Release Notes for Zenoss Service Dynamics Resource Management Version 4.0.2

Part Number: 23-082011-4.0-v02

1. About These Notes

These release notes contain important information about this release of Zenoss Service Dynamics Resource Management ("Resource Manager"), including:

- New features
- Where to download the software
- Supported software and environments
- Installation, upgrade, and implementation notes
- Known issues
- Documentation additions and changes
- Reporting problems and providing feedback
- Defects and issues fixed in the release

1.1. What's New?

This version of Resource Manager offers:

- Highly scalable event processing system and console, based partly in Java, increasing event processing to 100M+ events per day.
- Queuing mechanism that allows separation of event processing, horizontal scaling, and the ability to subscribe to event queues for custom processing.
- REST API for querying events.
- Triggers and notifications, which offer more robust and granular options for event alerting rules.
- Zenoss DataStore, an updated database that provides partitioning to support the new Resource Manager event processing system.
- RelStorage, which improves the performance of Zope object database queries.
- Support for SNMPv3 traps.
- Ability to monitor devices directly over IPv6.
- All performance collecting daemons have moved to the collector framework for more consistent operation and higher reliability.
- Can graph ping performance information for devices and interfaces. Per-interface pinging requires a component template be created for the interface to be monitored.

- Incremental device loading per daemon. This enables monitoring to start before all device information is loaded, and helps spread the monitoring load over a period of time rather than all at once.

1.2. Downloading Resource Manager

Resource Manager is available from the Zenoss download site. Contact your Zenoss representative for more information.

1.3. Supported Software and Environments

You can install this version of Resource Manager on these Linux® platforms:

- RedHat® Enterprise Linux 5
- CentOS 5

For each system that will access Resource Manager through a Web browser, you need:

- Firefox (verified with 3.6.x, 4, 5) or Internet Explorer (verified with 7, 8, 9)
- Adobe® Flash® Player

The following partial list of resources can be managed by Resource Manager:

- Cisco Unified Computing System
- NetApp®
- Windows Server (2000, 2003, 2008), Windows XP, and Windows Vista®, Windows 7
- Linux or other UNIX® server
- VMware ESX Infrastructure
- Tomcat™ and other Java®/JMX servers
- Any SNMP- or SSH-enabled device

1.4. Installation, Upgrade and Implementation Notes

Read this section for important installation, upgrade, and implementation updates. For complete installation and update instructions, refer to the latest version of the *Resource Management Installation* guide.

1.4.1. Upgrade

- First, install any missing prerequisites, as outlined in the chapter titled "Installing for RHEL 5 or CentOS 5" in *Resource Management Installation*. *Resource Manager Installation*. Then follow the instructions in the chapter titled "Upgrading" to upgrade your Zenoss Enterprise 3.1.x instance to Resource Manager.
- Previous versions of Zenoss and Resource Manager using RelStorage had a database schema that stored transaction history.

  In 4.0.2, the schema no longer retains transaction history. If upgrading to 4.0.2 from one of these versions, you must run a script prior to upgrade to change your schema.

  Contact Zenoss Support for assistance. (Internal Defect 28806)
- If upgrading from Version 4.0.0 or 4.0.1 to 4.0.2, you must install an updated version of the Zenoss DataStore. To install the new version, run this series of commands:

```
service zenoss stop
service zends stop
rpm -Uvh zends-5.5.15-1.Version.el5.i386.rpm
service zends start
service zenoss start
```

- When upgrading the Zenoss DataStore, any customizations made to the `zends.cnf` file may need to be manually merged. Refer to the *Resource Management Installation* guide, in the chapter titled "Upgrading" for more information. (Internal Defect 28844)
- Zenoss Resource Manager includes a fully redesigned event processing and storage system. At this time, upgrades to Resource Manager will not automatically migrate events from Zenoss Enterprise 3.1.x. A new, empty event table is created in the new schema after upgrade.

  If you want to migrate events to Resource Manager as part of your upgrade, then a managed migration path is available. Zenoss recommends you contact Zenoss Professional Services for assistance, and then create an output file of your current MySQL events database.

