
Release Notes for Zenoss Service Dynamics™ Version 4.2.4

Copyright © 2013 Zenoss, Inc., 275 West St. Suite 204, Annapolis, MD 21401, U.S.A. All rights reserved.

Zenoss and the Zenoss logo are trademarks or registered trademarks of Zenoss, Inc. in the United States and other countries. All other trademarks, logos, and service marks are the property of Zenoss or other third parties. Use of these marks is prohibited without the express written consent of Zenoss, Inc. or the third-party owner.

Cisco Unified Computing System is a trademark of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

Ext JS is a registered trademark of Sencha, Inc. in the U.S. and other countries.

Flash is a registered trademark of Adobe Systems Incorporated.

Linux is a registered trademark of Linus Torvalds.

Oracle, the Oracle logo, MySQL, and Java are registered trademarks of the Oracle Corporation and/or its affiliates.

SNMP Informant is a trademark of Garth K. Williams (Informant Systems, Inc.).

Sybase is a registered trademark of Sybase, Inc.

Apache, Apache Lucene, and Tomcat are trademarks of The Apache Software Foundation.

ESX, RabbitMQ, vCloud, VMware and vSphere are registered trademarks or trademarks of VMware, Inc. in the United States and/or other jurisdictions.

Windows is a registered trademark of Microsoft Corporation in the United States and other countries.

All other companies and products mentioned are trademarks and property of their respective owners.

Part Number: 23-082013-4.2-v09

1. What's New?	2
2. Versions, Supported Software and Environments	3
3. Downloading Service Dynamics	4
4. Resource Management	4
4.1. Installation and Upgrade Notes	4
4.2. Implementation Notes	5
4.2.1. Zenoss DataStore	5
4.2.2. IPv6	5
4.2.3. Reports	6
4.2.4. Host Name Changes	6
4.2.5. ZenPacks	6
4.2.6. Dumping and Loading Devices	8
4.2.7. zenjobs Permissions	8

4.2.8. Performance	8
4.3. Known Issues	8
4.3.1. Collector Host Name	8
4.3.2. zodb_session Table	8
4.3.3. Active Directory	9
4.3.4. Site Window Portlet	9
4.3.5. Internet Explorer 9	9
4.3.6. Google Maps	9
4.3.7. Windows Services	9
4.3.8. Zenoss Global Dashboard	9
4.3.9. Collector Performance Graphs	9
4.3.10. WARNING in secondary collector log file	9
4.3.11. Google Maps link display	9
4.3.12. ZenOperator role restriction	10
4.3.13. Repository base URL edit for some upgrades	10
4.3.14. SNMP process monitoring on WMI devices is not preserved after upgrade	10
4.3.15. Data migration phase of upgrade unable to complete	10
4.3.16. Console displays duplicate Windows monitoring entries	10
4.3.17. Save button does not work on first click	10
4.3.18. The --logworkerstats option has been removed	10
4.3.19. Any ZenPack that adds or modifies UI elements causes UI breakage on install or uninstall	10
4.3.20. Localhost zenjob heartbeat failure event	11
4.3.21. New option added to zencatalog	11
5. Impact and Event Management	11
6. Global Operations Management	11
6.1. New Features	11
6.2. Defect Fixes	11
6.3. Known Issues	12
7. Issues Fixed in This Release	12
8. Reporting Problems and Providing Feedback	16

1. What's New?

This version of Service Dynamics offers these new features and improvements:

- Improved UI and object search performance through the re-factored global catalog index. The new catalog is backed by the Apache Lucene index.
- ZenTune "tuning advisor," which analyzes your system configuration and makes recommendations for improved performance. This feature is implemented through the ZenPacks.zenoss.AutoTune ZenPack. For information about this feature, refer to the chapter titled "ZenTune" in *Resource Manager Extended Monitoring*.
- Redesigned Job Manager, which allows you to better monitor the status of jobs through the user interface. The new jobs framework allows synchronous execution of long-running jobs and significantly improved UI performance.
- Ability to move a device's associated performance data when you move the device from one distributed collector to another.
- Windows (ZenWinPerf) collector enhanced scalability through multi-worker support. For more information about this feature, refer to the chapter titled "Windows Performance" in *Resource Manager Extended Monitoring*.
- Ext JS® 4.1 UI framework upgrade, which enhances user experience through uniform grid controls, browser performance, and browser support.

