OSCAR Meta-Package
System (v4.x)

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OSCAR

Open Source Cluster Application Resources
Introduction

• What is an OSCAR Meta-package?
• What types of changes are we making to the OSCAR Meta-package system in 4.x?
• “Spin off” projects: HA-OSCAR, SSS-OSCAR, Thin-OSCAR
• Extensibility and portability pay dividends
Overview of Current OSCAR Infrastructure

- Cluster configuration database (ODA)
- Installation system (SIS)
- Cluster environment management system (switcher)
- Remote operation mechanism
- Graphical user interface (GUI) wizard
- Meta-packaging system
- Testing framework
Oscar Packages

Have a defined directory structure consisting of the following files/dirs:

- config.xml
- RPMS/
- SRPMS/
- testing/
- doc/
- scripts/
Oscar package script phases

1. Setup
2. Configurator
3. Rpm-install
4. Post-clients
5. Post-install
6. Post-uninstall
OSCAR Meta-Package
System Services

• Information storage/retrieval in a central database (ODA)
• OPM: OSCAR Package Manager
• Test harness
• Configurator
• DepMan/PackMan or an interface to installing and removing system level packages (RPMS)
Oscar Package Library (LibOPKG)

• A library that offers an OSCAR package author the ability to modify the cluster operating environment and account for the modifications
  • File system modifications
  • OS environment modifications
  • Un-installation issues
DepMan/PackMan

• An abstraction layer to working with native packaging systems like RPMS
• Decouples an OSCAR Package from an underlying native packaging system
• Resolves dependencies in the underlying system packages so the developer does not have to
OSCAR Package Manager (OPM)

- A piece of software that reads from the database and installs or uninstalls software across the cluster.
- SIS currently handles this by installing all selected software in the initial image.
- Installation and Un-installation is currently handled by a separate mechanism and the image is updated.
- Minimal image.
Package Sets

• A way to logically group a collection of OSCAR packages
• Gives the ability to express a relationship between groups of packages
• Increase OSCAR’s viability as an installation framework for multiple projects
Conclusion

• The OSCAR Meta-Package system is being actively improved to provide OSCAR package authors high quality API’s and services

• OSCAR’s portability is increasing

• The extensibility of the OSCAR framework to other projects can be improved though the packaging system
More OSCAR Information…

Open Cluster Group
www.openclustergroup.org/

OSCAR Home Page
oscar.openclustergroup.org/

OSCAR on Sourceforge
sourceforge.net/projects/oscar/

Mailing Lists
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