

Zenoss Service Impact Installation Guide for Resource Manager 5.0.x

Release 5.0.x

Zenoss, Inc.

www.zenoss.com

Zenoss Service Impact Installation Guide for Resource Manager 5.0.x

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Preface

Zenoss Service Impact Installation Guide for Resource Manager 5.0.x provides detailed instructions for installing and upgrading Zenoss Service Impact (Service Impact) with a Zenoss Resource Manager (Resource Manager) version 5.0.x deployment.

Audience

This guide is designed for system administrators with Zenoss Resource Manager (Resource Manager) experience. In addition, administrators need working knowledge of Linux system administration, and their data center environment.

Related publications

Title	Description
Zenoss Service Impact Installation Guide for Resource Manager 4.2	Describes how to install Service Impact with a Resource Manager version 4.2 deployment.
Zenoss Service Impact Users Guide	Provides an overview of Service Impact architecture and features, and information about using the system.
Zenoss Service Impact Release Notes	Describes known issues, fixed issues, and late-breaking information not already provided in the published documentation set.

Additional information and comments

If you have technical questions about this product that are not answered in this guide, visit the Zenoss Support site.

Zenoss welcomes your comments and suggestions regarding our documentation. To share your comments, please send an email to 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 this guide.

Supported clients and browsers

The client operating systems and web browser combinations supported in this release.

- All browsers must have Adobe[®] Flash[®] Player 11 installed, or a more recent version.
- Compatibility mode is not supported in Internet Explorer.

Client OS	Supported Browsers					
Windows 7 and 8.1	Internet Explorer 11 (enterprise mode is supported)					
	Internet Explorer 10					
	Firefox 30 and above					
	Chrome 30 and above					
Windows Server 2012 R2	Firefox 30					
	Chrome 36					
Macintosh OS/X 10.9	Firefox 30 and above					
	Chrome 36 and above					
Ubuntu 14.04 LTS	Firefox 30 and above					
	Chrome 37 and above					
Red Hat Enterprise Linux 6.5,	Firefox 30 and above					
CentUS 6.5	Chrome 37 and above					

Installing Service Impact

This chapter contains information that helps you prepare for the installation of Service Impact, perform the required prerequisite tasks, and install or remove Service Impact.

Requirements and recommendations

Service Impact packaging

Service Impact 5.0.x for Resource Manager 5.0.x is packaged as a Docker image and two ZenPacks, as further described below:

- The Docker image is available on Docker Hub and includes two services, Impact and zenimpactstate. The installation procedure integrates the services into Resource Manager as child services of the Zenoss.resmgr application.
- The ZenPacks, ZenPacks.zenoss.Impact and ZenPacks.zenoss.ImpactServer, are available from the Zenoss Support site. The ZenPacks require a customized installation procedure, documented later in this guide.

System requirements

The Impact service includes the Service Impact server and database, and requires a resource pool that contains hosts with the following minimum features:

- 8 CPU cores (64-bit only; real or virtual)
- 4 GB RAM (Impact service) plus OS requirements
- 1 network interface controller (must support TCP/IP)
- 1 GB storage for Service Impact server (local recommended)
- 20 GB storage for database files (SAN storage supported)

In addition, resource pool hosts for the Impact service must meet the operating system requirements of Control Center. For more information, refer to the Zenoss Resource Manager Installation Guide.

Deployment strategies

Note The Impact service does not require a dedicated resource pool. You may deploy it in any resource pool in which all pool hosts meet the minimum requirements; for example, the default resource pool.

The zenimpactstate service includes the zenimpactstate daemon. Like collector services, zenimpactstate is a stateless service. Zenoss recommends deploying the service in the same resource pool as

the MariaDB service (for Resource Manager 5.0.0) or the mariadb-events and mariadb-model services (Resource Manager 5.0.1 and later).