- A heartbeat monitor, enabled by the `zengomd` daemon, which is part of Zenoss Service Dynamics Global Operations Management. For more information about this feature, see the section titled "Configuring the Heartbeat Monitor" in the chapter titled "Performance Tuning" in *Resource Manager Installation*.
- Extended platform support, including CentOS 6 and RHEL 6.
- Added in release 4.2.3: In Analytics, each type of ETL job (MODEL, EVENTS, and PERF) can be scheduled independently.
- Added in release 4.2.4: VMware endpoints can use many collectors. Previously, all hosts on a VMware endpoint used the same collector. This change distributes the collection load and improves performance and reliability. (Internal ZEN-6212)
- Added in release 4.2.4: A new AWS ZenPack (ZenPacks.zenoss.AWS) has been created that supersedes the old AWS ZenPack (ZenPacks.zenoss.ZenAWS). In addition, this ZenPack is no longer installed by default.
- Added in release 4.2.4: A new daemon, `zredis`, provides a shared repository for all `zenping` instances, and facilitates correlation of "ping down" events.
- Added in release 4.2.4: A new patch management tool called ZenUp that replaces Quilt. For more information about the ZenUp tool and migration steps, see the *ZenUp Installation and Administration*.

2. Versions, Supported Software and Environments

Service Dynamics Version 4.2.4 includes these product component versions:

Component	Version
Analytics and Optimization	4.2.4
Global Operations Management	1.2.0
Impact and Event Management	4.2.4
Resource Management	4.2.4

You can install this version of Service Dynamics on these Linux® platforms:

- RedHat® Enterprise Linux 5 and 6
- CentOS 5 and 6 (verified with CentOS 5.9, CentOS 6.3)

Added in release 4.2.4: Service Dynamics supports the client operating systems and web browser combinations shown in the following table:

Note

- The supported browsers must have Adobe® Flash® Player 11 (or a more recent version) installed.
- Internet Explorer 10 is not supported for this release.
- Firefox ESR 17.0.5 was not tested for this release.
- Firefox 19.0.2 will not be supported after this release.
- Support for Firefox 20.0 was added for this release.

Table 1. Client and Browser Support

Client OS	Supported Browsers
Windows XP Professional (with SP3)	Internet Explorer 8.0.6001.1870
Windows 7 (6.1.7601)	<ul style="list-style-type: none">• Internet Explorer 9.0.8112.16421• Firefox 19.0.2 and 20.0• Chrome 26.0.1410.43 m
OS X Mountain Lion (10.8)	<ul style="list-style-type: none">• Firefox 19.0.2 and 20.0• Chrome 26.0.1410.43 m
Ubuntu 12.4	<ul style="list-style-type: none">• Firefox 19.0.2 and 20.0• Chrome 26.0.1410.43 m

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

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

3. Downloading Service Dynamics

Service Dynamics is available from the Zenoss Support Portal:

<https://support.zenoss.com>

Contact your Zenoss representative for more information.

4. Resource Management

Read the following sections for the latest installation and implementation information. Zenoss strongly recommends that you refer to the latest version of the installation guide before beginning installation.

4.1. Installation and Upgrade Notes

- Added in release 4.2.4: When upgrading from Version 4.2.3 to Version 4.2.4, you must use RPM instead of YUM.

