



CLE Release Overview Supplement (S-2497-5203)

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About the CLE Release Overview Supplement

Cray Linux Environment (CLE) software update release packages provide bug fixes and a limited set of software enhancements or features. The software enhancements and features that were introduced in the initial or base release of CLE 5.2 are described in the *Cray Linux Environment (CLE) Software Release Overview (S-2425-52)*.

This supplement to the CLE Software Release Overview provides a high-level look at the new software enhancements introduced in CLE 5.2, release update UP03.

CLE Enhancements

Cray's Realm Specific Internet Protocol (RSIP) implementation now supports multiple Realm Specific Address Port Internet Protocol (RSAP-IP) assign requests. Previously, due to a protocol limitation, each RSAP-IP mode assign request was limited to requesting 255 ports. Now the protocol allows multiple assignments to the same client. Therefore, if more than 255 ports per client are needed, multiple assign requests can be configured.

Currently on Cray systems, the `xtrsipcfg` command that is used to configure the RSIP gateway daemon does not support configuring the RSIP client to make multiple assignment requests. Therefore, sites wanting to use this feature must configure it manually as described in *Manage System Software for the Cray Linux Environment*.

Resource Utilization Reporting Enhancements

This release of RUR includes the following enhancements.

- The option to gather RUR data at the job level. Previous releases only gathered data at the application level.
- The option to invoke performance-enhanced RUR for large-scaled systems.
- Extended configurability: the ability to define a plugin multiple times with different options.

For further information, see *Manage System Software for the Cray Linux Environment*.

Simple Event Correlator Enhancements

The Simple Event Correlator (SEC) parses every line being appended to system log files, watching for specific strings that represent significant system events, and when such strings are detected, generates notifications to selected recipients. For CLE 5.2.UP03, SEC has been enhanced as follows.

- SEC is now enabled by default.
- SEC now supports optional notification via IRC.

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- SEC now supports a list of approximately 100 different system events that can be monitored.
 - SEC reporting rules are now defined in a configuration file and the rule syntax has been simplified. It is now possible to trigger notifications from an individual system event or user-defined groups of system events, to specify the recipients to be notified on an event- or group-specific basis, and to generate multiple forms of notifications from a single trigger event.

For further information, see *Configure SEC Software* (S-2542-5203).

CUDA Upgrade

CLE 5.2.UP03 supports NVIDIA Tesla K40 GPUs on Cray XC series systems with CUDA 6.5 based libraries. CUDA 6.5 on Cray systems is supported by CCE 8.3.6 and later, libsci_acc 3.1.1 and later, and CPMAT 6.2.2 and later. Applications built with CUDA Toolkit 6.5 and using the MPI GPU-to-GPU feature must use MPT 7.1 or later.

Support Requirements

Supported Cray System Hardware Platforms

The CLE 5.2.UP03 update release supports Cray XC series systems.

Supported Software Upgrade Path

The CLE 5.2.UP03 release supports initial system installations and upgrade installations from CLE 5.1 and CLE 5.2 release packages

System Management Workstation (SMW) Requirements

You must be running the SMW 7.2.UP03 release or later before you install the CLE 5.2.UP03 update release package. For additional information, see the SMW README document included with the SMW release package.

Binary Compatibility

The language in the binary compatibility statement in the *Cray Linux Environment (CLE) Software Release Overview* remains accurate.

Additional Software Requirements

Release Level Requirements for Other Cray Software Products

Support for other Cray software products is provided in the form of updates to the latest released version only. Unless otherwise noted in the associated release documentation, Cray recommends that you continue to upgrade these releases as updates become available.

Upgrading to the latest Cray Programming Environments release is recommended.

Third-party Software Requirements

The *Cray Linux Environment (CLE) Software Release Overview* includes a section that lists third-party software requirements for the CLE 5.2 release. This information applies to CLE 5.2 update packages. Updated information regarding supported and certified batch system software release levels is available on the CrayPort website at <http://crayport.cray.com>, under the **3rd Party Batch SW** menu heading.

Documentation Provided

Cray-developed Books Provided with this Release

The following books are provided with this release. The most recent version of each book is provided with the release package.

For information about additional documentation resources and accessing documentation, see *Cray Linux Environment (CLE) Software Release Overview* (S-2425-52), which is also provided with the release package.

Table 1. Books Provided with this Release

Book Title	Version	Updated?
<i>CLE Release Overview Supplement</i> (this document)	S-2497-5203	Yes
<i>Cray Linux Environment (CLE) Software Release Overview</i>	S-2425-52	No
<i>Install and Configure Cray Linux Environment (CLE) Software</i>	S-2444-5203	Yes
<i>Manage System Software for the Cray Linux Environment</i>	S-2393-5203	Yes
<i>Managing Lustre for the Cray Linux Environment (CLE)</i>	S-0010-5203	Yes
<i>Introduction to Cray Data Virtualization Service</i>	S-0005-5201	No
<i>Writing a Node Health Checker (NHC) Plugin Test</i>	S-0023-5002	No
<i>Workload Management and Application Placement for the Cray Linux Environment</i>	S-2496-5202	No
<i>Using the GNI and DMAPP APIs</i>	S-2446-5202	No
<i>Using Compute Unit Affinity on Cray Systems</i>	S-0030-5002	No
<i>Installing CLE Support Package on a Cray Development and Login (CDL) Node</i>	S-2528-52	No
<i>Cray XC Native SLURM Installation Guide</i>	S-2538-5203	Yes
<i>Cray DataWarp SSD Installation and Configuration Guide</i>	S-2547-5203	Yes
<i>IMPS Guide for DAL Installation</i>	S-0049-52	No
<i>CLE XC Network Resiliency Guide</i>	S-0041-D	Yes
<i>Modify An Application to Avoid Aries Network Congestion</i>	S-0048-B	No*

* No content changes: the version number change reflects a formatting change only.