

# IBM Tivoli Netcool Service Quality Manager V4.1

## Server installation



### **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

- You have general DBA skills

### **Assumptions.**

The assumptions are that you have general DBA skills.

## Objectives

- When you complete this module, you should be able to understand Service Quality Manager server installation, including:
  - Installing Oracle
  - Installing the Sun Directory Server
  - Installing the Sun Message Queue
  - Installing the WebSphere® Application Server
  - Installing the Tivoli Netcool Service Quality Manager application
  - Performing post-installation configuration
  - Reinstalling IBM Tivoli Service Quality Manager
  - Reinstalling Business Objects

### **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:

<http://www.oracle.com/technology/software/products/database/oracle10g/htdocs/10201sol64soft.html>

- Oracle documentation library:

<http://www.oracle.com/pls/db102/homepage>

### **Oracle: Information.**

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

## Oracle: Become root and unpack distribution file

- Become root:  
**sh-3.00# su -**  
Sun Microsystems Inc. SunOS 5.10 Generic January 2005  
**# bash**
- The download version of Oracle provided as a compressed archive:  
**mkdir -p /app/INSTALLFILES/Oracle/10gr2**  
**cd /app/INSTALLFILES/Oracle/10gr2**  
**gzip -d /app/INSTALLFILES/10gr2\_db\_sol.cpio.gz**  
**cpio -idm < /app/INSTALLFILES/10gr2\_db\_sol.cpio**

### **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 **/app/INSTALLFILES/Oracle/10gr2** directory.

## Oracle: Install and companion CD

- Oracle installation command:  
`/var/install/sbin/oracle10gR2_install`
- Provide this Oracle installation files path when prompted:  
`/app/INSTALLFILES/Oracle/10gr2`
- The companion CD is not used in an IBM Tivoli Netcool Service Quality Manager installation, answer **N** when prompted

### 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:  
`mkdir /appl/INSTALLFILES/Oracle/Patchset-10.2.0.3`  
`cd /appl/INSTALLFILES/Oracle/Patchset-10.2.0.3`  
`unzip ../../p5337014_10203_SOLARIS64.zip`
- After the extraction is complete, provide the path to the Patchset  
`/appl/INSTALLFILES/Oracle/Patchset-10.2.0.3/Disk1`
- **Note:** Answer **No** to the first two overwrite questions and **Yes** to the third.

### 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

- In a separate window create `/appl/INSTALLFILES/Oracle/One-Off-Patches` directory and extract patches:

```
mkdir /appl/INSTALLFILES/Oracle/One-Off-Patches
cd /appl/INSTALLFILES/Oracle/One-Off-Patches
unzip /appl/INSTALLFILES/p3748430_10203_SOLARIS64.zip
unzip /appl/INSTALLFILES/p5195356_10203_SOLARIS64.zip
unzip /appl/INSTALLFILES/p5752399_10203_SOLARIS64.zip
unzip /appl/INSTALLFILES/p6113507_10203_SOLARIS64.zip
unzip /appl/INSTALLFILES/p6502117_10203_SOLARIS64.zip
```

- When asked for the one-off patches, give this path:  
`/appl/INSTALLFILES/Oracle/One-Off-Patches`
- The Oracle installation is complete

### 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 root:  
`sh-3.00# su -`  
Sun Microsystems Inc. SunOS 5.10 Generic January 2005  
`# bash`
- Install the directory server
- **Note:** `wmcr` is `/appl` in this command, not `/appl/sa` as in other commands.  
`# /var/install/sbin/ds_install -wmcr /appl -product serviceassure`  
Enter the path to the DS package:  
`/appl/INSTALLFILES/ds.5.2.P4.Solaris.SPARC.full.tar.gz`  
...performing pre-install steps for Directory Server
- Accept the defaults for the rest of the directory server installation

### 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 root:  
**sh-3.00# su -**  
Sun Microsystems Inc. SunOS 5.10 Generic January 2005  
**# bash**
- Install the message queue:  
**bash-3.00# /var/install/sbin/imq\_install -product serviceassure**  
Enter the path to the IMQ package: **/appl/INSTALLFILES/mq3\_6-plt-solsparc.zip**  
Installing Sun Java™ System Message Queue files....done  
Importing /tmp/imq1-sa.xml into SMF repository... done  
Importing /tmp/imq2-sa.xml into SMF repository... done  
Starting Sun Java Message Queues  
....running, restarting IMQ brokers now, please wait

### Message Queue: Become root and install.

Become the root user. Install the message queue.

## WebSphere Application Server: Become root and install

- Become root:  
`sh-3.00# su -`  
Sun Microsystems Inc. SunOS 5.10 Generic January 2005
- Install WebSphere Application Server:  
`# /var/install/sbin/was_install -wmc /appl`
- The installer asks for the location of the WebSphere Application Server package as follows:  
Enter the full pathname of the WAS package:  
`/appl/WAS_6109_CIP.tar.gz`

### **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 root:

```
sh-3.00# su -
```

```
Sun Microsystems Inc. SunOS 5.10 Generic January 2005
```

```
# bash
```

### **Become root.**

Become the root user.

## Install (1 of 2)

- One argument is given to the IBM Tivoli Netcool Service Quality Manager installer:  
`-wmcr /appl/sa`
- **Note:** Do *not* specify the adapter type.

### **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 Comnitet root*. WatchMark and Comnitet 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 Comnitet 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 these directories:

```
/var/install/logs/  
/appl/sa/logs/  
/appl/sa/admin/logs/  
/appl/ds/slaped-hostname/logs/  
/appl/sa/tomcat/logs/
```

- Start the installation by running this command:

```
# cd /appl  
# ksh sa_install -wmcr /appl/sa
```

### 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

- Always specify **All Inclusive** when prompted:

What Type of Service Quality Manager System Are you  
Installing ?

