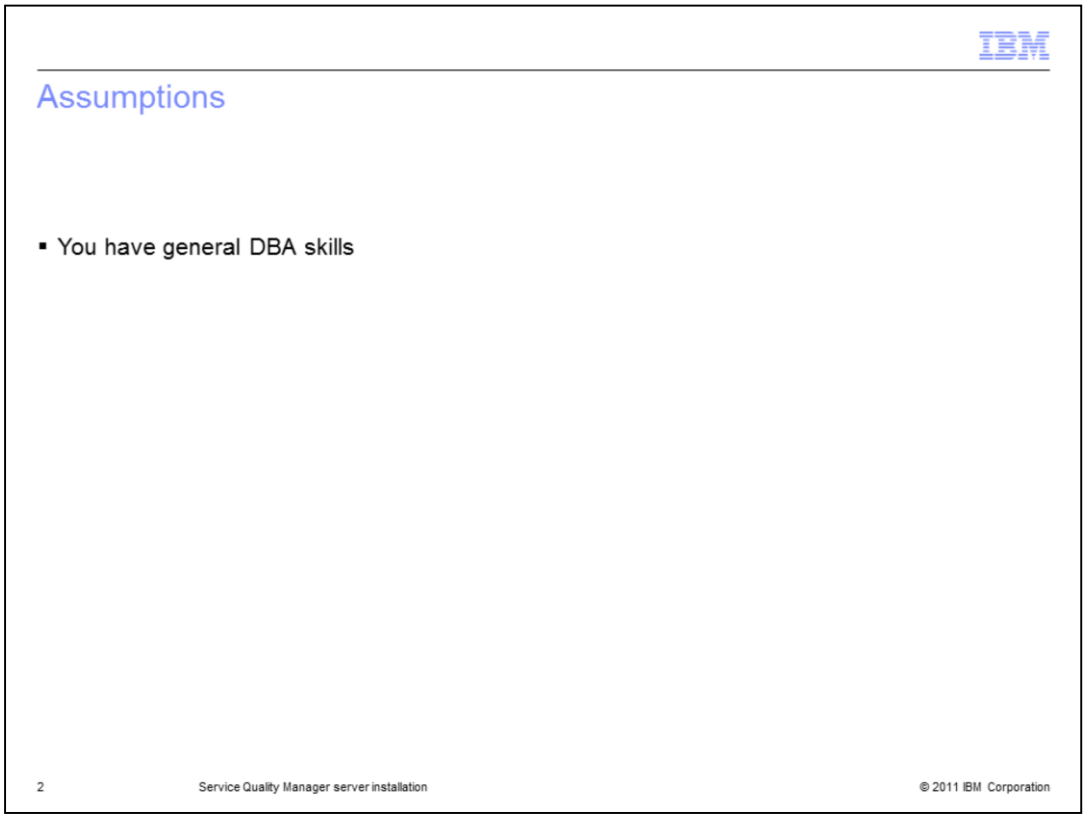
IBM Tivoli® Netcool Service Quality Manager V4.1: Server installation.

This training module is for the Tivoli Netcool Service Quality Manager version 4.1 server installation.

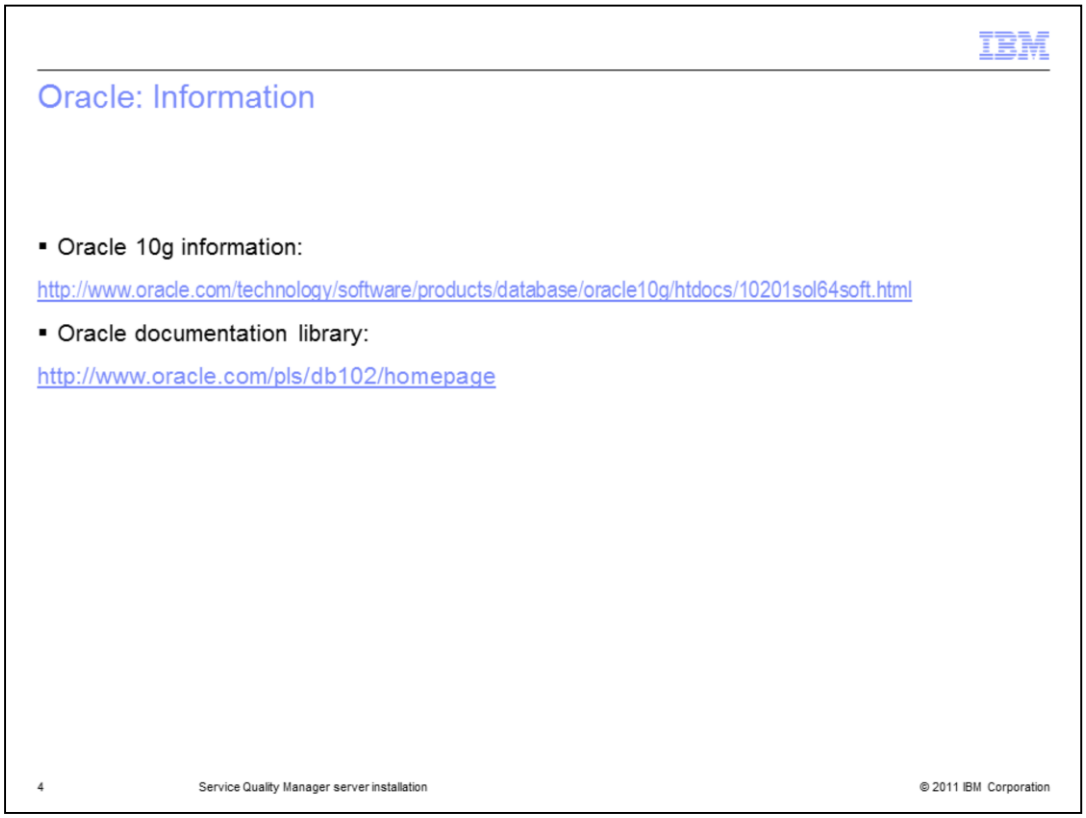


Assumptions.

The assumptions are that you have general DBA skills.

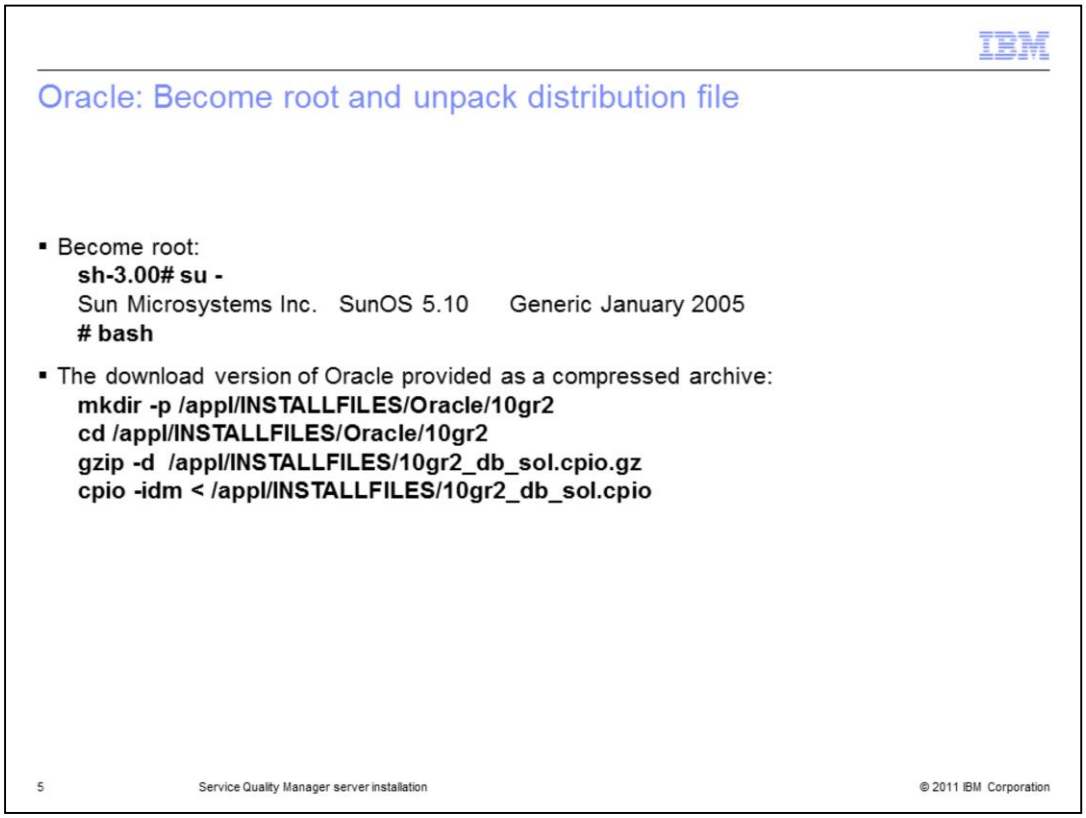
Objectives.

After you complete this module, you should be able to install Oracle, install the Sun Directory Server, install the Sun Message Queue, install the WebSphere Application Server, install the Tivoli Netcool Service Quality Manager application, perform post-installation configuration, reinstall IBM Tivoli Service Quality Manager, and reinstall Business Objects.



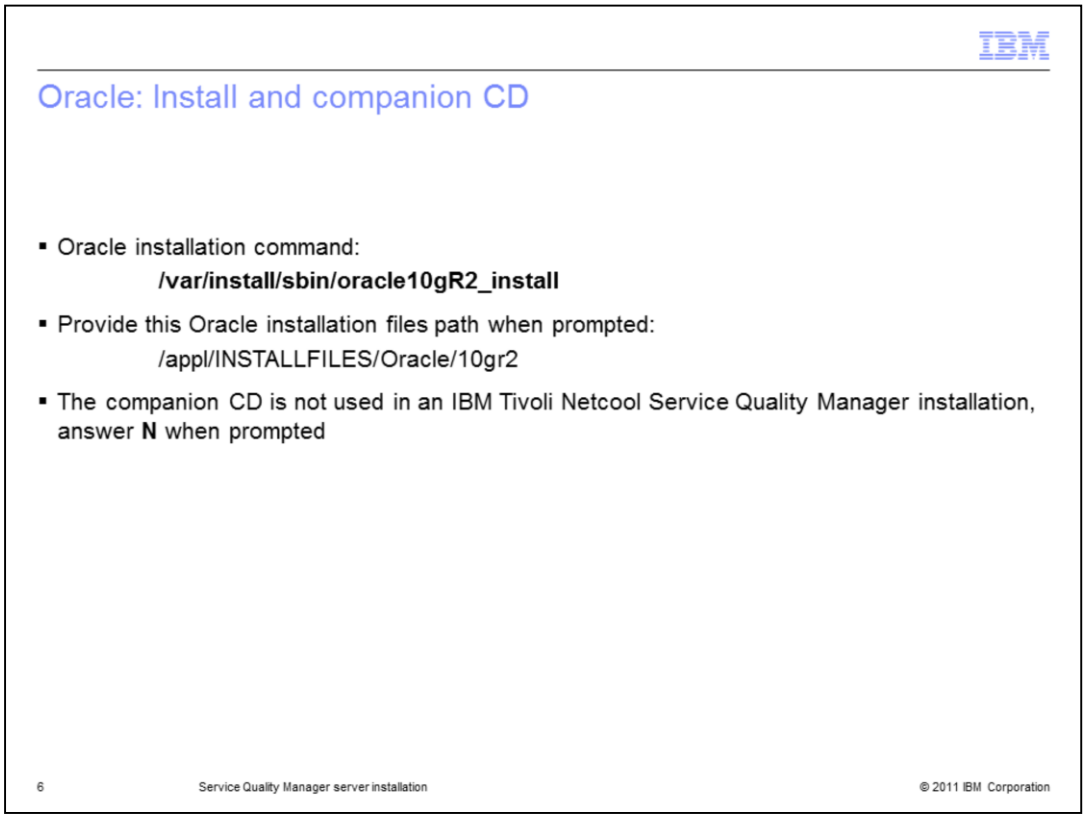
Oracle: Information.

Oracle 10g information and the Oracle documentation library locations are listed.



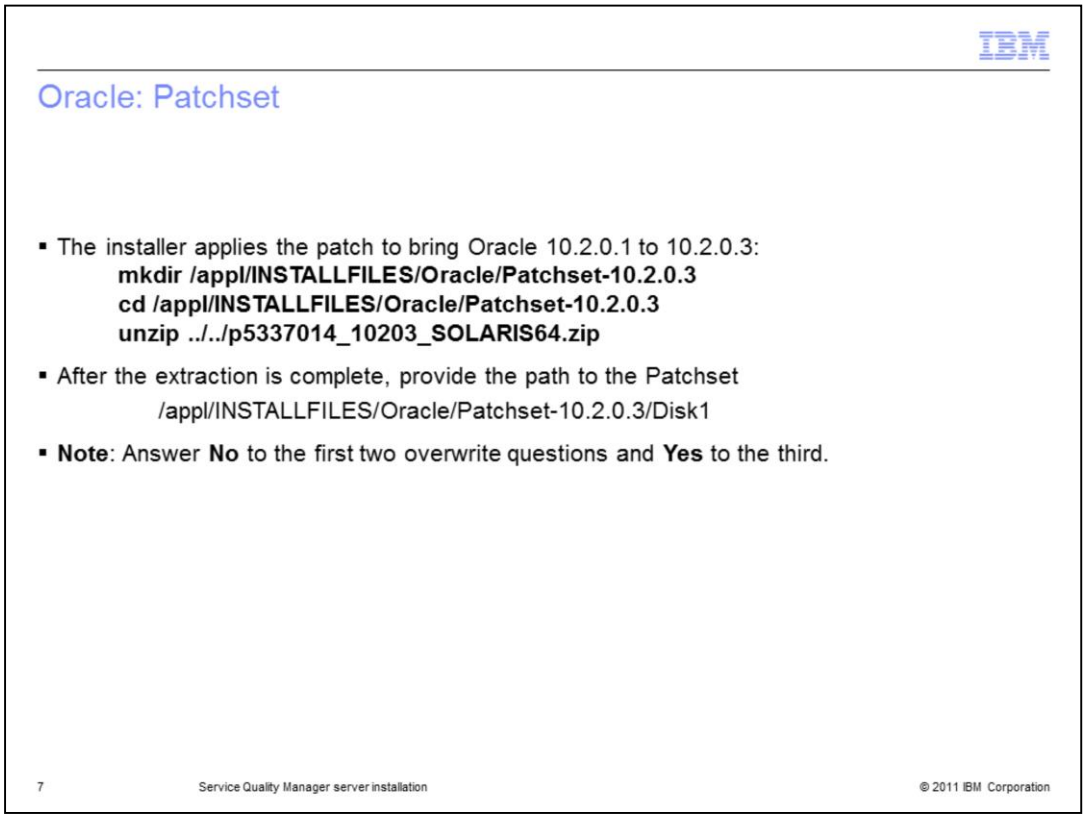
Oracle: Become root and unpack distribution file.