  To create the output file, enter this command:

  ```
  mysqldump -u root -p [ROOT_PASSWORD] events | gzip -c > zenoss_events.sql.gz
  ```
- If you have a highly customized distributed collector environment, your configuration may be slightly modified during upgrade to this release of Resource Manager. Specifically, if your main Zenoss 3.1.x master has a `DAEMONS_TXT_ONLY` and `daemons.txt` file to restrict the daemons run on your master server, you will be affected. The upgrade process will save these two files to your `$ZENHOME/etc` directory with the extension "rpmsave," and your post-upgraded system will return to the default daemon starting behavior.

  After upgrade, you can safely modify these files and restrict the daemons started on your master server again. If you do so, please take notice of the daemons needed for Resource Manager Version 4.0, as these have changed from earlier releases.
- If you are running with a load-balanced configuration with multiple Zope instances, and have modified `daemons.txt` or `DAEMONS_TXT_ONLY` files on your Zenoss master, you must move them to another directory before upgrading, and then move them back after upgrade has completed.
- Zenoss does not test or evaluate community, customer-developed, or other custom ZenPacks for upgrades.

  If you are using one or more ZenPacks that are not installed through the standard Resource Manager installation process, you should contact the ZenPack author about its compatibility with this release. Do not upgrade until you ensure compatibility of all custom ZenPacks. Zenoss further recommends you test the ZenPack for upgrade compatibility in a test environment.

1.4.2. Updating Custom ZenPacks

- If you have a custom ZenPack (running on a Zenoss implementation) that includes alerting rules with custom actions, then you must modify the ZenPack before you can use it with Resource Manager. Otherwise, the system will produce warning messages similar to this:

  ```
  WARNING:zen.migrate: <rule>: Successfully migrated rule to Trigger, \
  but was unable to create a Notification - rule has invalid or unknown action type: <action>
  ```

  You must add the following code to your custom ZenPack, in `configure.zcml`:

  ```
  <configure xmlns="http://namespaces.zope.org/zope">
    <utility factory=".actions.MyAction"
             provides="Products.ZenModel.interfaces.IAction"
             name="my_action"/>
  </configure>
  ```

  Read the IAction class declaration in `$ZENHOME/Products/ZenModel/interfaces.py` for documentation of the attributes and methods your action needs to implement. Add the following code to `actions.py` in your custom ZenPack:

  ```
  class MyAction(IActionBase):
      implements(IAction)
  ```

```
id = 'my_action'
name = 'My Action'
actionContentInfo = ICommandActionContentInfo

def execute(self, notification, signal):
    ...

def updateContent(self, content=None, data=None):
    ...
```

Note that the name attribute in the `configure.zcml` file matches up to the id attribute in the `actions.py` file. Examples of implementing actions are in `$ZENHOME/Products/ZenModel/actions.py`, which declares four core actions: email, page, command, and trap.

1.4.3. Event Console Filtering

Event console filtering behavior in Resource Manager is different than that of Zenoss 3.1.x, as follows:

- Regular expressions are not supported when filtering by device or component.
- Matching works as follows in the device/component fields:
  - If you enclose a query in double quotes, it searches for that device or component by using an exact match search (fastest). For example, searching for "abc" matches abc, but not abcd or babc.
  - If you enter a query of less than three characters, or terminate the query with * (asterisk), the query is a "begins with" query. For example, searching for "a" matches "a*" but not "ba."
  - If you enter a query of three characters or more that is not enclosed in quotes, or does not end with an asterisk, then substring matching is performed. For example, searching for "abc" returns matches for devcies "abc" and "babcd."

For more information about event console filtering, see the chapter titled "Using Resource Manager" in *Resource Management Administration*.

1.4.4. Zenoss DataStore

Command-line access to the Zenoss DataStore is available only to the zenoss user; the Zenoss DataStore tools are located only in the zenoss user's $PATH.

You must run all Zenoss DataStore commands as the zenoss user, as in:

```
su - zenoss
zends -u root
```

1.4.5. IPv6

Resource Manager can model and monitor IPv6-addressed devices by using SNMP, Telnet or SSH. Ping monitoring is also supported for IPv6. Resource Manager installation (and communications links among Resource Manager components) must continue to be over IPv4. This includes all links between local or distributed ZenHubs and collectors, and Resource Manager dependencies (such as RabbitMQ).

