RSA® Identity Governance and Lifecycle Appliance Updater Guide

Contact Information

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Preface

About This Guide

This guide provides instructions for using the Appliance Updater to update the RSA-installed operating system and local RSA-installed database on the following products:

- RSA Identity Governance and Lifecycle V7.0.x appliance or soft appliance

- RSA IMG V6.9.1 appliance or soft appliance

Support and Service

You can access community and support information on RSA Link at https://community.rsa.com/community/products/governance-and-lifecycle. RSA Link contains a knowledgebase that answers common questions and provides solutions to known problems, product documentation, community discussions, and case management.

You can also access the RSA Identity Governance and Lifecycle community at https://community.rsa.com/community/products/governance-and-lifecycle/client-partner-community. This private community is only available to RSA Identity Governance and Lifecycle customers, partners and internal RSA staff.

RSA Identity Governance and Lifecycle Appliance Updates

Patching the operating system and database components of RSA Identity Governance and Lifecycle is integral to the security of the RSA Identity Governance and Lifecycle environment. To help ensure that appliance and soft appliance installations maintain the most up-to-date patches for these components, RSA provides the Appliance Updater, which bundles a certified patch set for the operating system (SUSE or Red Hat) and the local RSA-installed Oracle database. Downloading and running the latest appliance updater closes vulnerabilities and bugs addressed by the patches.

On a regular basis, RSA bundles patches for the database and operating system components of the appliance into a compressed file (rsaimg_updater_<release_date>_<platform>.tar.bz2) and posts it to RSA Link at https://community.rsa.com/community/products/governance-and-lifecycle. The appliance updater is cumulative. It includes all previous patches. The Appliance Updater does not patch RSA Identity Governance and Lifecycle itself.

Important: Download and apply the appliance updater patches after completing the configuration or installation of your appliance and regularly as RSA releases new patch updates.

Appliance Updater Supported Environments

The following tables lists the components and environments that are patched by the Appliance Updater:

Component		Updater applies patches to these environments	
		RSA Appliance	Soft Appliance
Operating System	SUSE Enterprise Linux Server 11 SP3	Yes	No
	Red Hat Enterprise Linux 5	Yes	No
	Red Hat Enterprise Linux 6	No	No
Database RSA Identity Governance and Lifecycle	Oracle 12.1.0.2 Enterprise Edition Database	Yes	Yes (local database only)
Database RSA IMG v6.9.1	Oracle 11.2.0.3 Enterprise Edition Database	Yes	Yes (local database only)

