Bright Computing

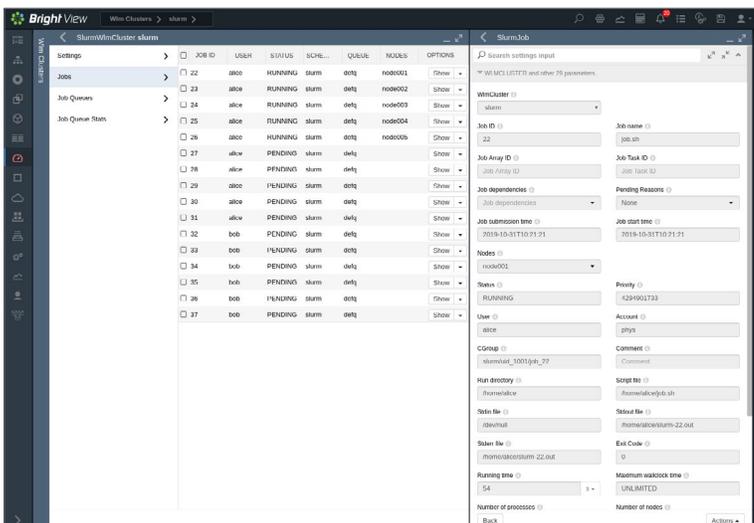ENTERPRISE-GRADE CLUSTER MANAGEMENT

BRIGHT CLUSTER MANAGER

Advanced Cluster Management Made Easy

Easily Build and Manage Clusters for HPC, Deep Learning, Edge Computing, and More

Bright Cluster Manager lets you quickly build complete clusters from bare metal in minutes and manage them effectively. Bright combines provisioning, monitoring and change management facilities on a single tool that spans the entire lifecycle of your cluster, allowing administrators to provide better support to end users and your business.

Manage your entire cluster with Bright Cluster Manager.

EASY TO

DEPLOY
OPERATE
MONITOR
MANAGE
SCALE

FEATURES

Deploys Easily
Builds your cluster from bare metal servers or virtual machines (VMs) with nothing to pre-install. Installs everything you need, including HPC workload managers, Kubernetes, Spark and Deep Learning libraries on your chosen distribution of Linux—Red Hat Enterprise Linux, CentOS, SUSE Linux Enterprise Server, or Ubuntu

Automates and Pre-Checks Everything
Automatically sets up networking, user directories, DNS and firewalls, then runs automated tests to ensure that everything works properly

Supports Mixed Environments
Simplifies management of multiple-architecture and multiple-OS clusters by combining different types of servers, architectures, and operating systems in the same cluster

Provides Comprehensive Monitoring
Monitors, visualizes, and analyzes a comprehensive set of hardware, software, and job-based metrics using workload accounting and reporting features

Integrates with the Cloud
Automatically provisions additional resources from AWS, Azure and Open Stack based clouds when needed

Manages Accelerators (GPUs, FPGAs, IPUs)
Tracks and reports status and utilization of accelerators on a per-job basis to ensure efficient utilization by end users
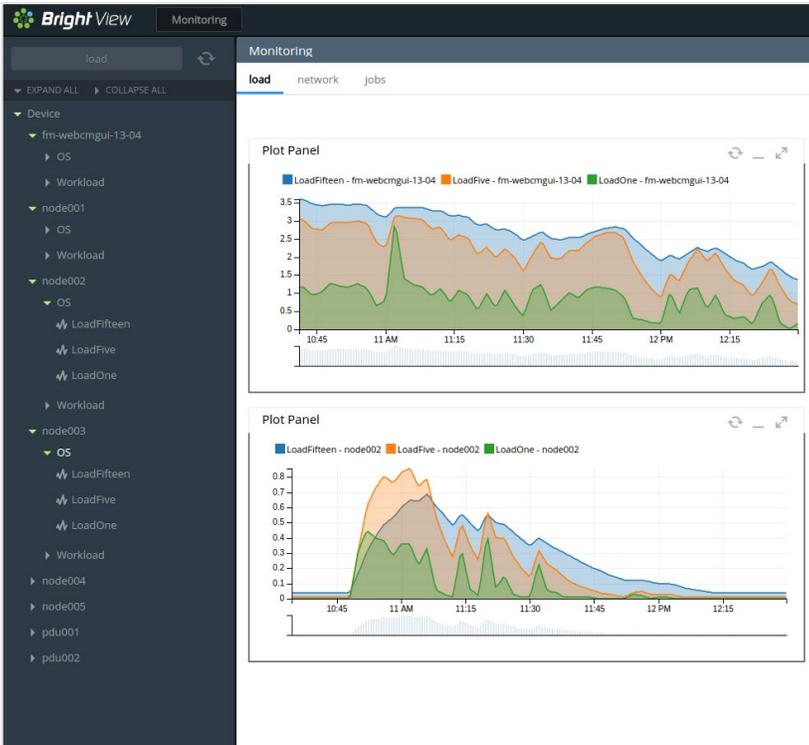
Optimizes Use of Cluster Resources
Ensures resources are allocated to applications according to demand and based on policies you define.

