



# **Zenoss Resource Manager Release Notes**

Release 6.0.1

Zenoss, Inc.

[www.zenoss.com](http://www.zenoss.com)

# Zenoss Resource Manager Release Notes

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# About this document

*Zenoss Resource Manager Release Notes* contains important information about minor and micro releases of Zenoss Resource Manager (Resource Manager).

For information about Control Center, refer to the *Control Center Release Notes*.

This document provides information about the following releases of Resource Manager:

Date	Release
18 December 2017	6.0.1
07 November 2017 (controlled availability)	6.0.0
25 September 2017	5.3.2
31 August 2017	5.3.1
17 August 2017	5.3.0

## Tested operating environments

The Resource Manager application is deployed in and managed by Control Center. The operating environments of Resource Manager are the Control Center environments that are tested with a given release. The following sections identify the tested operating environments of Resource Manager and Control Center.

### Resource Manager, Control Center, and operating systems

The following table identifies the tested combinations of Resource Manager, Control Center, and operating system releases.

Resource Manager release	Control Center	
	Minimum release	Host OS
6.0.1**	1.5.0	RHEL/CentOS 7.2, 7.3, or 7.4 (64-bit)
5.3.0, 5.3.1, 5.3.2, 5.3.3	1.3.0, 1.3.1, 1.3.2, 1.3.3, 1.3.4, 1.4.0, 1.4.1	RHEL/CentOS 7.1, 7.2, or 7.3 (64-bit)
5.2.0, 5.2.1, 5.2.2, 5.2.3, 5.2.4, 5.2.6*	1.2.0, 1.2.1, 1.2.2, 1.2.3, 1.3.0, 1.3.1, 1.3.2, 1.3.3, 1.3.4, 1.4.0, 1.4.1	RHEL/CentOS 7.1, 7.2, or 7.3 (64-bit)
5.1.9, 5.1.10	1.1.9, 1.2.0	RHEL/CentOS 7.1 or 7.2 (64-bit)
5.1.8	1.1.5, 1.1.6, 1.1.7, 1.1.8, 1.1.9	RHEL/CentOS 7.1 or 7.2 (64-bit)
5.1.7	1.1.5, 1.1.6, 1.1.7, 1.1.8	RHEL/CentOS 7.1 or 7.2 (64-bit)
5.1.6 (internal release only)	(none)	(none)
5.1.4, 5.1.5	1.1.5, 1.1.6, 1.1.7	RHEL/CentOS 7.1 or 7.2 (64-bit)
5.1.3	1.1.2, 1.1.3, 1.1.5	RHEL/CentOS 7.1 or 7.2 (64-bit)
5.1.2	1.1.2, 1.1.3	RHEL/CentOS 7.1 or 7.2 (64-bit)

\*\* Version 6.0.0 - controlled availability.

\* Version 5.2.5 - withdrawn.

Resource Manager release	Control Center	
	Minimum release	Host OS
5.1.1	1.1.1, 1.1.2	RHEL/CentOS 7.1 or 7.2 (64-bit)

### Hypervisors

Hypervisor	Versions
VMware vSphere	5.0, 5.1, 5.5, 6.0, 6.5
Microsoft Hyper-V	Version 2.0 with Windows Server 2008 R2 SP1
	Version 3.0 with Windows Server 2012 and 2012 R2

### Public cloud platforms

Amazon Web Services (AWS) is fully tested.

Microsoft Azure has been tested only for collector pools. Creating a full Control Center deployment to operate Resource Manager has NOT been tested on Microsoft Azure.

## Supported clients and browsers

The following table identifies the supported combinations of client operating systems and web browsers.

Client OS	Supported browsers
Windows 7, 10	Internet Explorer 11*
	Firefox 56 and later
	Chrome 61 and later
macOS 10.12.3, 10.13	Firefox 56 and later
	Chrome 61 and later
Ubuntu 14.04 LTS	Firefox 56 and later
	Chrome 61 and later

\* Enterprise mode only; compatibility mode is not tested.