- Service Dynamics is not supported on 32-bit platforms. If you are upgrading from a 32-bit platform version, please contact Zenoss Support for assistance with your upgrade.
- 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.
- Added in release 4.2.4: Nagios plugins are no longer included in Resource Manager RPMs or installed in `/opt/zenoss/libexec`. Instead, Nagios plugins are listed in the Zenoss dependencies repository, and the Nagios RPM package puts the plugins in `/usr/lib64/nagios/plugins`. If your installation includes a `zencommand` with a hard-coded path to the former location of Nagios plugins, add a symbolic link to the new location. For more information, refer to the "Upgrading" chapter of the *Resource Manager Installation Guide*.
- During installation of the RPM or its dependencies, you may see a message similar to:

```
Warning: RPMDB altered outside of yum.
```

The warning is caused by interference between the YUM and RPM binaries as they access the local package database. This warning is benign and can be ignored. (Internal ZEN-3425)

- Added in release 4.2.4: The internal name of the VMware `cpuUsageAvg` datapoint was incorrect, which caused integration issues. The internal name is corrected in this release. To preserve the datapoint's history, follow these steps on each Data Collector host, including the Resource Manager host:

1. Log in to the host as `zenoss`.
2. Enter the following command:

```
find $ZENHOME/perf/Devices/VMs-- -name cpuUsageAvg_cpuUsage.rrd | \
xargs -I{} sh -c 'cd {}; mv cpuUsageAvg_cpuUsage.rrd cpuUsageAvg_cpuUsageAvg.rrd'
```

(Internal ZEN-4780)

- Added in release 4.2.4: Resource Manager installation will fail if you have a multi-line SSH login prompt. This might occur when you have the PAM last login module enabled which injects a line telling the last login time above the initial login prompt. To avoid this error, disable the PAM last login module.

4.2. Implementation Notes

4.2.1. Zenoss DataStore

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

Run all Zenoss DataStore commands as the `zenoss` user, as in:

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

4.2.2. 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.

If you want to monitor devices in your infrastructure that have IPv6 addresses, make sure you have installed and configured an IPv6 interface on your Resource Manager server.

- A new setting in the `/opt/zenoss/etc/global.conf` file allows you set a preference of DNS resolution order (IPv4 or IPv6) for managed IPs. Set the value of the `preferredipversion` option to `ipv4` or `ipv6`. (Internal ZEN-602)

4.2.3. 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.

4.2.4. Host Name Changes

If you change the host name of your Resource Manager server, then you must clear and rebuild queues before the `zenhub` and `zenjobs` daemons will restart.

To work around this issue, you can issue the following commands (although any data queued at restart time will be lost):

```
export VHOST="/zenoss"
export USER="zenoss"
export PASS="zenoss"
rabbitmqctl stop_app
rabbitmqctl reset
rabbitmqctl start_app
rabbitmqctl add_vhost "$VHOST"
rabbitmqctl add_user "$USER" "$PASS"
rabbitmqctl set_permissions -p "$VHOST" "$USER" '.*' '.*' '.*'
```

4.2.5. ZenPacks

- 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.
- The Nexus7k ZenPack is no longer supported. Its functionality is replaced by the CiscoMonitor ZenPack.
- The `esxtop` monitoring functionality in `ZenPacks.zenoss.ZenVMware` has been moved to a separate ZenPack (`ZenPacks.zenoss.ZenVMwareEsxTop`), which must be downloaded and installed separately from Resource Manager. (Internal ZEN-2481)

The ZenVMware ZenPack that shipped with Resource Manager 4.1 had two monitoring templates in the `/Devices/VMware` device class: `VMwareHost_esxtop` and `VMwareGuest_esxtop`. After upgrading to 4.2.4, these templates will remain unchanged, but `esxtop` monitoring will not be enabled until the new ZenPack is installed. There are two functionality changes with the new ZenPack:

- When a new VMware infrastructure endpoint is added to be monitored, the `VMwareHost_esxtop` template must be bound to the endpoint's Hosts sub-device class for `esxtop` monitoring of the ESX hosts to occur.
- By default, the data sources of the `esxtop` templates were disabled. The data sources on the new templates are enabled by default.

