



Platform Open Cluster Stack 5

Simplified cluster management, operation and deployment

Highlights

- A powerful, easy to deploy cluster management framework
- An open solution supporting multiple Linux® distributions and hardware platforms
- Pre-engineered and tested on select hardware for optimal simplicity and performance
- Greatly simplified lifecycle cluster management
- A supported suite combining the very best of open-source and commercial cluster management tools

Cluster Management Made Simple

Organizations building High Performance Computing (HPC) clusters face many challenges. Sorting out the complex array of cluster management tools like kernels, drivers, libraries, schedulers and interconnects, is difficult for the most experienced system administrator. Pre-integrated solutions from major hardware vendors help, but are often not optimal for heterogeneous, HPC datacenters.

Introducing Platform Open Cluster Stack 5

Platform has 15 years of expertise in the management of large-scale, heterogeneous computing environments. We support some of the world's largest HPC clusters in research and commercial enterprises, with installations in excess of 10,000 CPUs.

Platform OCS 5 is the most capable and complete cluster management solution in the industry. It combines industry-leading Platform LSF workload management tools with state of the art open source cluster management tools. Platform OCS 5 simplifies the task of managing, operating and deploying clusters making supercomputing available to a wider community of users in industry, research and academia.

We've completed the integration work so that you don't have to. You do not need to be an expert Linux system administrator to build and manage your own cluster - with Platform OCS 5 tools for provisioning, management and development, you can have your cluster up and running. Platform OCS 5 makes changes to the cluster is a snap. With its elegant and powerful node group manager and repository manager you can deploy new software packaged as "kits" or re-image new nodes in minutes. Managing three hundred hosts requires as little effort as managing three.





Reduced Total Cost of Ownership – Backed by Platform and its network of global partners, Platform OCS 5 provides stability and scalability in a standard solution that reduces overall cost and maintenance as the cluster grows.

Platform OCS 5 Extensions

Tested and configured third-party tools and applications

Platform Open Cluster Stack 5 - Core

Node & Cluster Management

Node & Cluster File System

Workload & Resource Management

Development Tools & Utilities

Red Hat® Enterprise Linux® or CentOS

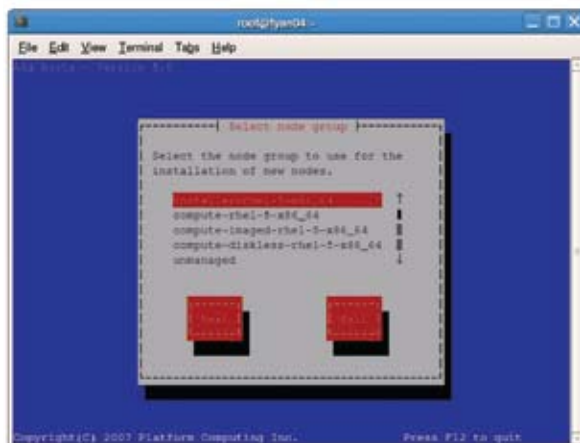
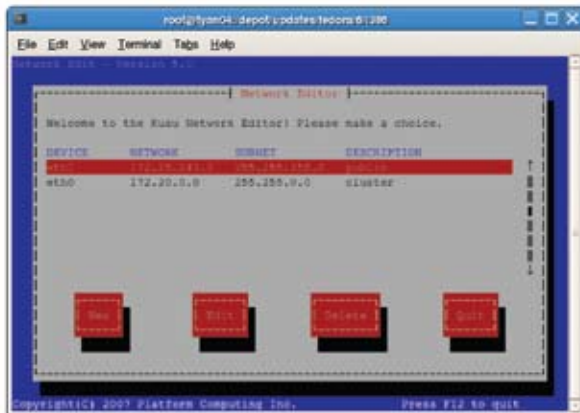
x86 and x86-64 hardware

Open standards-based solution – Platform OCS 5 is designed to enhance Linux cluster environments. Modular and interchangeable, it easily scales to meet business demands and offers customers their choice of the best tools in the business. Platform OCS 5 delivers a complete Intel® Cluster Certified solution together with other hardware and software components, forming a reference implementation for Linux cluster application, deployment and management.

Fully integrated, vendor certified cluster software stack – Platform OCS 5 provides all the tools required to use, manage and operate a cluster reducing time spent pre-configuring and testing prior to deployment. By simplifying cluster installation and management, clusters run better, faster and provide results sooner.

Flexible solution for managing OS images and packages – Platform OCS 5 includes a powerful repository manager so customers can build their own libraries of installation images appropriate for different compute nodes. Through its powerful management facilities, an arbitrary number of node groups can be created and installation images can be associated with these different classes of systems. Individual hosts may be migrated to different node groups at any time making cluster reconfiguration quick and painless. The solution relies on standard facilities included in every Linux distribution so there is no complex, vendor-specific provisioning software to learn and maintain.