When adding a new device to Resource Manager, the DNS resolution of the device name dictates whether Resource Manager attempts to connect by using IPv4 or IPv6. If you enter an IP address directly (either as a device name or by manually changing a device's management IP), then Resource Manager can be forced to use IPv4 or IPv6 manually.

1.4.6. zenhub

This release of Resource Manager uses RelStorage, a backend for ZODB that stores pickles in a relational database. With the switch to RelStorage, the `pcachesize` zenhub option is no longer relevant. Remove the `pcachesize` option from your `zenhub.conf` file. (Defect 28620)

1.4.7. TrapForwarder ZenPack

The TrapForwarder ZenPack is deprecated in this release. SNMP traps are now handled as part of notifications. For more information, see the chapter titled "Using Resource Manager" in *Resource Management Administration*.

1.4.8. Reports

The process for determining device state has changed for the Availability report. Previously, if an event was reported that indicated a device down condition before the start of the report window, this event would not be seen, and the device would be considered 100% available. The Availability report now looks for all open events reported before or during the reporting window, and computes availability by using the device state based on prior open events.

1.4.9. Event Commands and Alerting Rules

Quotes in event command messages and event summaries must be escaped. (Internal Defect 28755)

For example, the message: Say "hello" must be escaped as: "Say \"hello\""

Alerting rules or event commands that perform starts or ends with queries on the ntevid field, or perform comparisons against a non-numeric ntevid field, cannot be migrated to the equivalent 4.0.x trigger rule. These alerting rules or event commands must be manually migrated to the appropriate trigger after installation. (Internal Defect 28818)

1.4.10. Debug Logging from zeneventd

To get debug logging to a file, you must run `zeneventd` with the -v10 option. (Internal Defect 28626)

```
zeneventd start -v10
```

1.5. Known Issues

The following issues are known for this version of Resource Manager.

1.5.1. Active Directory

When monitoring Windows 2008 SP1 servers using the ActiveDirectory ZenPack, some performance counters expected by the ZenPack will not be available, and will generate error messages and cause missing performance counters. See the section "Changes to performance counters" at http://technet.microsoft.com/en-us/library/cc754463(WS.10).aspx for more details about changes in Windows 2008. (Defect 28640)

1.5.2. ZenPacks

- The definitions of the Text and TextLine schema have changed. Any ZenPacks that use Text or TextLine in their interface definitions must be updated. (Defect 28507)
- The 1.4.0 version of the CiscoUCS ZenPack in Resource Manager changes the event class structure for events that originate from a UCS Manager. The previous event classes /CiscoUCS/Events and /CiscoUCS/Faults are no longer present. Events that come in will be in the /Unknown class unless they are mapped to the /Status/Blade or /Status/Chassis class. If you have created custom mappings or transforms for the /CiscoUCS/Events or /CiscoUCS/Faults event classes, they will be lost.
- In the LDAPMonitor ZenPack, you must place quotes around Bind DN values. (Defect 2919)

1.5.3. Site Window Portlet

Some Web sites may not be compatible with the Site Window (Welcome) portlet that appears on the Dashboard. Before customizing this portlet to point to another Web site, make sure that site is not running a JavaScript "frame breaker" script. (Defect 27151)

1.5.4. Google Maps

When setting an address for a location, you must include a valid zip code. (Internal Defect 28800)

1.5.5. Reports

After upgrade, reports may not display correctly for users with no assigned roles. To work around this issue, re-index the catalog. (Internal Defect 28822)

1.5.6. Windows Services

Resource Manager displays a status of "unknown" for Windows services that are disabled or not monitored. (Defect 27028)

1.5.7. Zenoss Global Dashboard

Zenoss Global Dashboard is deprecated in this release. If you are running Zenoss Global Dashboard, you must contact Support before upgrading to this release.

1.6. Documentation Additions

Read this section for changes and additions to the last published versions of product documentation.

