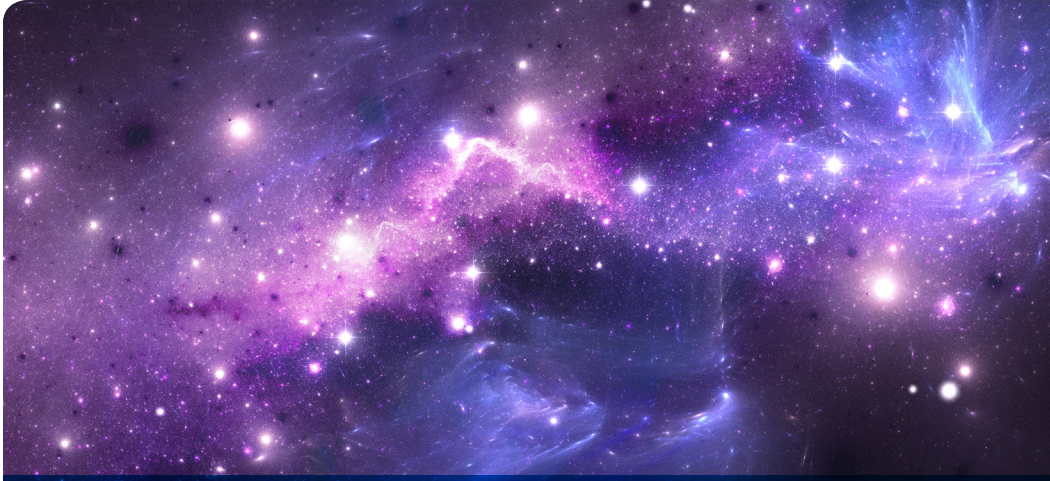


Remote Cluster Management



Experienced HPC
administration
priced right for
your budget

Driving HPC productivity and efficiency

High performance computing technology is now a critical requirement for many companies to compete successfully. However, the combination of HPC complexity and an industry-wide shortage of qualified HPC system administrators can make HPC system management a challenge.

Finding the right IT experience and qualifications to successfully integrate, manage and maintain HPC systems is a difficult balancing act. You want to provide necessary computing capacity and capabilities while keeping your budget under control, and focusing your researchers and engineers on their work, not administration.

Why use a remote cluster management service?

More than 80 percent of IT budgets go to infrastructure maintenance costs, leaving little room for innovation. When you reduce your IT maintenance and support spend, or find better, more affordable alternatives, you can advance the business rather than merely keep it functioning. Implementing a remote cluster management (RCM) service makes financial and technical sense if any of these challenges and goals apply to your business:

- When a shortage of resources exists
- When you need to improve productivity, or need to supplement IT staff skills or available time
- When you can only justify a support resource for a finite duration
- When you are interested in increasing system utilization and uptime

Affordable and reliable HPC system support

As the first line of engagement for end users, your IT staff faces a range of challenges that can make supporting a cluster difficult. Maintaining and optimizing an HPC system requires a significant amount of IT resources and/or expertise that you may not currently have in-house.

Dell EMC's RCM service alleviates the need to utilize in-house resources, while providing you the peace of mind that your HPC system is fully addressing your business needs.

Get the right level of support, priced right for your needs — keep your IT management under a predictable OPEX budget.

Why Dell EMC?

- Flexible and reliable support options from Dell EMC give you that freedom and peace of mind
- Flexibility to choose the right support based on the criticality of specific systems
- A single point of contact for all your hardware and software issues
- Broad and deep HPC experience that goes beyond a single system
- Proactive, automated tools and innovative technology to monitor your system's health

Experience Peace Of Mind With System Security

Dell EMC's RCM team works with your security team to confidently integrate into your IT environment. We make sure your systems and processes comply with industry security best practices, such as Confidentiality and Integrity, CFR Part 11, PII, HIPPA as well as your business trade secret security measures. Only authorized staff authenticate to your system, and your confidential and protected data is not accessed or exposed.

