



# **Zenoss Service Impact Installation Guide for Resource Manager 4.2**

Release 5.0.x

Zenoss, Inc.

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

# Zenoss Service Impact Installation Guide for Resource Manager 4.2

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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 4.2 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
<i>Zenoss Service Impact Installation Guide for Resource Manager 5.0.x</i>	Describes how to install Service Impact with a Resource Manager version 5.0.x deployment.
<i>Zenoss Service Impact Users Guide</i>	Provides an overview of Service Impact architecture and features, and information about using the system.
<i>Zenoss Service Impact Release Notes</i>	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](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 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, CentOS 6.5	Firefox 30 and above
	Chrome 37 and above

## 1

# Installing Service Impact

---

This chapter describes how to install Service Impact 5.0.x with Resource Manager version 4.2.4 or 4.2.5 on a dedicated host system, or co-located on the Resource Manager master host.

## Requirements and recommendations

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### System requirements

The Service Impact server requires a host with the following features:

- Red Hat Enterprise Linux or CentOS Linux, version 5 or 6
- 4 GB main memory
- 8 CPU cores
- 50 MB disk space for software
- 50 MB disk space for log files
- 1-20 GB disk space for database files

### Java requirements

This release of Service Impact requires Java 1.7. The installation procedure describes how to install OpenJDK 1.7 on a dedicated Service Impact server host, and Oracle Java 1.7 for co-located deployments on a Resource Manager master host.

---

**Note** Zenoss does not recommend installing OpenJDK on a Resource Manager master host because the installation process may inadvertently remove Resource Manager software.

---

### Deployment strategies

Service Impact is packaged for a dedicated-host deployment, and as such, Zenoss recommends installing it on a separate, dedicated host system. In addition, installing Service Impact on a dedicated system avoids contention with Resource Manager core services and allows for improved performance.

Installing the Service Impact server on the Resource Manager master host can be appropriate for development and testing environments, and in very limited cases, production environments. If you are unsure which deployment strategy is best for your environment, consult Zenoss Support.

Zenoss also recommends choosing a network location for the Service Impact host that enables low-latency SSH and API access from the Resource Manager master host. The `zenimpactstate` daemon runs on the Resource Manager master host and communicates directly with the Service Impact server.

Optionally, you may mount a separate filesystem for the Service Impact server database.

## Preparing for installation

---

For a dedicated host installation, follow the steps in [Preparing a dedicated Service Impact host](#) on page 7.

For a co-located installation on the Resource Manager master host, follow the steps in [Preparing the Resource Manager master host](#) on page 9.

### Preparing a dedicated Service Impact host

This procedure describes how to prepare a dedicated host for the installation of Service Impact.

During this procedure you will:

- Configure or disable firewall ports.
  - Disable Security-Enhanced Linux (SELinux).
  - If necessary, install OpenJDK.
- 1 Log in to the Service Impact server host as `root`, or as a user with superuser privileges.
  - 2 Configure firewall ports or disable the firewall.

You may disable the firewall now, and then configure firewall ports later.

- To configure firewall ports, see [Firewall port requirements for a dedicated host installation](#) on page 8.
- To disable the firewall, enter the following commands.

```
service iptables stop && chkconfig iptables off
service ip6tables stop && chkconfig ip6tables off
```

- 3 Disable Security-Enhanced Linux (SELinux).

- a Disable enforcing mode permanently.

```
EXT=$(date +"%j-%H%M%S")
sed -i.${EXT} -e 's/^SELINUX=.*SELINUX=disabled/g' \
/etc/selinux/config
```

- b Disable enforcing mode immediately.

```
echo 0 > /selinux/enforce
```

- 4 Determine whether the OpenJDK 1.7 is installed.

```
java -version
```

- If the command returns output similar to the following, continue to the next procedure.

```
java version "1.7.0_75"
OpenJDK Runtime Environment (rhel-2.5.4.0.el6_6-x86_64 u75-b13)
OpenJDK 64-Bit Server VM (build 24.75-b04, mixed mode)
```

- If the command returns output that includes Java HotSpot (TM), remove the Java package and install OpenJDK 1.7.