Become the root user. If you are using the download version of Oracle, it is provided as a compressed archive. Uncompress and unpack it into the **/appl/INSTALLFILES/Oracle/10gr2** directory.



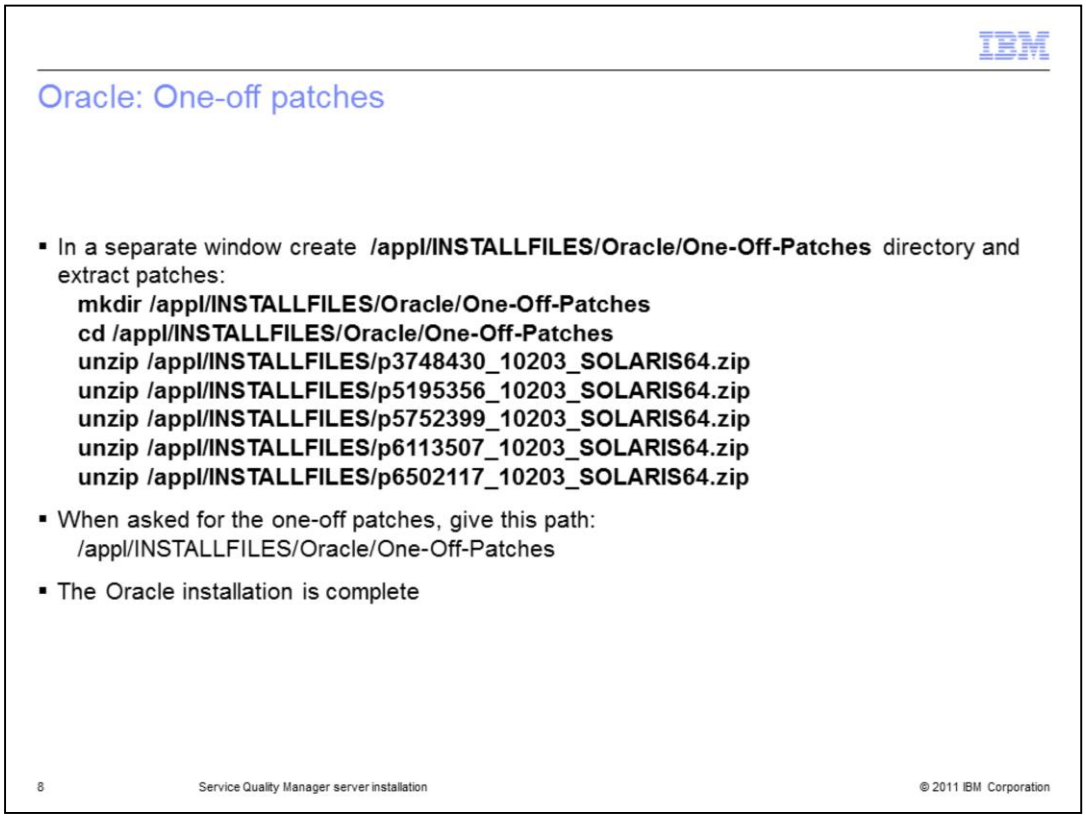
Oracle: Install and companion CD.

Enter the Oracle installation command. Enter the Oracle installation files path when prompted. The companion CD is not used in a ITNSQM installation, answer **N** when prompted.



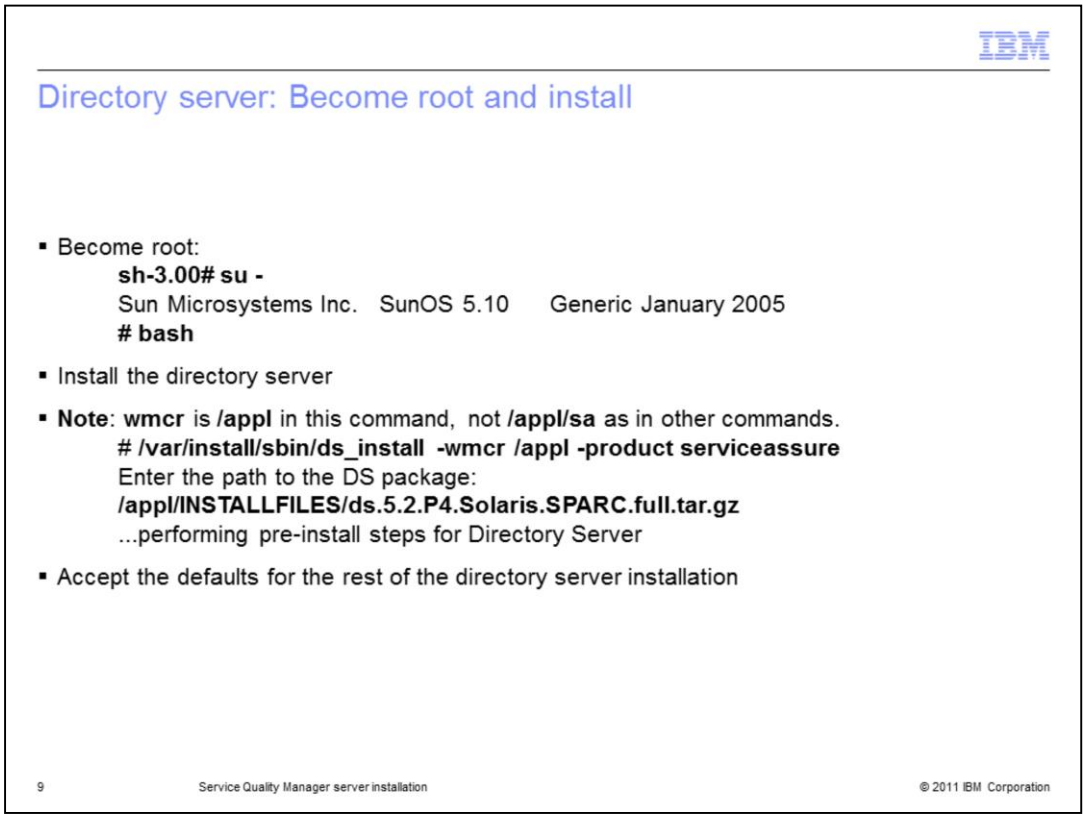
Oracle: Patchset.

The installer applies the patch to bring Oracle 10.2.0.1 to 10.2.0.3. This patch is very large and takes a few minutes to extract and apply. Extract the archive in a separate window. After the extraction is complete, provide the path to the Patchset. Note, during the patch installation you are asked about overwriting environment files. Answer **No** to the first two overwrite questions and **Yes** to the third overwrite of **coraenv**.



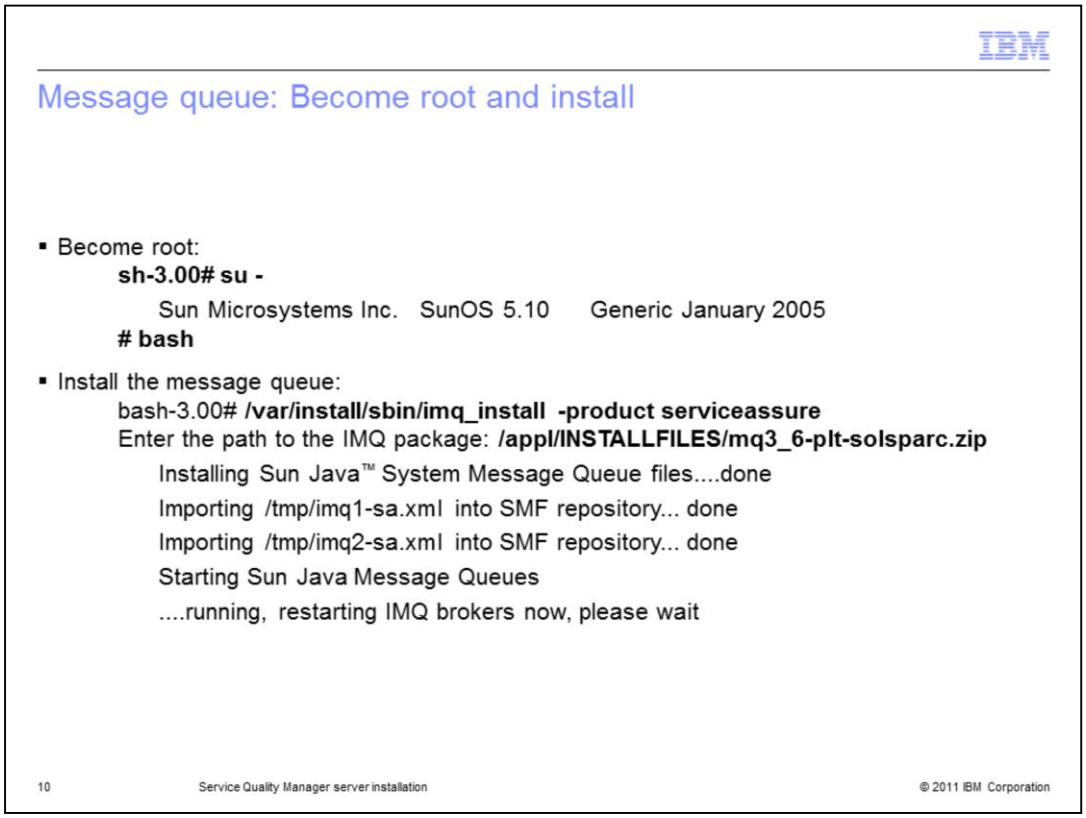
Oracle: One-off patches.

Patches are needed on top of the patch set and are not included. The database installation script installs these, if you extract them, and place them in a directory specified to the installation program. In a separate window create **/appl/INSTALLFILES/Oracle/One-Off-Patches** directory and extract patches. Give the path for the one-off patches. The Oracle installation is now complete. The log file is in /var/install/logs/.



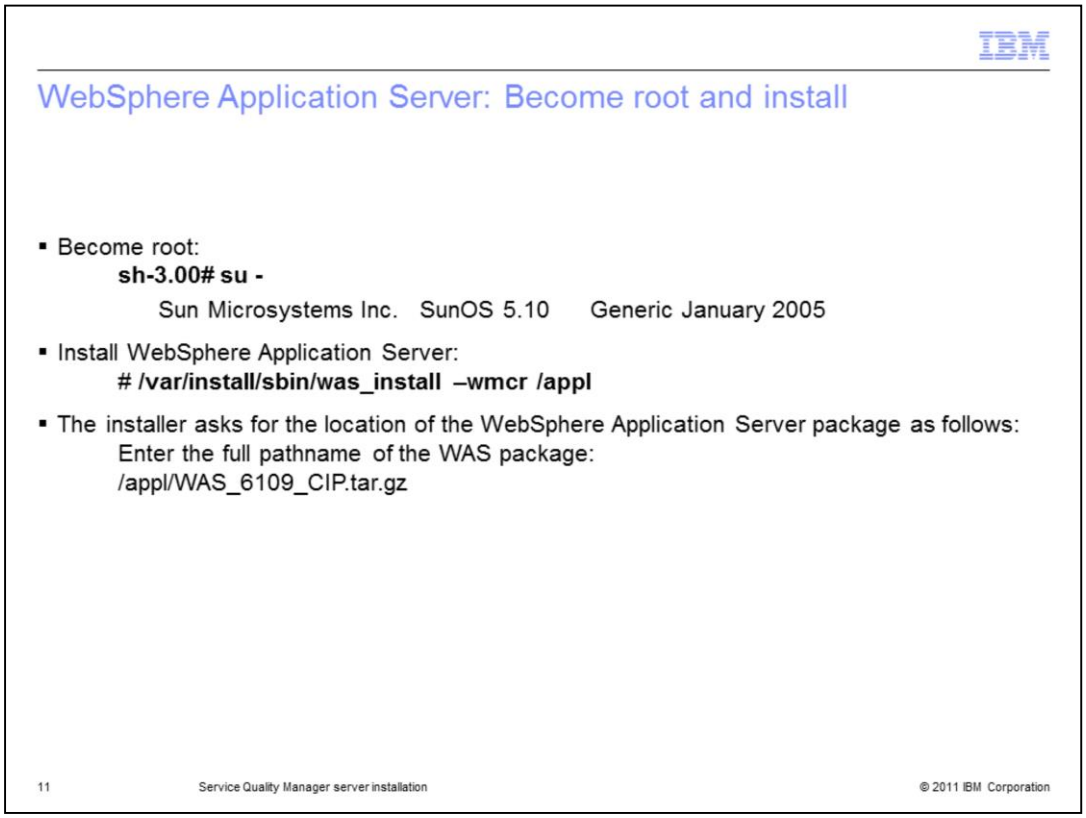
Directory server: Become root and install.

Become the root user. Install the directory server. Note wmcr is /appl and not /appl/sa. Accept the defaults for the rest of the directory server installation.



