# BRIGHT CLUSTER MANAGER

### AUTOMATES THE PROCESS OF BUILDING AND MANAGING MODERN HIGH-PERFORMANCE LINUX CLUSTERS—ELIMINATING COMPLEXITY, ENABLING FLEXIBILITY, SUPPORTING SCALABILITY

### EASILY BUILD AND MANAGE CLUSTERS FROM EDGE TO CORE TO CLOUD

Linux clusters are driving a new generation of business innovation. Powerful new hardware, applications and software have system administrators struggling with complexity while providing a system that is both flexible and reliable for end-users.

Bright Cluster Manager eliminates the complexity and enables flexibility by allowing users to deploy complete Linux clusters over bare metal and manage them reliably from edge to core to cloud. Providing cluster management solutions for the new era of HPC, Bright Computing combines provisioning, monitoring, and management capabilities in a single tool that spans the entire lifecycle of your Linux cluster. With Bright Cluster Manager, your administrators can provide better support to end-users and your business.

With Bright Cluster Manager, you can manage your entire cluster from traditional HPC to machine learning and analytics applications, from x86 to Arm processors and from NVIDIA to Graphcore accelerators, from bare metal to VMs and containers, from the edge to on-premise to the public cloud and even a hybrid cloud. Rather than spending the time and energy developing and maintaining a less capable cluster manager solution yourself, with Bright Cluster Manager, streamline the end-to-end process by:

- Deploying easily
- Automating the cluster build process and pre-checks everything
- Supporting heterogeneous environments, bringing all your apps and environments under one management platform
- Providing comprehensive monitoring
- Integrating with the public and private clouds
- Managing accelerators (GPUs, FPGSs, and IPUs)
- Optimizing the use of cluster resources
- Configuring and deploying HPC workload managers and Kubernetes
- Including two powerful user interfaces command line and web-based graphical



You decide which metrics to monitor. Simply drag a component into the display area, and Bright Cluster Manager creates a graph of the data you need



### BRIGHT CLUSTER MANAGER SOLUTIONS

**Clusters for HPC.** Offering an integrated solution for building and managing HPC clusters that reduces complexity, accelerates time to value, and provides enormous flexibility.

**Clusters for Machine Learning.** Provides a pre-tested catalog of popular machine learning frameworks and libraries, as well as integration with Jupyter Notebook to ensure that end users can be as productive as possible, wasting no time managing their work environment.

**Clusters for Edge Computing.** Allowing organizations to deploy and centrally manage computing resources in distributed locations as a single clustered infrastructure, from a single interface.

**Clusters as a Service.** Enables organizations to quickly and efficiently spin up high-performance clusters on-demand using resources in vSphere or public clouds.

**Clusters for Hybrid Cloud.** Automates the process of building and managing a Linux cluster, as well as automates the process of extending an on-premises cluster to the public cloud.

# WHAT'S NEW IN BRIGHT CLUSTER MANAGER 9.1

- **Ansible Module.** Allows administrators to use their skills and knowledge of Ansible to build and manage Bright clusters using a familiar Ansible "playbook" approach.
- **Cluster-as-a-Service for VMware.** Allows organizations to fully utilize their vSphere infrastructure, saving money, enabling teams to quickly spin-up Clusters-as-a-Service, and accelerating innovation for the business.
- OpenShift Integration. Enables organizations using Bright to manage other clusters throughout their business—from edge-to-core-to-cloud—to leverage their expertise to manage their OpenShift infrastructure.
- Auto-scaling Enhancements. Redirects and aggregates resources to support high-priority jobs when needed.
  Virtual resources can be added and subtracted to meet outlier demands when needed.
- Jupyter Integration. Enables HPC jobs to be submitted through Jupyter and enables Jupyter Notebooks to run on a cluster increasing the scope of work that can be performed.



- Redfish automated BIOS management. Allows Bright administrators to view and update BIOS parameters on any/all nodes of the cluster that support the Redfish specification.
- Bright View GUI Redesign. Improves navigation and usability, making it more efficient for admins to use the Bright View GUI.
- **Offloadable monitoring.** Offloads the cluster monitoring function from the head node—enabling Bright Cluster Manager to build and manage clusters of 50,000 to 100,000 nodes.

# ABOUT BRIGHT, ITS PRODUCTS AND ITS PARTNERS

Bright software is used in data centers around the world for organizations in healthcare, manufacturing, oil and gas, energy, pharmaceutical, financial, academic, and government. Bright has reseller agreements and technology partnerships with leading enterprise IT providers, including Dell Technologies, Hewlett Packard Enterprise/Cray, Intel, Huawei, Fujitsu, Nvidia, Microsoft, and Amazon.

#### Get ready to automate cluster management

Contact your Bright Computing representative today. Find out how Bright Cluster Manager can enable your organization to deploy complete Linux clusters over bare metal and manage them reliably from edge to core to cloud from a single administrative console.

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