Dell Services

Dell HPCC services are designed to support the full value of your IT investment. Dell’s best practices, proven processes and industry expertise in implementing standards-based technologies help you maximize your IT infrastructure and the long-term value of your systems — throughout the implementation of your cluster. Beginning with assessments and benchmarking, complete factory integration through on-site installation and ongoing support, Dell offers a one-stop solution to help you plan, implement and maintain your total HPCC solution.

Strengthened infrastructure

Dell’s planning services are designed to help integrate your new HPCC into your existing or evolving IT infrastructure. From early assessment to solution design and benchmarking, Dell services help ensure that your HPCC will deliver the functionality and performance you demand.

Simplified deployment

Dell implementation services can accelerate the deployment of your HPCC solution. With custom factory integration, Dell will build your system to your exact hardware and software specifications. From this “one-touch” factory build process, Dell will stage, rack, cable, crate and ship your HPCC solution ready to install. In addition, our expert project management and on-site deployment services can help speed your time to production. Dell’s training services are designed to provide ongoing education and training to help you better manage and use your new architecture so you can reap the full benefits of standards-based technologies.

Leading services

Your HPCC is central to your operations, which is why you need a partner who can help minimize downtime and keep your HPCC running efficiently. Dell’s enterprise support services are designed to simplify the support process and speed time to resolution. This customizable service includes 7x24 telephone support delivered by specially trained HPCC experts, collaborative issue resolution with Dell HPCC partners, flexible on-site response levels and technical account management to manage critical issues to resolution.

Get started today

Contact your Dell account representative and start realizing the power of HPCC.

To learn more, visit dell.com/hpcc.

1For more information, visit www.top500.org.
2For more information, visit www.HPCwire.com.

Growing demand for compute power is accelerating the need for and adoption of new architectures — particularly for data and compute-intensive applications — within industries such as financial services, life sciences, oil and gas, scientific research and manufacturing. Dell is recognized as a true leader in delivering to each industry’s requests and requirements for excellent performance using commodity off-the-shelf (COTS) technology.

Dell High-Performance Computing Solutions

Built on architectures that deliver performance, scalability and value.

Based on industry standards and proven architectures, Dell’s High-Performance Computing Cluster (HPCC) solutions create an ideal platform offering proven performance, scalability and value.

Looking beyond performance

Performance is only part of a successful implementation. Rapid deployment and ease of management are also key requirements. In order for performance solutions to deliver to their full capabilities, they must also deliver the power and manageability required to perform the most advanced computational tasks.

Through extensive integration, tests and validation, Dell delivers streamlined compute architectures, with deployment and support models designed to quickly and effectively implement cluster technology for delivered results. Dell’s direct, uncomplicated approach to providing HPCC solutions helps deliver fast returns on your IT investments. That’s why Dell has become a recognized leader and important partner in the high-performance computing industry.
Proven solutions that offer real-world results

Dell HPCC solutions are driving some of the world’s most challenging compute environments. Dell HPCC solutions have maintained a solid standing, year over year, on the industry-recognized TOP500 list, which tracks the world’s largest HPCC implementations. In addition, Dell has also been awarded multiple, consecutive Readers’ and Editors’ Choice Awards from HPCwire, the most recognized and accessed news and information site covering the entire ecosystem of high-performance computing.

Speed time to discovery

Dell engineers work closely with our partners to integrate, validate and pre-configure all Dell HPCC solutions — taking the guesswork out of configuring a cluster. These pre-configured bundles, ranging from eight to 256+ nodes, provide an integrated platform that can be easily ordered and deployed. Dell can also help you customize a solution that meets your unique application needs.

Leading the way with powerful technology

Dell’s core strength and value is to deliver highly leveraged, tightly integrated solution stacks. Dell integrates “best-of-breed” server and storage technologies with leading open-source and commercial middleware to deliver highly sophisticated and scalable platforms that deliver outstanding price/performance/watt, scalability and manageability.

Servers

Dell PowerEdge™ servers form the backbone of our HPCC solutions and deliver exceptional performance in a range of form-factor offerings. Standards-based management tools help simplify server operations, even from remote locations.

Storage

Dell PowerVault™, Dell/EMC and partner storage offerings provide a broad choice of cost-effective hardware and management software. Dell and its partners’ storage solutions provide a perfect blend of data management and long-term storage scalability to meet the storage requirements of HPCC.

Interconnect

Dell offers a wide selection of interconnect options to facilitate node-to-node communication, data sharing and synchronization for a broad range of applications and to provide excellent flexibility in balancing price, latency and bandwidth requirements. From InfiniBand to standard TCP/IP, Dell offers you the choice to meet the needs of your solution.