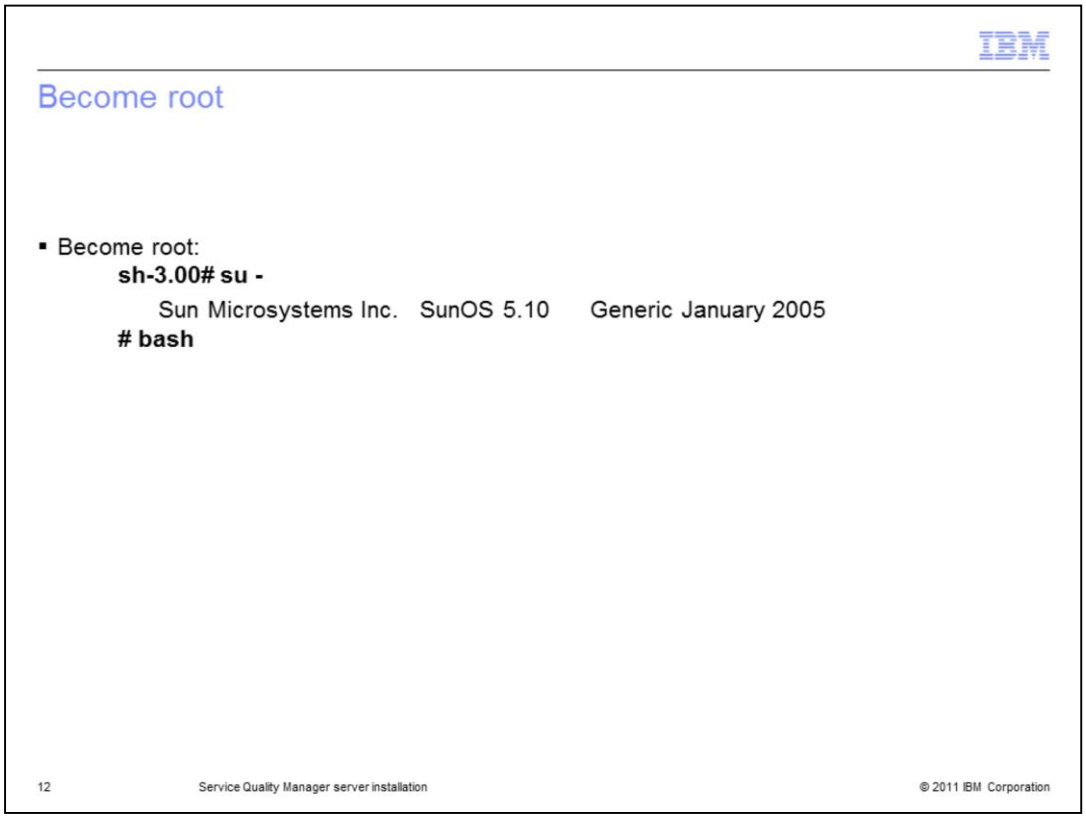
Message Queue: Become root and install.

Become the root user. Install the message queue.



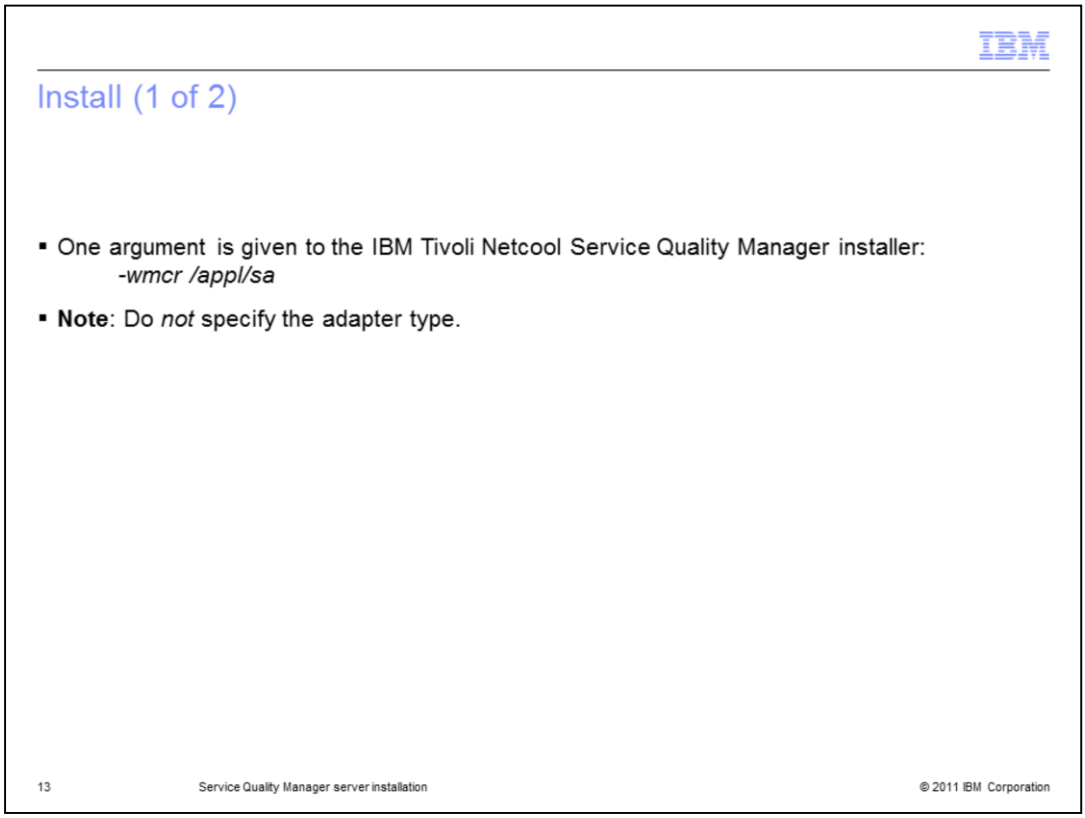
WebSphere Application Server: Become root and install.

Become the root user. Install WebSphere Application Server. The install asks for the location of the WebSphere Application Server package as shown.



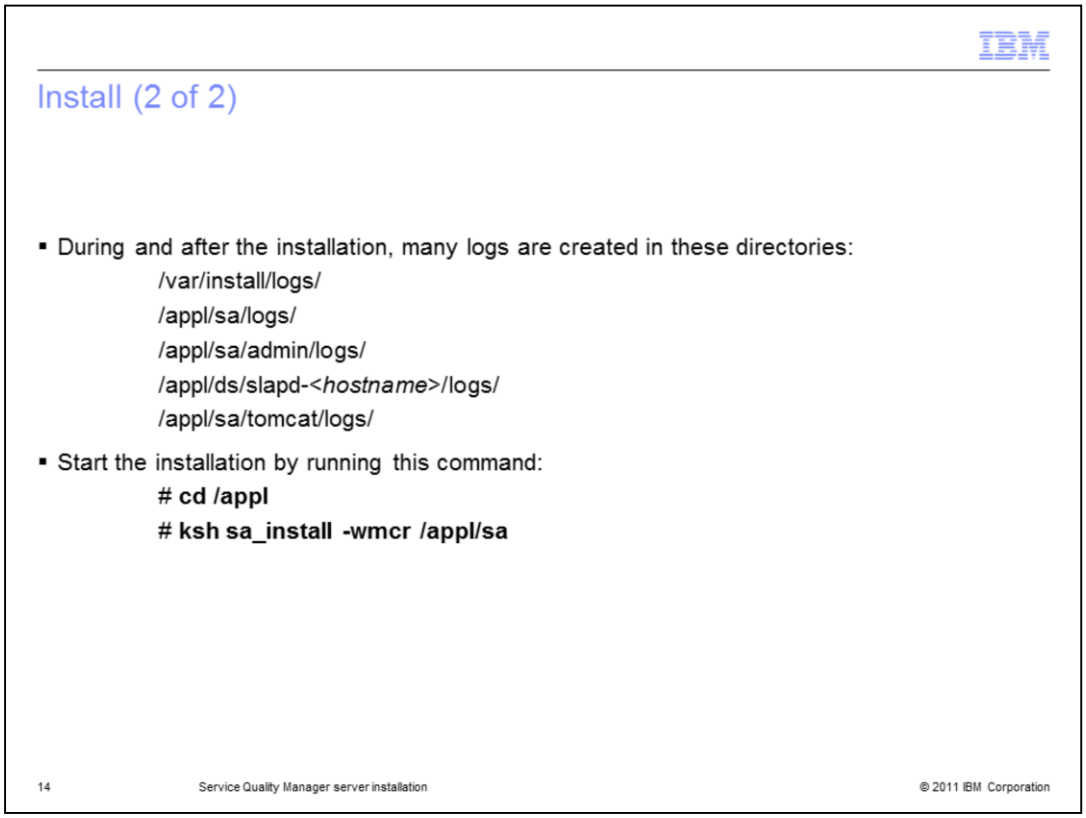
Become root.

Become the root user.



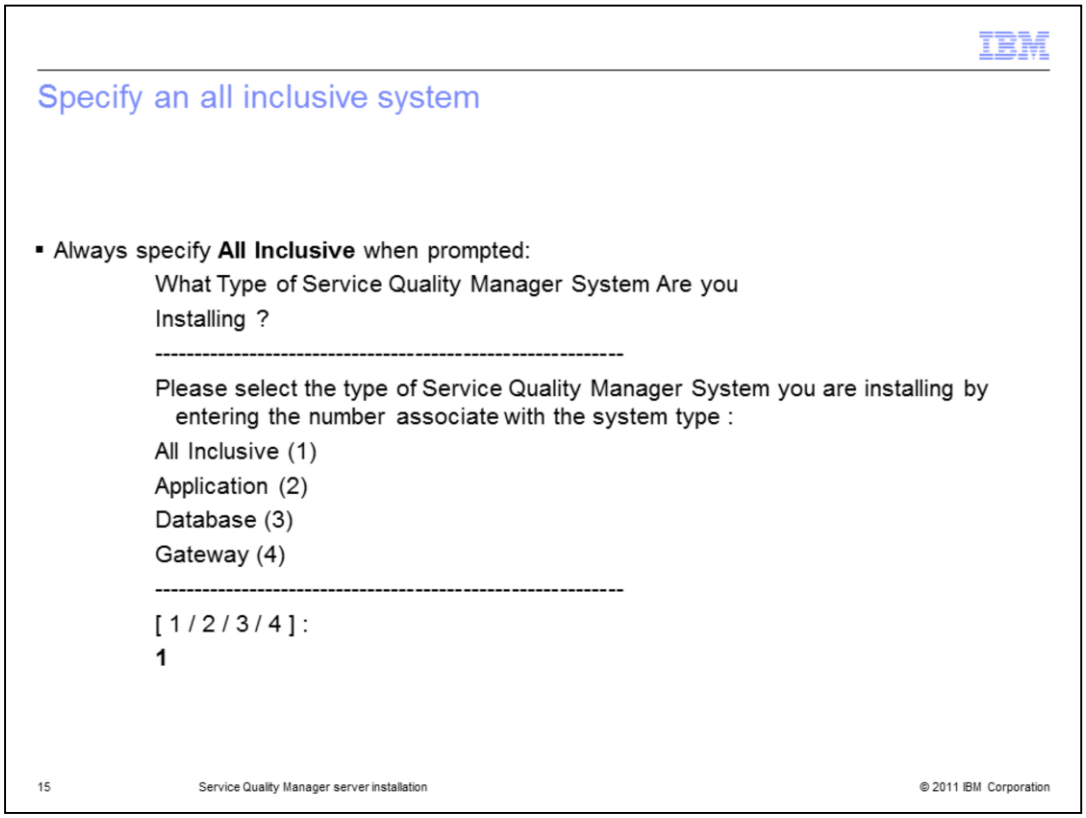
Install (1 of 2).

Install Message Queue. Give argument to the IBM Tivoli Netcool Service Quality Manager installer. The argument specifies the installation root. WMCR stands for *WatchMark Comnitel root*. WatchMark and Comnitel were two companies that combined into Vallent, which is now an IBM company. You will see *$WMCR* in the SQM documentation. By default this is the directory ***/appl/sa*** (*sa* stands for ServiceAssure™, the product name under Comnitel and Vallent). Note in the installation guide for the product you can see an argument specifying the adapter type to be installed. The argument is *-a atktest*, which is used by the QA team during testing. Do *not* specify the adapter type. The service solutions now depend on the existence of the Business Objects server, which cannot be installed until after the core ITNSQM installation is completed.



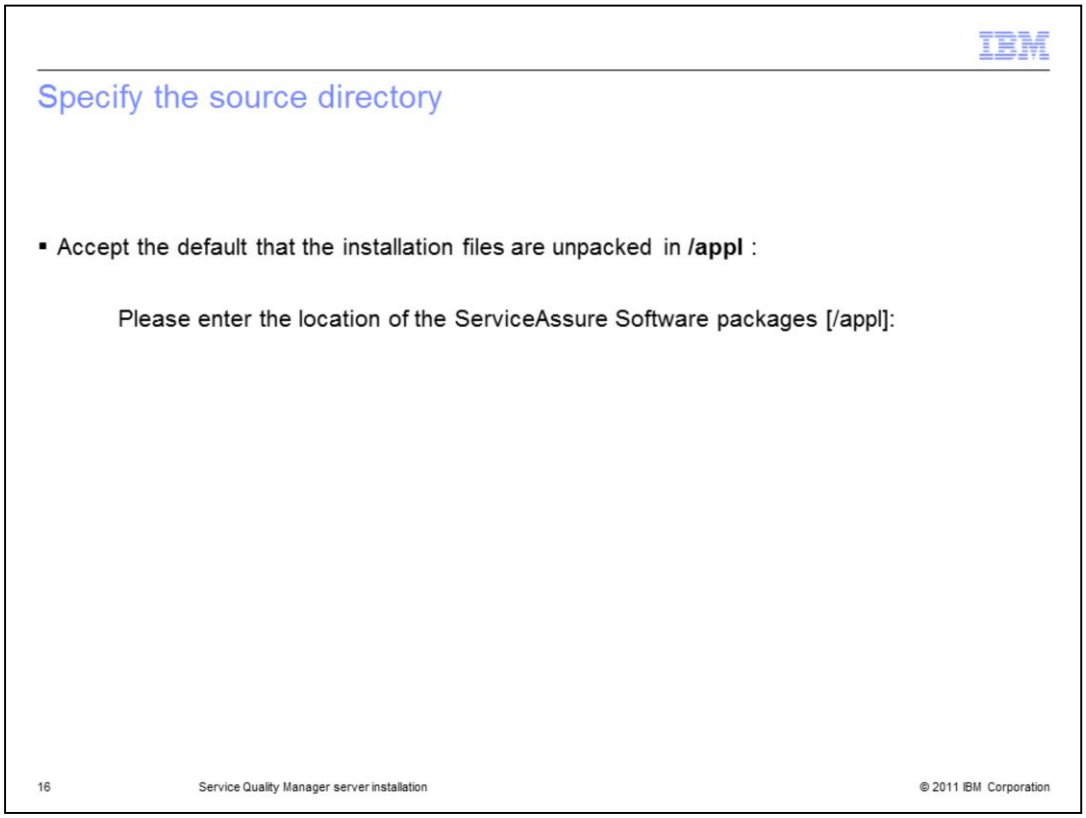
Install (2 of 2).