Update Process Overview

The following image depicts the operating system and database update process.
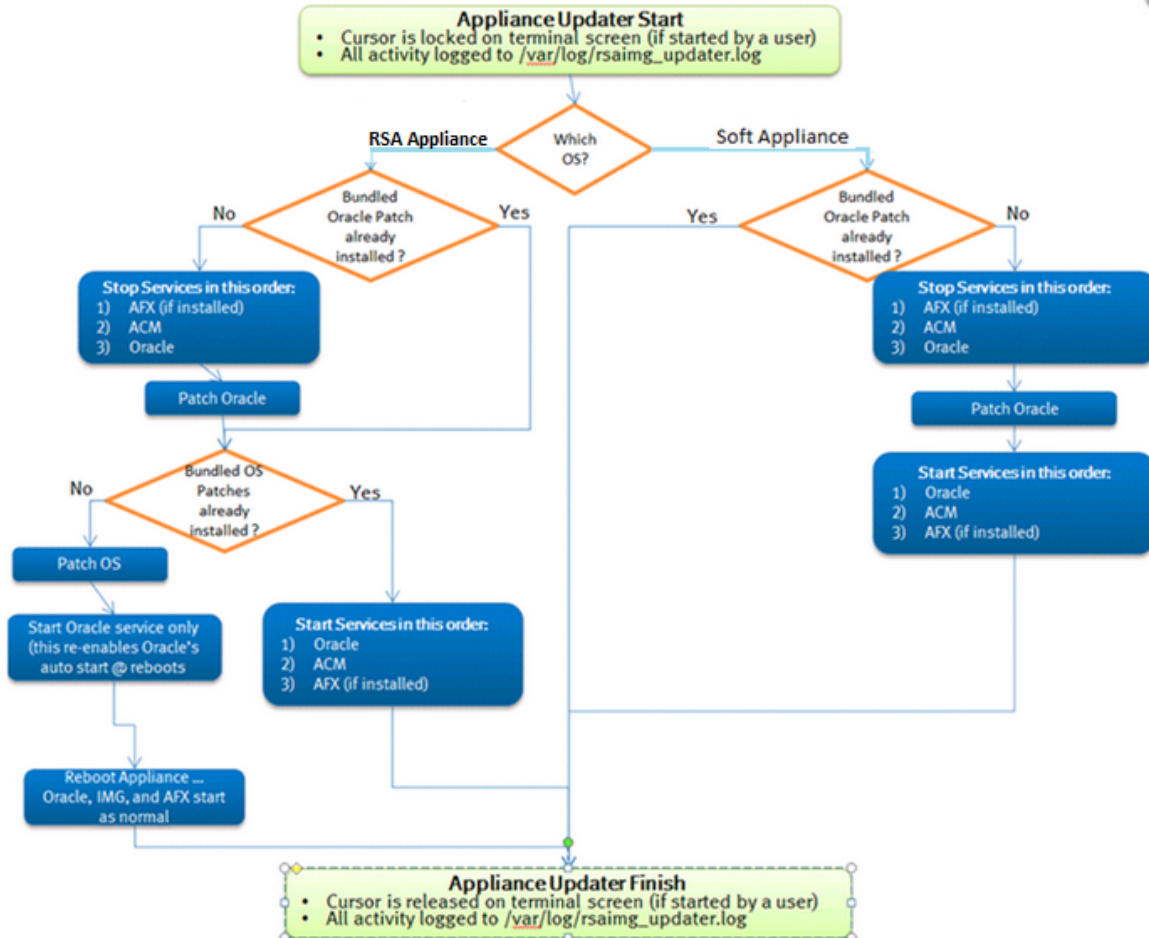
Install the Appliance Updater

Use this procedure to install the latest version of the Appliance Updater.

Procedure

1. Log on to the appliance as root.

2. Download the compressed Appliance Updater file to the appliance. Make sure you download the file to a directory that has sufficient space and that you have Read/Write privileges in the directory.

3. If this is the first time that you have installed the Appliance Updater, complete the following tasks; otherwise go to Step 4:

a. Create a directory for the extracted files:

```
mkdir -p /opt/appliancePatches
```

b. Change the permissions on the directory:

```
chmod 760 /opt/appliancePatches
```

4. Extract the files to the appliancePatches directory:

```
tar jxf rsaimg_updater_<release_date><platform><oracle_version>.tar.bz2
-C /opt/appliancePatches/
```

5. Copy the Appliance Updater (rsaimg_updater) to /etc/init.d:

```
cp -f /opt/appliancePatches/rsaimg_updater /etc/init.d/
```

6. Change the permissions on the Appliance Updater file:

```
chmod 700 /etc/init.d/rsaimg_updater
```

7. (Optional) Register the Appliance Updater service:

```
chkconfig rsaimg_updater on
```

Note: Once you register the service, it runs automatically whenever the appliance is restarted, installing any new updates found in the /opt/appliancePatches directory. Otherwise, you must issue the updater command.

Update the Appliance

Procedure

1. Download the latest update package (as listed below) for your operating system from RSA Link at https://community.rsa.com/community/products/governance-and-lifecycle.

For this environment:	Download this updater package:
RSA Identity Management and Governance 6.9.1 on RedHat	rsaimg_updater_*<release_date>*_RHEL5_ 11G.tar.bz2 where *release_date* = current year and current quarter or month, for example: rsaimg_updater_2017_March_RHEL5_11G.tar.bz2
RSA Identity Management and Governance 6.9.1 on SuSE	rsaimg_updater_*<release_date>*_SLES11_ 11G.tar.bz2 where *release_date* = current year and current quarter or month, for example:

	rsaimg_updater_2017_March_SLES11_11G.tar.bz2
RSA Identity Governance and Lifecycle 7.0.x on RedHat	rsaimg_updater_<release_date>_RHEL5_12C.tar.bz2 where release_date = current year and current quarter or month, for example: rsaimg_updater_2017_March_RHEL5_12C.tar.bz2
RSA Identity Governance and Lifecycle7.0.x on SuSE	rsaimg_updater_<release_date>_SLES11_12C.tar.bz2 where release_date = current year and current quarter or month, for example: rsaimg_updater_2017_March_SLES11_12C.tar.bz2

2. Schedule downtime for the RSA Identity Governance and Lifecycle Appliance.

   Note: RSA Identity Governance and Lifecycle is unavailable while the Appliance Updater is applying patches. When a patch is applied to the database, the Appliance Updater stops and restarts the RSA Identity Governance and Lifecycle service. When a patch is applied to the operating system, the Appliance Updater reboots the appliance to ensure that the latest components are being used.