Note Once Service Impact is installed, Resource Manager is dependent on Service Impact. If Service Impact is unavailable, Resource Manager will continue monitoring; however, it will be unable to perform modeling or properly install or remove ZenPacks.

Installation process

The following list provides a brief, high-level overview of the installation process for Service Impact:

- 1 Determine your Service Impact deployment strategy.
- 2 Download the Service Impact ZenPacks from Zenoss Support.
- 3 Pull the Service Impact image from Docker Hub.
- 4 Stop Resource Manager and take a snapshot.
- 5 Restart the required services.
- 6 Install ZenPack.zenoss.ImpactServer on the Service Impact master host.
- 7 Start Service Impact.
- 8 Install ZenPack.zenoss.Impact.
- 9 Update the Service Impact server database.
- 10 Restart Resource Manager.

To complete the installation process, follow the steps outlined in the following sections of this guide. For upgrade information, see *Upgrading Service Impact* on page 12.

Preparing to install or upgrade

This procedure provides information and instructions on how to prepare for installing or upgrading Service Impact.

This procedure requires:

- A fully-installed deployment of Resource Manager 5.0.x
- A Docker Hub account to download the Service Impact image
- A user account for the Zenoss Enterprise Software Downloads website
- 1 Log in to the Control Center master host as a user with sudo privileges.
- 2 Download the Service Impact image from Docker Hub replacing Version with current version number.

Note If you are upgrading Service Impact, skip this step.

sudo docker pull zenoss/impact 5.0:5.Version

The download typically takes 3-5 minutes.

- 3 Log in to the Zenoss Enterprise File Download website at *https://zenoss.leapfile.net* and download the following ZenPacks. If you do not have a user account, request one from the website or contact your Zenoss Support representative.
 - ZenPacks.zenoss.Impact
 - ZenPacks.zenoss.ImpactServer
- 4 Copy the ZenPack egg files to a local directory on the Resource Manager master host.
 - a Create a directory for the ZenPack egg files.

The directory must be local (not mounted) and must be readable, writable, and executable by all users.

The following command creates a directory in /tmp:

mkdir /tmp/impact-zenpacks

b Use the file transfer command or another utility to copy the files.

The following example uses cp to copy ZenPacks.zenoss.Impact to the new directory:

cp ZenPacks.zenoss.Impact-Version.egg /tmp/impact-zenpacks

c Change the file permissions.

The ZenPack egg files must have the same permissions as their parent directory.

chmod -R 777 /tmp/impact-zenpacks

Installing Service Impact

Prerequisites for this procedure:

- Download the Service Impact image from Docker Hub.
- Download the ZenPacks from the Zenoss Enterprise Software Downloads website.
- Change the ZenPack permissions.

To perform the prerequisite steps, see Preparing to install or upgrade on page 7.

1 Log in to the Control Center browser interface.

Applications	Applications	Resource Po	ools H	osts Logs	Bac	kup / Restore	L cc	user 🖂 O	? 1	.ogout About
Applications								(Servi	ces Map	• Application
Application 🛛 👻	Description	*	Status	Deployment ID	*	Resource Pool 🔺	Virtual Host Names	Actio	ns	
Internal Services	Internal Services	S	0	Internal		N/A	N/A	N/A		
Zenoss.resmgr (v5.0.0)	Zenoss Resourc	e Manager	0	Test		default	https://zenoss5.lp-10-111-23-2	29 ► Sta	irt 🔳 S	op ODelete
Application Ter	nplates								• Appl	cation Template
Application Template		▲ ID				*	Description		✓ A	tions

- 2 Stop Resource Manager.
 - a In the Actions column of the Applications table, click Stop.

Stop Services		8
This will stop all child services.		
	Cancel	Stop Services

- **b** In the **Stop Services** dialog, click **Stop Services**.
- 3 Display the child services of Resource Manager.