During and after the installation, many logs are created in the directories shown. Start the installation by running the command shown.



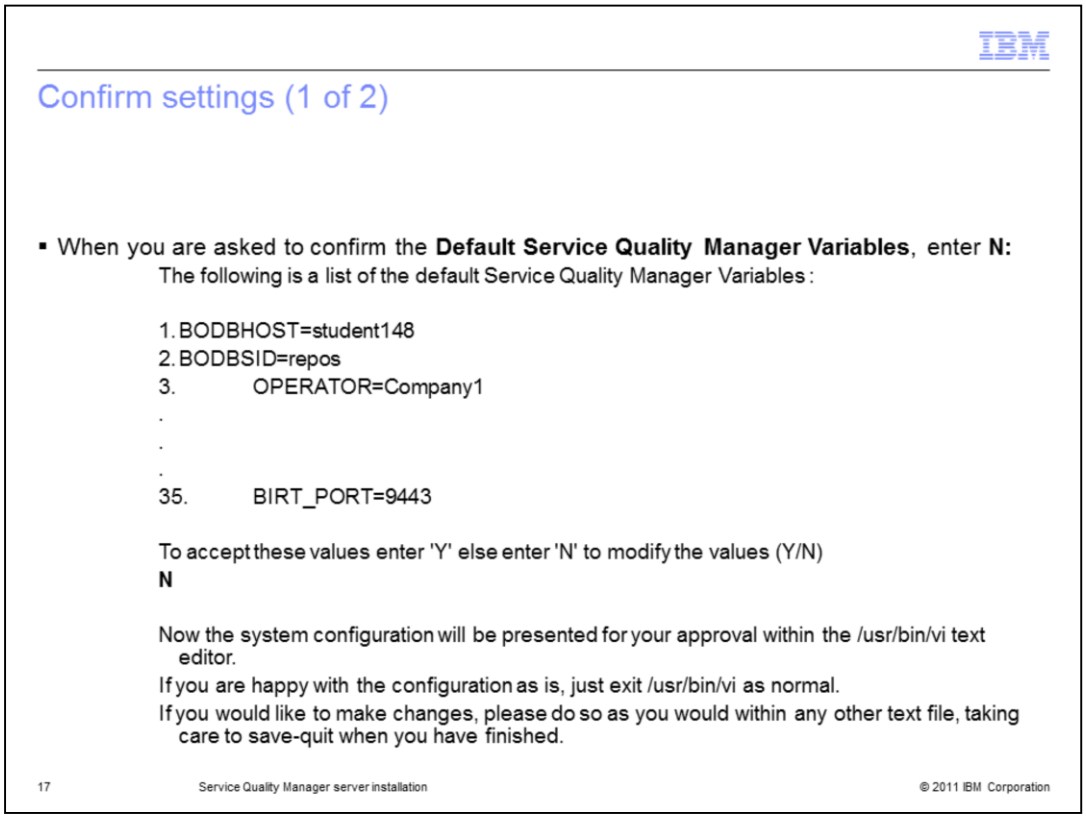
Specify an all inclusive system.

Tivoli Netcool Service Quality Manager can be installed on one server or across multiple servers. The installation described in this document uses a single server; therefore, always specify **All Inclusive** when prompted.



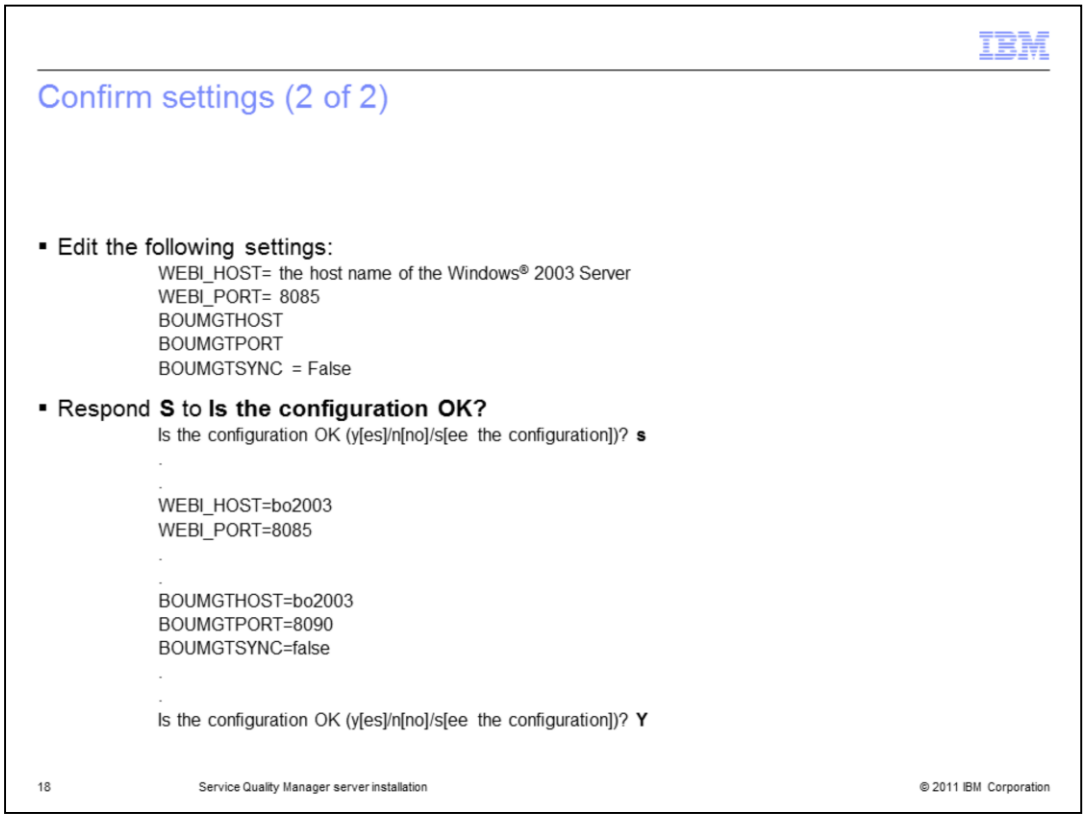
Specify the source directory.

The installation files are unpacked in **/appl**. Do not deviate from this, the installer has some hard-coded expectations. Accept the default.



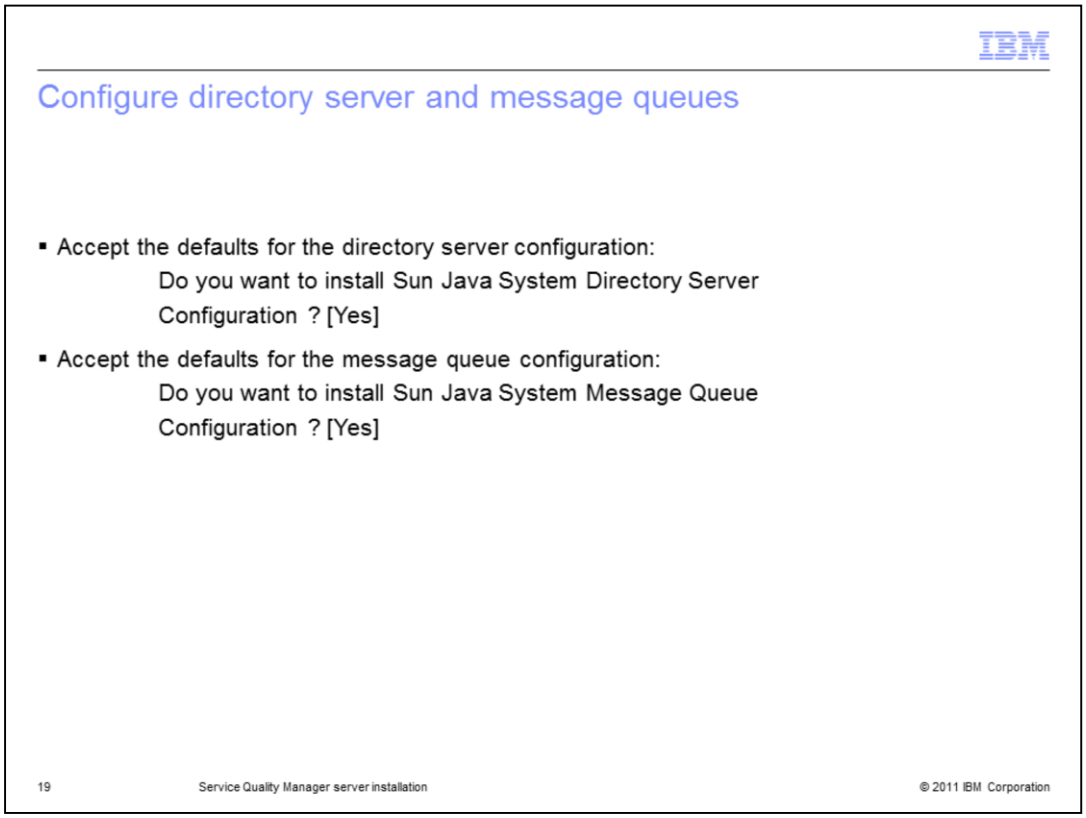
Confirm settings.

When you are asked to confirm the **Default Service Quality Manager Variables**, enter **N**, you will edit the settings to specify the host name and port of the Business Objects Webi server. You can see the variables in the vi editor.



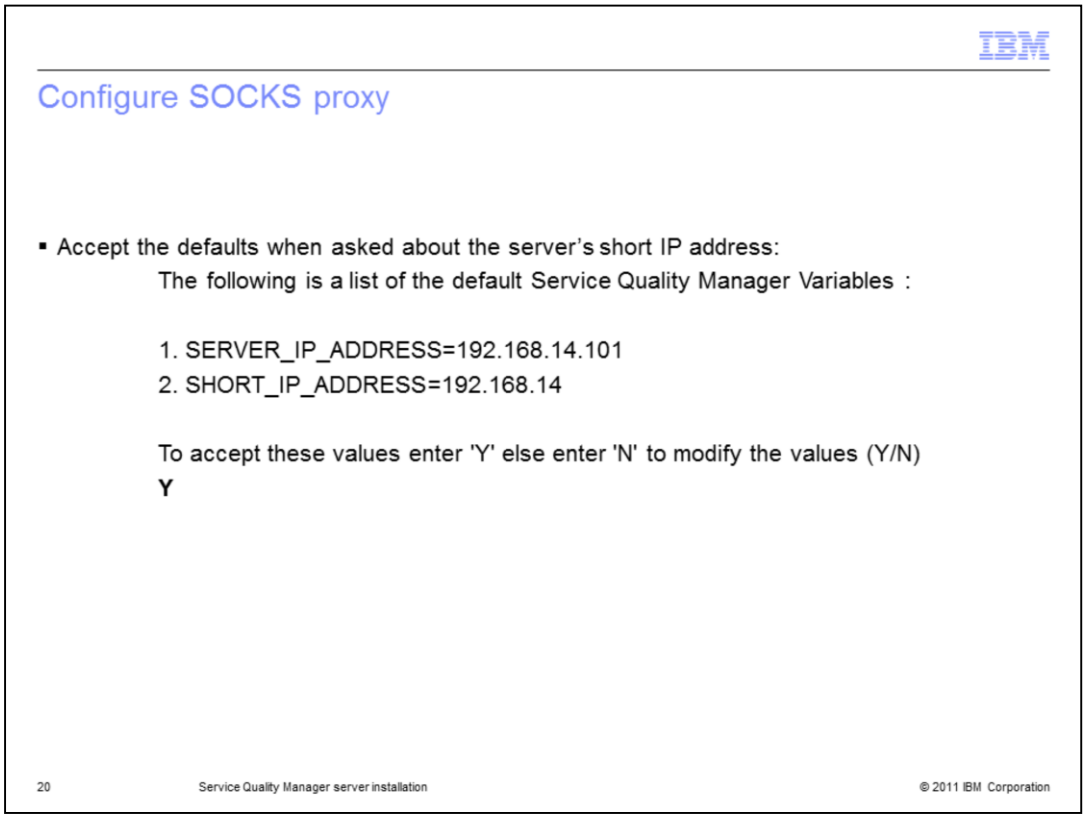
Confirm settings (continued).

Edit the file. Set WEBI_HOST to the host name of the Windows 2003 Server, and WEBI_PORT to port number 8085. Similarly, edit the settings for BOUMGTHOST, BOUMGTPORT, and BOUMGTSYNC. Set BOUMGTSYNC to False until the Business Objects User Management software is installed and running on the Business Objects server. When you are finished editing, respond **S** to **Is the configuration OK?**. The new configuration is shown. Verify that your changes are reflected in the new configuration, and then accept the configuration by responding **Y** at the prompt.