Whether you are running complex computational fluid dynamics (CFD) simulations, simulating market conditions, modeling complex protein interactions or simply unlocking the secrets of the universe, Platform OCS 5 is the ideal solution on which to build your high performance computing environment. By democratizing supercomputing using Linux clusters, Platform OCS 5 enables all organizations to reap the financial and competitive benefits of the industry's most complete cluster management solution. Reduces costs, speeds time to productivity and simplifies management. Visit www.platform.com/ocs and learn how Platform OCS 5 can help you quickly and easily build your own supercomputer.



Supported Platforms

Intel® Cluster Ready Systems

- Systems built with Intel® S5000PAL, S3000PT, S3000AG and SR1520ML boards
- Dell™ PowerEdge™ 1950, 1955

Additional Platform OCS 5 Supported Systems

- Dell™ PowerEdge™ 6950, 2950, 2970, and 1435SC
- HP ProLiant DL140, DL145, DL380

Supported Operating Systems

- Red Hat® Enterprise Linux 5
- CentOS 5.x

Supported Hardware Architectures

- Intel® EM64T
- AMD® AMD64er

FEATURES	BENEFITS
Comprehensive, automated management and diagnostic tools for configuring and deploying compute nodes	<ul style="list-style-type: none"> • Eliminates human interaction and error, leading to lower TCO, reducing downtime and ensuring maximum system performance • Intel® Cluster Checker facilitates fault isolation, improving early detection of cluster problems and reduce support costs
Easy to build, open, Intel® Cluster Ready certified, Linux clusters	<ul style="list-style-type: none"> • Pre-engineered and tested on select hardware configurations • Supports popular Linux distributions including Red Hat, Suse, Linux and CentOS • Eliminates risk factors and unknowns that cause expensive delays in getting clusters deployed and operational • Reduces overall cost and maintenance assuring scalability and stability as the cluster grows • Peace of mind for end-users using off-the-shelf HPC software applications
An OS independent installer that facilitates a fast and simple installation process regardless of the cluster hardware or desired OS configuration	<ul style="list-style-type: none"> • Supports package-based, image-based and diskless provisioning • Quickly install clusters independent of the OS chosen, with prompts for media as necessary • Installer nodes automatically configured with core services like DHCP, TFTP, DNS, NTP, database and web tools to manage compute node installation • Gathers critical information related to disk, network, cluster and application configuration and then runs without interruption • Builds an image repository for automatic provisioning of preferred Linux distros
Powerful node group management facility allows compute hosts to be grouped and operations to be performed on multiple hosts at a time	<ul style="list-style-type: none"> • Provides customers full control over their cluster topology • Allows full automation of tedious processes like driver installation, OS upgrades and image and package installation • Allows production clusters to easily accommodate new hardware types and be upgraded on the fly
New kits architecture provides collections of applications and associated configuration scripts to easily install applications on the cluster	<ul style="list-style-type: none"> • Allows automatic deployment and maintenance of layered services • Kits use native installation capabilities and automatically detect and resolve dependency issues including packages as necessary • Kits include popular components such as Nagios®, Cacti™, various MPIs, Platform Lava, Platform LSF, ntop™ and much more
Repository Manager for all packages that can be installed on compute nodes	<ul style="list-style-type: none"> • Simplifies building libraries of pre-configured system images • Software configurations easily tailored to specific environments complete with layered software
Simple migration to enterprise workload management	<ul style="list-style-type: none"> • Clear migration from Platform OCS 5 cluster workload management to Platform LSF enterprise workload management
Optional Global 24 x 7 enterprise support	<ul style="list-style-type: none"> • Latest functionality, maximum uptime and development predictability expected from commercial software offerings

Platform™

Platform Computing is a pioneer and the global leader in High Performance Computing (HPC) management software. The company delivers integrated software solutions that enable organizations to improve time-to-results and reduce computing costs. Many of the world's largest companies rely on Platform to accelerate compute and data intensive applications and manage cluster and grid systems. Platform has over 2,000 global customers and strategic relationships with Dell™, HP, IBM®, Intel®, Microsoft®, Red Hat® and SAS®, along with the industry's broadest support for HPC applications. Building on 16 years of market leadership, Platform continues to define the HPC market. Visit www.platform.com.

World Headquarters

Platform Computing Inc.
3760 14th Avenue
Markham, Ontario
L3R 3T7 Canada
Tel: +1 905 948 8448
Fax: +1 905 948 9975
Toll-free tel: 1 877 528 3676
info@platform.com

North America

Boston: +1 781 685 4966
Reston: +1 703 251 4850
Detroit: +1 248 359 7820
New York: +1 646 290 5070
San Jose: +1 408 392 4900

Europe

Basingstoke: +44 (0) 1256 883756
London: +44 20 7956 2098
Paris: +33 (0) 1 41 10 09 20
Düsseldorf: +49 2102 61039 0
Munich: +49 89 517397 52
info-europe@platform.com

Asia-Pacific

Beijing: +86 10 82276000
Xi'an: +86 029 87607400
asia@platform.com
Tokyo: +81 (0)3-6302-2901
info-japan@platform.com
Singapore: +65 6307 6590
lliew@platform.com