- 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 Manager Administration*.
- Added in release 4.2.4: The Amazon Web Services (ZenPacks.zenoss.AWS) ZenPack supersedes the ZenAWS (ZenPacks.zenoss.ZenAWS) ZenPack that was installed by default on versions of Zenoss prior to 4.2.4. Remove ZenAWS before installing this new ZenPack. This new Amazon Web Services ZenPack is not installed by default and must be installed from the following location: http://wiki.zenoss.org/ZenPack:Amazon_Web_Services.
- Added in release 4.2.4: The ZenJMX ZenPack is updated to support the REMOTING-JMX protocol introduced in JBoss 7.1.1. To enable the new protocol, follow these steps:
 1. Log in to the JBoss host, and copy the `$JBOSS_HOME/bin/client/jboss-client.jar` file to the Resource Manager master host.

Place the JAR file in the `$ZENHOME/zenjmx-libs` directory and ensure it is owned by user and group `zenoss`.
 2. Log in to the Resource Manager console interface as a user with Manager or ZenManager privileges.
 3. Navigate to Infrastructure > Devices, and display all `/Server/JBoss` devices. Follow these steps for each JBoss device:
 - a. Open the details page. Under Monitoring Templates, select JBoss Core.
 - b. On the Data Sources page, double-click a folder.
 - c. In the Edit Data Source window, scroll to the Protocol list.
 - d. Select `REMOTING-JMX`.
 - e. Set the `zJMXManagement` variable to 9999, and click Save.
 - f. Repeat the preceding steps for each folder on the Data Sources page.
 4. Repeat the preceding procedure for all of the JBoss templates below JBoss Core.
 5. *If you have remote collectors:* Navigate to Advanced > Collectors, select each collector, and then select Update Collector from the Action menu next to Performance Collector Configuration.
 6. Restart the `zenjmx` daemon on the master host and on each collector host.
- Added in release 4.2.4: The `zenwebserver` script is designed to support HTTP on a non-privileged port (port number > 1024) and HTTPS on a privileged port (port number < 1024). To use HTTP on a privileged port, follow these steps.
 1. Log in to the Resource Manager master host as `zenoss`.
 2. Open `$ZENHOME/etc/zenwebserver.conf` with a text editor, and add the following text on a new, blank line:

```
userDirective user zenoss zenoss;
```

Save and close the file.
 3. Open `$ZENHOME/etc/nginx.conf.template` with a text editor, and add the following text on a new, blank line, immediately below the line that contains `FILE_BEGIN`:

```
{userDirective}
```

Save and close the file.
 4. Stop the `nginx` master and worker processes.

```
zenwebserver stop
```

5. Log in as `root`, or as a user with superuser privileges, and restrict the permissions of the `nginx` binary.

```
target=$(readlink /opt/zenoss/bin/nginx); chown root:zenoss $target; chmod 04750 $target
```

6. Log in as `zenoss`, and configure and start `nginx`.

```
zenwebserver configure
zenwebserver start
```

- Added in release 4.2.4: The catalog service ZenPack (`ZenPacks.zenoss.CatalogService`) improves console performance, but may cause modeling operations to take longer than expected. In one test modeling IP interfaces, the time to model 2000 devices increased from 1 minute, 9 seconds to 2 minutes, 56 seconds. (Internal ZEN-8023)

4.2.6. Dumping and Loading Devices

The `zendevicedump` and `zendeviceload` commands are not supported in this version of Resource Manager. Use `zenbatchdump` and `zenbatchload` instead. For more information, see the section titled "Dumping and Loading Devices" in *Resource Manager Administration*.

4.2.7. zenjobs Permissions

On CentOS systems, default permissions for `/dev/shm` are set to 0755. For `zenjobs` to perform correctly, you must set permissions on `/dev/shm` to 1777. (ZEN-3504)

4.2.8. Performance

Added in release 4.2.3: Performance can be degraded if there are n processes executing at 100% CPU utilization on m cores (where $n > m$). ZenHub worker processes can be executed at a lower priority to allow the main ZenHub process (and other daemons) more CPU time.

To support this, the following new parameter has been added to ZenHub:

- `--invalidation-worker-priority` - By default, set to a value of 10. Workers are spawned with the UNIX `nice` command. Priority values range from +0 to +19. A process with a priority of 10 will receive approximately 50% the CPU time of a process with a priority of 0. Relative CPU percentage to "nice 0" is $(20 - n) / 20$, where n is the `+nice` value. For more information see, the `nice` man page.

