

Modular is future ready

Optimise workloads with
modular infrastructure
solutions from Dell and Intel®



Is your infrastructure agile enough to quickly support new workloads and applications?

Did you know ... ?

You can protect your investments for the long term with modular infrastructure solutions. That's because platforms such as the Dell PowerEdge FX2, the PowerEdge M1000e blade enclosure and the PowerEdge VRTX are designed to work with a variety of hardware, software, virtualisation and management technologies.

Accelerate IT and be ready for the software-defined era with modular infrastructure solutions that are easy to scale. You choose the foundation: a Dell PowerEdge FX2 chassis, a Dell PowerEdge M1000e blade enclosure or a Dell PowerEdge VRTX platform. Then expand your solution as needed with networking and storage options – as well as servers powered by the latest Intel® Xeon® processors.

Simplify management with your choice of embedded tools. All modular foundations include the Chassis Management Controller for intra-chassis and multi-chassis management. You can also use the Integrated Dell Remote Access Controller (iDRAC) with Lifecycle Controller for direct server management.

Want to learn more? On the following pages, see how organisations have implemented modular infrastructure solutions from Dell to increase business agility and save money.

You too can realise:

Faster Time to Value

Deliver the applications that your users require in less time by choosing the right foundation for your workload: a flexible modular solution, an application-specific reference architecture or a preconfigured hyper-converged solution.

Take advantage of point-and-click wizards, customisable templates and end-to-end support.



Lower TCO

Unify and automate the management of heterogeneous resources with integrated, easy-to-use tools. Boost density with smaller, modular server components.

Reduce cabling while speeding east-west network traffic by converging server, storage and networking technologies into less complex architectures. Plus, cut energy usage by sharing power and cooling.



Greater Flexibility

Stay agile and meet evolving business objectives with standards-based solutions that quickly scale.

Whether you're operating a global enterprise or a small or midsize company, adjust your solution to deliver the compute, storage and network performance needed to accelerate traditional and software-defined workloads for remote sites and mobile workers.



Find out how you can be ready for what's next with modular infrastructure solutions from Dell and Intel®. [Learn more.](#)

Entering the next level of entertainment

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Complete Dell Modular Solution

- Dell PowerEdge FX2 chassis with FC630 server nodes powered by the Intel® Xeon® processor E5 family
- Dell Precision T7810 workstations
- Dell Services

Company profile

Company	Rising Sun Pictures
Industry	Arts, Entertainment & Media
Country	Australia
Employees	150
Website	www.rsp.com.au

With modular IT, be ready ... to improve visual effects

Rising Sun Pictures (RSP) is a leading developer of digital effects (VFX). One of the films it recently worked on won an Academy Award. To support growth and stay competitive, RSP needed a future-ready infrastructure that gave artists real-time rendering capabilities and the flexibility to use any emerging VFX tool.

To achieve the fastest performance it can afford, RSP deployed a modular solution based on 10 Dell PowerEdge FX2 chassis and 40 Dell PowerEdge FC630 servers with Intel® Xeon® processors. The solution saves money by increasing IT scalability, density and stability, decreases heat generated by servers and facilitates remote server management with iDRAC. Artists also accomplish more by using Dell Precision T7810 workstations, and IT staff save time with Dell support services.

"We gained the power and energy efficiency we needed while protecting future growth. The Dell PowerEdge FX2 ... was a great fit."



Facilitates the most **lifelike effects** possible



Increases competitiveness today and into the future



Provides a faster **platform for innovation**



Saves time for IT staff



Cuts cooling costs and minimises risk

View the full Rising Sun Pictures case study [here](#)

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Personalised advertising in the blink of an eye



Complete Dell Modular Solution

- Dell PowerEdge FX2 chassis with FC630 server nodes powered by the Intel® Xeon® processor E5-2600 product family
- Dell FN410T IO Aggregators
- Dell Services

Company profile

Company	Tapad
Industry	Advertising & Marketing
Country	United States
Employees	160
Website	www.tapad.com

With modular IT, be ready ... to transform real-time internet advertising

Digital advertising innovator Tapad needed a more future-ready infrastructure to keep pace with growth. Its global staff had tripled in three years, big data was growing by terabytes daily and it operated three global data centres.

To boost efficiency and agility, Tapad replaced its physical servers and storage with a modular, warehouse-scale model that's modular and easy to expand. Virtual servers and a software-defined storage solution now run on Dell PowerEdge FC630 blade servers with Intel® Xeon® processors, enclosed in Dell PowerEdge FX2 chassis. Two Dell FN410T IO Aggregators connect each FX2 chassis to the network, halving the number of IO adapters needed for each rack. Engineers use iDRAC to manage the solution and rely on Dell Services for global support.