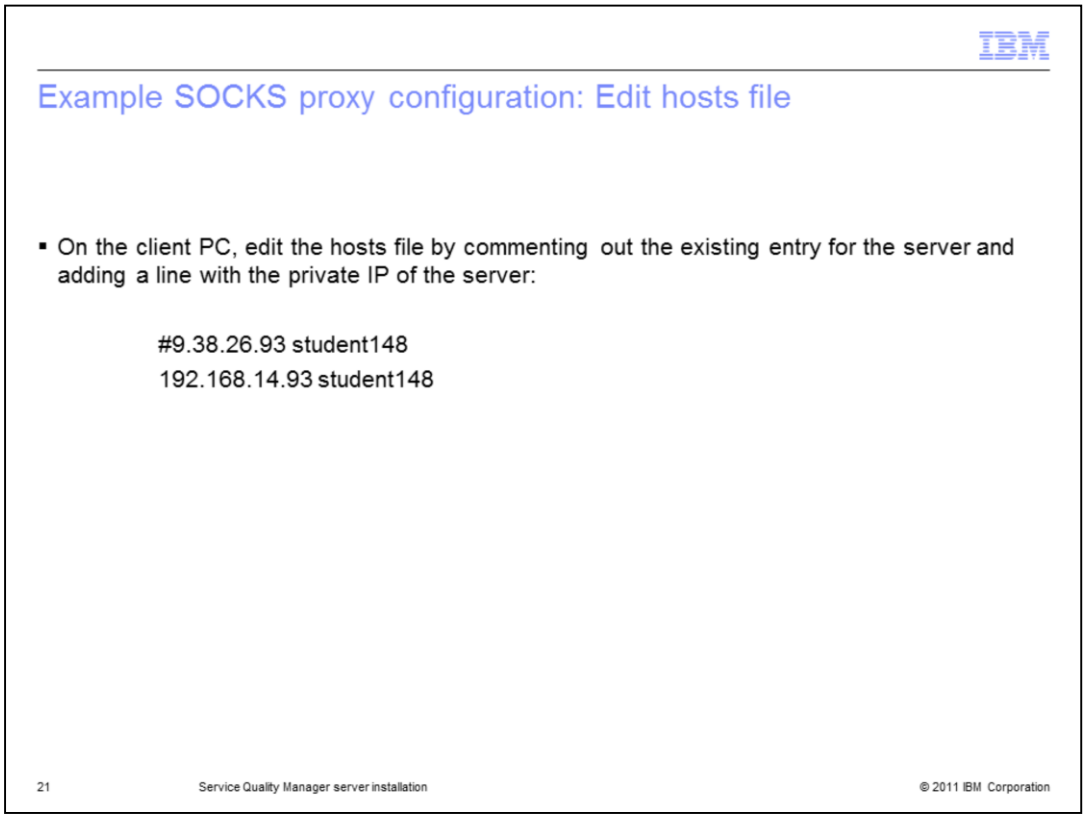
Configure directory server and message queues.

Accept the defaults for the directory server and message queue configurations.



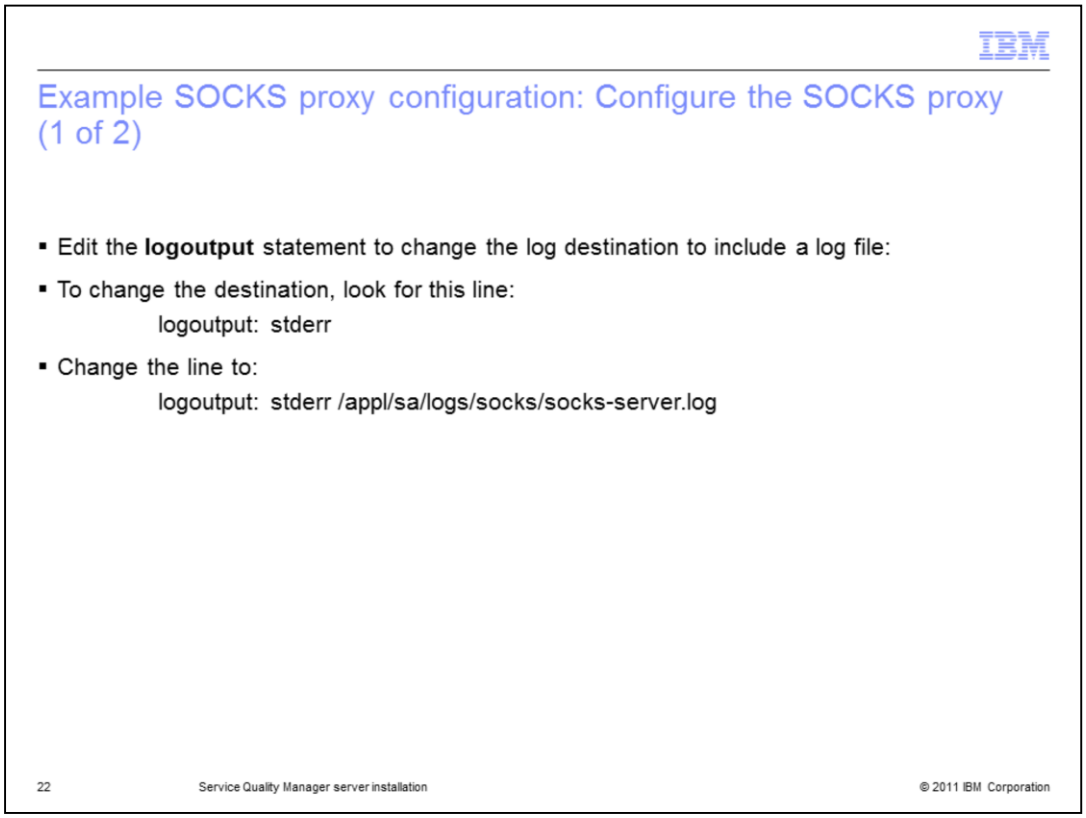
Configure SOCKS proxy.

Accept the defaults when asked about the server's short IP address. You are asked twice. If you are going to be using the proxy, you must perform more configuration.



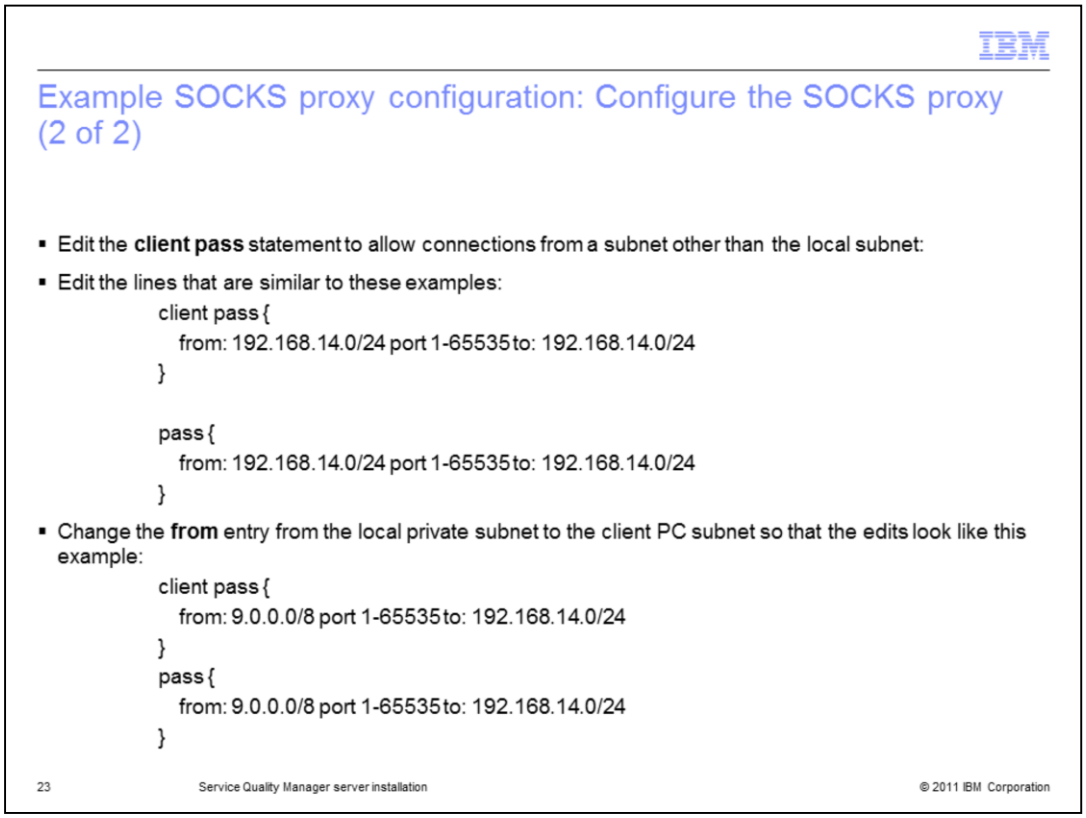
Example SOCKS proxy configuration: Edit hosts file.

If you have a server with a NAT address, this example configuration is applicable to a server that is separated from the client PC by a firewall and NAT. In this example, case access is denied to the application default ports (8092, 8094, 1389, etc). On the client PC, edit the hosts file. Comment out the existing entry for the server and add a line with the private IP of the server. The hosts file is generally **C:\windows\system32\drivers\etc\hosts**



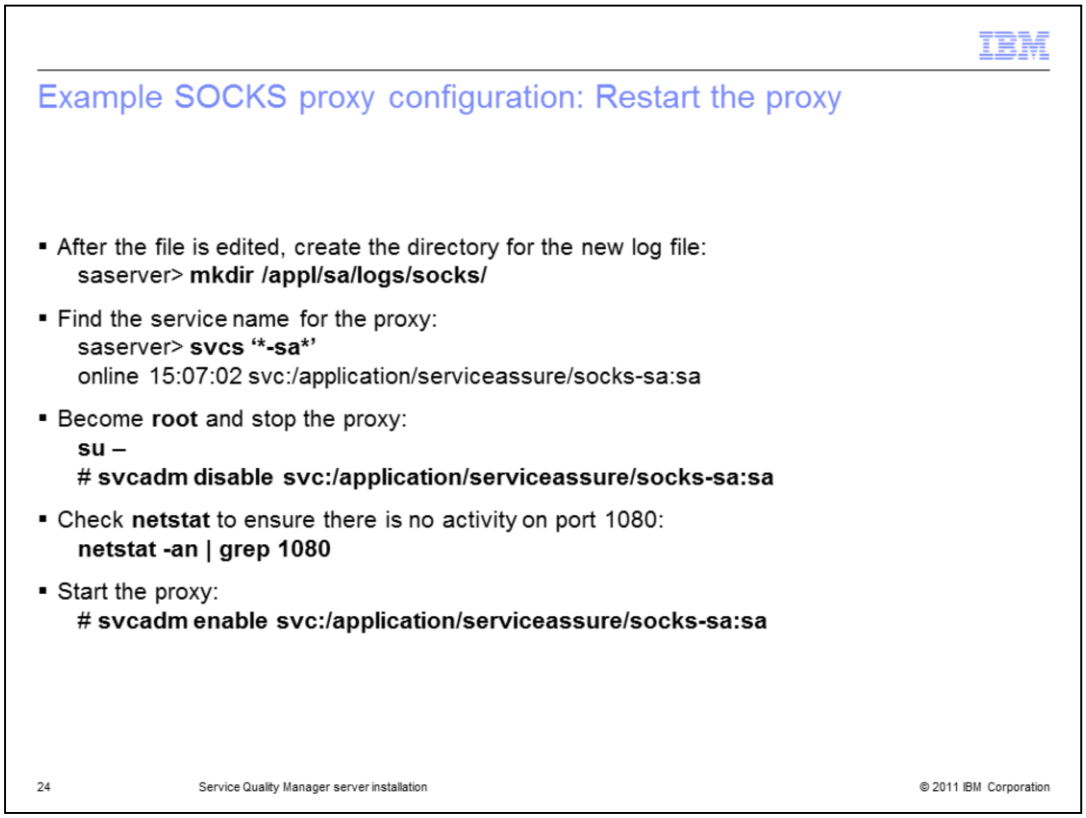
Example SOCKS proxy configuration: Configure the SOCKS proxy.

The SOCKS proxy is configured to permit logging and to accept connections from the client PC network. Log on to the SQM server as user **saserver** and edit the file **/appl/sa/conf/socks/sockd.conf**. Change the **logoutput** and **client pass** statements. For changing the **logoutput** statement, by default, logs are sent to standard error (the console). This destination is not useful when an issue must be investigated, so change the log destination to include a log file.



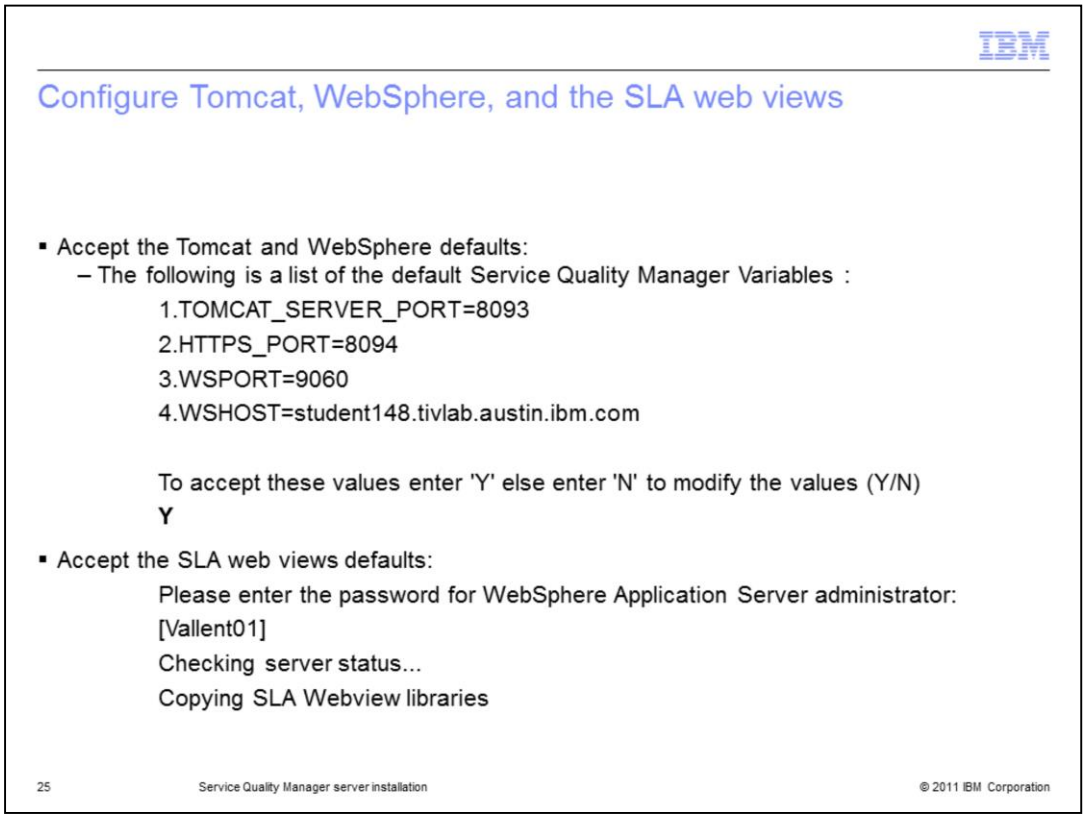
Example SOCKS proxy configuration: Configure the SOCKS proxy (continued).