Standard Inclusions

The Dell EMC Remote Cluster Management Service includes:

- Cluster monitoring and issue resolution
- SLA response to customer requests (via email, web portal, or phone)
- Triage and vendor management (hardware, software, etc.)
- Monthly/Quarterly Report and recommendations
- Supported application upgrade (once per year)
- Cluster management upgrade (once per 3 years)

Intelligent solution that lets you focus on your business, not cluster administration

With Dell EMC's Remote Cluster Management Service, you have a team of HPC experts to fully support your HPC environment. Our RCM administrators provide significant experience and expertise in cluster administration to help customers realize the HPC system potential while meeting budget requirements.

The life cycle of every system can be divided into three distinct phases: setup, management and review.

Setup. Utilizing industry best practices, we set the system up for remote management and monitoring so our clients can request assistance quickly. During this phase, we:

- Stabilize and standardize the environment
- Train the local point of contact to utilize the service

Monitor, manage and support day-to-day operations. The Dell EMC support team proactively monitors your cluster to identify and resolve issues in a timely manner, thus maximizing uptime. We set up our systems for fast response times to both automated events as well as user requests to maximize productivity. The service includes:

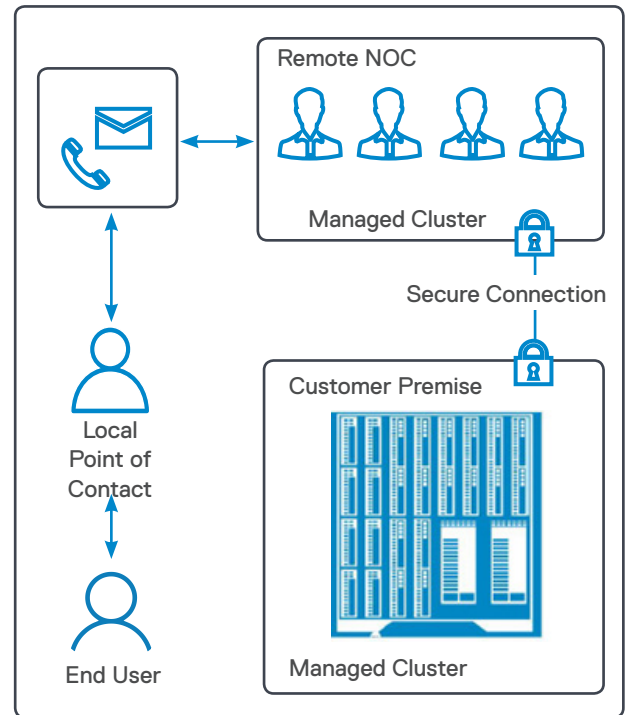
- Upgrading applications
- Remediating issues
- Managing vendors

Review. Ongoing assessment is critical to improvement. We provide regular performance reports and recommendations to help you identify trends for better planning. By implementing industry standard best practices for cluster management, Dell EMC enables you to address changing business needs quickly.

- Present reports on cluster usage
- Make recommendation about compute, networking & storage to more effectively utilize the HPC system

Expertise and support you can trust

As an industry leader in service and support, we at Dell EMC are committed to providing you with best-in-class support and customer service. Rely on us for fast, expert technical support required to help ensure the stability and reliability of your systems.



"After an extensive search for [a cluster administrator], we only received a small handful of candidates, of which only a few were qualified. We didn't have the timeframe to hire and train the right person for the job, which is where Dell EMC and its Remote Cluster Management Services solution came into play. Dell EMC has been able to handle getting the system up and running, software installations, and proactively handle technical issues so we could focus on working with the Engineering staff It has allowed us to focus our attention where it was most needed."

- David Crass
University of Wisconsin

For more information on Dell EMC services for high performance computing contact your Dell EMC representative or visit us at DellEMC.com/hpc-services.