Supports Containers
Provides the prerequisite underlying cluster for running Kubernetes, Docker and Singularity, and manages these packages through the Bright management interface

Includes Two Powerful User Interfaces
Provides two user interfaces so you can choose to provision, monitor, and manage your clusters with a traditional command line interface or the Bright View web-based graphical user interface

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.

Quickly Deploy a Cluster for HPC, Deep Learning, or Edge Computing

When you need to get a cluster up and running, don't waste time cobbling together a solution from disparate open source tools. Bright software comes with everything you need to set up a complete cluster from bare metal and manage it with a powerful user interface. Whether your cluster is on-premises or in the cloud, Bright is the right choice for all your clustered infrastructure projects.

Dynamic Clusters with In-depth Accounting and Reporting

Bright's dynamic cloud provisioning capability enables you to build an entire cluster in the cloud or expand your physical cluster into the cloud for extra capacity. Bright can provision compute resources in Amazon Web Services or Microsoft Azure automatically and on-demand. With Workload Accounting and Reporting, you can isolate resource utilization by project and limit the visibility of resource usage to the owner of each project

Manage Edge Computing Infrastructure

The Bright Edge feature in Bright Cluster Manager allows you to deploy, manage and monitor geographically distributed cluster resources, including edge compute servers located in remote areas that lack skilled IT resources.

Proven Technology

Bright Computing has been building enterprise-grade cluster management software for more than a decade. Bright Cluster Manager has been successfully deployed in thousands of locations around the globe, providing an unparalleled level of maturity, know-how and battle-tested software that you can count on.

Bright View, a graphical user interface, makes monitoring and managing clusters easy. Customizable dashboards help admins ensure all nodes in a cluster are optimized for the workloads they run.

Clusters in the Cloud

Bright Cluster Manager can provision and manage clusters that run either on-premises or in a public cloud. You can build an entire cluster in Amazon Web Services (AWS) or Azure from scratch, or extend a physical cluster into the cloud when you need extra capacity. Use Bright's new Auto-Scaling feature to automatically scale HPC queues and Kubernetes applications from pools of both local nodes and cloud nodes to create a highly effective hybrid cloud environment.

Use Bright to move workload data to and from the cloud — Bright can automatically move the input and output job data into the cloud and back again. Users simply submit a job, specify which data to move, and Bright takes care of everything else. With the Data-sets Labeling feature, data is sent to the cloud only once, rather than transferring the same data to the cloud multiple times.

Make smart use of public cloud resources — Bright Cluster Manager can save you money by instantiating compute resources in AWS or Azure only when they are needed. Bright uses built-in intelligence to create instances only after the data is ready for processing and the backlog in on-premises workloads requires it.

Build your own private cloud — Bright Cluster Manager with Bright Open Stack now includes the Stein release of OpenStack and the Nautilus release of Ceph to provide multi-attach for RDB volumes, optional deferred asynchronous volume deletion, bandwidth-aware VM scheduling, and more.

Pricing and payment options — Amazon AWS and Microsoft Azure are now integrated with Bright, so usage of Bright in the cloud is billed on an hourly basis and included on your monthly statement from your cloud provider.

Bright *Computing*