Change the **client pass** statement. By default, the proxy passes (permits) connections from the local subnet (this was the reason for the *short IP* configuration question during installation). If connections are coming in from another subnet, this setting must be changed. Edit the lines that are similar to the examples shown. You must change the from entry from the local private subnet to the client PC subnet. The edits might look like the example shown.



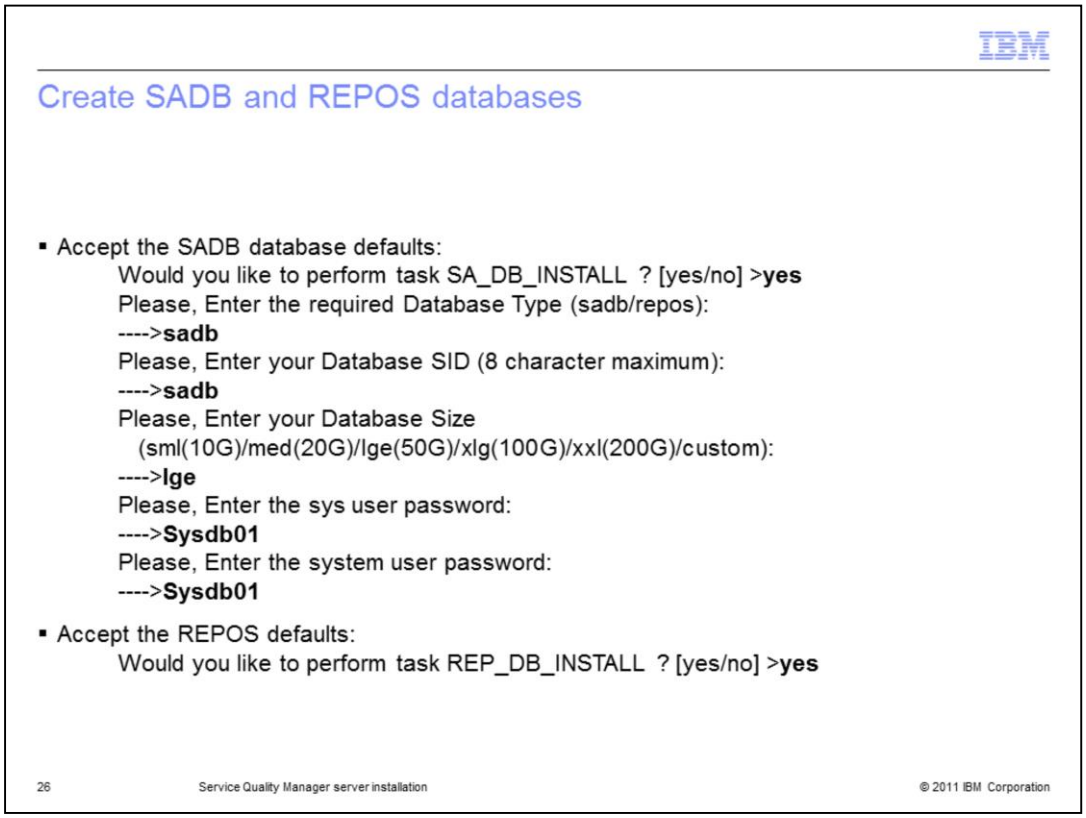
Example SOCKS proxy configuration: Restart the proxy.

After the file is edited, create the directory for the new log file. Find the service name for the proxy. Become root and stop the proxy. Check **netstat** to ensure there is no activity on port 1080. Start the proxy. Check the new log file with **netstat** to ensure the proxy is running and listening on port 1080.



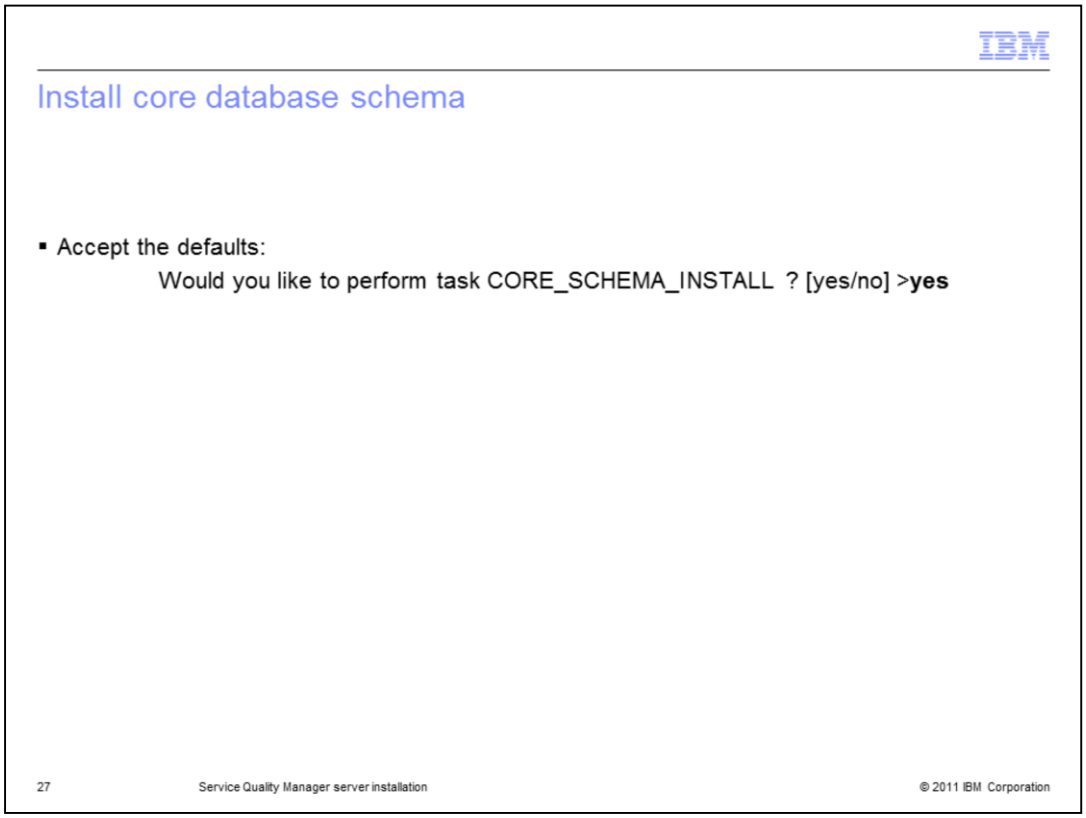
Configure Tomcat, WebSphere, and the SLA web views.

Accept the Tomcat and WebSphere defaults. Accept the SLA web views defaults.



Create SADB and REPOS databases.

Accept the SADB database defaults. Do not create a database smaller than the default 50 GB size. Accept the REPOS defaults.

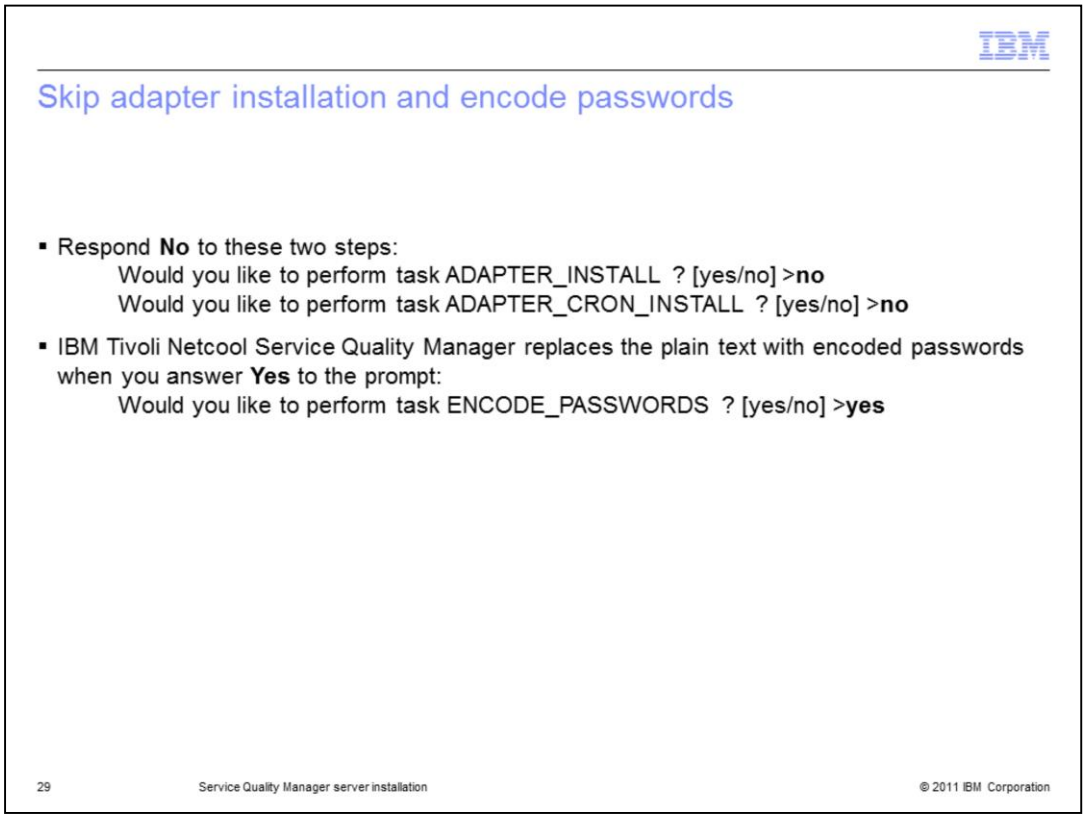


Install core database schema.

Accept the defaults.

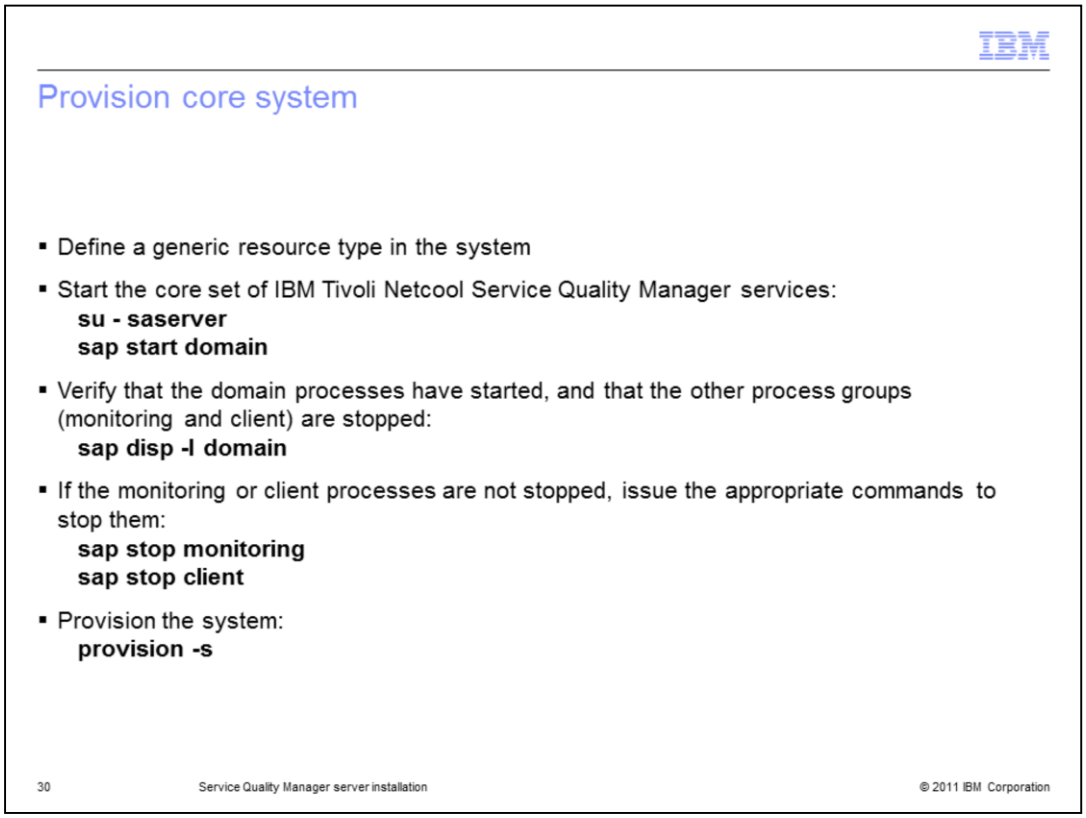
Install core cron jobs.

There are three settings that are not defaults, specifically the database archive directories and the IMQ installation directory. Override the defaults with the values provided.