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# Resource Manager 6.0.1

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## Considerations, notes, and workarounds

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### New download site

Beginning on 1 December, 2017, downloads for Resource Manager customers are available on [delivery.zenoss.com](http://delivery.zenoss.com) only. Leapfile is no longer used.

### Compatibility with Zenoss Service Impact

This version of Resource Manager is compatible with Zenoss Service Impact version 5.2.2 or later.

### Layer2 ZenPack

The Layer2 ZenPack (`ZenPacks.zenoss.Layer2`) is resource intensive. If you do not intend to use it, Zenoss recommends uninstalling it.

### Upgrade considerations

(ZEN-29337) If Nutanix ZenPack version 1.0.1 is installed, uninstall it, perform the Resource Manager upgrade, and then reinstall the ZenPack.

(ZEN-29103) No data is collected for the RM device after an upgrade if the localhost collector is moved off the master host. If you have moved the localhost collector off the Control Center master host, you must set the following properties for the `ZenossRM` device to enable data collection.

- 1 Navigate to the `ZenossRM` device overview page and select **Configuration Properties**.
- 2 Set the following `zProperties`:
  - `zRMMonCCHost` - Enter the IP address of the Control Center master host.
  - `zRMMonCCUser` - Enter the name of the `ccuser` account, which is the default account for gaining access to the Control Center browser interface.
  - `zRMMonCCPassword` - Enter the password of the `ccuser` account.

## New features

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There are no new features in this release of Resource Manager.

## Fixed issues

**Table 1: Release 6.0.1 fixed issues**

ID	Description
ZEN-29052	Some migrate scripts do not run during a 5.3 to 6.0.0 upgrade.
ZEN-29056	Exception blocks some 5.x to 6.0.0 upgrades.
ZEN-29067	RMMonitor ZenPack does not install properly during a 5.x to 6.0.0 upgrade.
ZEN-29070	Under certain scenarios, writing metrics can print tracebacks.

## Known issues

**Table 2: Release 6.0.1 known issues**

ID	Description	Status
ZEN-26802	OS model link in Device Detail page points to wrong manufacturer entry.	Open
ZEN-27499	Error message regarding dropped events displayed during upgrade.	Open
ZEN-28138	objectGUID is not available to be selected in Login Name Attribute combo box in LDAP configuration options.	Open
ZEN-28519	Error is displayed when a correct date/time is entered in the Date Range field.	Open
ZEN-28716	On Events page, the <b>Show only actionable events</b> check box is not displayed for the ZenOperator role.	Open
ZEN-28725	On the Dashboard page, a ZenManager can see a dashboard even though that user is part of a group with a restriction.	Open
ZEN-28817	Data point alias IDs should not have trailing white spaces, nor a length that exceeds 31 characters. Warning is issued.	Open
ZEN-28900	When adding a device that is already modeled, the job log shows a failure even though the device seemed to model correctly.	Open
ZEN-28956	Cisco UCS reports organizer is hidden when using ZenOperator role.	Open
ZEN-28965	Control Center device and Thinpool Metadata Usage graph values do not match.	Open
ZEN-28969	Creating custom variables should not require a value.	Open
ZEN-28971	Missing <b>Projected High Disk</b> threshold for Storage Pools component for EMC VNX.	Open
ZEN-28979	Production State portlet does not show custom state name.	Open
ZEN-29103	No data is collected for the device after an upgrade if the localhost collector is moved off the master host. See <a href="#">Considerations, notes, and workarounds</a> on page 5 for detailed instructions.	Open
ZEN-29109	Disable Transforms report is not working.	Open
ZEN-29120	Error flare messages appear intermittently on the <b>Advanced &gt; Control Center</b> tab.	Open

## ZenPacks

This section lists ZenPacks that are automatically installed and those that are packaged but not installed. For more information about ZenPacks, see the <http://www.zenoss.com/product/zenpacks>.