- a Identify the Java package to remove.

```
rpm -qa | egrep -i '(jdk|jre)'
```

- b Remove the package.

```
yum -y remove $(rpm -qa | egrep -i '(jdk|jre)')
```

- c Install OpenJDK.

```
yum -y install java-1.7.0-openjdk.x86_64
```

- d Verify the install succeeded.

```
java -version
```

If the command returns output similar to the following, continue to the next procedure.

```
java version "1.7.0_75"
OpenJDK Runtime Environment (rhel-2.5.4.0.el6_6-x86_64 u75-b13)
OpenJDK 64-Bit Server VM (build 24.75-b04, mixed mode)
```

**Next step:** [Installing Service Impact](#) on page 10

### Firewall port requirements for a dedicated host installation

If you are installing Service Impact on a dedicated host, use the following information to configure firewall ports. When you are ready, continue with installing Service Impact.

Daemon	Port/App.	Protocol	Direction	Source/Dest.	Notes
sshd	22/SSH	TCP	IN	Resource Manager master host	Required. Used for backup, restore, and reset operations.
avahi	53/DNS	UDP	OUT	DNS server(s)	Very strongly recommended.
ntpd	123/NTP	UDP	IN/OUT	Zenoss servers, network time servers	Very strongly recommended.
bind	161/SNMP	UDP	IN	zenperfsnmp on Resource Manager master host	Recommended.
bind	162/SNMPTrap	UDP	OUT	zentrap on Resource Manager master host	Recommended.
rabbitmq	5672/AMQP	TCP	IN	Service Impact server	Required.
java	12345/RMI	TCP	OUT	zenjmx on Service Impact server host	Recommended.
jetty	8083/HTTP	TCP	IN/OUT	zenwebserver on Resource Manager master host, and zenhub, on any host it is present	Required. Also, any host that has ZODB access needs to use this port.
Neo4j backup	6362/HTTP	TCP	IN/OUT	zenbackup and zenrestore on	Required.



Daemon	Port/App.	Protocol	Direction	Source/Dest.	Notes
				Resource Manager master host	

Return to [Preparing a dedicated Service Impact host](#) on page 7.

## Preparing the Resource Manager master host

This procedure describes how to prepare the Resource Manager master host for a co-located installation of Service Impact.

During this procedure you will:

- Verify the Recommended Patch Set (RPS) on the currently installed Resource Manager master host.
- 1 Log in to the Resource Manager master host as `zenoss`.
  - 2 Verify that ZenUp is installed and Resource Manager is registered.

```
zenup status
```

- If the result is `zenup: command not found`, ZenUp is not installed. Stop this procedure and install ZenUp. For installation instructions, download *Zenoss Resource Manager Zenup Installation and Administration* from the [Zenoss Documentation](#) web page.
- The result should look similar to the following example:

```
Product: zenoss-resmgr-4.2.4 (id = zenoss-resmgr-4.2.4)
Home: /opt/zenoss
Revision: 179
Updated On: Fri Aug 12 13:42:36 2013
```

The value of the Revision field is the recommended patch set (RPS) number.

- a If the revision number is 179 or greater, continue with the installation.
- b If the revision number is less than 179, log in to the [Zenoss Support](#) site and download and install the RPS 179 or greater.

**Next step:** [Installing Java 7 on the Resource Manager master host](#) on page 9

## Installing Java 7 on the Resource Manager master host

This procedure describes how to install Java 7 on a Resource Manager master host.

---

**Note** Resource Manager version 4.2.x requires Java 6; however, the current release of Service Impact requires Java 7. This procedure installs Java 7 alongside Java 6.

---

During this procedure you will:

- Download and install the latest version of Java 7.
  - Set the default version of Java 6 for Resource Manager.
  - Create a link to Java 7 for Service Impact.
- 1 Log in to the Resource Manager master host as `root`, or as a user with superuser privileges.
  - 2 Download the RPM file of latest Oracle Java SE Runtime Environment (7u75 or later) from [Java SE 7 Downloads](#) page.
  - 3 Install the Java 7 package, except the `jexec` utility. Replace `Package_name` as necessary.

```
rpm -ivh --excludepath /etc/init.d/jexec Package_name.rpm
```

The Service Impact server does not use the `jexec` utility, so the Java 6 version can remain in place.

- 4 Set the default version for Resource Manager to Java 6.

- For Resource Manager version 4.2.4:

```
rm /usr/java/default
ln -s /usr/java/jre1.6.0_31/ /usr/java/default
```

- For Resource Manager version 4.2.5:

```
rm /usr/java/default
ln -s /usr/java/jre1.6.0_45/ /usr/java/default
```

- 5 Create a link to Java 7 for the Service Impact server, replacing version with the *Version* of the package you installed.

```
ln -s /usr/java/jre1.Version /usr/java/zenoss_impact
```

## Installing Service Impact

---

This procedure describes how to install Service Impact on a separate, dedicated host, as well as on the Resource Manager master host. Perform this procedure for both a dedicated host deployment and a co-located deployment.

