performance at your desk side

Simplicity, efficiency and versatility for ROBO and small office IT with PowerEdge VRTX

"We can effectively control hardware growth and cut TCO by 20 percent with the Dell PowerEdge VRTX."

Fang Rui

Professor, Chengdu University of Information Technology

Links to other application anywhere solutions:

EVO:RAIL

## Typical workloads



Exchange



CRM



ERP

### Right-size for your office

Up to four blade server nodes, 48TB of internal storage and a built-in network connection

### Manage across the enterprise

Consistent management features between VRTX and your data center



### Redefine office IT

Office power profile and desktide acoustics help VRTX fit in anywhere.

### Realize faster time to value

An integrated, pre-tested and certified solution while reducing CapEx and OpEx

InfoWorld

2014

Technology of the Year Award winner

PC Pro

2013

Server of the Year

CRN

2013

Product of the Year award winner

Complex architectures

App acceleration

Deliver faster

ROBO

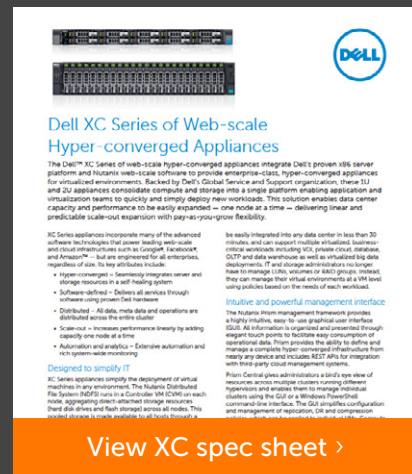
Software-defined

Why Dell

# The challenge: Setting a software-defined strategy

## The solution Dell XC Series: Designed for the software-defined data center

Hyper-converged, highly scalable compute and storage solutions for software-defined workloads



**Dell XC Series of Web-scale Hyper-converged Appliances**

The Dell™ XC Series of web-scale hyper-converged appliances integrate Dell's proven x86 server platform and Hyperic web-scale software to provide enterprise-class, hyper-converged appliances for virtualized environments. Backed by Dell's Global Service and Support organizations, these 1U and 2U appliances consolidate compute and storage into a single platform enabling applications and virtualization teams to quickly and simply deploy new workloads. This solution enables data center capacity and performance to be easily expanded—one node at a time—ensuring linear and predictable scale-out expansion with pay-as-you-grow flexibility.

XC Series appliances incorporate many of the advanced software technologies that power leading web-scale and cloud infrastructures such as Google, Facebook, and Amazon™. All are engineered for all enterprises, regardless of size. Key attributes include:

- Hyper-converged - Combining compute, storage and storage resources in a self-healing system.
- Software-defined - Delivers all services through software using OpenStack hardware.
- Distributed - All data, meta data and operations are distributed across the entire cluster.
- Scale-out - Increases performance linearly by adding capacity one node at a time.
- Automation and analytics - Extensive automation and rich system-wide monitoring.

**Designed to simplify IT**

XC Series appliances simplify the deployment of virtual machines in an environment. The Nutanix Distributed File System (DFS) runs in a Controller VM (CVM) on each node, aggregating and virtualizing storage across shared disk drives and flash storage across all nodes. This model allows for scale-out to be enabled by all nodes through a

be easily integrated into any data center in less than 30 minutes and can support multiple virtualized business-critical workloads including VDI, private cloud, database, CRM and data warehouse as well as virtualized file share deployments. IT and storage administrators no longer have to manage LUNs, volumes or RAID groups. Instead, they can manage their virtual environments at a VM level using policies based on the needs of each workload.

**Intuitive and powerful management interface**

The Nutanix Prism management framework provides a highly intuitive, easy-to-use graphical user interface (GUI). All information is organized and presented through expert-built panels to facilitate easy consumption of operational data. Prism provides the ability to define and manage a complete hyper-converged infrastructure from many any device and includes REST APIs for integration with third-party cloud management systems.

**Prism Central gives administrators a birds-eye view of resources across multiple clusters, ensuring efficient operations and enables them to manage individual clusters using the GUI or a Windows-based Command-Line Interface. The GUI facilitates configuration and management of replication, DR and compression controls across multiple clusters.**

[View XC spec sheet >](#)

