

Dell's Service Strategy for the Enterprise

By Tony McLaughlin and April M. Berman

Dell offers its enterprise customers an extensive selection of consulting, installation, and support services to maximize the effectiveness of their systems. This article details the various types of services available for Dell® PowerEdge®, PowerApp®, PowerVault®, and Dell EMC products.

Since Dell began designing products for the enterprise, it has developed a wide range of workstation, server, and storage products to meet the needs of each customer, from large-scale enterprise environments to small businesses. Similarly, Dell offers extensive service options for enterprise customers:

- ▶▶ Consulting services that identify equipment requirements based on needs and environment
- ▶▶ Installation services that install products ranging from large, complex storage area networks (SANs) to stand-alone servers
- ▶▶ Support services that can provide high-availability services, access to dedicated technical support staff, or software support
- ▶▶ Warranty services that range from two-hour to next-business-day response

These service options provide customers with a comprehensive support strategy for their enterprise infrastructure.

Plan ahead with consulting services

Before complex products are installed, technical consulting ensures that unforeseen environment or product issues are identified and responses are prepared. The Dell® Technology Consulting Group offers several consulting services, including infrastructure planning, design, migration, and integration services. Services to assist with fine-tuning applications and architecture are also available for existing environments.

Two particular consulting services are Proof of Concept and Knowledge Transfer. Proof of Concept services use facilities at the Dell Technology Solution Centers (DTSC). The facilities are located in Texas, New Jersey, and partner labs within the U.S. The labs can be used to emulate a specific network environment and perform secure and comprehensive testing that would otherwise disrupt a production network. Proof of Concept services include validation testing, performance tuning, saturation/capacity testing, scalability testing, and transaction cost analysis. For more information on DTSC locations and services see <http://www.dell.com>.

Knowledge Transfer training programs help customers increase their understanding of Dell-based enterprise environments. Classes, which can be taken on-site at the customer location or at the Dell education centers (in Texas and New Jersey), cover the following topics:

- ▶▶ Dell EMC Architectural Overview
- ▶▶ Dell EMC FC4700 Training
- ▶▶ Dell EMC IP4700 Training
- ▶▶ Dell PowerVault® 136T LTO™ Tape Library Training
- ▶▶ Microsoft® Cluster Training
- ▶▶ Dell PowerEdge®, PowerVault, or PowerApp® Training
- ▶▶ SAN Training
- ▶▶ SAN and Microsoft SQL Server 2000 Training
- ▶▶ Systems Management Training

Modular installation services to meet each customer's need

The Dell installation services are modular to allow customized installations that meet specific equipment and environment needs. All installation services include unpacking the product, conducting an internal quality inspection, and removing packing material to an area within the installation site designated by the customer. Additional features depend on the particular service a customer purchases. More information on these services can be found at <http://www.dell.com>.

Rack installation and mounting

For data center environments or for any environment that requires rack implementation, Dell offers services to install Dell racks and mount the equipment. These services can be used in addition to other PowerEdge/PowerApp/PowerVault installation services. Rack installation services include:

- ▶▶ **PowerEdge rack installation.** Install all safety and stabilizing equipment plus position power distribution units (PDUs), uninterruptible power supplies (UPSs), switch boxes, monitors, and keyboards within the rack
- ▶▶ **Server and storage rack mounting.** Mount one PowerEdge, PowerVault, or Dell EMC product into a pre-assembled Dell rack

PowerEdge/PowerApp installation

Dell has enhanced the factory-installed software process by providing PowerEdge/PowerApp installation services, which include unpacking and inspecting the product as well as mounting the system into a pre-assembled Dell rack (installation of the Dell rack is a separate service).

PowerEdge/PowerApp installation services can then install PowerEdge servers and network operating systems (NOS).

Supported NOS include Microsoft Windows NT®, Microsoft Windows® 2000 Server/Advanced Server, and Novell® NetWare®. NOS installation is also available for customers with existing on-site hardware or for those who have purchased new Dell equipment without factory-installed NOS.

Basic server setup is available for the PowerEdge or PowerApp, the PowerApp or PowerEdge Novell Internet Caching System (ICS), and both basic and advanced PowerApp.BIG-IP. Customers also can receive a Pre-Installation Site Audit to ensure that the proposed installation site has met all environmental and technical prerequisites.

Cluster systems installation

Customers can order cluster installation services for Dell-supported systems that are already on-site or for new systems installed in conjunction with the PowerEdge installation services detailed earlier. Cluster installation services can install Fibre Channel clusters, Emulex® cLAN™ switches, and SCSI cluster kits. Fibre Channel and SCSI cluster installations may include NOS installation (Windows NT Standard Edition or Windows 2000 Advanced Server, in addition to Microsoft Cluster Server).