During this procedure you will:

- Download the RPM.
  - Install Service Impact.
  - Optionally mount a separate filesystem for the Service Impact server database.
  - Configure connection properties with Resource Manager.
- 1 Log in to the Service Impact server host as `root`, or as a user with superuser privileges.
  - 2 Download the Service Impact server RPM file from the [Zenoss Support](#) site.  
Contact your Zenoss representative for login credentials.
  - 3 Install the Service Impact server.

```
yum -y --nogpgcheck localinstall zenoss_impact*
```

The installation process adds a new user, `zenossimpact`, and places the Service Impact server software in `/opt/zenoss_impact`.

- 4 **Note** Perform this step only if you are installing the Service Impact server on the Resource Manager master host.

Optional: Change the value of the `JAVA_HOME` variable that the Service Impact server uses.

```
sed -i 's|JAVA_HOME=.*$|JAVA_HOME=/usr/java/zenoss_impact|' \
/etc/default/zenoss_impact
```

- 5 (Optional) Mount a separate filesystem at `/opt/zenoss_impact/var/db`.  
The Service Impact server database can become very large and filesystem performance can affect the overall performance of Service Impact.
- 6 On the Service Impact host, start a shell as the `zenossimpact` user.

```
su - zenossimpact
```

- 7 Configure connection properties between Service Impact and Resource Manager.

- a Change directory to `$IMPACT_HOME/etc`.

```
cd $IMPACT_HOME/etc
```

This directory contains the Service Impact configuration files.

- b Create one variable for the fully-qualified domain name of the Resource Manager master host and another for the password of the Resource Manager admin user.

```
MASTER=Master-Host-FQDN
ADMIN=Admin-Password
```

- c Edit the RabbitMQ properties file.

```
EXT=$(date +%j-%H%M%S")
sed -i.${EXT} -e '/^#amqp.host/ s/#// ' \
  -e '/^amqp.host/ s/localhost/'$MASTER'/ ' \
  ./zenoss-dsa-amqpconf.properties
```

- d Edit the Service Impact properties file.

```
EXT=$(date +%j-%H%M%S")
sed -i.${EXT} -e '/^#dsa.amqp.uri/ s/#// ' \
  -e '/^dsa.amqp.uri/ s/localhost/'$MASTER'/ ' \
  -e '/^#dsa.zenoss.host/ s/#// ' \
  -e '/^dsa.zenoss.host/ s/localhost/'$MASTER'/ ' \
  -e '/^#dsa.zenoss.password/ s/#// ' \
  -e '/^dsa.zenoss.password/ s/=zenoss/'$ADMIN'/ ' \
  ./zenoss-dsa.properties
```

Service Impact server is installed.

#### Next Step:

- For a dedicated host installation: [Configuring authentication on a dedicated host installation](#) on page 11
- For a co-located installation on the Resource Manager master host: [Downloading and installing Service Impact ZenPacks](#) on page 13

## Configuring authentication on a dedicated host installation

The `zenoss` user on the Resource Manager master host requires access to the Service Impact server host as the `zenossimpact` user through Secure Shell (SSH). You may configure key-based authentication or password authentication to enable access (but not both).

---

**Note** When Resource Manager is started for the first time, Resource Manager generates a new, unique key pair for user `zenoss` with the OpenSSH `ssh-keygen` command. All remote hosts use the same SSH key pair for user `zenoss`. For more information, refer to the *Zenoss Resource Manager Administration Guide*.

---

Choose one of the following authentication methods:

- [Configuring key-based access](#) on page 11
- [Configuring password access](#) on page 13

### Configuring key-based access

This procedure enables communication between the Resource Manager master host and the Service Impact server host.

---

**Note** To configure password access instead of key-based access, refer to [Configuring password access](#) on page 13.

---

- 1 Log in to the Service Impact server host as `root`, or as a user with superuser privileges.
- 2 Reset the password of user `zenossimpact`.

```
passwd -uf zenossimpact
```

- 3 Start a shell as user `zenossimpact`.

```
su - zenossimpact
```

- 4 Create a new password for user `zenossimpact`.

```
passwd
```

The `passwd` command prompts you for the new password.

