ISLE™ Cluster Manager

Integrated, Single Point of Control Enabling Administrators to Easily Install, Manage and Monitor Complex Computing Systems

Features

- Multicast provisioning configures applications, operating systems and kernels on every system in the cluster simultaneously
- Version control reduces the risk of system failure and allows quick roll-backs to previous functional versions of the application, kernel, and operating system
- Comprehensive monitoring and reporting ensures system health and uptime, providing over 120 essential system metrics from all nodes in the system
- Advanced Java-based GUI and command line interfaces
- Built-in scalability to 1000's of nodes

Summary

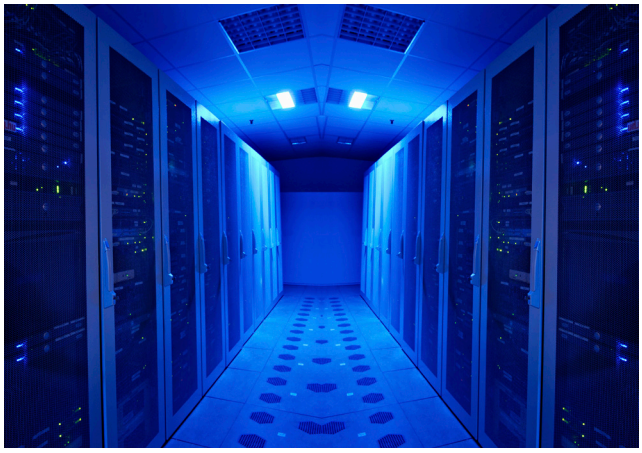
High performance Linux® systems can consist of hundreds or thousands of individual components. Knowing the status of nodes is critical to ensure the system is running safely and efficiently. Likewise, managing the software components of a cluster can be difficult and time consuming for even the most seasoned administrator. Making sure each node's software stack is up-to-date and operating efficiently can consume much of an administrator's time. Reducing this time frees up system administrators to perform other tasks.

ISLE Cluster Manager provides the necessary power and flexibility to monitor essential system metrics from a single point of control. ISLE Cluster Manager reduces the time and resources spent administering the system by improving software maintenance procedures and automating repetitive tasks. The comprehensive features of ISLE Cluster Manager help lower total cost of system ownership, increase productivity, and provide a better return on your investment.

Key Features & Benefits:

Comprehensive System Monitoring

ISLE Cluster Manager provides real-time analysis of over 120 essential system metrics from each node. Data is displayed in easy-to-read graphs, thumbnails, and value tables. ISLE Cluster Manager collects data from groups of nodes to spot anomalies and then drills down to a single node view to investigate problems. This allows administrators to determine exactly what the problem is before taking corrective action. Optimization of monitors and rates is simple to configure through an easy-to-use interface. ISLE Cluster Manager also tracks the power and health state of each node and displays its status using visual markers in a node tree view throughout the user interface.



Automated System Management

Automated system management takes pre-emptive actions when set system thresholds have been exceeded. System thresholds can be set on any set of the standard metrics. Standard actions include logging health state messages, logging to files or serial consoles, sending emails, powering up or down system nodes, or running custom scripts. Thresholds and actions are customizable to help meet the needs of end users. A simple-to-use Event Management interface makes configuration of thresholds simple. Custom plug-ins can be written to add functionality or monitor a specific device or application.

High Performance Provisioning

Through multicast technology, an image can be copied to every system node in the same amount of time it takes to copy an image to a single node. All changes can be made to the entire system quickly and all nodes will be identically configured with the same applications and libraries in a known working state. Multicast provisioning significantly decreases the amount of downtime during system maintenance periods and means systems can be working in a matter of minutes instead of hours or days. With multicast provisioning, switching from one Linux distribution to another can be done in a matter of minutes.

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Version Controlled Image Management

Version-controlled image management, or VCS, tracks the changes to the OS or kernel over time. These images are easily deployed onto nodes in the system. If problems arise after an OS, application, or kernel upgrade, the system can easily be returned to a known working state. ISLE Cluster Manager also provides VCS management tools that provide a way to view the differences between revisions, and copy or delete revisions. Updates to images and payloads are stored as delta values to the originals so they significantly save on disk space but still keep a full revision history. Multi-user support allows changes to be tested locally prior to checking changes into the global repository or applying changes to the entire system.

Feature	Details
Full system health monitoring	Over 120 selectable metrics for each node
Bare-metal, high speed provisioning	Multi-cast provisioning to all nodes simultaneously
Fully flexible image management	Individual control of kernels, distributions, applications
Version control	Image version control including rollbacks and cloning
Ease of use	Fully customizable GUI AND powerful CLI
Remote client access	Full function Windows® and Linux remote management clients
Out of band management	Full SGI Roamer support. Support for DRAC, iLO, OOB IPMI
Centralized node control	Remote serial console access, KVM, power and beacon control
Logical and physical reporting	Aggregated reporting by group rack, or system
Dynamic provisioning	CL and user portal driven Linux provisioning. Windows (2010)
Scalabilty to the largest systems	More than 4k nodes per instance plus multiple instances

Simple to Use

An advanced Java-based GUI streamlines workflow by putting all common tasks into easily accessible locations. All actions can be achieved with just a few mouse clicks. ISLE Cluster Manager adds dockable drag-and-drop panels which can be arranged to create user dashboards that adapt to workflow. All options and preferences are easy to configure through the GUI. An information window provides instant, easy access to hardware temperature and power management technologies via the IPMI interface.

ISLE Cluster Manager also includes a command-line interface for host and user management, version control, and provisioning for users who prefer to keep their hands on the keyboard or do management through scripts.

Heterogeneous Platform Support

IPMI 2.0 support makes it easy to configure IPMI, provide remote console access, power management, and environmental monitoring; including temperature, fans, voltages and other metrics provided by IPMI. ISLE Cluster Manager also supports power control and limited monitoring on a variety of platform management controllers, including, SGI Roamer, Dell DRAC 3 and 4, HP iLO, systems using industry-standard IPMI 1.5 or 2.0, and Linux Networx Icebox™. ISLE Cluster Manager is compatible with the popular boot protocols Etherboot and PXE.

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