High-availability installation

For today's mission-critical environments that demand maximum uptime, Dell offers a 99.9% System Availability Guarantee Program. This high-availability (HA) program contains an integrated set of products, services, tools, and processes to increase system availability.¹

Dell provides planning, installation, and monitoring services to support this availability guarantee program. To evaluate equipment and site readiness, Dell analysts perform the HA Implementation Planning and Readiness Review. This evaluation and planning occurs prior to the HA Systems Installation during which Dell engineers install the actual hardware (Fibre Channel cluster) supported by the 99.9% System Availability Guarantee. The HA program also offers installation of HA Remote Monitoring Station and HA Remote Monitoring Agent software.

PowerVault installation

Dell PowerVault products include stand-alone products such as Fibre Channel and SCSI disk enclosures, network-attached storage (NAS) products, tape libraries, and autoloaders as well as complex solutions such as clusters, SAN appliances, and the various management software necessary to tie them together.

PowerVault installation services ensure a smooth implementation of many discrete components into a workable system. All PowerVault installation services include component unpacking, quality inspection, interconnection with the host system, and positioning of the product into a pre-assembled Dell rack.

Dell EMC storage installation

The Dell partnership with EMC now allows customers to implement storage enclosures and SANs based on EMC® storage products. Deployment by Dell of Dell|EMC products is a required

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¹ To be eligible for the Dell 99.9% System Availability Guarantee, certain restrictions may apply. See <http://www.dell.com> for more information.

service and is accomplished in a two-phased approach. The first phase is hardware installation, which includes unpacking the Dell|EMC hardware, assembling the selected rack components, mounting the systems in Dell-supported racks, and validating proper power-up of all Dell|EMC equipment.

The second phase of deployment is SAN implementation, which includes system planning, documentation that outlines the storage system design, SAN cabling, switch configuration, management software installation, host connectivity, storage group creation, and an orientation session detailing the solution. Extensive custom options are also available during this phase.

Optional installation services include EMC SnapView™ Implementation, which will install and configure SnapView on two hosts attached to a maximum of two Dell|EMC FC4700 arrays; and EMC MirrorView™ Implementation, which will install and configure MirrorView to operate on two host servers that are attached to a maximum of two Dell|EMC FC4700 arrays. These services also include product demonstrations and Knowledge Transfer training.

Fibre Channel, SAN, and NAS installation

Dell offers a wide range of installation services for NAS- and fiber-based products. Installation services may apply to the physical enclosure only or include solution-based installations of SANs by the Dell Enterprise Deployment Team.

NAS- and fiber-based installation services include Project Implementation Planning and Pre-Installation Site Audits. Project Implementation Planning ensures that complex installations, such as those involving SANs or four-node clusters, are implemented to meet customer expectations. Pre-Installation Site Audits verify that an installation site meets all environmental and technical prerequisites of Dell's Site Checklist. For more information on Fibre Channel, SAN, and NAS installation services, see <http://www.dell.com>.

SCSI installation

Dell also provides installation services for SCSI-based storage enclosures, tape libraries, and tape autoloaders through authorized Dell Solution Providers (DSPs). SCSI installation services include Pre-Installation Site Audits, PowerVault installation (available for the PowerVault 136T, 128T, and 130T), external digital linear tape (DLT) autoloader installation, and PowerVault 2xxS SCSI subsystem installation.

The Pre-Installation Site Audit verifies that the SCSI installation site meets all environmental and technical prerequisites of Dell's Site Checklist. The external DLT autoloader installation includes integration into the host system while the PowerVault 2xxS

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SCSI subsystem installation installs the SCSI enclosure and integrates it with the host (including installation of the SCSI controller and configuration software if needed).

Adaptable warranties for PowerEdge, PowerApp, and Power Vault

Each Dell server has a limited warranty for on-site parts and on-site labor. Currently, the standard warranty for Dell PowerEdge, PowerApp, and PowerVault products is one year for on-site labor and three years for on-site parts (for the PowerEdge SC series, the warranty is one year for both parts and labor).

These warranties are part of the Next Business Day (NBD) Agreement, which guarantees service within one business day (for calls dispatched before 5:00 P.M. local customer time). In addition to the standard warranty, Dell offers other support services: 4-Hour Response, 2-Hour Response, 99.9% System Availability, and software support.

4-Hour Response

Under the 4-Hour Response hardware support, customers will receive a response from a Dell technician within four hours after the phone dispatch (the standard warranty time frame is within the next business day). To qualify for 4-Hour Response service, the customer location must be within a 125-mile radius of one of the 86 stocking locations across the U.S. Customers with 4-Hour Response can then choose between 5×10 coverage (technicians are available 5 days a week, 10 hours a day) and the more extensive 7×24 coverage (technicians are available 7 days a week, 24 hours a day). See Figure 1.