**Note** Using an unreleased (dev) version of a ZenPack might cause installation or upgrade issues. Uninstall ZenPacks that were not packaged in a generally available release.

### Installed ZenPacks

This release of Resource Manager installs the following ZenPacks at the current version listed in the table.

**Table 3: Release 6.0.1 installed ZenPacks**

ZenPack	Current version	Previous version
ZenPacks.zenoss.AWS	3.0.3	Same
ZenPacks.zenoss.AdvancedSearch	2.0.0	Same
ZenPacks.zenoss.AixMonitor	2.2.3	Same
ZenPacks.zenoss.ApacheMonitor	2.1.4	Same
ZenPacks.zenoss.AuditLog	1.4.1	Same
ZenPacks.zenoss.CalculatedPerformance	2.5.0	Same
ZenPacks.zenoss.CiscoMonitor	5.8.1	Same
ZenPacks.zenoss.CiscoUCS	2.6.2	Same
ZenPacks.zenoss.ComponentGroups	1.5.0	Same
ZenPacks.zenoss.ControlCenter	1.5.3	Same
ZenPacks.zenoss.Dashboard	1.2.7	Same
ZenPacks.zenoss.Dell.PowerEdge	2.0.4	Same
ZenPacks.zenoss.Diagram	1.3.1	Same
ZenPacks.zenoss.DigMonitor	1.1.0	Same
ZenPacks.zenoss.DistributedCollector	3.1.6	Same
ZenPacks.zenoss.DnsMonitor	2.1.0	Same
ZenPacks.zenoss.Docker	2.0.2	Same
ZenPacks.zenoss.DurationThreshold	2.0.4	Same
ZenPacks.zenoss.DynamicView	1.5.0	Same
ZenPacks.zenoss.EMC.base	1.2.1	Same
ZenPacks.zenoss.EnterpriseCollector	1.8.0	Same
ZenPacks.zenoss.EnterpriseReports	2.5.0	Same
ZenPacks.zenoss.EnterpriseSecurity	1.2.0	Same
ZenPacks.zenoss.EnterpriseSkin	3.3.4	Same

ZenPack	Current version	Previous version
ZenPacks.zenoss.FtpMonitor	1.1.0	Same
ZenPacks.zenoss.HP.Proliant	3.3.0	Same
ZenPacks.zenoss.HttpMonitor	2.1.0	Same
ZenPacks.zenoss.IBM.Power	1.1.2	Same
ZenPacks.zenoss.InstalledTemplatesReport	1.1.1	Same
ZenPacks.zenoss.JuniperMonitor	2.1.1	Same
ZenPacks.zenoss.LDAPAuthenticator	3.3.1	Same
ZenPacks.zenoss.LDAPMonitor	1.4.1	Same
ZenPacks.zenoss.Layer2	1.3.5	Same
ZenPacks.zenoss.Licensing	0.2.0	Same
ZenPacks.zenoss.LinuxMonitor	2.2.6	Same
ZenPacks.zenoss.Microsoft.Azure	1.3.0	Same
ZenPacks.zenoss.Microsoft.Windows	2.8.1	Same
ZenPacks.zenoss.MySqlMonitor	3.0.9	Same
ZenPacks.zenoss.NetAppMonitor	3.6.0	Same
ZenPacks.zenoss.NtpMonitor	2.2.2	Same
ZenPacks.zenoss.PredictiveThreshold	1.2.2	Same
ZenPacks.zenoss.PropertyMonitor	1.1.1	Same
ZenPacks.zenoss.PythonCollector	1.10.1	Same
ZenPacks.zenoss.RMMonitor	1.0.2	1.0.1
ZenPacks.zenoss.SolarisMonitor	2.5.0	Same
ZenPacks.zenoss.StorageBase	1.4.3	Same
ZenPacks.zenoss.SupportBundle	1.1.2	Same
ZenPacks.zenoss.vSphere	3.6.3	Same
ZenPacks.zenoss.WBEM	1.0.3	Same
ZenPacks.zenoss.WSMAN	1.0.1	Same
ZenPacks.zenoss.ZenDeviceACL	2.3.0	Same
ZenPacks.zenoss.ZenJMX	3.12.1	Same
ZenPacks.zenoss.ZenMail	5.1.0	Same
ZenPacks.zenoss.ZenOperatorRole	2.2.0	Same
ZenPacks.zenoss.ZenPackLib	2.0.7	Same
ZenPacks.zenoss.ZenSQLTx	2.7.0	Same
ZenPacks.zenoss.ZenWebTx	3.0.1	Same