## Typical workloads



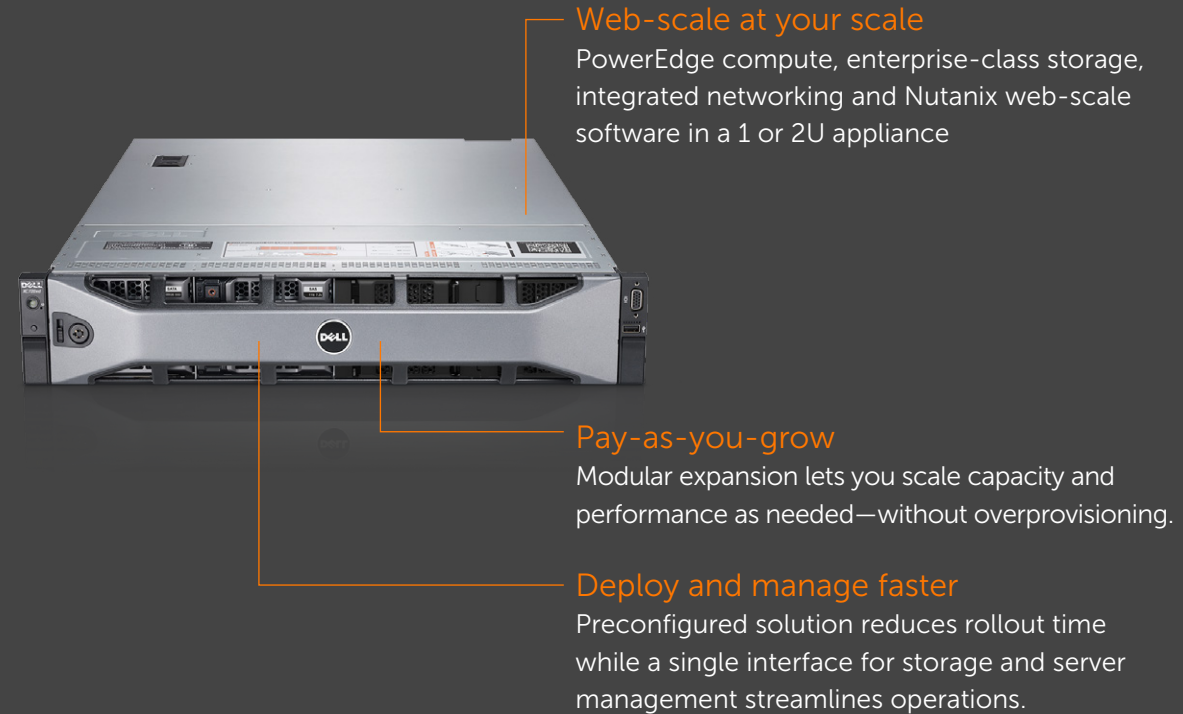
VDI



Private cloud



Big data



**Web-scale at your scale**  
PowerEdge compute, enterprise-class storage, integrated networking and Nutanix web-scale software in a 1 or 2U appliance

**Pay-as-you-grow**  
Modular expansion lets you scale capacity and performance as needed—without overprovisioning.

**Deploy and manage faster**  
Preconfigured solution reduces rollout time while a single interface for storage and server management streamlines operations.

Start your software-defined data center in less than

# 30 mins.<sup>1</sup>

Links to other software-defined solutions:

PowerEdge FX

EVO:RAIL

Complex architectures

App acceleration

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Software-defined

Why Dell



# More than unified, IT converged.



Dell offers one of the few converged solutions that deliver a single, virtualized layer of compute and storage. This compute-optimized approach fast tracks your software-defined data center.

Get IT together at  
[Dell.com/convergedsolutions](https://Dell.com/convergedsolutions)

## With Dell Converged Solutions, you can:

Lower costs as you run more workloads in less space with the modular, flexible PowerEdge FX Architecture.

Roll out IT services faster with application-specific reference architectures and purpose-built appliances.

Streamline operations as you manage traditional and new IT as one with a highly intuitive user interface and template-driven orchestration.

# Sources

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## PAGE 2:

<sup>1</sup>Based on October 2014 Dell internal analysis of Dell's FX2 and Dell's C6220-II comparing the maximum capacity of 1.8" and 2.5" form factor server side storage supported by each platform.

<sup>2</sup>Based on October 2014 Dell analysis comparing the aggregate SPECint processing capability of Dell's FX2 with Dell's M1000e with Intel E5-2600v3 processors supported in a standard EIA server rack.

<sup>3</sup>Based on October 2014 Dell internal analysis of Dell's FX2 and Dell's PowerEdge Rack servers comparing the number of networking cables required per server.

## PAGE 4:

<sup>1</sup>Horizon View virtual desktop profile: 2vCPU, 2GB vMEM, 32GB vDisk lined clones. Actual capacity will vary with desktop size and workload.

<sup>2</sup>General purpose server VM profile: 2vCPU, 4GB vMEM, 60GB vDisk, with redundancy. Actual capacity will vary with VM size and workload.

## PAGE 6:

<sup>1</sup>Based on internal Nutanix testing, September 2014.