4.3. Known Issues

The following issues are known for this version of Service Dynamics.

4.3.1. Collector Host Name

When deploying a remote collector, if you encounter this error:

```
2012-03-17 19:40:57 ERROR zen.DistributedCollector Removing the new collector
2012-03-17 19:40:57 ERROR zen.DistributedCollector must be string or read-only buffer, \
not none
```

then you must edit the host name of the hub to something other than `localhost` (such as the IP address or host name of the hub).

4.3.2. zodb_session Table

An exception may occur with the `zodb_session` table that prevents access to Zope. (Internal ZEN-1988)

If this exception occurs, follow these steps:

1. Drop and then re-create the zodb_session table, substituting your host name as needed for 'zenoss'@localhost' in the following commands:

```
DROP DATABASE IF EXISTS zodb_session;
CREATE DATABASE zodb_session;
GRANT ALL ON zodb_session.* TO 'zenoss'@'localhost' IDENTIFIED BY 'zenoss';
FLUSH PRIVILEGES;
```

2. Restart the zenwebserver daemon.

4.3.3. 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](http://technet.microsoft.com/en-us/library/cc754463(WS.10).aspx) for more details about changes in Windows 2008. (Defect 28640)

4.3.4. 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)

4.3.5. Internet Explorer 9

When using Internet Explorer 9, Resource Manager user interface page elements may not load and display correctly. To work around this issue, go to the Internet Options **Advanced** tab (from Settings > Internet Options), and then reset Internet Explorer settings.

4.3.6. Google Maps

Added in release 4.2.3: When working with the Google Maps portlet, you may encounter an OVER_QUERY_LIMIT error. If you receive this error, you may have reached your daily limit and will not be able to use the map until the next day when Google resets your IP address. (See ZEN-2399 for more information and resolution.)

4.3.7. Windows Services

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

4.3.8. Zenoss Global Dashboard

Zenoss Global Dashboard is not supported in this release. If you are running Zenoss Global Dashboard, you must contact Support before upgrading.

4.3.9. Collector Performance Graphs

Collector default performance graphs for cycle times show NaN values for zenping, zenperfsnmp, and zenstatus daemons. (Internal Defect 29378)

4.3.10. WARNING in secondary collector log file

Added in release 4.2.4: Adding a secondary collector to a host results in a WARNING message in the new collector's log file. The message is generated as zenjmx searches for an unused port, and should be ignored. (Internal ZEN-5995)

4.3.11. Google Maps link display

Added in release 4.2.4: The Google Maps portlet in the Resource Manager dashboard creates location data points on the map correctly, but displays an error message and hangs on the last location it processes. To prevent this error, disable

the links among data points on the map. To disable links, select Infrastructure > Networks, then set the `zDrawMapLinks` configuration property to `false` on the networks in your environment. (Internal ZEN-5942)

4.3.12. ZenOperator role restriction

Added in release 4.2.4: The ZenOperator role is unable to control the production status of monitored devices, in the device details page (Infrastructure > Device > <specific_device>), or in other pages. The workaround is to add the ZenManager role to users with the ZenOperator role. (Internal ZEN-6010)

4.3.13. Repository base URL edit for some upgrades

Added in release 4.2.4: When upgrading from version 4.1.1 to 4.2.4, check to make sure that the correct version of Zenoss dependencies are installed after installing the dependencies RPM. If you find any errors, modify the `baseurl` parameter in the `/etc/yum.repos.d/zenossdeps.repos` file to be:

```
baseurl=http://deps.zenoss.com/yum/4.2.4/centos/x/os/x86_64/
```

where `x` is the CentOS version number, 5 or 6.

4.3.14. SNMP process monitoring on WMI devices is not preserved after upgrade

Added in release 4.2.4: After upgrading to version 4.2.x, the modelling plugins for the WMI device class were not preserved. To avoid this issue, do not put any devices in the stock Zenoss device classes, but create subclasses instead.