## Packaged ZenPacks

The following ZenPacks are packaged with Resource Manager, but not automatically installed:

- ZenPacks.zenoss.BigIpMonitor
- ZenPacks.zenoss.BrocadeMonitor
- ZenPacks.zenoss.Ceph
- ZenPacks.zenoss.CheckPointMonitor
- ZenPacks.zenoss.CiscoAPIC
- ZenPacks.zenoss.DatabaseMonitor
- ZenPacks.zenoss.DB2
- ZenPacks.zenoss.HpuxMonitor
- ZenPacks.zenoss.JBossMonitor
- ZenPacks.zenoss.Memcached
- ZenPacks.zenoss.Microsoft.Exchange
- ZenPacks.zenoss.Microsoft.Lync
- ZenPacks.zenoss.Microsoft.MSMQ
- ZenPacks.zenoss.NetScaler
- ZenPacks.zenoss.NetScreenMonitor
- ZenPacks.zenoss.NSX
- ZenPacks.zenoss.OpenStack
- ZenPacks.zenoss.OpenStackInfrastructure
- ZenPacks.zenoss.OpenvSwitch
- ZenPacks.zenoss.PostgreSQL
- ZenPacks.zenoss.RabbitMQ
- ZenPacks.zenoss.TomcatMonitor
- ZenPacks.zenoss.XenServer

## Resource Manager 6.0.0

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### Considerations, notes, and workarounds

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#### **ZEN-28886: Maintenance windows now process devices in batches of 200**

The `zenactiond.conf` file will now have a setting for batches to process devices for maintenance windows in groups of 200. Previously, batching was not enabled. If you want to change the default batching, edit the following line in the `zenactiond.conf` file in Control Center:

```
maintenance-window-batch-size 200
```

#### **ZEN-28883: All timestamps now use local time zone**

There used to be a mixture of timestamps used throughout Resource Manager (UTC and local time zone), but now all timestamps use the local time zone for ease and consistency.

#### **ZEN-27386: Removing support for Internet Explorer 10**

Starting with Resource Manager 6.0.0, Internet Explorer 10 is no longer a supported browser.

#### **Upgrade considerations**

**Solr:** With the implementation of Solr indexing, during an upgrade, two migrations automatically run; the Solr index is built, and the production state migrates to Solr. This process might take several hours, depending on the size of your system.

**ZenPack manual update:** If you are using the following ZenPacks, you must manually update them after upgrading to Resource Manager 6.0.0:

- `ZenPacks.zenoss.PortalIntegration`
- `ZenPacks.zenoss.MultiRealmIP`
- `ZenPacks.zenoss.DeviceSearch`

**Compatibility with Zenoss Service Impact:** Resource Manager 6.0.0 is compatible with Zenoss Service Impact version 5.2.2 or later. If you use Zenoss Service Impact and upgrade to or install Resource Manager 6.0.0, you must also upgrade to or install Zenoss Service Impact 5.2.2 or later.

## New features

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This release of Resource Manager provides the following new features.