- 5 Create a directory and file to hold public keys.
  - a Create the directory.

```
mkdir $HOME/.ssh
```

- b Set the directory access permissions.

```
chmod 700 $HOME/.ssh
```

- c Create the file.

```
touch $HOME/.ssh/authorized_keys
```

- d Set the file access permissions.

```
chmod 600 $HOME/.ssh/authorized_keys
```

- 6 Log in to the Resource Manager master host as `zenoss`.
- 7 Copy the `zenoss` user's public key to the Service Impact server host.
  - a Enter the following command. Substitute the fully-qualified domain name of the Service Impact server host for *Impact-Host-FQDN*.

```
cat $HOME/.ssh/id_rsa.pub | ssh -l zenossimpact Impact-Host-FQDN \
  "cat - >> /home/zenossimpact/.ssh/authorized_keys"
```

The `ssh` command prompts you to confirm the connection.

- b Enter `yes`.

The `ssh` command adds the Service Impact server host to the known hosts file of the `zenoss` user on the master host, and then prompts you for the password of the `zenossimpact` user on the Service Impact server host.

- c Enter the password.

The `ssh` command invokes `cat` on the Service Impact server host to append the public key of user `zenoss` on the Resource Manager host to the authorized keys file of user `zenossimpact`.

**Next step:** [Downloading and installing Service Impact ZenPacks](#) on page 13

## Configuring password access

This procedure enables communication between the Resource Manager master host and the Service Impact server host.

---

**Note** To configure key-based access instead of password access, refer to [Configuring key-based access](#) on page 11.

---

- 1 Log in to the Service Impact server host as `root`, or as a user with superuser privileges.
- 2 Reset the password of user `zenossimpact`.

```
passwd -uf zenossimpact
```

- 3 Start a shell as user `zenossimpact`.

```
su - zenossimpact
```

- 4 Create a new password for user `zenossimpact`.

```
passwd
```

The `passwd` command prompts you for the new password.

- 5 Log in to the Resource Manager master host as `zenoss`.
- 6 Append the following line to `$ZENHOME/etc/global.conf`. Substitute the password of the `zenossimpact` user on the Service Impact server host for *Remote-Password*.

```
impactpassword Remote-Password
```

- 7 Start a shell on the Service Impact server host as user `zenossimpact`. Substitute the fully-qualified domain name of the Service Impact server host for *Impact-Host-FQDN*.

```
ssh -l zenossimpact Impact-Host-FQDN
```

The `ssh` command prompts you to confirm the connection.

- 8 Enter `yes`.

The `ssh` command adds the Service Impact server host to the known hosts file of the `zenoss` user on the master host, and then prompts you for the password of the `zenossimpact` user on the Service Impact server host.

- 9 Enter the password.

The shell is started on the Service Impact server host.

- 10 Log out of the Service Impact server host: `exit`

**Next step:** [Downloading and installing Service Impact ZenPacks](#) on page 13

---

## Downloading and installing Service Impact ZenPacks

---

This procedure describes how to download and install the required Zenpacks.

During this procedure you will:

- Download the ZenPacks.
- Set the file permissions to an executable state.
- Stop Resource Manager.
- Install `ZenPacks.zenoss.ImpactServer`.
- Start Service Impact, and then install `ZenPacks.zenoss.Impact`.
- Synchronize Resource Manager and Service Impact.

- Start Resource Manager.
- 1 Log in to the [Zenoss Support](#) site and download ZenPacks.zenoss.Impact and ZenPacks.zenoss.ImpactServer.
  - 2 Copy the ZenPack egg file to a local directory on the Resource Manager host.
    - a Create a directory for the ZenPacks.  
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 the cp command and copies the egg files for both ZenPacks.zenoss.Impact and ZenPacks.zenoss.ImpactServer:

```
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
```

- 3 Use one of the following procedures to stop Resource Manager.
  - [Stopping Resource Manager without remote collector or hub hosts](#) on page 23
  - [Stopping Resource Manager with remote collector or hub hosts](#) on page 24

At the end of each procedure, you are logged in to the Resource Manager master host as zenoss.
- 4 Start the event and catalog servers.

```
zeneventserver start && zencatalogservice start
```

---

**Note** Several CRITICAL warning messages are displayed. These messages can safely be ignored.

---

- 5 Install the ZenPacks.zenoss.ImpactServer ZenPack, replacing *Version* with the current version.

```
zenpack --install ZenPacks.zenoss.ImpactServer-Version.egg
```

The installation adds Service Impact attribute-value pairs to the \$ZENHOME/etc/global.conf file.