4.3.15. Data migration phase of upgrade unable to complete

Added in release 4.2.4: If you upgrade Zenoss in a staging environment in which your LDAP server is unreachable, the data migration process is unable to complete. To enable the migration to complete, prepend the hash symbol (`#`) to the following entry in `$ZENHOME/var/zenpack_actions.txt`:

```
+/opt/zenoss/packs/ZenPacks.zenoss.AdvancedSearch-1.1.1-py2.7.egg
```

When you finish the upgrade and promote the installation to production, remove the hash symbol.

4.3.16. Console displays duplicate Windows monitoring entries

Added in release 4.2.4: After an upgrade, the Resource Manager console interface may display duplicate entries for Windows monitoring plugins. To remove the duplicates, refer to the procedure in Zenoss KnowledgeBase article 16052-168.

4.3.17. Save button does not work on first click

Added in release 4.2.4: If you attempt to set local values for the `Privileged` or `Registered` entries on the Infrastructure > IP Services page, the Resource Manager console interface does not recognize the first click of the Save button. To update the entries, click twice.

4.3.18. The `--logworkerstats` option has been removed

The `--logworkerstats` option when starting a hub has been removed. To see the zenhub worker statistics, run the following:

```
zenhub stats
```

Examine the `zenhub.log` file for the statistics.

4.3.19. Any ZenPack that adds or modifies UI elements causes UI breakage on install or uninstall

When installing or uninstalling a ZenPack that changes UI elements, the UI breaks. There are two workarounds to remedy this issue:

- Either restart zenwebservice, or
- Install or uninstall the ZenPack from the command line.

4.3.20. Localhost zenjob heartbeat failure event

After upgrading from 4.1.1 to 4.2.4, you may see a "localhost zenjobs heartbeat failure" event even though zenjobs is running.

To clear this event:

1. Verify that zenjobs is actually running.
2. Check the time on all the servers making sure they are synched.
3. Clear the heartbeat table.

4.3.21. New option added to zencatalog

Added in release 4.2.4: The `run` argument of the `zencatalog` command now includes the `--clean` option. The new option is used to clean up unresolvable paths during upgrades. (Internal ZEN-7906)

5. Impact and Event Management

- Availability and performance states are impacted only by an event's parent class. If an event has a subclass of the class defined in a logical node, then no impact is shown. (Internal ZEN-3680)
- Added for release 4.2.4: The Resource Manager console portlets included in Impact ZenPacks must be updated manually when Resource Manager is upgraded to a new release. Add the following steps to the post-installation procedure.

1. Start the ZODB Python environment.

```
zendmd
```

2. Update portlet source code, commit the changes, and exit the environment.

```
zport.ZenPortletManager.update_source()  
commit()  
quit()
```

- Added for release 4.2.4: The `zenbackup` command is unable to back up the Impact database when the Impact Zenpack revision is less than 1.2.9.2. Download the latest revision of the ZenPack from the Zenoss Support web site, and install it, to enable successful backups. (Internal ZEN-7426)

6. Global Operations Management

This section lists updates and fixes for Version 1.2.0 of Service Dynamics Global Operations Management (GOM).

6.1. New Features

In this version, the HTTP client used to propagate actions to local and remote Resource Manager instances has been rewritten for performance and reliability (using asynchronous I/O instead of threading).

6.2. Defect Fixes

Fixes in this version of Global Operations Management (GOM) are:

- Properly timeout HTTP connections to local / remote Zenoss instances. Previously, zengomd could fail to shutdown if a thread was blocked waiting for a response from a HTTP request.
- Removed an unnecessary logged exception in event.log when a target queue did not exist on a GOM source system.
- Fix GOM criteria filter to properly support filtering events based on the event count.
- Fix GOM criteria filter to properly handle 'contains' criteria on device organizers (Groups/Systems).
- Do not fail if a note cannot be propagated to an event on a source or target system if the event no longer exists.
- Fix error when 'Update Model' preference is enabled for a source and an event class doesn't exist on the target system.
- Avoid unnecessary object creation if 'Update Model' preference is enabled.
- Work around ConflictError when creating model elements when the 'Update Model' preference is enabled.
- Optimize the query used to search for existing devices when creating model elements.
- Set the title of created devices to the title from the forwarded event if 'Update Model' is enabled.
- Properly tag forwarded events with the UUID of the device when the 'Update Model' preference is enabled. This enables viewing events for the device / device class in the event console for the device / device class.
- Fix errors performing 'Update Model' operations after the hub has been restarted.