- 4 From the **Services** table, click **Start** to restart the following individual services.
 - The modelling and event database service or services:
 - Resource Manager 5.0.0: MariaDB
 - Resource Manager 5.0.1 or later: mariadb-events and mariadb-model
 - RabbitMQ
 - redis
 - zencatalogservice
 - zeneventserver

Note In the **Services** table, the Failing icon (a red circle with an exclamation point) in the **Status** column represents the cumulative result of one or more customized health checks. To view the status of individual health checks, move the pointer over the icon, which displays a pop-up. When upgrading Service Impact the Zeneventserver health checks for memcached_answering will show as failing. This should be ignored. All other health checks for Zeneventserver should be passing.

To start these severvices from the CLI, replace Name with the service name:

serviced service start Name

- 5 Install ZenPacks.zenoss.ImpactServer, and then start the Impact service. If you have not downloaded or prepared the ZenPacks for installation, see *Preparing to install or upgrade* on page 7.
 - a Change directory to the directory where you stored the downloaded Service Impact ZenPack files. For example, the /tmp/impact-zenpacks directory.

cd /tmp/impact-zenpacks

b Install the ZenPack, replacing *Version* with the current version.

```
serviced service run zope zenpack \
    install ZenPacks.zenoss.ImpactServer-Version.egg
```

Note The update script displays several CRITICAL warning messages. You can safely ignore these messages.

c Start the Impact service.

serviced service start Impact

d Verify the service is started.

serviced service status Impact

- 6 Install ZenPacks.zenoss.Impact, and then update the Service Impact server database.
 - a Install the ZenPack, replacing Version with the current version.

```
serviced service run zope zenpack \
    install ZenPacks.zenoss.Impact-Version.egg
```

b Update the database.

serviced service run zenimpactstate update

- 7 In the Control Center user interface, refresh the page, and then restart the Resource Manager application.
- 8 Log in to Resource Manager and navigate to Services to confirm that the services successfully appear.

Uninstalling Service Impact

This procedure describes how to remove Service Impact.

1 Log in to the Control Center browser interface.

Control Center	Applic a tions	Resource P	Pools	Hosts Log	s Ba	ickup / Restore	👤 ccu	ser 🖂 0 🛛 😨	Logout About
Applications									
Applications								Services N	tap O Applicatio
	Description	*	Status	Deployment	ID 🐦	Resource Pool 🔺	Virtual Host Names	© Services M Actions	1ap O Applicatio
Applications Application	Description Internal Service	* 25	Status	Deployment Internal	ID ᢦ	Resource Pool 🔺	Virtual Host Names	Services M Actions	Applicatio

Application Templates				O A	pplication Template
Application Template	•	ID	Description		Actions
Zenoss.resmar (v5.0.0)		2f55f21cb21f3eb591b6a8b74b8daf42	Zenoss Resource Manager		O Delete

- 2 Stop Resource Manager.
 - a In the Actions column of the Applications table, click Stop.

Stop Services		8
This will stop all child services.		
	Cancel	Stop Services

- **b** In the **Stop Services** dialog, click **Stop Services**.
- 3 Display the child services of Resource Manager.

In the **Application** column of the **Applications** table, click Resource Manager, and then scroll down to the **Services** table. Stopped services have a grey circle icon in the **Status** column.

- 4 Create a snapshot of Resource Manager.
 - a Log in to the Control Center master host as a user with serviced CLI privileges.
 - **b** Create the snapshot:

serviced service snapshot Zenoss.resmgr

serviced displays the ID of the new snapshot upon completion.

- 5 From the Services table, click Start to restart the following individual services.
 - The modelling and event database service or services:
 - Resource Manager 5.0.0: MariaDB
 - Resource Manager 5.0.1 or later: mariadb-events and mariadb-model

- RabbitMQ
- redis
- zencatalogservice
- zeneventserver

Note In the **Services** table, the Failing icon (a red circle with an exclamation point) in the **Status** column represents the cumulative result of one or more customized health checks. To view the status of individual health checks, move the pointer over the icon, which displays a pop-up. When upgrading Service Impact the Zeneventserver health checks for memcached_answering will show as failing. This should be ignored. All other health checks for Zeneventserver should be passing.