### Self-monitoring capability

Resource Manager provides self-monitoring capabilities. A visual pipeline-based status page in the browser interface shows an overview of the monitored Resource Manager instance, including key metrics for nodes in the metric collection, event generation, and modeling processes.

Use data to troubleshoot performance issues with Resource Manager components and proactively manage performance. For example, data can help you determine when a component or service in the system is overloaded. Before issues occur, optimize system performance by adding more instances, more memory, more CPU, or adjusting configuration settings.

You can add custom events and custom thresholds, and edit shipped thresholds for components that have them.

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**Note** Shipped threshold values are subject to change in future releases. If you edit a value, your change will be overwritten by future updates.

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For more information see the "Monitoring Resource Manager health and performance" chapter in the *Zenoss Resource Manager Administration Guide*.

### Solr model catalog

Currently several catalogs are used to perform efficient searches across the zoddb object graph. Unfortunately, information in these catalogs is not stored efficiently and in some cases is duplicated. The new Model Catalog is a central catalog for model data that uses Apache Solr as an indexing backend and which will reduce zoddb load and mitigate the duplication of indexed data. The following catalogs are being moved to Solr:

- global\_catalog
- componentSearch
- ipSearch
- deviceSearch
- layer2\_catalog
- layer3\_catalog

The deprecated catalogs have been replaced by adapters that mimic the legacy catalogs' interfaces and use Model Catalog under the hood, so that current ZenPacks should function without any changes. However, there could be cases where ZenPacks use the legacy catalogs in a way the adapters do not support. In such cases, either the adapter or the ZenPack would need to be modified.

### Graph enhancements

There have been many improvements to the graphing functionality including the ability to configure a default time range and number of columns, and clicking within a graph to zoom in and re-center the graph. For more information, see the *Zenoss Resource Manager Administration Guide*.

### Expanded logging and improved management of audit logs

Audit logging has been expanded to include Control Center configuration and service changes. This audit log can be found at `/var/log/serviced/serviced-audit.log`. There have also been improvements in the ability to configure the retention period for audit logs to be different than that of other logs.

## Preserving metrics when reidentifying a device

When reidentifying a device, existing performance data will be lost unless that data is reassociated with the new device ID. There is now an option available to either reassociate existing performance data or to delete existing performance data and starting fresh with the new device ID.

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**Note** Reassociating existing performance data could take some time, during which no metrics will be collected or graphed for this device.

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## Clustering of collector Redis

This enhancement increases the efficiency of multi-host collectors by ensuring that cached collector configurations are effectively used between collector Redis restarts. The number of collector Redis instances must be equal to the number of collector hosts in the pool, and the host pool DFS access must be turned off.

## Fixed issues

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**Table 4: Release 6.0.0 fixed issues**

ID	Description
ZEN-486	When adding datapoints, the log message is not displaying the name.
ZEN-10840	Event mapping creation is not audited.
ZEN-20597	Standalone graph controls do not function properly.
ZEN-20986	HTML Email notifications have random spaces in the formatted output.
ZEN-21465	The <b>Stacked</b> check box on the <b>Graph Point Definition</b> screen has no effect on the graph.
ZEN-21657	Cannot add Manufacturer to ZenPack.
ZEN-23067	Timestamps are not saved on Event View links.
ZEN-23675	Control Center ZenPack should show Control Center version information.
ZEN-23874	zenmodeler collage setting not working.
ZEN-24221	Invalid time on performance data.
ZEN-24306	Error when evaluating min/max threshold.
ZEN-24700	Unable to access Role Manager.
ZEN-25648	ZenPack install is not logged in <code>audit.log</code> .
ZEN-25946	Control Center does not warn when attempting to run multiple <code>zeneventserver</code> .
ZEN-26529	Event Details sections are expanded by default.
ZEN-26493	Notifications are not sent to manual email subscribers.
ZEN-26519	Thin pool metadata usage component graph is empty.
ZEN-26600	Large multi-graph reports cannot open in new tab due to long URLs.
ZEN-26668	Results are not shown on search page.
ZEN-26675	Appliances do not allow the root user to login.