3. Install the latest Appliance Updater on the appliance.

4. Make sure you have adequate disk space available;

   - 40 GB available on the /u01 file system.

   - The /home/oracle directory is also used to hold patch files. It's typical size after patching is about 20 GB.

5. Run the Appliance Updater to update the operating system and the database.

Update the Appliance Operating System and Database

Run the Appliance Updater after you have downloaded updated patches.

Procedure

1. Log on to the appliance as root.

2. Run the Appliance Updater.

   If you chose to register the Appliance Updater service when you installed the Appliance Updater, enter the following command:

   `service rsaimg_updater start`

   Otherwise, enter the following comand:

   `/etc/init.d/rsaimg_updater start`

Updater Options

The Appliance Updater (rsaimg_updater) includes the following options that allow you to update the RSA Identity Governance and Lifecycle appliance operating system and database, check if an update is running, and stop the update.

Option	Description
start	Starts the update: • For an RSA Identity Governance and Lifecycle appliance with Oracle installed, patches are installed for the operating system and the database. • For an RSA Identity Governance and Lifecycle appliance using a remote database, patches are installed for the operating system. • For a soft-appliance with Oracle installed, patches are installed for the database. • For a soft-appliance using a remote database, no patches are installed.
stop	Stops a running update.
status	Indicates if an update is running.
startOS	Updates the operating system on an RSA Identity Governance and Lifecycle appliance.
startDB	Updates the database on an RSA appliance and on a soft-appliance installation that uses the database provided by RSA.

Troubleshooting the Appliance Updater

Use the following information to troubleshoot issues using the RSA Identity Governance and Lifecycle Appliance Updater.

Issue: RSA Identity Governance and Lifecycle 6.9.1 fails to start after running the Appliance Updater, and the JBoss server log (/home/oracle/jboss-4.2.2.GA/server/default/log/server.log) displays the following error:

```
ERROR[org.jboss.naming.Naming]Could not start on port 1099
```

Reason: A running application is using port 1099. Port 1099 is required for the JBoss naming service, which is used to initialize the workflow engine.

Resolution: Perform the following procedure.

1. Log on to the appliance as root.

2. Enter the following command to stop AFX:
   ```
   afx stop
   ```

3. To identify the application that has stalled the JBoss Application Server, enter the following:
   ```
   ps -elf |grep -i org.jboss.main
   ```
   The resulting output includes a process ID (PID). In the following example output, the PID is 19374.

   ```
   0 S oracle 19374 19349 1 80 0 - 2469860 futex Apr19 ? 00:15:00
   /etc/alternatives/java_sdk_1.6.0/bin/java -Dprogram.name=run.sh
   -Xmx8192m -XX:MaxPermSize=512M -Djava.awt.headless=true -
   XX:+HeapDumpOnOutOfMemoryError -XX:HeapDumpPath=/home/oracle -
   Djava.net.preferIPv4Stack=true -
   Djava.endorsed.dirs=/home/oracle/jboss/lib/endorsed -classpath
   /home/oracle/jboss/bin/run.jar:/etc/alternatives/java_sdk_
   1.6.0/lib/tools.jar org.jboss.Main -c default -b 0.0.0.0_
   ```

4. To kill the process for the identified application, enter the following:
   ```
   kill -9 <PID>
   ```
   Where *<PID>* is the PID determined in step 2.
   For example:
   ```
   kill -9 19374
   ```

5. To restart the RSA Identity Governance and Lifecycle application, enter the following:
   ```
   acm start
   ```

6. After you successfully restart RSA Identity Governance and Lifecycle, restart the AFX server by entering the following commands:

`<path-to-AFX>`/afx stop

`<path-to-AFX>`/afx start

Where *`<path-to-AFX>`* is the location of the AFX installation.