- 6 Start the Service Impact server.
  - a Log in to the Service Impact server host as root, or as a user with superuser privileges.
  - b Start the Service Impact server.

```
service zenoss_impact start
```

- c Verify the Service Impact server is started.

```
service zenoss_impact status
```

- d Log out of the Service Impact server host.

```
exit
```

- 7 Install the ZenPacks.zenoss.Impact ZenPack on the Resource Manager master host, replacing *Version* with the current version.

```
zenpack --install ZenPacks.zenoss.Impact-Version.egg
```

- 8 Synchronize Resource Manager and Service Impact on the Resource Manager master host.

```
zenimpactgraph run --update
```

- 9 Optional: If you are using `$ZENHOME/etc/daemons.txt`, add the **zenimpactstate** daemon to the file.
- 10 Start Resource Manager.

```
zenoss start
```

- 11 Log in to Resource Manager and navigate to **Services** to confirm that the services successfully appear.
- 12 Update remote collectors, if deployed. Repeat the following steps for each remote collector.
  - a Log in to the Resource Manager user interface as a user with ZenManager or Manager privileges.
  - b Click **ADVANCED**, and then **Collectors**.
  - c Display the collector's overview page.
  - d In the **Performance Collector Configuration** panel, select **Update Collector...** from the **Action** menu.
  - e In the **Update Collector** dialog, click **OK**.
- 13 Update remote hubs, if deployed. Repeat the following steps for each remote hub.
  - a Log in to the Resource Manager user interface as a user with ZenManager or Manager privileges.
  - b Click **ADVANCED**, and then **Collectors**.
  - c Display the hub's overview page.
  - d In the **Hub Configuration** panel, select **Update Hub...** from the **Action** menu.
  - e In the **Update Hub** dialog, click **OK**.

The ZenPack installation is complete.

**Next steps:** Service Impact relies on a specific device production state to propagate availability and performance states within a service graph. The default production state is "Production," however, you may choose a different production state to create a service graph. For more information, refer to the *Zenoss Service Impact Users Guide*.

For information about Service Impact configuration files, refer to [Configuration files](#) on page 25.

## 2

## Upgrading to Service Impact 5.0.x

---

You may upgrade Service Impact version 4.2.6 to Service Impact version 5.0.x. To upgrade to version 4.2.6, refer to the previous release of this document.

Zenoss recommends installing the Service Impact server on its own, dedicated host, rather than the Resource Manager master host, to avoid contention with core Resource Manager services. Service Impact is packaged for dedicated-host deployment, and Zenoss recommends it as a best practice.

The Service Impact server requires a host with the following features.

- Red Hat Enterprise Linux or CentOS Linux, version 5 or 6
- 4 GB main memory
- 8 CPU cores
- 50 MB disk space for software
- 50 MB disk space for log files
- 1-20 GB disk space for database files

In addition, you may mount a separate filesystem for the Service Impact server database, if desired.

This release requires Resource Manager version 4.2.4, plus the most recent recommended patch set (RPS), or a more recent version of Resource Manager 4.2, and its most recent RPS. For more information about compatibility with Resource Manager, contact your Zenoss representative.

---

**Note** Zenoss recommends upgrading a development or testing environment before upgrading a production environment.

---

### Preparing to upgrade

---

- 1 Log in to the Resource Manager master host as `zenoss`.
- 2 Stop Resource Manager.
  - *Stopping Resource Manager without remote collector or hub hosts* on page 23
  - *Stopping Resource Manager with remote collector or hub hosts* on page 24
- 3 Log in to the Service Impact server host as `root`, or as a user with superuser privileges.
- 4 Stop the Service Impact server, and then verify it is stopped.

```
service zenoss_impact stop
service zenoss_impact status
```



- 5 Remove the Service Impact server package.

```
rpm -e $(rpm -qa | grep zenoss_impact)
```

---

**Note** This step only removes the server software, not the database. If you have modified Service Impact configuration files, a warning message indicates that your files are being saved. These warnings can be safely ignored.

---

- 6 If you are upgrading Service Impact on a remote host, remove Oracle Java, and then clean up the yum caches.

---

**Note** Perform this step only Service Impact resides on dedicated host. Skip this step if Service Impact and Resource Manager are installed on the same host.

---

```
rpm -e --nodeps $(rpm -qa | grep jre)
yum clean all
```

- 7 Install OpenJDK 1.7.

- If you are upgrading the Service Impact server on its own, dedicated host, continue with this step.
- If you are upgrading the Service Impact server on the Resource Manager master host, skip this step and proceed to the next section.
- a Install the OpenJDK package.

```
yum -y install java-1.7.0-openjdk.x86_64
```

- b Verify the installation.

```
java -version
```

The result should be similar to the following example.

```
java version "1.7.0_75"
OpenJDK Runtime Environment (rhel-2.5.4.0.el6_6-x86_64 u75-b13)
OpenJDK 64-Bit Server VM (build 24.75-b04, mixed mode)
```

## Installing Java 7 on the Resource Manager master host

---

This procedure describes how to install Java 7 on a Resource Manager master host.