ID	Description
ZEN-26742	ZenPack export and download results in error.
ZEN-26776	Central Query should send a more informative error message when encountering an error during RPN parsing.
ZEN-26850	zenping not resetting its missed runs on config refresh.
ZEN-26891	Special characters in <b>Infrastructure &gt; Devices</b> view can cause flares.
ZEN-26925	Graph auto scaling does not accept small and non-integer values (1 and -1 are the minimum boundary).
ZEN-26926	Event class mapping navigation issues.
ZEN-26943	Event bookmarks should specify the columns as well as the filters.
ZEN-26944	zenmodeler logging 'Scan time' of modeling immediately after modeling starts.
ZEN-26953	audit.log does not log changes to the <b>Infrastructure &gt; Manufacturers</b> page.
ZEN-26981	Event View dashboard portlet does not retain specified columns and/or filters.
ZEN-26996	Modifications to /etc/hosts on appliances are overwritten upon reboot.
ZEN-27047	Devices are not added as Component Group.
ZEN-27104	IPv6ServiceMap plugin models services that are localhost only.
ZEN-27174	Cannot create two Custom properties.
ZEN-27213	Metrics property of zenmodeler not consistent between fresh and upgraded systems.
ZEN-27299	HBase/Regionserver StartLevel values need adjustment.
ZEN-27510	Time format setting should be applied consistently.
ZEN-27542	Device config caching in redis does not work properly for multi-host collector pools.
ZEN-27565	Manual runs of collector daemons against a device fail to find configs.
ZEN-27678	Component Groups throw a flare when saving dynamic services.
ZEN-27736	Ping status does not included suppressed events.
ZEN-27743	Advanced Search cannot find devices in solr.
ZEN-27767	stateChange field in .csv export is in epoch time, which is inconsistent with other fields.
ZEN-27777	Invalid TALES expressions cause notifications to fail.
ZEN-27833	Unexpected data in output from ping user command.
ZEN-27883	Duplicate task exceptions cause _updateDeviceConfigs to silently fail.
ZEN-27924	Solr max heap size should be configurable.
ZEN-27937	Cisco UCS devices not batch loading correctly with zenbatchload.
ZEN-27990	ThresholdNotifier does not work in zenhub.

ID	Description
ZEN-27993	zendebug service starts automatically on an upgraded system.
ZEN-28199	Control Center self monitoring uses wrong initial URL.
ZEN-28219	Flare message displayed when removing a hub.
ZEN-28274	Datastore sort by allocation is random.
ZEN-28306	RM monitor device does not check for duplicate device adds.
ZEN-28478	OpenTSDB fails after upgrade from pre-5.1.1 systems.
ZEN-28540	Several fields incorrectly accept autofill.
ZEN-28629	Memory leak in daemons due to logging in twisted 15.2.0+.
ZEN-28636	Attribute error when open graph containing ValueChanged threshold type.
ZEN-28664	Zenhub can get in a state where some workers die and never get restarted.
ZEN-28693	zenmail fails to parse hostname from an email address.
ZEN-28709	Upgrade OpenSSL in our containers.

## Known issues

**Table 5: Release 6.0.0 known issues**

ID	Description	Status
ZEN-26802	OS model link in Device Detail page points to wrong manufacturer entry	Open
ZEN-27499	Error message regarding dropped Events displayed during Resource Manager upgrade.	Open
ZEN-28138	objectGUID is not available to be selected in Login Name Attribute combo box in LDAP configuration options.	Open
ZEN-28519	Error is displayed when a correct date/time is entered in the Date Range field.	Open
ZEN-28716	On Events page, the <b>Show only actionable events</b> check box is not displayed for the ZenOperator role.	Open
ZEN-28725	On the Dashboard page, a ZenManager can see a dashboard even though that user is part of a group with a restriction.	Open
ZEN-28900	When adding a device that is already modeled, the job log shows a failure even though the device seemed to model correctly.	Open
ZEN-28956	Cisco UCS reports organizer is hidden when using ZenOperator role.	Open
ZEN-28969	Custom variables creation should not require a value.	Open
ZEN-28971	Missing <b>Projected High Disk</b> threshold for Storage Pools component for EMC VNX.	Open
ZEN-28979	Production State portlet not showing custom state name.	Open