"We look forward to helping shape where the industry is going by choosing technologies like the Dell PowerEdge FX architecture."



Boosts customers' ROI with **millisecond insight** into billions of data objects



Accelerates responsiveness to client requests



Increases efficiency of IT staff and developers

2.5X

Supports future growth with **2.5X faster network performance**



Doubles IT density, saving power, space and money

View the full Tapad case study [here](#)

A great destination for efficient, modular IT

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Complete Dell Modular solution

- Dell PowerEdge M1000e blade enclosure with Dell PowerEdge M630 blade servers powered by Intel® Xeon® processors, Dell Storage PS-M4110 blade arrays and Dell Networking M6348 blade switches
- Dell Networking N4032F switches
- Dell Wyse 5000 and 5010 clients
- Dell Wyse ThinOS
- Dell Wyse Device Manager
- Dell OpenManage Network Manager
- Dell Services

Company profile

Company	The Marmara Collection
Industry	Travel, Hospitality & Tourism
Country	Turkey
Website	themarmarahotels.com

With modular IT, be ready ... to add hotel clientele

The Marmara Collection operates a leading, upscale hotel chain. With fierce competition intensified by internet deals, the organisation needed to launch new services quicker. To do so, it cut complexity and costs with a Dell modular platform and virtual desktop infrastructure.

Today, each hotel runs applications on a Dell M1000e enclosure featuring Dell PowerEdge M630 servers with Intel® Xeon® processors and Dell Storage PS-M4110 blade arrays. A Dell Networking M6348 blade switch speeds performance by connecting components with 10GbE, and a Dell Networking N4032F switch joins each chassis to iSCSI storage. To further boost efficiency, IT staff manage the solution with the Dell OpenManage Network Manager, employees use Dell Wyse clients and Dell resolves any IT issues within four hours.

"We identified the Dell Modular solution as the right one to enable continued IT innovation."



Transforms agility and **lowers TCO by 60%**



Boosts efficiency by 25% so IT staff can focus on development



Increases customers and competitiveness with innovative services



Improves application performance while cutting power usage by **60%** and IT footprint by **40%**

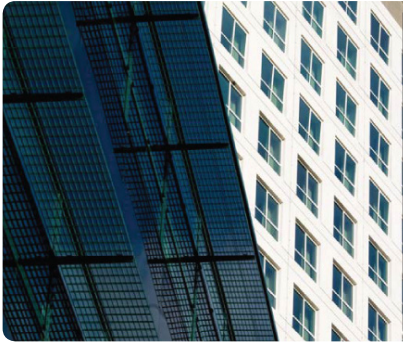


Simplifies growth with a modular platform

View the full Marmara Collection case study [here](#)

An IT solution that's open for success

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Complete Dell Modular solution

- Dell PowerEdge M1000e blade enclosure with Dell EqualLogic PS-M4110 storage arrays, Dell Networking MXL switches and Dell PowerEdge M620 blade servers powered by Intel® Xeon® processors
- Dell PowerEdge R620 rack servers with Intel Xeon processors
- Dell EqualLogic PS6110E array
- Dell Networking S55 switches
- Dell SonicWALL NSA 220 and TZ205 firewalls
- Dell AppAssure
- Dell Services

Company profile

Company Nspyre
Industry Technology
Country The Netherlands
Employees 650
Website www.nspyre.nl

With modular IT, be ready ... to innovate automation

International engineering firm Nspyre needed a faster, more flexible platform to develop custom technology solutions for clients, so it engaged Dell for IT, deployment services and global support.

To transform scalability, density and performance, Nspyre now has a Dell M1000e chassis with Dell EqualLogic PS-M4110 storage, Dell Networking MXL switches and Dell PowerEdge M620 servers with Intel® Xeon® processors. An EqualLogic PS6110E array connected via two Dell S55 top-of-rack switches provides extra storage. Servers that are virtualised with Microsoft Hyper-V connect to the wide area network with Dell Networking 7048 switches. All networks, which now deliver 10GbE, are protected by Dell SonicWALL NSA 220 and TZ205 firewalls. In addition, Dell AppAssure speeds backup and restore processes.

"We have a very flexible Dell platform built on open standards, which we can develop. It's a platform for growth."