To start these severvices from the CLI, replace Name with the service name:

```
serviced service start Name
```

- 6 Remove the ZenPacks.zenoss.Impact ZenPack, and then remove the zenimpactstate service.
 - a Remove the ZenPack.

serviced service run zope zenpack uninstall ZenPacks.zenoss.Impact

b Remove the zenimpactstate service.

serviced service remove zenimpactstate

c In the Control Center browser interface, refresh the page.

The zenimpactstate service is removed.

- 7 Stop and remove the Impact service, and then remove the ZenPacks.zenoss.ImpactServer ZenPack.
 - a Stop the Impact service.

serviced service stop Impact

b Remove the Impact service.

serviced service remove Impact

c Remove the ZenPack.

serviced service run zope zenpack uninstall \
ZenPacks.zenoss.ImpactServer

8 In the Control Center user interface, refresh the page, and then start the Resource Manager application.

Upgrading Service Impact

This chapter contains procedures for upgrading Service Impact.

Upgrade process

The following list provides a brief, high-level overview of the upgrade process for Service Impact:

- 1 Download the Service Impact ZenPacks from the Zenoss Enterprise Software Downloads website.
- 2 Set the ZenPack permissions.
- 3 Stop Resource Manager.
- 4 Restart the required services.
- 5 Install ZenPack.zenoss.ImpactServer on the Resource Manager host.
- 6 Run the upgrade script to pull the new Service Impact image from Docker Hub and install it.
- 7 Install ZenPack.zenoss.Impact on the Resource Manager host.
- 8 Restart Service Impact.
- 9 Restart Resource Manager.

To complete the upgrade process, follow the steps outlined in the following sections of this guide.

Upgrading Service Impact and the Service Impact ZenPacks

This procedure describes how to upgrade both ZenPacks.zenoss.Impact and ZenPacks.zenoss.ImpactServer.

Note Before you perform this procedure, complete all steps in *Preparing to install or upgrade* on page 7.

1 Log in to the Control Center browser interface.

Contr Cente	rol er	Applications	Resource P	ools	Hosts Logs		Backup / Restore		د	ccuse	r 🖂 O	🕄 La	ogout	About
Applications														
Applicatio	ns									<	Service	es Map	O App	plication
Application	*	Description	~	Status	Deployment	ID	Resource Poo	•	Virtual Host Names		Action	s		
Internal Service	es	Internal Services		\bigcirc	Internal		N/A		N/A		N/A			
Zenoss.resmgr	(v5.0.0)	Zenoss Resource	e Manager	\bigcirc	Test		default		https://zenoss5.lp-10-111-	23-29	Start	Sto	op O C)elete

Application Templates				O A	Application Template
Application Template	٨	ID	Description		Actions
Zenoss.resmgr (v5.0.0)		2f55f21cb21f3eb591b6a8b74b8daf42	Zenoss Resource Manager		Delete

- 2 Stop Resource Manager.
 - a In the Actions column of the Applications table, click Stop.

Stop Services		۲
This will stop all child services.		
c	Cancel	Stop Services

- **b** In the **Stop Services** dialog, click **Stop Services**.
- 3 Display the child services of Resource Manager.

- 4 Create a snapshot of Resource Manager.
 - a Log in to the Control Center master host as a user with serviced CLI privileges.
 - **b** Create the snapshot:

serviced service snapshot Zenoss.resmgr

serviced displays the ID of the new snapshot upon completion.

- 5 From the Services table, click Start to restart the following individual services.
 - The modelling and event database service or services:
 - Resource Manager 5.0.0: MariaDB
 - Resource Manager 5.0.1 or later: mariadb-events and mariadb-model
 - RabbitMQ
 - redis
 - zencatalogservice
 - zeneventserver

Note In the **Services** table, the Failing icon (a red circle with an exclamation point) in the **Status** column represents the cumulative result of one or more customized health checks. To view the status of individual health checks, move the pointer over the icon, which displays a pop-up. When upgrading Service Impact the Zeneventserver health checks for memcached_answering will show as failing. This should be ignored. All other health checks for Zeneventserver should be passing.