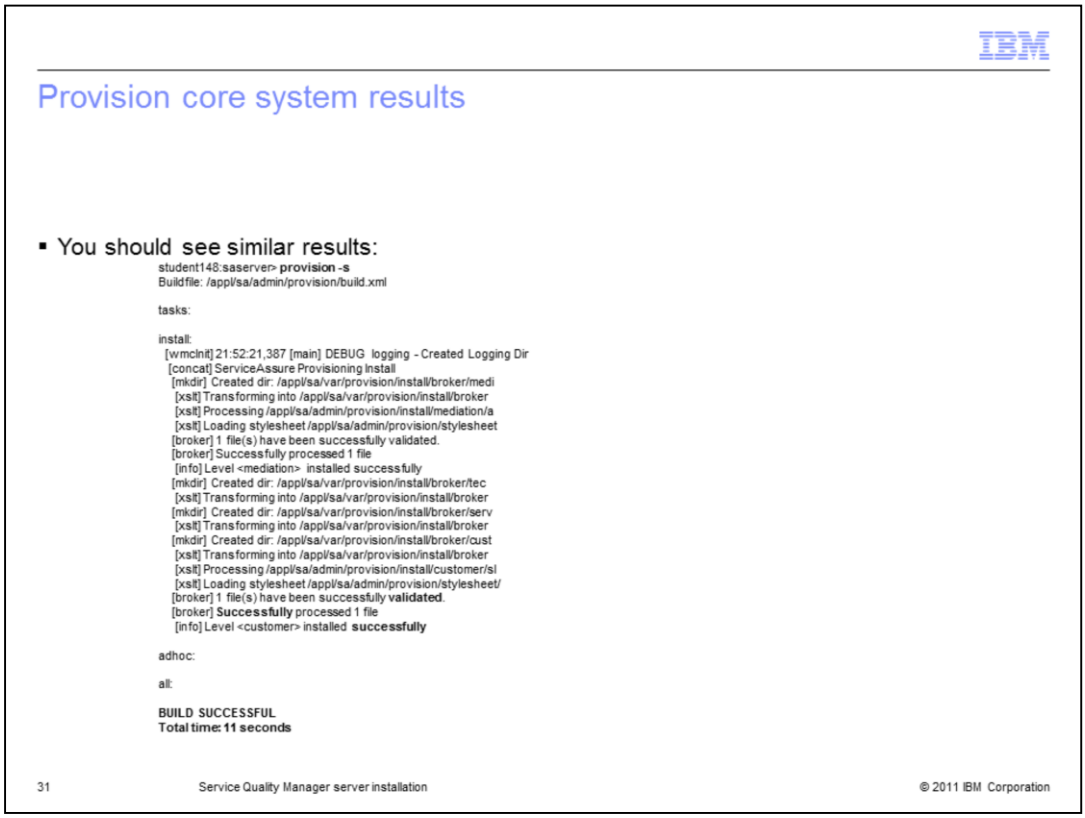
Skip adapter installation and encode passwords.

Adapter installation is not covered in this module. All of the passwords that are in use are recorded in text configuration files. IBM Tivoli Netcool Service Quality Manager replaces the plain text with encoded passwords when you answer **Yes** to the prompt.



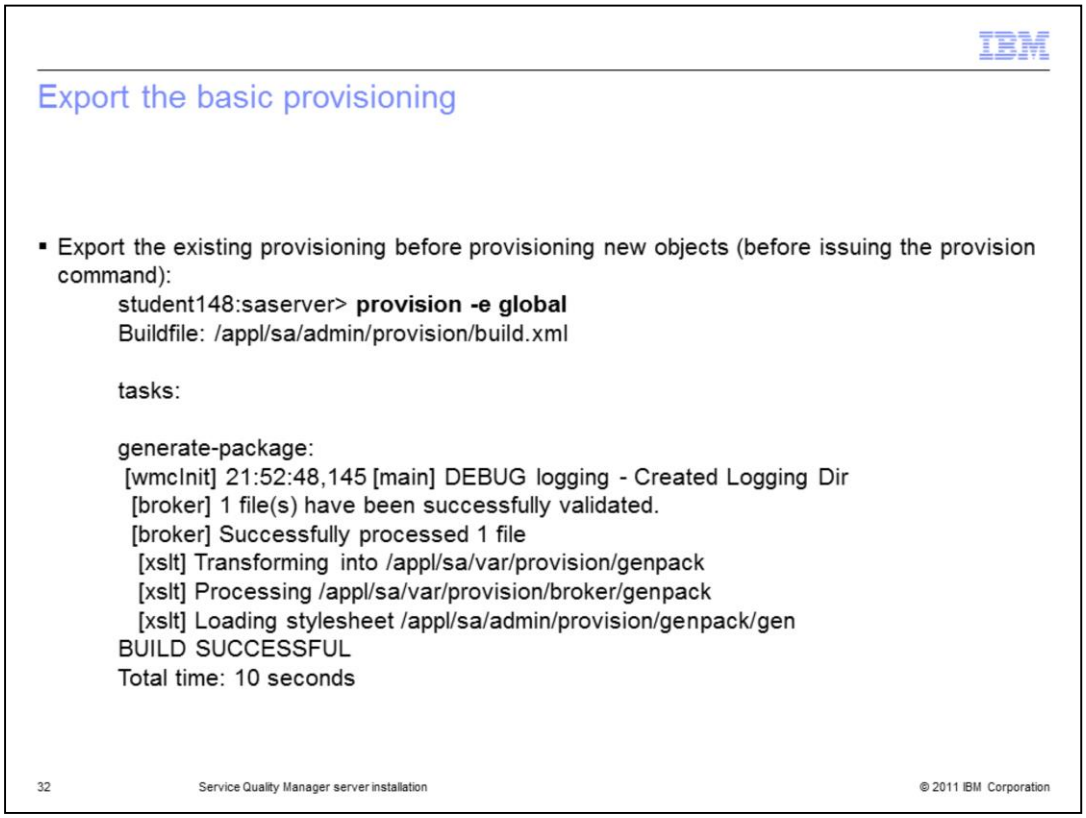
Provision core system.

Before other resources can be created, or provisioned, a generic resources type must be defined in the system. The generic resource type is **Any**. Start the core set of IBM Tivoli Netcool Service Quality Manager services. Verify that the domain processes have started, and that the other process groups (monitoring and client) are stopped. If the monitoring or client processes are not stopped, issue the appropriate commands to stop them. Provision the system.



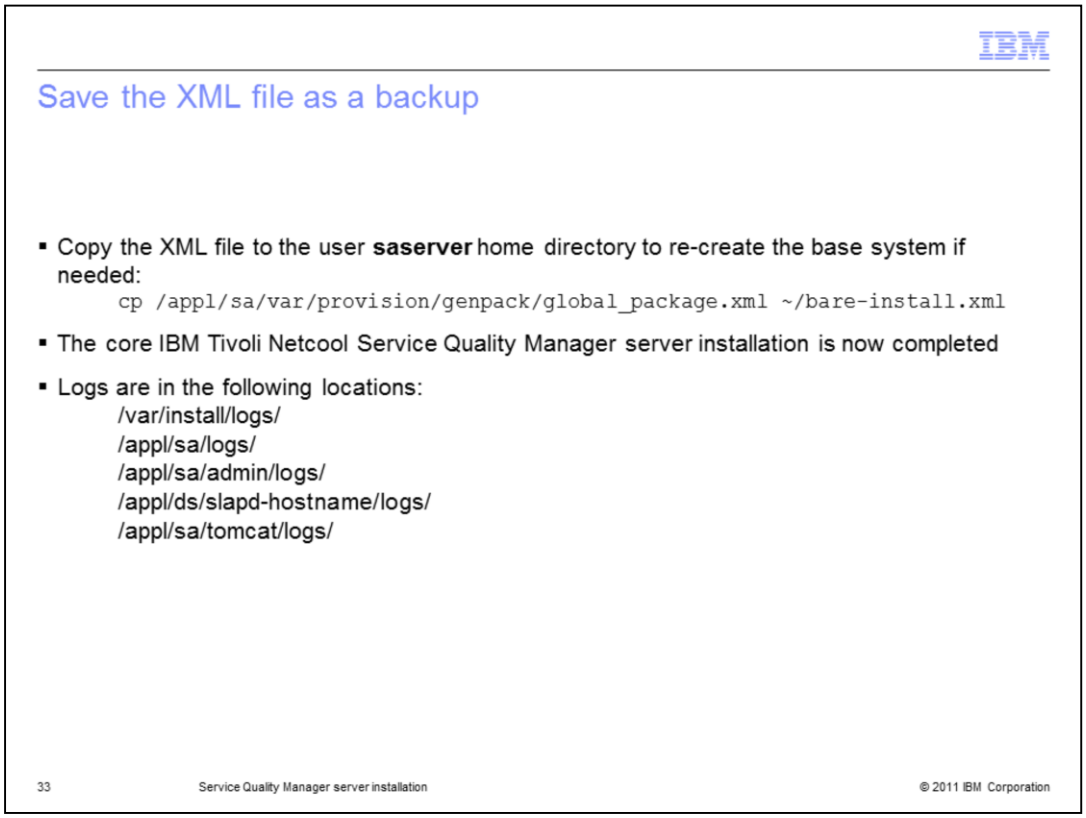
Provision core system results.

Examine the results of the **provision** command carefully for errors. You should see similar results.



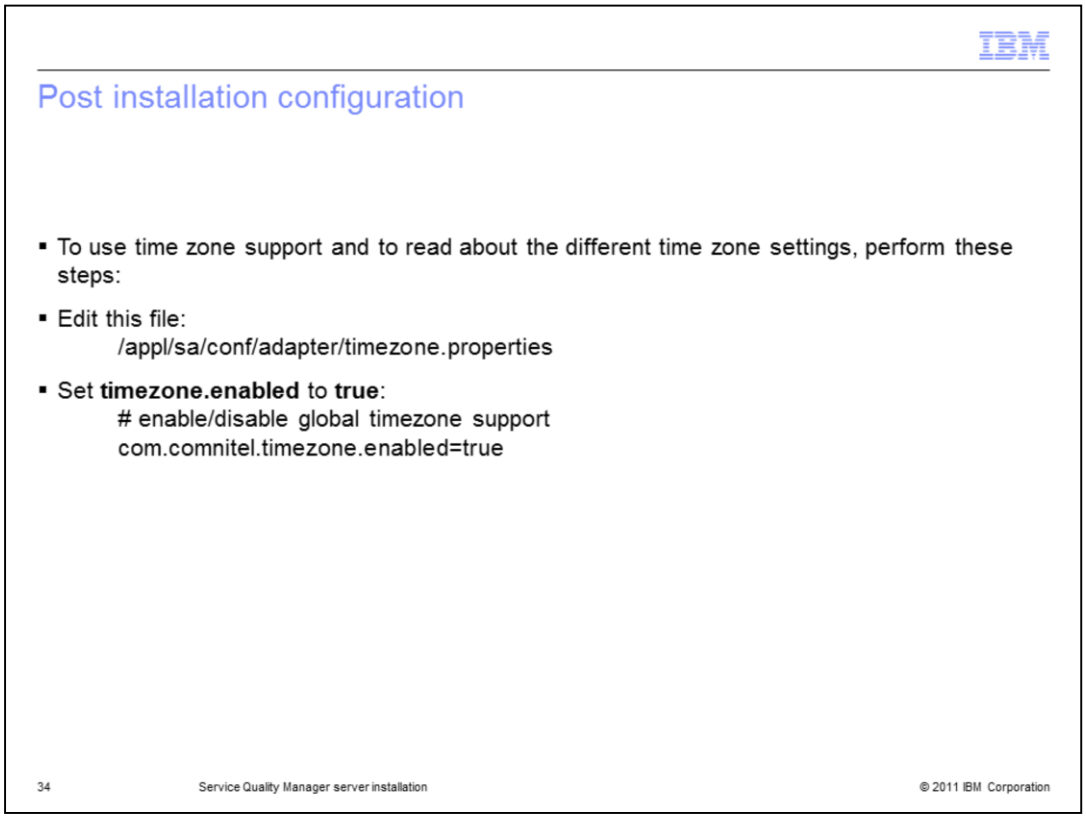
Export the basic provisioning.

The command exports the existing provisioning to an XML file. Export the existing provisioning before provisioning new objects (before issuing the provision command).



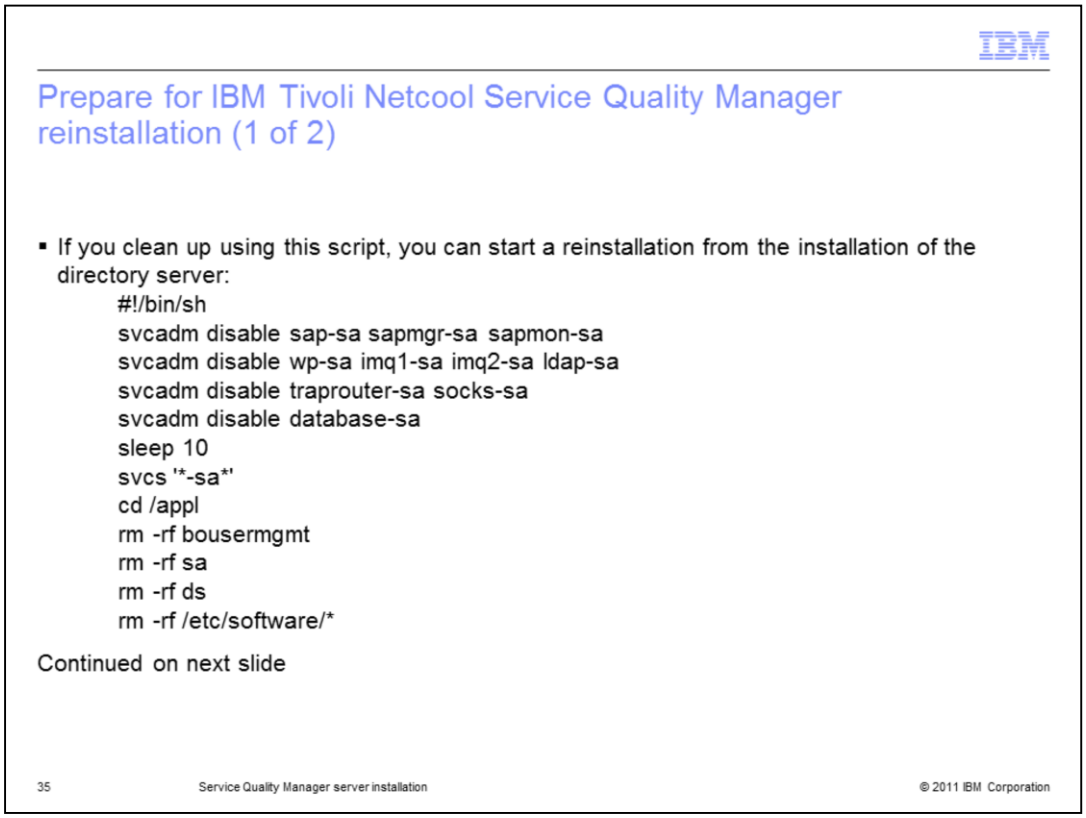
Save the XML file as a backup.