Halves TCO and rack space



Boosts agility with **future-ready platform**



Improves user experience and productivity with **300% faster performance**



Supports growth with **10 times more storage**



Saves IT staff time and reduces risk

View the full Nspyre case study [here](#)

Sparking creativity and preparing students for tomorrow

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Complete Dell Modular solution

- Dell PowerEdge FX2 chassis with FC630 servers powered by Intel® Xeon® processors
- Dell PowerEdge VRTX platform with M630 blade servers powered by Intel Xeon processors
- Dell Storage SC4020 array
- Dell Networking N4032F switches
- Dell OptiPlex 3020 all-in-one desktops

Company profile

Company	Clayton Public Schools
Industry	Education
Country	United States
Website	www.claytonps.org

With modular IT, be ready ... to improve student engagement

Clayton Public Schools needed a faster, more flexible IT infrastructure to support new digital tools and projects as well as reduce the time teachers and students waited for applications.

The district migrated all its VMware virtual servers to a Dell PowerEdge FX2 chassis with three Dell PowerEdge FC630 servers, and it used a Dell PowerEdge VRTX shared infrastructure platform with two Dell PowerEdge M630 blade servers to deliver a compact IT platform for the elementary school. All servers feature Intel® Xeon® processors. A Dell Storage SC4020 array, connected to the FX platform by 10GbE Dell Networking N4032F switches, provides faster hybrid-flash storage for videos, streaming and multimedia projects. Students can access the faster digital tools using 100 Dell OptiPlex 3020 desktops.

"I'm seeing a 50 per cent time saving on IT administration because of our consolidated environment ... we get with the Dell technologies."

10X

Teachers log in to systems **10 times faster**



Students stay engaged and accomplish more with faster applications



Doubles storage capacity and supports a districtwide video library



Frees up 10U of rack space for future requirements



Virtual server provisioning **takes seconds, not 30 minutes**

View the full Clayton Public Schools case study [here](#)

The Internet of Things optimises factory floor operations

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Complete Dell Modular solution

- Dell PowerEdge VRTX platform with Dell PowerEdge M820 server nodes powered by the Intel® Xeon® processor E5-4600 product family
- Intel IoT Gateway
- Cloudera Enterprise Data Hub Edition
- Fusionex GIANT and Revolution R Enterprise big data analytics software

Company profile

Company	Intel Corporation
Industry	Technology
Country	Malaysia
Employees	9,000+
Website	www.intel.com

With modular IT, be ready ... to transform manufacturing efficiency

Intel wanted to increase insight into manufacturing processes, for itself and for customers, by creating a cloud solution that can store and analyse disparate data from factory-floor devices collected by its Internet of Things (IoT) Gateways.

To accelerate deployment and reduce costs, Intel built a highly flexible cloud solution on the Dell VRTX platform because it's small enough to run in an office using standard power and yet it's powerful enough to analyse hundreds of gigabytes of data in real time. The VRTX includes two Dell PowerEdge M820 blade servers with Intel® Xeon® processors. One node stores any kind of data with Cloudera Enterprise Data Hub Edition; the other analyses that data using a business intelligence solution based on Revolution R Enterprise and Fusionex GIANT.

"The Dell PowerEdge VRTX platform featuring Intel® Xeon® processors met all the requirements from within a single chassis."



Saves **millions of dollars** at just one factory site



Reduces manufacturing yield losses by up to **50%**



Halves equipment maintenance time with greater insight



Detects and classifies faulty parts **10 times faster**



Cuts spare parts costs by **20%**

View the full Intel Corporation case study [here](#)

With modular infrastructure solutions from Dell and Intel®, you get the flexibility needed to speed deployment, simplify management and accelerate the performance of traditional applications as well as software-defined and IoT workloads. What does this mean for you?

Chief Technology Officer

- Improve competitiveness by giving employees faster applications and data access
- Support the rapid growth of data and endpoints with modular, on-demand scalability
- Keep control by choosing the network, storage and servers that best meet your needs
- Facilitate the delivery of new initiatives with an extremely dense and flexible foundation
- Ensure business continuity with a solution designed for high availability
- Boost agility by managing virtual and physical components via one console



IT Manager

- Deploy servers and storage faster with pre-provisioned power, I/O and cabling
- Accelerate staff efficiency with a unified management console that's easy to use
- Improve service levels with virtualisation and faster east-west network traffic
- Reduce complexity by converging LANs and SANs
- Minimise latency with improved I/O performance via internal and external storage options
- Offload tasks, cut risk and simplify support for multivendor environments with Dell Services



Chief Financial Officer

- Reduce TCO with an infrastructure that requires less management and space
- Avoid forklift replacements and underutilised IT by purchasing only what you need today
- Boost ROI with pre-integrated solutions that can work with existing and future investments
- Lower risk because configurations have already been tested and certified
- Save energy with IT that delivers more performance per watt
- Simplify compliance with built-in security features



[Learn more about how you can modernise your IT with Dell and Intel® today.](#)

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