---

**Note** Resource Manager version 4.2.x requires Java 6; however, the current release of Service Impact requires Java 7. This procedure installs Java 7 alongside Java 6.

---

During this procedure you will:

- Download and install the latest version of Java 7.
  - Set the default version of Java 6 for Resource Manager.
  - Create a link to Java 7 for Service Impact.
- 1 Log in to the Resource Manager master host as `root`, or as a user with superuser privileges.
  - 2 Download the RPM file of latest Oracle Java SE Runtime Environment (7u75 or later) from [Java SE 7 Downloads](#) page.

- 3 Install the Java 7 package, except the `jexec` utility. Replace `Package_name` as necessary.

```
rpm -ivh --excludepath /etc/init.d/jexec Package_name.rpm
```

The Service Impact server does not use the `jexec` utility, so the Java 6 version can remain in place.

- 4 Set the default version for Resource Manager to Java 6.

- For Resource Manager version 4.2.4:

```
rm /usr/java/default
ln -s /usr/java/jre1.6.0_31/ /usr/java/default
```

- For Resource Manager version 4.2.5:

```
rm /usr/java/default
ln -s /usr/java/jre1.6.0_45/ /usr/java/default
```

- 5 Create a link to Java 7 for the Service Impact server, replacing version with the `Version` of the package you installed.

```
ln -s /usr/java/jre1.Version /usr/java/zenoss_impact
```

## Upgrading the Service Impact server

To perform this procedure, first download the Service Impact server RPM file from the [Zenoss Support](#) site, and then place it on the Service Impact server host. Contact your Zenoss representative for login credentials.

- 1 Log in to the Service Impact server host as `root`, or as a user with superuser privileges.
- 2 Install the Service Impact server.

```
yum -y --nogpgcheck localinstall zenoss_impact*
```

- 3 Optional: Change the value of the `JAVA_HOME` variable that the Service Impact server uses.

---

**Note** Perform this step only if you are upgrading the Service Impact server on the Resource Manager master host.

---

```
sed -i 's|JAVA_HOME=.*$|JAVA_HOME=/usr/java/zenoss_impact|' \
/etc/default/zenoss_impact
```

- 4 On the Service Impact host, start a shell as the `zenossimpact` user.

```
su - zenossimpact
```

- 5 Configure connection properties between Service Impact and Resource Manager.

- a Change directory to `$IMPACT_HOME/etc`.

```
cd $IMPACT_HOME/etc
```

This directory contains the Service Impact configuration files.

- b Create one variable for the fully-qualified domain name of the Resource Manager master host and another for the password of the Resource Manager admin user.

```
MASTER=Master-Host-FQDN
```

```
ADMIN=Admin-Password
```

- c Edit the RabbitMQ properties file.

```
EXT=$(date +%j-%H%M%S")
sed -i.${EXT} -e '/^#amqp.host/ s/#/' \
  -e '/^#amqp.host/ s/localhost/'$MASTER'/' \
  ./zenoss-dsa-amqpconf.properties
```

- d Edit the Service Impact properties file.

```
EXT=$(date +%j-%H%M%S")
sed -i.${EXT} -e '/^#dsa.amqp.uri/ s/#/' \
  -e '/^#dsa.amqp.uri/ s/localhost/'$MASTER'/' \
  -e '/^#dsa.zenoss.host/ s/#/' \
  -e '/^#dsa.zenoss.host/ s/localhost/'$MASTER'/' \
  -e '/^#dsa.zenoss.password/ s/#/' \
  -e '/^#dsa.zenoss.password/ s/=zenoss/'$ADMIN'/' \
  ./zenoss-dsa.properties
```

Service Impact server is installed.

## Upgrading Service Impact ZenPacks

During this procedure you will:

- Download the ZenPacks.
- Set the file permissions to an executable state.
- Stop Resource Manager.
- Install ZenPacks.zenoss.ImpactServer.
- Start Service Impact, and then install ZenPacks.zenoss.Impact.
- Synchronize Resource Manager and Service Impact.
- Start Resource Manager.

1 Log in to the [Zenoss Support](#) site and download ZenPacks.zenoss.Impact and ZenPacks.zenoss.ImpactServer.

2 Copy the ZenPack egg file to a local directory on the Resource Manager host.

- a Create a directory for the ZenPacks.