6.3. Known Issues

- Adding the GOM source field in the Event console renders column filtering unusable. (Internal ZEN-6964)

7. Issues Fixed in This Release

The following table lists the JIRA issue number fixed and a brief summary:

JIRA Issue	Summary
ZEN-57	Clear notifications sent as SNMP traps not correct
ZEN-403	Traceback when modeling Linux server after adding zenoss.nmap.IPServiceMap to Modeler Plugins on Device Class
ZEN-1954	Determine required Erlang level, make sure appliance has the proper level
ZEN-2728	Zenoss does not add marker imports to detect version
ZEN-2974	SNMPCycleTime values are not honored
ZEN-3466	Multiple thresholds against same datapoint clear each other
ZEN-3468	Inconsistent UI experience in Infrastructure view
ZEN-3659	Zendisc ValueError: Invalid literal for long() with base 10: 'error'
ZEN-3741	Cannot type ahead Device Class in new device dialog
ZEN-3758	Unable to run zeneventd under multiple threads in Zenoss core
ZEN-3821	Dead Zenoss server leaves javascript running that can freeze browser

Release Notes for Zenoss Service Dynamics™ Version 4.2.4

ZEN-3842	Blank alert message when user tries to remove a Data-Source
ZEN-3850	OS process regression -_ stripped from end of process name when it shouldn't be
ZEN-3851	Process monitoring regression (spaces in hrSWRunPath)
ZEN-3992	Multigraphs do not have titles
ZEN-4135	Delete Device "Delete Events?" doesn't delete events
ZEN-4142	Export function on some performance reports does not provide current view
ZEN-4190	Very slow scrolling in Firefox 13
ZEN-4258	JMX datasources returning MAP type cannot be parsed
ZEN-4331	Lack of "keys" parameter in JSON request /zport/dmd/ev-console router results in exception
ZEN-4338	Zeneventserver won't start with zep-db other than zenoss_zep
ZEN-4353	Bad default sort for DeviceRouter getDevices()
ZEN-4392	poll_ovirt processes are left around after zencommand is stopped
ZEN-4446	De-dupe id for zencommand includes credentials
ZEN-4531	Deletion of a datasource opens a blank dialog box
ZEN-4538	WmiMsSql class wrong device template binded
ZEN-4610	Buttons overlay options when adding a datapoint to a multi-graph report on IE
ZEN-4670	zenbackup fails
ZEN-4671	zeneventserver saved searches can time out prematurely if a database operation takes longer than the timeout period
ZEN-4676	VMware Utilization report lists CPU/Mem Avg/Max in column headers but displays only AVG - export will show expected data
ZEN-4736	UnicodeEncodeError raised when trying to send email to a txt alias
ZEN-4786	Google maps never caches, always geocodes
ZEN-4819	Events: Owner is not being shown in Event Details window
ZEN-4867	Clearing Heartbeat Events documentation
ZEN-4875	zenbackup reports 'Backup completed successfully' even with errors indicating failure
ZEN-4876	Command Notification environment variables not honored if no subscriber
ZEN-4883	Event transform to change device does not change the rest of the device context
ZEN-4923	Rabbitmq-server 2.8.6 cannot be installed using the epel repository