To start these severvices from the CLI, replace Name with the service name:

```
serviced service start Name
```

6 Change directory to the directory that contains the new ZenPacks. For example:

cd /tmp/impact-zenpacks

- 7 Use the following commands to install the new version of ZenPacks.zenoss.ImpactServer and upgrade Service Impact.
 - **a** Extract the upgrade script from the ZenPacks.zenoss.ImpactServer .egg file, replacing *Version* with the current version:

```
unzip -p ZenPacks.zenoss.ImpactServer-Version.egg \
   ZenPacks/zenoss/ImpactServer/upgrade/upgrade.txt > upgrade.txt
```

b Run the upgrade script to pull the Service Impact image from Docker Hub and install it.

serviced script run upgrade.txt --service Impact

Note The update script displays several CRITICAL warnings. You can safely ignore these messages.

Pulling the image from Docker Hub takes about 3-5 minutes, which may cause the Impact server installation to take longer than normal.

c Start Service Impact:

serviced service start Impact

8 Verify the service is started.

serviced service status Impact

The STATUS column displays Running.

9 Install the new version of the ZenPacks.zenoss.Impact, replacing Version with the current version.

serviced service run zope zenpack \
 install ZenPacks.zenoss.Impact-Version.egg

10 In the Control Center user interface, refresh the page, and then restart the Resource Manager application.

11 Log in to Resource Manager and navigate to Services to confirm that the services appear.

Upgrading only ZenPacks.zenoss.ImpactServer

This procedure describes how to upgrade only the ZenPacks.zenoss.ImpactServer ZenPack.

Note Before you perform this procedure, complete all steps in *Preparing to install or upgrade* on page 7.

1 Log in to the Control Center browser interface.

Rentro	l	Applications	Resource P	ools	Hosts Logs	Ba	ackup / Restore	L co	cuser 🖂 0 🛛 🕄	Logo	ut About
Applications											
Application	s								(Services	Мар С	Application
Application	*	Description	~	Status	Deployment ID	~	Resource Pool 🔺	Virtual Host Names	Actions		1
Internal Services		Internal Services	3	0	Internal		N/A	N/A	N/A		
Internal Services Zenoss.resmgr (v5	.0.0)	Internal Services Zenoss Resource	s e Manager	0	Internal Test		N/A default	N/A https://zenoss5.lp-10-111-23-	<i>N/A</i> 29 ► Start	Stop	C Delete

Application Templates				O A	pplication Template
Application Template	•	ID	Description		Actions
Zenoss.resmgr (v5.0.0)		2f55f21cb21f3eb591b6a8b74b8daf42	Zenoss Resource Manager		O Delete

- 2 Stop Resource Manager.
 - a In the Actions column of the Applications table, click Stop.

Stop Services	Θ
This will stop all child services.	
Cance	Stop Services

- **b** In the **Stop Services** dialog, click **Stop Services**.
- 3 Display the child services of Resource Manager.

- 4 From the Services table, click Start to restart the following individual services.
 - The modelling and event database service or services:
 - Resource Manager 5.0.0: MariaDB
 - Resource Manager 5.0.1 or later: mariadb-events and mariadb-model
 - RabbitMQ
 - redis
 - zencatalogservice
 - zeneventserver

Note In the **Services** table, the Failing icon (a red circle with an exclamation point) in the **Status** column represents the cumulative result of one or more customized health checks. To view the status of individual health checks, move the pointer over the icon, which displays a pop-up. When upgrading Service Impact the Zeneventserver health checks for memcached_answering will show as failing. This should be ignored. All other health checks for Zeneventserver should be passing.

