

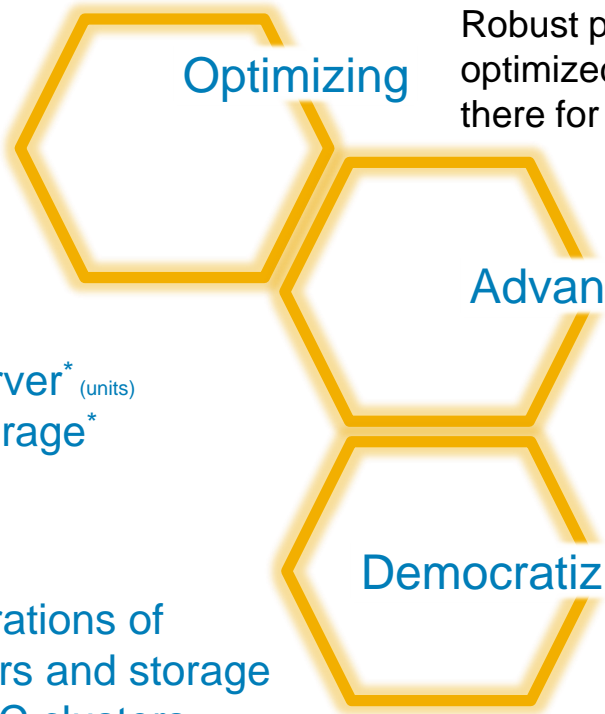


# Dell EMC Support and Deployment Services for High Performance Computing

November 2018



# Dell EMC is helping transform the future with HPC



Robust portfolio of products and services optimized for HPC from a company who will be there for you over the long haul

Expertise, technology and partnerships advancing the state-of-the-art for HPC solutions from the workgroup to the TOP500

Dell EMC HPC solutions enable companies of all sizes to accelerate their science, engineering and analytics

#1

in Server\* (units)  
in Storage\*

10

generations of  
servers and storage  
in HPC clusters

\* [IDC WW Quarterly Server Tracker](#)  
[IDC WW Quarterly Enterprise Systems Storage Tracker](#)

# Introducing Dell EMC Services for High Performance Computing

## Expertise

Dedicated HPC specialists with a strong history of deploying and supporting thousands of clusters



## Innovation

Our world-class HPC Innovation Lab helps you keep pace with the constantly evolving HPC landscape



## Customer Focus

Primary point of contact across the solution and streamlined call support with HPC experts



# What are some common customer concerns with implementing and maintaining an HPC system?

Companies new to HPC often lack the specialized skills to properly deploy an HPC cluster

It can take months to piece together the scripts, cabling, network, and software needed for a cluster deployment

It's time-consuming to manage multiple vendors when trying to resolve cluster issues

Organizations need their IT staff focused on the business and users, not on the complexities of HPC cluster maintenance

# Dell EMC delivers best-in-class HPC service experience



## Installation and configuration

### Deployment

- Standardized deployment methodology ensures predictable outcomes and minimizes risk
- Get more out of your HPC technology starting Day One
- HPL & OSU benchmarking provide a performance baseline which is uploaded to Dell EMC for future reference



## Single source support

### Support

- Fast and accurate resolution of simple and complex HPC cluster issues
- Depend on one support organization not many
- Reduce the burden of supporting HPC infrastructure
- Enhance ability to maintain required service levels

66% faster time to deploy<sup>1</sup>



Resolve issues up to 90% faster<sup>2</sup>

<sup>1</sup> Based on a November 2017 Principled Technologies Test Report commissioned by Dell EMC comparing in-house deployment vs. Dell EMC ProDeploy for Enterprise deployment service for Dell PowerEdge R730 servers, Dell Storage SC9000 and SC420 and networking components. Actual results will vary.

<sup>2</sup> Based on Sep 2015 Principled Technologies Test Report commissioned by Dell EMC, "[Resolving Server Problems with Dell ProSupport Plus and SupportAssist](#)". Actual results will vary.