2-Hour Response/6-Hour Hardware Repair

The 2-Hour Response hardware support ensures that technicians respond to service calls within two hours. An enhancement to this service is the addition of 6-Hour Hardware Repair, which not only guarantees response within two hours but also resolution of the issue within six hours. To qualify for 2-Hour Response/6-Hour Hardware Repair service, the customer must be located within a 25-mile radius of one of 64 U.S. metropolitan areas.

Guaranteed high availability

The Dell 99.9% System Availability Guarantee Program (mentioned earlier) can also minimize system downtime. This program incorporates products, services, tools, and processes to guarantee that hardware and operating systems will be available at least 99.9% of the time (excluding planned downtime and downtime not attributed to hardware or operating system failure).

Key features	4-Hour Response	2-Hour Response	2-Hour Response/6-Hour Hardware Repair
Hours of coverage	5x10 or 7x24	7x24	7x24
Response time	4 hours	2 hours	2 hours
Hardware repair time commitment	Not specified	Not specified	6 hours
Stocking locations (depots)	86 depots	64 depots	64 depots
Coverage radius from depots	125 miles	25 miles	25 miles
Summary of key differences	Fast response processes	Enhanced processes	Premium processes

Figure 1. Same-day, on-site hardware support comparison

Software support

In addition to hardware support, Dell also provides remote software and storage support services that provide 7x24 access to NOS experts to assist in advanced troubleshooting and resolution. Two types of software support include DirectLine and DirectLine Plus.

The DirectLine service covers Microsoft and Novell operating systems as well as the Dell OpenManage™ Assistant Series and Connections. DirectLine Plus covers select Microsoft BackOffice® applications, Dell OpenManage PowerSuites™, Inktomi® Traffic Server Engine caching software, and Dell PowerApp.BIG-IP load-balancing software. Both DirectLine and DirectLine Plus are available in resolution packages or on an as-needed basis.

Additional warranty services

Whether customers choose next-day or same-day support, they have the choice of appending additional services to the basic system warranty from Dell. Hardware telephone support is available seven days a week, 24 hours a day and can be used for the lifetime of the product. Dell has no limit to the number of calls and no charge on calls made for troubleshooting assistance.

Another option is the “30-Day Getting Started” software support program, which provides installation and configuration support during the critical 30 days after a system is shipped. This service is limited to factory-installed operating systems and applications. Online support is also available to provide further information, helpful hints, and warranty details (visit <http://support.dell.com>).

Consolidating service options with Premier Enterprise Support

Dell offers tiered service packages, shown in Figure 2, to meet the specific needs of enterprise environments. Each tier incorporates several options into one comprehensive suite of services.

Bronze Support, suitable for testing and Q&A servers, is an upgrade from the standard warranty, offering Next Business Day Response and the option of NOS support. For development environments or for those who need faster resolution times, the Silver Support tier provides 4-Hour Response and remote software and storage support. Gold Support includes the same services as Silver Support plus several customized services such as Gold Queue phone support and a Technical Account

Service tier	Bronze	Silver	Gold	Gold for Dell EMC storage product	Platinum
Support offered	Next business day response	4-Hour Response, remote software and storage support	4-Hour Response, remote software and storage support, Gold Queue phone support, Seamless Support, TAM services, customer-defined call priority	4-Hour Response, remote software and storage support, Gold Queue phone support, Seamless Support, TAM services, customer-defined call priority, storage system remote monitoring (hardware alerts)	2-Hour Response/6-Hour Hardware Repair, remote software and storage support, Enterprise Expert Center phone support, Seamless Support, dedicated TAM, Knowledge Transfer, customer-defined call priority, on-site troubleshooting
Optional services	Remote software and storage support		Remote monitoring, on-site spares, on-site engineer, on-site troubleshooting, Knowledge Transfer	On-site spares, on-site engineer, Knowledge Transfer	Customized availability guarantee, on-site spares, on-site engineer

Figure 2. Premier Enterprise Support service tiers


Manager (TAM). It is often used in production environments.

The highest and most customized service tier, Platinum Support, provides customized services and around-the-clock support, which benefits mission-critical environments.

Platinum Support includes 2-Hour Response/6-Hour Hardware Repair, Enterprise Expert Center phone support, a dedicated TAM, Seamless Support (using Dell as the single point of contact to resolve vendor issues instead of going to the vendor directly), and several optional services that can be added to the support package.

Bronze, Silver, and Gold Support each come with a three-year contract; Platinum Support includes a one-year contract.

Dell service delivers

To meet the needs of each customer and each type of enterprise environment, Dell provides different levels of support services. These services can be mixed, matched, and customized to improve the installation, configuration, and ongoing support of the Dell PowerEdge, PowerApp, and PowerVault products. 

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FOR MORE INFORMATION

Online support:

<http://support.dell.com>

99.9% System Availability Guarantee Program:

http://www.dell.com/us/en/biz/services/service_99_9.htm

Premier Enterprise Support service tiers:

http://www.dell.com/us/en/biz/services/service_pesstiers.htm