To start these severvices from the CLI, replace Name with the service name:

serviced service start Name

5 Navigate to the directory that contains the ZenPacks.zenoss.ImpactServer ZenPack.

For example:

cd /tmp/impact-zenpacks

6 Install the new version of the ZenPacks.zenoss.ImpactServer ZenPack, replacing *Version* with the current version number.

```
serviced service run zope zenpack \
install ZenPacks.zenoss.ImpactServer-Version.egg
```

Note The update script displays several CRITICAL warnings. You can safely ignore these messages.

7 Start the Impact service.

serviced service start Impact

The upgrade relies on a new image, and pulling the image from Docker Hub takes about 3-5 minutes. So, this start-up of the Impact service takes longer than normal.

8 Verify the service is started.

serviced service status Impact

The STATUS column displays RUNNING when the Impact service is started.

9 In the Control Center user interface, refresh the page, and then restart the Resource Manager application.

Upgrading only ZenPacks.zenoss.Impact

This procedure describes how to upgrade ZenPacks.zenoss.Impact.

Note Before you perform this procedure, complete all steps in *Preparing to install or upgrade* on page 7.

1 Log in to the Control Center browser interface.

Control Center	Applications	Resource P	ools	Hosts Lo	ogs Ba	ackup / Restore		L co	user ⊠0 –	2 Lo	gout About
Applications											
Applications									(Service	s Map	• Application
Application 🛛 🔷	Description	*	Status	Deployme	nt ID 🛛 🐦	Resource Pool	•	Virtual Host Names	Action	\$	
Internal Services	Internal Service	S	\bigcirc	Internal		N/A		N/A	N/A		
Zenoss.resmgr (v5.0.0)	Zenoss Resource	ce Manager	\bigcirc	Test		default		https://zenoss5.lp-10-111-23-2	9 🕨 Start	Sto	p 🖸 Delete
Application Te	mplates								¢	Applic	ation Template
Application Template		🔺 ID					*	Description	~	Act	lons

Zenoss Resource Manager

2 Stop Resource Manager.

Zenoss.resmgr (v5.0.0)

a In the Actions column of the Applications table, click Stop.

2f55f21cb21f3eb591b6a8b74b8daf42

O Delete

Stop Services		8
This will stop all child services.		
	Cancel	Stop Services

- **b** In the **Stop Services** dialog, click **Stop Services**.
- 3 Display the child services of Resource Manager.

- 4 Create a snapshot of Resource Manager.
 - a Log in to the Control Center master host as a user with serviced CLI privileges.
 - **b** Create the snapshot:

serviced service snapshot Zenoss.resmgr

serviced displays the ID of the new snapshot upon completion.

- 5 From the Services table, click Start to restart the following individual services.
 - The modelling and event database service or services:
 - Resource Manager 5.0.0: MariaDB
 - Resource Manager 5.0.1 or later: mariadb-events and mariadb-model
 - RabbitMQ
 - redis
 - zencatalogservice
 - zeneventserver

Note In the **Services** table, the Failing icon (a red circle with an exclamation point) in the **Status** column represents the cumulative result of one or more customized health checks. To view the status of individual health checks, move the pointer over the icon, which displays a pop-up. When upgrading Service Impact the Zeneventserver health checks for memcached_answering will show as failing. This should be ignored. All other health checks for Zeneventserver should be passing.

To start these severvices from the CLI, replace Name with the service name:

serviced service start Name

6 Navigate to the directory that contains the ZenPacks.zenoss.Impact ZenPack. For example:

cd /tmp/impact-zenpacks

7 Install the new version of the ZenPacks.zenoss.Impact ZenPack, replacing *Version* with the current version number.

```
serviced service run zope zenpack \
    install ZenPacks.zenoss.Impact-Version.egg
```

Note The update script displays several CRITICAL warnings. You can safely ignore these messages.

8 In the Control Center user interface, refresh the page, and then restart the Resource Manager application.