## ZenPacks

This release of Resource Manager installs the following ZenPacks at the current version listed in the following table. For more information about ZenPacks, see the <http://www.zenoss.com/product/zenpacks>.

**Table 6: Release 6.0.0**

ZenPack	Current version	Previous version
ZenPacks.zenoss.AWS	3.0.3	New in 6.0.0
ZenPacks.zenoss.AdvancedSearch	2.0.0	1.2.1
ZenPacks.zenoss.AixMonitor	2.2.3	Same
ZenPacks.zenoss.ApacheMonitor	2.1.4	Same
ZenPacks.zenoss.AuditLog	1.4.1	Same
ZenPacks.zenoss.CalculatedPerformance	2.5.0	2.4.1
ZenPacks.zenoss.CiscoMonitor	5.8.1	5.8.0
ZenPacks.zenoss.CiscoUCS	2.6.2	2.6.1
ZenPacks.zenoss.ComponentGroups	1.5.0	1.4.0
ZenPacks.zenoss.ControlCenter	1.5.3	1.5.2
ZenPacks.zenoss.Dashboard	1.2.7	Same
ZenPacks.zenoss.Dell.PowerEdge	2.0.4	New in 6.0.0
ZenPacks.zenoss.Diagram	1.3.1	Same
ZenPacks.zenoss.DigMonitor	1.1.0	Same
ZenPacks.zenoss.DistributedCollector	3.1.6	Same
ZenPacks.zenoss.DnsMonitor	2.1.0	Same
ZenPacks.zenoss.Docker	2.0.2	New in 6.0.0
ZenPacks.zenoss.DurationThreshold	2.0.4	New in 6.0.0
ZenPacks.zenoss.DynamicView	1.5.0	Same
ZenPacks.zenoss.EMC.base	1.2.1	New in 6.0.0
ZenPacks.zenoss.EnterpriseCollector	1.8.0	1.7.4
ZenPacks.zenoss.EnterpriseReports	2.5.0	2.4.1
ZenPacks.zenoss.EnterpriseSecurity	1.2.0	Same
ZenPacks.zenoss.EnterpriseSkin	3.3.4	Same
ZenPacks.zenoss.FtpMonitor	1.1.0	Same
ZenPacks.zenoss.HP.Proliant	3.3.0	New in 6.0.0
ZenPacks.zenoss.HttpMonitor	2.1.0	Same
ZenPacks.zenoss.IBM.Power	1.1.2	New in 6.0.0
ZenPacks.zenoss.InstalledTemplatesReport	1.1.1	New in 6.0.0