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 the cp command and copies the egg files for both ZenPacks.zenoss.Impact and ZenPacks.zenoss.ImpactServer:

```
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
```

3 Use one of the following procedures to stop Resource Manager.

- [Stopping Resource Manager without remote collector or hub hosts](#) on page 23

- *Stopping Resource Manager with remote collector or hub hosts* on page 24

At the end of each procedure, you are logged in to the Resource Manager master host as `zenoss`.

- 4 Start the event and catalog servers.

```
zeneventserver start && zencatalogservice start
```

---

**Note** Several CRITICAL warning messages are displayed. These messages can safely be ignored.

---

- 5 Install the `ZenPacks.zenoss.ImpactServer` ZenPack, replacing *Version* with the current version.

```
zenpack --install ZenPacks.zenoss.ImpactServer-Version.egg
```

The installation adds Service Impact attribute-value pairs to the `$ZENHOME/etc/global.conf` file.

- 6 Start the Service Impact server.

- a Log in to the Service Impact server host as `root`, or as a user with superuser privileges.
- b Start the Service Impact server.

```
service zenoss_impact start
```

- c Verify the Service Impact server is started.

```
service zenoss_impact status
```

- d Log out of the Service Impact server host.

```
exit
```

- 7 Install the `ZenPacks.zenoss.Impact` ZenPack on the Resource Manager master host, replacing *Version* with the current version.

```
zenpack --install ZenPacks.zenoss.Impact-Version.egg
```

- 8 Synchronize Resource Manager and Service Impact on the Resource Manager master host.

```
zenimpactgraph run --update
```

- 9 Optional: If you are using `$ZENHOME/etc/daemons.txt`, add the `zenimpactstate` daemon to the file.

- 10 Start Resource Manager.

```
zenoss start
```

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

- 12 Update remote collectors, if deployed. Repeat the following steps for each remote collector.

- a Log in to the Resource Manager user interface as a user with `ZenManager` or `Manager` privileges.
- b Click **ADVANCED**, and then **Collectors**.
- c Display the collector's overview page.
- d In the **Performance Collector Configuration** panel, select **Update Collector...** from the **Action** menu.
- e In the **Update Collector** dialog, click **OK**.

- 13 Update remote hubs, if deployed. Repeat the following steps for each remote hub.

- a Log in to the Resource Manager user interface as a user with `ZenManager` or `Manager` privileges.
- b Click **ADVANCED**, and then **Collectors**.
- c Display the hub's overview page.
- d In the **Hub Configuration** panel, select **Update Hub...** from the **Action** menu.

- e In the **Update Hub** dialog, click **OK**.

The ZenPack installation is complete.

**Next steps:** Service Impact relies on a specific device production state to propagate availability and performance states within a service graph. The default production state is "Production," however, you may choose a different production state to create a service graph. For more information, refer to the *Zenoss Service Impact Users Guide*.

For information about Service Impact configuration files, refer to [Configuration files](#) on page 25.

# 3

## Additional administrative tasks

---

### Starting Service Impact

---

**Note** Resource Manager is dependent on Service Impact. Start Resource Manager after starting the Service Impact server.

---

- 1 Log in to the Service Impact server host as `root`, or as a user with superuser privileges.
- 2 Start the Service Impact server.

```
service zenoss_impact start
```

### Stopping Service Impact

---

**Note** Resource Manager is dependent on Service Impact. Stop Resource Manager before stopping the Service Impact server.

---

- 1 Stop Resource Manager.
  - [Stopping Resource Manager without remote collector or hub hosts](#) on page 23
  - [Stopping Resource Manager with remote collector or hub hosts](#) on page 24
- 2 Log in to the Service Impact server host as `root`, or as a user with superuser privileges.
- 3 Stop the Service Impact server.

```
service zenoss_impact stop
```

### Removing Service Impact

---

**Note** This procedure removes the Service Impact server software, but not the database.

---

- 1 Stop Resource Manager.
  - [Stopping Resource Manager without remote collector or hub hosts](#) on page 23
  - [Stopping Resource Manager with remote collector or hub hosts](#) on page 24

At the end of both procedures, you are logged in to the Resource Manager master host as `zenoss`.

- 2 Start the event server and catalog service daemons.

```
zeneventserver start && zencatalogservice start
```

- 3 Remove ZenPacks.zenoss.Impact.

- a Remove the ZenPack.

```
zenpack --remove=ZenPacks.zenoss.Impact
```

The `zenimpactstate` daemon is removed when `ZenPacks.zenoss.Impact` is removed.