Release Notes for Zenoss Service Dynamics™ Version 4.2.4

ZEN-4926	Change the way to install rrdtools 1.4.7 on cent6
ZEN-4944	Zenmib choking on odd character combos in comments section
ZEN-4998	Localhost collector can be deleted but not restored
ZEN-5002	Google maps placing location markers incorrectly
ZEN-5035	Some components can't be deleted
ZEN-5038	Can't drag network map like in previous versions
ZEN-5040	zensendevent fails when zenhub credentials are changed from default
ZEN-5092	ZENOSS-MIB.txt bad in Core 4.2.3
ZEN-5093	Network map does not understand link local addresses
ZEN-5104	zenping should support configuring data length of ICMP packets
ZEN-5140	Select all events in Device
ZEN-5142	ASA 5555 hardware model is not being translated properly
ZEN-5145	Administratively down VLAN on ACE 4710 virtual context is discovered incorrectly
ZEN-5146	Connection rate KPI for ACE 4710 virtual context component is always nan
ZEN-5148	Physical interfaces and port channels on ASA 5555 are discovered under VLAN component
ZEN-5150	Tracebacks while adding virtual context on ACE 4710
ZEN-5219	Link in popup is displayed as text when mapping an event (no longer clickable)
ZEN-5255	Zenoss daemons incompletely documented in Admin Guide
ZEN-5267	When new products are created during modelling the product key is not automatically populated
ZEN-5318	Events created from a threshold against SSH-based processes have no component
ZEN-5347	Nexus 7000 power supply KPI graph has wrong unit scale.
ZEN-5355	Nexus 7000 hardware model is not being translated properly
ZEN-5361	Clicking job name in right popup does not go to job when on Advanced/Jobs page
ZEN-5363	Showing OID for hardware model on the ACE 30
ZEN-5379	SNMP modeler does not recognize changes in the number of CPUs
ZEN-5390	PSU removal on ASA 5555 did not trigger modelling of the device
ZEN-5467	Nexus power supply event is a change warning that is immediately closed

Release Notes for Zenoss Service Dynamics™ Version 4.2.4

ZEN-5468	Zoom / pan not available in graphic report
ZEN-5470	Zenoss discovered incorrect Ethernet Interface names on ACE 4710
ZEN-5471	Nexus F2 line card removal causes closed changes event
ZEN-5472	Current KPI for ACE 4710 power supplies component is always nan
ZEN-5506	Zenoss not able to discover HA status of a virtual context on ACE 4710
ZEN-5562	Sub-components via non-containing relationships are no longer filtered
ZEN-5563	Zenoss core ignores MTA settings in Advanced > Settings
ZEN-5580	Cmd event class error on all virtual contexts on ACE 4710
ZEN-5595	Values of more than 11 digits long can't be monitored
ZEN-5677	Zenping can miss cycles if there are lots of down devices
ZEN-5694	Performing a first zenoss start up returns a traceback in upgrade from 3.2.1 to 4.2.4
ZEN-5746	EMC VNX impact graphing not mapping vmware LUN to the correct EMC LUN
ZEN-5748	Customer has requested that Thick LUNs be collected
ZEN-5750	EMC VNX block pools need to be grouped above the SMI-S provider
ZEN-5751	EMC VNX impact graphing showing components down but should be at risk
ZEN-5752	SMI-S class information from EMC VMAX for processor status showing as a processor failure
ZEN-5785	/Heartbeat eventclass no longer handles heartbeats
ZEN-5817	VDC entry coming back empty during modeling
ZEN-5996	Remove ZenAWS from 4.2.4 packages
ZEN-6217	Zenping correlation does not work in 4.2.4 core builds
ZEN-6267	Unable to set service key for IpService and WinService
ZEN-6393	zSnmpMonitorIgnore = False on device in an SSH class will monitor processes via snmp regardless of model plugin availability
ZEN-6569	Can't upgrade MySQL with Core 4.2.3 installed
ZEN-6635	Log page load times if the setting is enabled
ZEN-6780	ZenUp install errors if /home is NFS mounted and not root writable
ZEN-6844	zenImpactLastOccurrence truncated time stamps
ZEN-7032	Google Maps geocodes when more than one location has the same address
ZEN-7130	Syslog events from Cisco UCS and NX-OS have event-ClassKey prefixed with %

8. Reporting Problems and Providing Feedback

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

<https://support.zenoss.com>

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

docs@zenoss.com