# HPC Solution Support and Deployment Services



Deployment

**ProDeploy**  
for HPC



1

**HPC Add-on:  
Individual  
nodes**

2

**HPC Add-on:  
M1000e**

3

**HPC Add-on:  
Storage**



Support

Asset-level support

**ProSupport**

or

**ProSupport  
Plus**



Solution support

**ProSupport  
Add-on  
for HPC**

## Supported Hardware and Software Technology

### Cluster Management Software



### Operating System



### Networking



### Storage



### Server



# ProDeploy for HPC

Get more out of your cluster starting Day One

## ProDeploy for HPC

- Install & configure Cluster Management software
- Configure HPC nodes and switches
- Validate implemented design
- Product orientation
- Perform cluster benchmarking



## Add-ons

Scalable HPC solution hardware installation in any combination to fit your system requirements:

1

### HPC Add-on: Individual nodes

- Install individual server nodes
- Professionally labeled cabling
- BIOS configured for HPC
- OS installed

2

### HPC Add-on: M1000e

- Install fully populated M1000e (chassis & sleds)
- Professionally labeled cabling
- Configure network

3

### HPC Add-on: Storage

- Install HPC Storage Ready Bundle (Lustre or NSS-HA)



Linpack  
Benchmark

# ProSupport Add-on for HPC

Delivering a true end-to-end support experience across your HPC environment

## Asset-level support

### ProSupport

Comprehensive hardware and software support with 24x7 access via phone, chat and email

or

### ProSupport Plus

Proactive and predictive support for critical systems

- Designated Technology Service Manager and priority access to support experts
- Predictive issue detection by SupportAssist
- Systems Maintenance guidance



## Solution support

### ProSupport Add-on for HPC

- Access to senior HPC experts
- Advanced HPC cluster assistance: performance, interoperability, configuration issues
- Enhanced HPC solution level end-to-end support
- Remote pre-support engagement with HPC Specialists during ProDeploy implementation



# Access the world-class Dell EMC HPC Innovation Lab

Dedicated to research and development of HPC solutions so you can make discoveries faster



Leverage HPC  
engineering expertise



Test new technologies



Tune your applications  
for performance  
and efficiency

# Dell EMC HPC Competency Centers are breaking new ground, while enabling human potential

## Americas

- Texas Advanced Computing Center (TACC)
- San Diego Supercomputer Center
- University of Illinois (NCSA)

## EMEA

- Dell EMC/Cambridge HPC Solution Centre
- Dell EMC/Intel Competence Center for Cloud and HPC at the University of Pisa
- Centre for High Performance Computing, South Africa

## APJ

- Institute of Automation, Chinese Academy of Sciences (CASIA)
- Monash University

# Accelerating HPC system value with Dell EMC services

1

- Get more out of technology starting Day One
- **The right service features at the right price**

2

- HPC experts with a **strong history and experience** deploying and supporting 1000s of clusters across all industries
- **Global expertise** delivering consistent, successful results

3

- **“Better-together”** – Maintain continuity from implementation to support for a seamless support experience
- A single vendor to handle all of your HPC cluster needs – one contact, one handshake, **a single source of accountability**



# About Dell EMC Services

Accelerating technology adoption and maximizing productivity with global scale & skill

## OUR PEOPLE

- **55,000+** Dell EMC & partner professionals
- **Broad & deep** technical expertise
- **55+** languages
- **Industry** certifications
- **~1,000** Residents

## OUR PLACES

- **165** countries
- **6** Global Command Centers
- **12** Centers of Excellence & Joint Solution Centers
- **87** technical support sites
- **2200** carry-in service centers

## OUR REACH

- **121M+** systems supported
- **Core to edge** coverage
- **1035** parts distribution centers & **15.5M+** dispatches
- **>1 exabyte** of data & thousands of migrations

## OUR PROOF

- **94%** customer satisfaction rating
- **Temkin Group** CE Excellence
- **TSIA** STAR awards
- **Microsoft** Deployment Partner of the Year
- **IT Brand Pulse** Service & Support Leader





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