Operating system, systems and application management

As a Dell customer, you can choose your operating environments from a menu of leading operating system technologies. Additionally, Dell provides you with a variety of system provisioning, deployment and management options. Lastly, Dell offers you the choice of several operating system-independent application scheduling methods, as well as those already integrated into the software stack. Dell’s HPCC solution is about choice.

High-performance file system

Dell recognizes that a comprehensive solution requires a breadth of technology standards. That is why Dell has partnered with leading vendors to deliver a best-of-breed stack that’s customized to meet your specific requirements.

Middleware and development tools

Dell offers flexibility with a choice of standards-based Message Passing Libraries and comprehensive development toolkits, including compilers, math libraries, system and development tools.

Dell builds an HPCC solution for the NCSA

The mission of the National Center for Supercomputing Applications (NCSA) is to develop and deploy a national cyber-infrastructure to advance science and engineering. To that end, NCSA works with industry partners, including Dell and Intel, to build innovative, large-scale computing environments. In 2003, NCSA originally partnered with Dell to deploy a massively scalable compute cluster designed to provide computing cycles to the academic research community and the organization’s industry partners. Codenamed Tungsten, the cluster debuted in fourth place on the TOP500 November 2004 list of supercomputers and marked the beginning of a strong relationship between NCSA and Dell.

Based on the success of Tungsten, NCSA was asked to build another large-scale cluster called Tungsten 2, but to do so within an extremely short deployment schedule. Once again, NCSA turned to Dell. By working together, Dell and NCSA deployed a high-performance, 516-node computing cluster in record time — less than four weeks from purchase to production.

“With projects as large and time-sensitive as ours, we need to be able to scale up at a moment’s notice. As we pursue the dream of a national cyber-infrastructure, we can get whatever we need directly from Dell.”

BRIAN KUCIC
SENIOR OPERATIONS MANAGER, NCSA

High-performance file system

Dell recognizes that a comprehensive solution requires a breadth of technology standards. That is why Dell has partnered with leading vendors to deliver a best-of-breed stack that’s customized to meet your specific requirements.

Middleware and development tools

Dell offers flexibility with a choice of standards-based Message Passing Libraries and comprehensive development toolkits, including compilers, math libraries, system and development tools.

Dell builds an HPCC solution for the NCSA

The mission of the National Center for Supercomputing Applications (NCSA) is to develop and deploy a national cyber-infrastructure to advance science and engineering. To that end, NCSA works with industry partners, including Dell and Intel, to build innovative, large-scale computing environments. In 2003, NCSA originally partnered with Dell to deploy a massively scalable compute cluster designed to provide computing cycles to the academic research community and the organization’s industry partners. Codenamed Tungsten, the cluster debuted in fourth place on the TOP500 November 2004 list of supercomputers and marked the beginning of a strong relationship between NCSA and Dell.

Based on the success of Tungsten, NCSA was asked to build another large-scale cluster called Tungsten 2, but to do so within an extremely short deployment schedule. Once again, NCSA turned to Dell. By working together, Dell and NCSA deployed a high-performance, 516-node computing cluster in record time — less than four weeks from purchase to production.

“With projects as large and time-sensitive as ours, we need to be able to scale up at a moment’s notice. As we pursue the dream of a national cyber-infrastructure, we can get whatever we need directly from Dell.”

BRIAN KUCIC
SENIOR OPERATIONS MANAGER, NCSA

Dell builds an HPCC solution for the NCSA

The mission of the National Center for Supercomputing Applications (NCSA) is to develop and deploy a national cyber-infrastructure to advance science and engineering. To that end, NCSA works with industry partners, including Dell and Intel, to build innovative, large-scale computing environments. In 2003, NCSA originally partnered with Dell to deploy a massively scalable compute cluster designed to provide computing cycles to the academic research community and the organization’s industry partners. Codenamed Tungsten, the cluster debuted in fourth place on the TOP500 November 2004 list of supercomputers and marked the beginning of a strong relationship between NCSA and Dell.

Based on the success of Tungsten, NCSA was asked to build another large-scale cluster called Tungsten 2, but to do so within an extremely short deployment schedule. Once again, NCSA turned to Dell. By working together, Dell and NCSA deployed a high-performance, 516-node computing cluster in record time — less than four weeks from purchase to production.

“With projects as large and time-sensitive as ours, we need to be able to scale up at a moment’s notice. As we pursue the dream of a national cyber-infrastructure, we can get whatever we need directly from Dell.”

BRIAN KUCIC
SENIOR OPERATIONS MANAGER, NCSA

High-performance file system

Dell recognizes that a comprehensive solution requires a breadth of technology standards. That is why Dell has partnered with leading vendors to deliver a best-of-breed stack that’s customized to meet your specific requirements.

Middleware and development tools

Dell offers flexibility with a choice of standards-based Message Passing Libraries and comprehensive development toolkits, including compilers, math libraries, system and development tools.