ZenPack	Current version	Previous version
ZenPacks.zenoss.JuniperMonitor	2.1.1	Same
ZenPacks.zenoss.LDAPAuthenticator	3.3.1	Same
ZenPacks.zenoss.LDAPMonitor	1.4.1	Same
ZenPacks.zenoss.Layer2	1.3.5	New in 6.0.0
ZenPacks.zenoss.Licensing	0.2.0	Same
ZenPacks.zenoss.LinuxMonitor	2.2.6	Same
ZenPacks.zenoss.Microsoft.Azure	1.3.0	New in 6.0.0
ZenPacks.zenoss.Microsoft.Windows	2.8.1	2.7.8
ZenPacks.zenoss.MySqlMonitor	3.0.9	Same
ZenPacks.zenoss.NetAppMonitor	3.6.0	3.5.0
ZenPacks.zenoss.NtpMonitor	2.2.2	Same
ZenPacks.zenoss.PredictiveThreshold	1.2.2	Same
ZenPacks.zenoss.PropertyMonitor	1.1.1	Same
ZenPacks.zenoss.PythonCollector	1.10.1	Same
ZenPacks.zenoss.RMMonitor	1.0.1	New in 6.0.0
ZenPacks.zenoss.SolarisMonitor	2.5.0	Same
ZenPacks.zenoss.StorageBase	1.4.3	Same
ZenPacks.zenoss.SupportBundle	1.1.2	Same
ZenPacks.zenoss.vSphere	3.6.3	Same
ZenPacks.zenoss.WBEM	1.0.3	Same
ZenPacks.zenoss.WSMAN	1.0.1	New in 6.0.0
ZenPacks.zenoss.ZenDeviceACL	2.3.0	2.2.0
ZenPacks.zenoss.ZenJMX	3.12.1	Same
ZenPacks.zenoss.ZenMail	5.1.0	Same
ZenPacks.zenoss.ZenOperatorRole	2.2.0	2.1.0
ZenPacks.zenoss.ZenPackLib	2.0.7	2.0.6
ZenPacks.zenoss.ZenSQLTx	2.7.0	2.6.5
ZenPacks.zenoss.ZenWebTx	3.0.1	Same

In addition, the following ZenPacks are packaged with Resource Manager, but not automatically installed:

- ZenPacks.zenoss.BigIpMonitor
- ZenPacks.zenoss.BrocadeMonitor
- ZenPacks.zenoss.Ceph
- ZenPacks.zenoss.CheckPointMonitor
- ZenPacks.zenoss.CiscoAPIC
- ZenPacks.zenoss.DatabaseMonitor



- ZenPacks.zenoss.DB2
- ZenPacks.zenoss.HpuxMonitor
- ZenPacks.zenoss.JBossMonitor
- ZenPacks.zenoss.Memcached
- ZenPacks.zenoss.Microsoft.Exchange
- ZenPacks.zenoss.Microsoft.Lync
- ZenPacks.zenoss.Microsoft.MSMQ
- ZenPacks.zenoss.NetScaler
- ZenPacks.zenoss.NetScreenMonitor
- ZenPacks.zenoss.NSX
- ZenPacks.zenoss.OpenStack
- ZenPacks.zenoss.OpenStackInfrastructure
- ZenPacks.zenoss.OpenvSwitch
- ZenPacks.zenoss.PostgreSQL
- ZenPacks.zenoss.RabbitMQ
- ZenPacks.zenoss.TomcatMonitor
- ZenPacks.zenoss.XenServer



## Limitations, errata, and documentation

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This section includes the following information:

- Known limitations of Resource Manager
- Release-specific documentation errata, if any
- Descriptions of additional documentation

### Limitations

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The size of the CentralQuery maximum memory allocation pool is set by the *RAMCommitment* variable in the CentralQuery service definition. The default value is 1024MB. Do not change the value to anything less than 1024MB. (ZEN-15907).

### Additional information

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The Resource Manager distribution includes PDF versions of the following documents:

- *Zenoss Resource Manager Planning Guide*
- *Zenoss Resource Manager Configuration Guide*
- *Zenoss Resource Manager Administration Guide*

The Control Center release includes an HTML version of its documentation.

The documentation included in a release is synchronized with the release. That is, instead of inserting errata into release notes, document errors are corrected, and the corrected documents are included in the upgrade or patch release. Similarly, when a feature change or addition is included in an upgrade or patch release, the documentation is also updated.

#### Documentation feedback

Zenoss welcomes your comments and suggestions regarding our documentation. To share your comments, please send an email to [docs@zenoss.com](mailto:docs@zenoss.com). In the email, include the document title and part number. The part number appears at the end of the list of trademarks, at the front of PDF versions of a document.