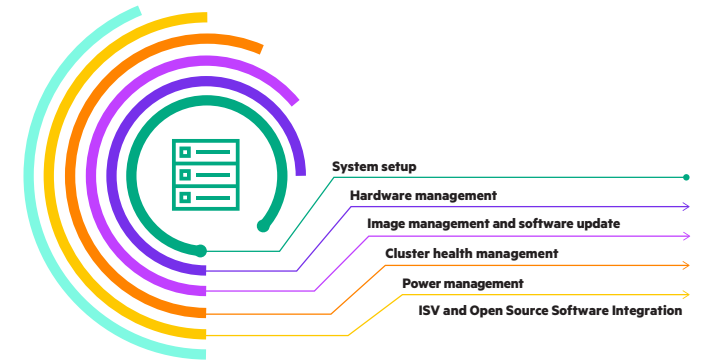


HPE Performance Cluster Manager

Features at-a-glance



System setup

- Provision thousands of cluster nodes in less than an hour
- Add new cluster nodes without shutdown of system
- Hardware is automatically discovered and configured
- Configuration information stored in a secure repository
- Simplified Quorum HA setup
- Easily reference nodes by creating aliases for hosts



Image management and software update

- Secure software image repository supports Linux® OS, middleware, and applications
- Image formats: RPM, ISO, gold image
- Any software image can be provisioned on all or select cluster nodes
- Accountability built in to track changes



Power management

- Collect and analyze power metrics (for nodes including GPU enabled, chassis, rack, PDU, CDU)
- AIOps technology preview—real-time anomaly detection for cooling hardware
- Topology-aware Power On/Off
- Power capping
- Assign/account power resources for jobs
- Job-level power management API



Hardware management

- Granular monitoring of service infrastructure by Prometheus
- Real-time job-level monitoring of HPE Slingshot fabric
- HPE Slingshot fabric critical alerts reporting Redfish event collection from switch controllers
- Collect and storage of telemetry data in a secure repository
- View metrics and alerts via GUI, CLI, Ganglia, Prometheus, Kibana, Grafana
- Setup predefined and customizable alerts for events
- Broadcast commands to selected nodes FRU inventory for serviceability
- Integrated firmware flashing for BIOS, BMC/HPE iLO, CMC, network adapter/switch
- Central management is protected with secure admin node



Cluster health management

- Validate system diagnostics run in HPE factory on new system after installation at customer site
- Real-time management of alerts data across cluster
- Invasive tests to be used during maintenance window or to diagnose root cause of failures
- Custom cluster health dashboards & alerts in Grafana
- Workload scheduler integration—system health check before running jobs and real-time monitoring of jobs
- Real-time health check of HPE Slingshot fabric
- Cluster configuration verification tool (CVT)
- Diagnostics for AMD GPUs and Intel® Exascale compute blades



ISV and Open Source Software Integration

- Altair PBS Professional, Slurm: Launch tool, manage resources, use selected tool commands from HPCM
- NVIDIA® UFM: View IB switch metrics with associated cluster node metrics
- Ganglia, Nagios Core, Elastic Stack, Alerta
- Integrated for system monitoring, alerts, and analytics
- DCGM connector: Integrated management of NVIDIA GPUs
- Ansible: HPCM stores hardware metrics in Ansible playbook format

Learn more at

hpe.com/software/hpcm



Platforms supported

• HPE Apollo and HPE Cray XD systems

• HPE ProLiant DL

• HPE Superdome Flex

• HPE Cray EX systems