- The following information has been added to *Resource Management Administration*:

  If you want to set up SSL without rewrite rules on the upstream proxy (for example, Apache mod_proxy), you must enable HTTPS support in Zope. This forces Zope to use HTTPS refs when parsing `absolute_url` paths.

  Edit the `zope.conf` file to include this directive, and then restart `zopectl`:

  ```
  <cgi-environment>
     HTTPS ON
  </cgi-environment>
  ```

  Note

  This setting forces all connections to use HTTPS.

- In *Resource Management Administration*, the following note has been removed from Appendix B. SNMP Device Preparation, section B2. SNMP V3 Support:

  Note

  SNMPv3 Traps are not supported.

- In Resource Management Extended Monitoring, in the chapters titled "SQL Transactions" and "MySQL Database," prerequisite and restriction information is updated with:

Prerequisite	Restriction
MySQL client	Each remote collector must have an installed MySQL client

Table 1. Prerequisites

1.7. Reporting Problems and Providing Feedback

To contact Zenoss Customer Support, go to the support portal at:

http://support.zenoss.com

1.7.1. Product Documentation Feedback

Zenoss welcomes your comments and suggestions to help us improve our product documentation. Please send your comments to:

docs@zenoss.com

1.8. Defects Fixed in this Release

See the document titled "Zenoss Service Dynamics Resolved Defects" (appended to these release notes) for the list of defects that were resolved in this release of Resource Manager.

Resolved Defects for Resource Manager Version 4.0.2

Defect ID	Summary
2859	Flare messages and Devices tree emtpy for user with no role
28196	Zenping doesn't send correct clear event (and pings deleted devices)
28680	zensocket and pyraw permissions wrong in RPM builds
28696	zope logins are reverting to http after logging in as https
28711	No .upgraded file created with rpm -Uvh
28721	Zope security patches needed
28753	Bad notification email body fails silently with traceback, no other signal
28755	If there are quotes in evt/message, event commands will fail
28759	WARNING on transform that contains txnCommit()
28761	RRDView.getRRDValues() does not work with remote zenrender
28764	Navigating to a nonexistent device asks for login, forever
28770	Update installation documentation for remote hubs/collectors on upgrades
28773	Documentation for MySQL, ZenSQLTX ZenPacks missing requirement
28776	ZenHub with workers is slow to publish events in a storm
28778	zenperfsnmp error: 'module' object has no attribute 'Warn'
28780	ConflictErrors in applyDataMaps
28782	Default remote method prioritization doesn't make sense anymore
28783	Traceback in zenhub log: Unhandled error in Deferred
28785	ZenVMware zenpack version needs updating
28786	CiscoUCS zenpack version needs updating
28793	Another Zope security patch! (4.0.2 version)
28802	Software link is missing from the Device page
28804	Several pages need to be sped up
28806	The 'object_state' table in zodb is growing very large
28808	"innodb_bugger_pool_size" in zends.cnf
28810	Processes page can say that another user has modified since last reload
28814	Fix migrate scripts for Avalon to use version 4.0.0
28817	vCPUs aren't modeled in upgraded system 3.1.0->4.0.2-b1234
28818	Complex alerting rule broken on upgrade from 3.1.0 -> 4.0.2
28819	add bailout nag for rpm if history keeping relstorage detected
28822	Reports not displaying for users with no roles after upgrade
28824	User can not remove its own organizers
28825	evid on event summary proxy is incorrect
28840	Error 2013 running changeToNonHistoryZODB.py
28844	Update ZenDS default innodb purge settings
28849	Error in doc string that breaks epydoc
2359	collector setup fails if main server doesn't have eth0 with ip address
28594	auto parser does not understand scientific notation

28747	add threshold to graph display is too narrow
28769	Impact ZenPack showing extraneous output during installation
28771	Modeling a vm in 'inaccessible' state causes vmware modeling to fail on vcpu info
28772	Reducing the number of vCPUs will cause vmware modeling to fail
28790	Dist. Collector removal fails due to failure to edit daemons.txt
28828	Clear notifications sent even if delay specified and no down notification sent
3344	Doc release note for Availability Reports