The results of the previous command is an XML file containing the currently provisioned objects. Copy the XML file to the user **saserver** home directory to re-create the base system if needed. The core IBM Tivoli Netcool Service Quality Manager server installation is now completed. Logs are in the locations shown. Note Oracle has many logs in addition to the installation logs not covered in this module.



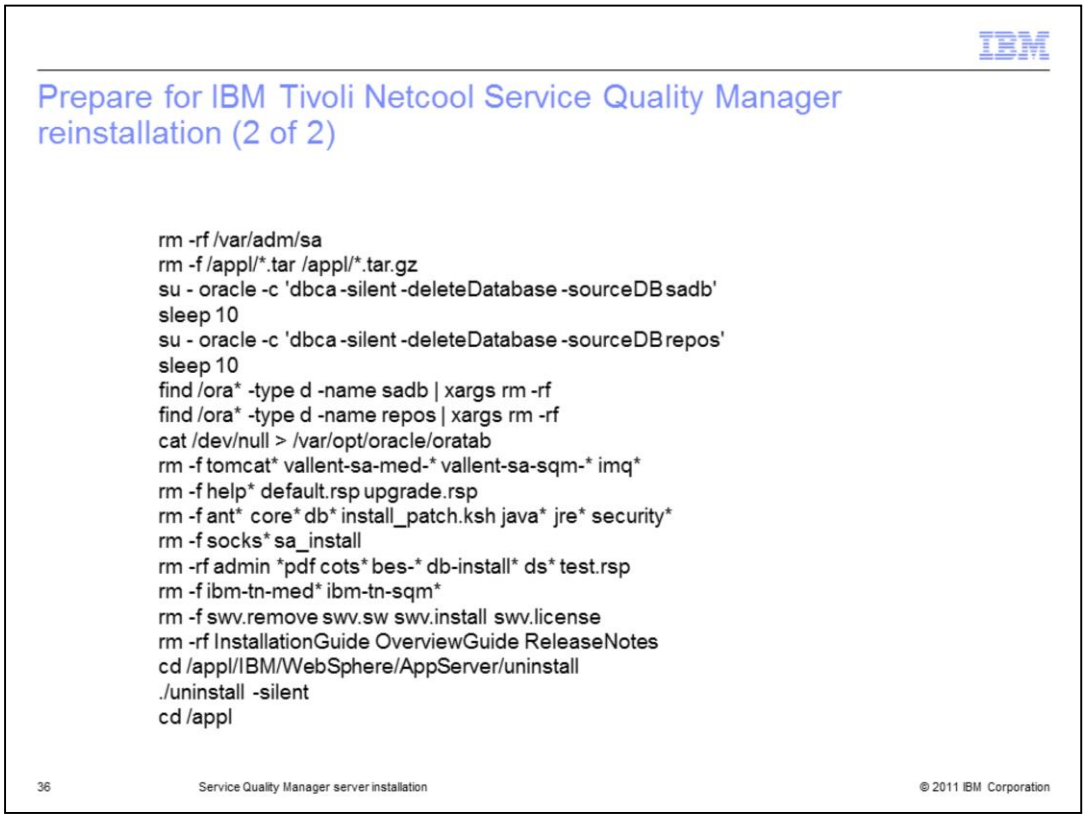
Post installation configuration.

By default, time zone support is not used. If the servers, managed devices, and customers are all in a single time zone, you might not use time zone support. If this is not the case, then you must use it. To enable time zone support and to read about the different time zone settings edit the following shown and set **timezone.enabled** to **true**.



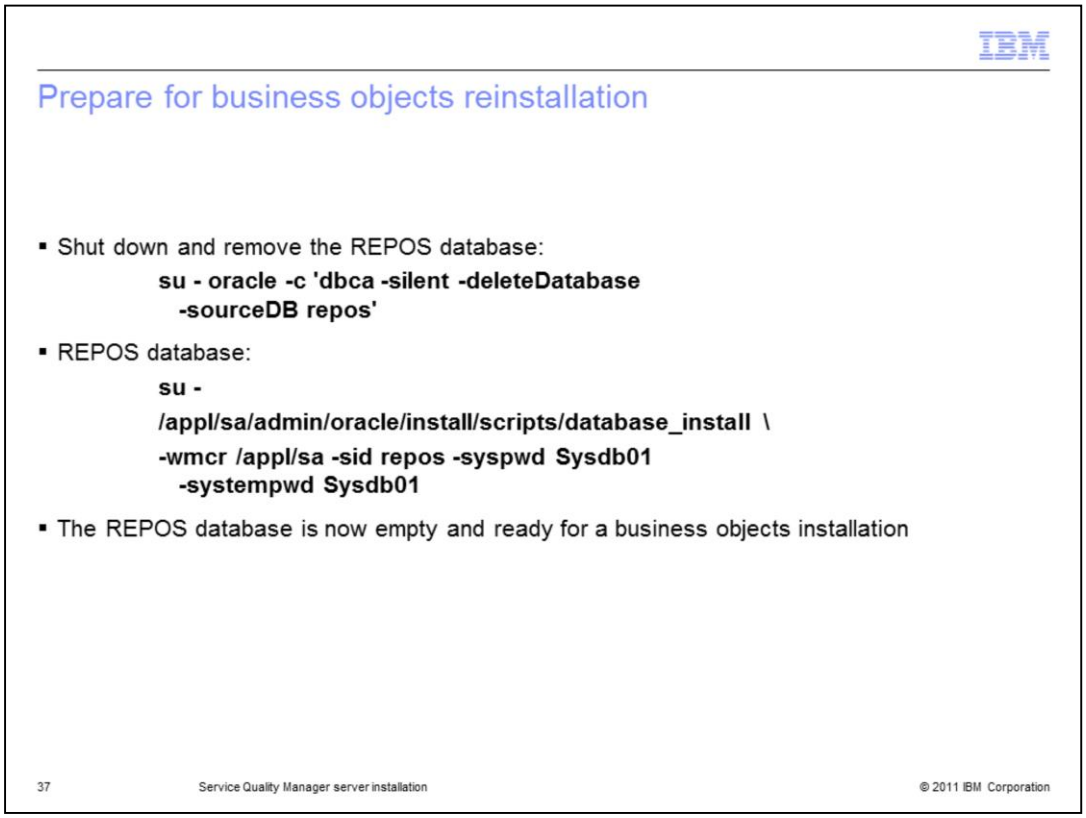
Prepare for IBM Tivoli Netcool Service Quality Manager reinstallation.

This script can be used to clean up servers between installations. The script saves time by removing everything other than the Oracle installation. The databases are removed, but the Oracle binaries are left intact, saving about an hour of the reinstallation time. If you clean up using this script, you can start a reinstallation from the installation of the directory server. The script is continued on the next slide.



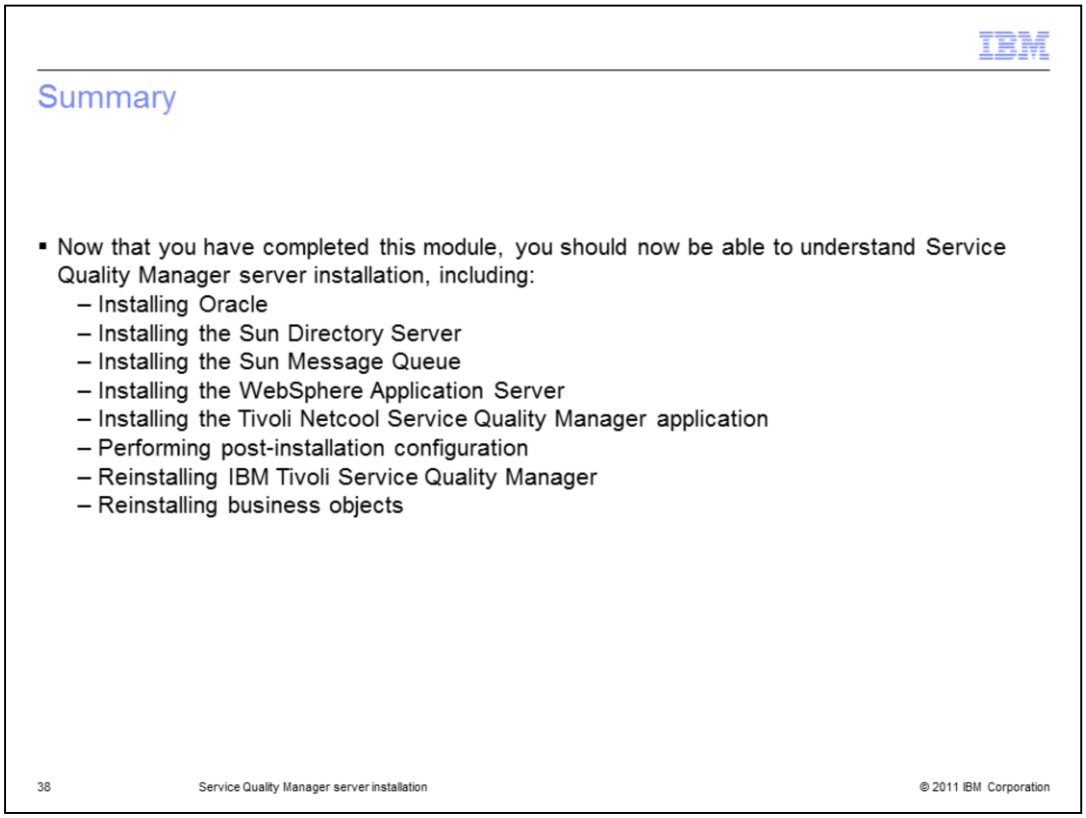
Prepare for IBM Tivoli Netcool Service Quality Manager reinstallation.

After performing these steps, remove any IBM Tivoli Netcool Service Quality Manager related cron tab entries for user **root** and **saserver**.



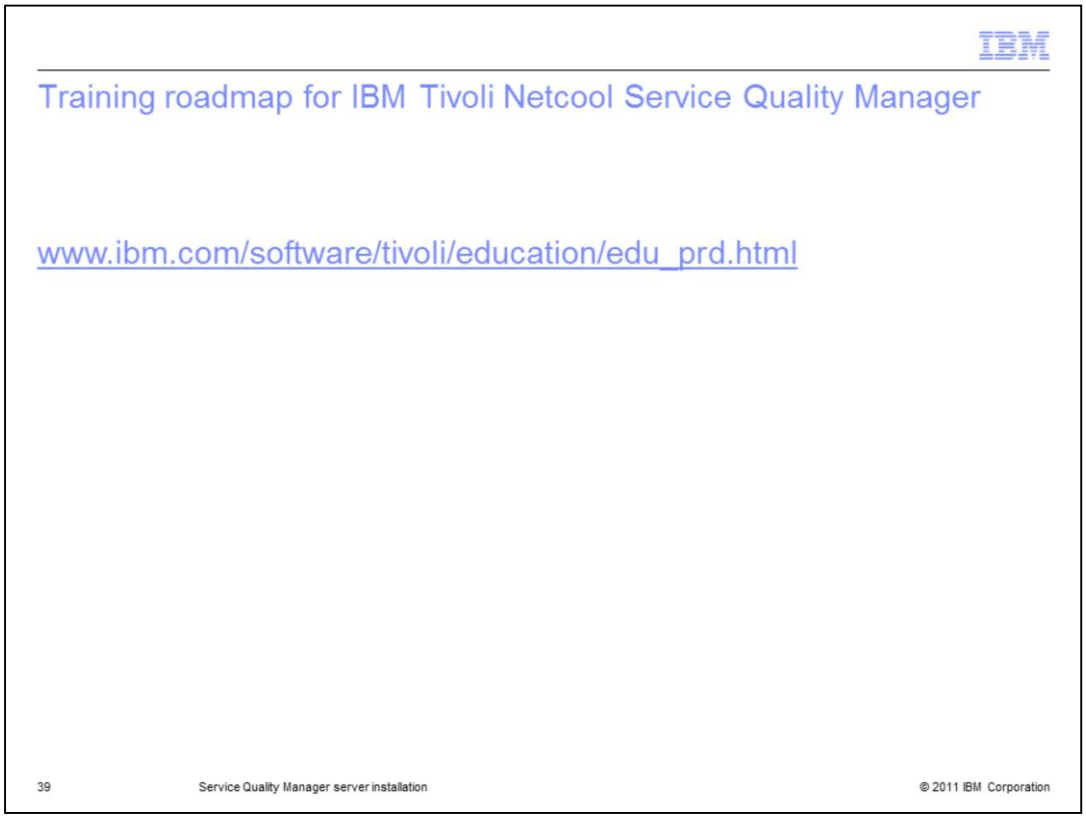
Prepare for business objects reinstallation.

To reinstall business objects, you must remove the tables used in the REPOS database. Note these steps are on a development server only, because report data is not preserved. Shut down and remove the REPOS database. Re-create the REPOS database. The REPOS database is now empty and ready for a business objects installation.



Summary.

You should now be able to install Oracle, install the Sun Directory Server, install the Sun Message Queue, install the WebSphere Application Server, install the Tivoli Netcool Service Quality Manager application, perform post-installation configuration, reinstall IBM Tivoli Service Quality Manager, and reinstall business objects.



Training roadmap for IBM Tivoli Netcool Service Quality Manager.

You can see the training roadmap for IBM Tivoli Netcool Service Quality Manager by going to the URL shown on the slide.

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