

Platform Open Cluster Stack (OCS) Clusters Made Simple



A standardized approach to easily build, manage and use Linux clusters

Clusters, comprised of commodity server hardware and software is disruptive technology gaining acceptance as the enterprise solution to an ever-increasing number of problems in the data center. Clusters are reshaping the High Performance Computing (HPC) market driven primarily by price / performance and the Linux open source operating system.



COMPLEXITY AND COST

The unsolved problem is lack of standardization. Readily available commodity components are decoupled and complex, making Linux clusters difficult to build and use. Getting a cluster up and running requires additional skilled resources, services and time. Learning to use the cluster is time consuming and requires specialized training.

Ultimately, this leads to poorly planned clusters, flawed choices of software and implementation plans that can lead to higher than anticipated costs and time to production. As a result, many IT departments turn to expensive SMP alternatives because of the standardization shortcomings of cluster computing.

ACCELERATING COMMODITIZATION THROUGH A STANDARDIZED APPROACH

To bring clusters to the mainstream and stimulate growth through the adoption of more applications for workgroups and departmental clusters, the process of building and managing Linux clusters needs to be simplified, minimizing the cost and time to get a cluster fully operational. In order for this to happen there needs to be a comprehensive set of reference architectures, implementations and technology standards that will enable interoperable components and a ubiquitous computing experience.

INTEL, PLATFORM COMPUTING AND DELL

Platform™ Computing, the leading cluster and grid systems infrastructure software company, has long been strategic alliance partners with both Intel® and Dell™. Through this collaboration Intel has introduced Intel® Cluster Ready – a program and technology that helps simplify the deployment, usage and management of clustered computer systems by providing a standardized and replicable way to build clusters and run off-the-shelf high performance applications. To deliver the technology required for this program to be successful, Intel has selected Platform's Open Cluster Stack (OCS) product as the first commercial software system used to create certified Intel® Cluster Ready systems. This enables a new class of users by simplifying Linux® cluster application, deployment and management.

PLATFORM OCS - OVERVIEW

Platform OCS is a pre-integrated, vendor certified, software stack that enables the consistent delivery of scale-out application clusters. Backed by available, global 24x7 enterprise support, Platform OCS is a modular and hybrid stack that transparently integrates open source and commercial software into a single consistent cluster operating environment.

Platform OCS complies with the Intel® Cluster Ready Specification, and together with other hardware and software components, forms a reference implementation for Linux cluster application, deployment and management delivering a complete Intel Cluster Certified solution.

By democratizing Supercomputing using Linux Clusters, Platform OCS enables all organizations to reap financial and competitive benefits such as reduced costs, faster time to market and business survival.

RAPIDLY ACCELERATES A BROADER SET OF HARDWARE SUPPORT DELIVERED TO INTEL CLUSTER LEVEL SPECIFICATION

By supporting Intel® Cluster Ready systems, Platform OCS makes Linux compute clusters easy to deploy, simple to use, consistent, transparent, turnkey and available. Pre-engineered and tested on select hardware, the standardized implementation of Platform OCS provides a faster time-to-market, reducing the cost of in-house engineering resources required to develop, test and maintain multiple cluster designs and software stacks that assures scalability and stability as the cluster grows.

SIMPLIFIES THE DEPLOYMENT OF APPLICATIONS ON A LINUX CLUSTER

By supporting Intel® Cluster Ready systems, Platform OCS provides pre-configured, compatible clusters that make it easy for new users to administer the cluster without significant training that greatly reduces the overall cost and maintenance. Platform OCS features comprehensive automated management and diagnostic tools to assist with configuring and deploying applications. This significantly reduces human error by automating various tasks and eases hassle while installing and managing a cluster.

ENABLES OFF-THE-SHELF HIGH PERFORMANCE COMPUTING APPLICATIONS

By supporting Intel® Cluster Ready systems, Platform OCS makes Linux clusters modular and interchangeable enabling off-the-shelf high performance computing applications. These have been tested and delivered to Intel cluster level specification offering peace of mind to end-users.

COMMERCIAL GRADE APPLICATION SUPPORT

A global 24x7 enterprise support model is offered for Platform OCS users to enable the latest functionality and maximum uptime and development predictability that's expected from commercial software offerings.

FAST AND EFFECTIVE WORKLOAD MANAGEMENT

Platform OCS also brings commercial grade job execution, management and accounting in a simple to use package. This increases processing efficiency to get jobs done faster by automatic allocation to the right resources with always on availability and reliable robust failover.

ABOUT PLATFORM COMPUTING

Platform Computing is the leading systems infrastructure software company that accelerates applications and delivers IT agility for increased business performance and reduced cost. Founded in 1992 Platform is a pioneer in HPC, Cluster and Grid Computing technologies. Platform has over 2,000 global customers and strategic relationships with Dell, HP, IBM, Intel, Microsoft, RedHat and SAS, along with the industry's broadest support for third-party applications. For more information, please visit www.platform.com

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This product includes software developed by the Rocks Cluster Group at the San Diego Supercomputer Center at the University of California, San Diego and its contributors.

This product, on its own, does not constitute an Intel® Cluster Ready system, nor does combining it with another product ensure that the complete system is Intel® Cluster Ready, unless the complete system is specifically certified as an Intel® Cluster Ready system.