- b Optional: Remove the `zenimpactstate` daemon from `$ZENHOME/etc/daemons.txt`, if necessary.

```
test -f $ZENHOME/etc/daemons.txt && \
  sed -ie '/zenimpactstate/ d' $ZENHOME/etc/daemons.txt
```

- 4 Stop the Service Impact server.

- a Log in to the Service Impact server host as `root`, or as a user with superuser privileges.
- b Stop the server.

```
service zenoss_impact stop
```

- c Log out of the Service Impact server host.

- 5 Remove the ZenPacks.zenoss.ImpactServer ZenPack.

```
zenpack --remove=ZenPacks.zenoss.ImpactServer
```

- 6 Start Resource Manager.

```
zenoss start
```

- 7 Determine the Service Impact server package name.

---

**Note** If you installed Service Impact on a dedicated host, log into that system as `root` or a user with superuser privileges. If Service Impact is co-located on the Resource Manager, you should still be logged in as `root`.

---

```
rpm -qa | grep -i impact
```

- 8 Remove the Service Impact server package, and then clean the yum caches.

```
rpm -e Package-Name
yum clean all
```

This step removes the server software, but none of the data or configuration files. You may remove those manually.

## Stopping Resource Manager without remote collector or hub hosts

---

When a Resource Manager deployment does not include remote hub or collector hosts, stopping all daemons is simple.

- 1 Log in to the Resource Manager master host as `zenoss`.

- 2 Stop all Resource Manager daemons.

```
zenoss stop
```

Occasionally, the `stop` command does not terminate all of the daemons.

- 3 Check for daemons that are not stopped.

```
pgrep -fl ${ZENHOME}
```

- If the command returns no result, Resource Manager is stopped.
- If the command returns a result, stop the remaining daemons.

```
pkill -f ${ZENHOME}
```

## Stopping Resource Manager with remote collector or hub hosts

---

Stop all daemons on remote Resource Manager collector or hub hosts before stopping them on the master host.

- 1 Log in to the Resource Manager master host as `zenoss`.
- 2 Stop the `zenwebserver` daemon.

```
zenwebserver stop
```

- 3 Stop Resource Manager daemons on all collector hosts.

- a Log in to each collector host as `zenoss`.

```
ssh zenoss@Remote-Collector-Host
```

- b Stop all Resource Manager daemons.

```
zenoss stop
```

- c Check for daemons that are not stopped.

```
pgrep -fl ${ZENHOME}
```

- If the command returns no result, Resource Manager is stopped.
- If the command returns a result, stop the remaining daemons.

```
pkill -f ${ZENHOME}
```

- 4 Stop Resource Manager daemons on all hub hosts.

- a Log in to each hub host as `zenoss`.

```
ssh zenoss@Remote-Hub-Host
```

- b Stop all Resource Manager daemons.

```
zenoss stop
```

- c Check for daemons that are not stopped.

```
pgrep -fl ${ZENHOME}
```



- If the command returns no result, Resource Manager is stopped.
- If the command returns a result, stop the remaining daemons.

```
pkill -f ${ZENHOME}
```

- 5 Stop all Resource Manager daemons on the master host.
  - a Log in to the Resource Manager master host as zenoss.
  - b Stop all Resource Manager daemons.

```
zenoss stop
```

- c Check for daemons that are not stopped.

```
pgrep -fl ${ZENHOME}
```

- If the command returns no result, Resource Manager is stopped.
- If the command returns a result, stop the remaining daemons.

```
pkill -f ${ZENHOME}
```

## Installing and removing ZenPacks

---

For instructions on how to install and remove ZenPacks, refer to:

- [Downloading and installing Service Impact ZenPacks](#) on page 13
- [Removing Service Impact](#) on page 22

## Configuration files

---

**Note** Before you modify configuration files, Zenoss recommends that you first contact your Zenoss Support representative.

---

The \$IMPACT\_HOME/etc directory contains the following Service Impact server configuration files:

- \$IMPACT\_HOME/etc/zenoss-dsa-amqpconf.properties

This file contains properties for the Service Impact host's connection to the RabbitMQ Server.

- \$IMPACT\_HOME/etc/zenoss-dsa.env

This file contains the JVM\_ARGS variable definition.

- \$IMPACT\_HOME/etc/zenoss-dsa.properties

This file contains general Service Impact configuration properties, including properties for backups, log file management, and remote debugging. The following properties assist in improving Service Impact performance:

**Note** This file contains additional settings that do not apply to Service Impact. Before you make changes to any of the settings in this file, contact your Zenoss Support representative.

---

For more information on modifying configuration files, refer to the *Zenoss Service Impact Users Guide*.