-----

Please select the type of Service Quality Manager System you are installing by  
entering the number associate with the system type :

All Inclusive (1)

Application (2)

Database (3)

Gateway (4)

-----

[ 1 / 2 / 3 / 4 ] :

1

### **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

- Accept the default that the installation files are unpacked in **/appl** :

Please enter the location of the ServiceAssure Software packages [/appl]:

### **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 (1 of 2)

- When you are asked to confirm the **Default Service Quality Manager Variables**, enter **N**:  
The following is a list of the default Service Quality Manager Variables :

1. BODBHOS=student148
2. BODBSID=repos
3. OPERATOR=Company1
- .
- .
- .
35. BIRT\_PORT=9443

To accept these values enter 'Y' else enter 'N' to modify the values (Y/N)

**N**

Now the system configuration will be presented for your approval within the /usr/bin/vi text editor.

If you are happy with the configuration as is, just exit /usr/bin/vi as normal.

If you would like to make changes, please do so as you would within any other text file, taking care to save-quit when you have finished.

### 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 (2 of 2)

- Edit the following settings:
  - WEBI\_HOST= the host name of the Windows® 2003 Server
  - WEBI\_PORT= 8085
  - BOUMGTHOST
  - BOUMGTPORT
  - BOUMGTSYNC = False
- Respond **S** to **Is the configuration OK?**
  - Is the configuration OK (y[es]/n[no]/s[ee the configuration])? **s**
  - .
  - .
  - WEBI\_HOST=bo2003
  - WEBI\_PORT=8085
  - .
  - .
  - BOUMGTHOST=bo2003
  - BOUMGTPORT=8090
  - BOUMGTSYNC=false
  - .
  - .
  - Is the configuration OK (y[es]/n[no]/s[ee the configuration])? **Y**

### 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 configuration:  
Do you want to install Sun Java System Directory Server Configuration ? [Yes]
- Accept the defaults for the message queue configuration:  
Do you want to install Sun Java System Message Queue Configuration ? [Yes]

### **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:

The following is a list of the default Service Quality Manager Variables :

1. SERVER\_IP\_ADDRESS=192.168.14.101
2. SHORT\_IP\_ADDRESS=192.168.14

To accept these values enter 'Y' else enter 'N' to modify the values (Y/N)

Y

### **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

- On the client PC, edit the hosts file by commenting out the existing entry for the server and adding a line with the private IP of the server:

```
#9.38.26.93 student148  
192.168.14.93 student148
```

### 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 (1 of 2)

- Edit the **logoutput** statement to change the log destination to include a log file:
- To change the destination, look for this line:  
    logoutput: stderr
- Change the line to:  
    logoutput: stderr /appl/sa/logs/socks/socks-server.log

### 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 (2 of 2)

- Edit the **client pass** statement to allow connections from a subnet other than the local subnet:
- Edit the lines that are similar to these examples:

```
client pass {
    from: 192.168.14.0/24 port 1-65535 to: 192.168.14.0/24
}

pass {
    from: 192.168.14.0/24 port 1-65535 to: 192.168.14.0/24
}
```
- Change the **from** entry from the local private subnet to the client PC subnet so that the edits look like this example:

```
client pass {
    from: 9.0.0.0/8 port 1-65535 to: 192.168.14.0/24
}

pass {
    from: 9.0.0.0/8 port 1-65535 to: 192.168.14.0/24
}
```

### 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:  
`saserver> mkdir /appl/sa/logs/socks/`
- Find the service name for the proxy:  
`saserver> svcs '*-sa*'`  
online 15:07:02 svc:/application/serviceassurance/socks-sa:sa
- Become **root** and stop the proxy:  
`su -`  
`# svcadm disable svc:/application/serviceassurance/socks-sa:sa`
- Check **netstat** to ensure there is no activity on port 1080:  
`netstat -an | grep 1080`
- Start the proxy:  
`# svcadm enable svc:/application/serviceassurance/socks-sa:sa`

### 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:
  - The following is a list of the default Service Quality Manager Variables :
    - 1.TOMCAT\_SERVER\_PORT=8093
    - 2.HTTPS\_PORT=8094
    - 3.WSPORT=9060
    - 4.WSHOST=student148.tivlab.austin.ibm.com

To accept these values enter 'Y' else enter 'N' to modify the values (Y/N)

Y

- Accept the SLA web views defaults:
  - Please enter the password for WebSphere Application Server administrator:  
[Vallent01]
  - Checking server status...
  - Copying SLA Webview libraries

### **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:  
Would you like to perform task SA\_DB\_INSTALL ? [yes/no] >**yes**  
Please, Enter the required Database Type (sadb/repos):  
---->**sadb**  
Please, Enter your Database SID (8 character maximum):  
---->**sadb**  
Please, Enter your Database Size  
(sml(10G)/med(20G)/lge(50G)/xlg(100G)/xxl(200G)/custom):  
---->**lge**  
Please, Enter the sys user password:  
---->**Sysdb01**  
Please, Enter the system user password:  
---->**Sysdb01**
- Accept the REPOS defaults:  
Would you like to perform task REP\_DB\_INSTALL ? [yes/no] >**yes**

### 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:

Would you like to perform task CORE\_SCHEMA\_INSTALL ? [yes/no] >**yes**

### **Install core database schema.**

Accept the defaults.

## Install core cron jobs

- Override the following defaults with the values provided:

Would you like to perform task CORE\_CRON\_INSTALL ? [yes/no] >**yes**  
Configuring core cronjobs.....

What Type of Service Quality Manager System Are you Installing ?

-----  
Please select the type of Service Quality Manager System you are installing b  
entering the number associate with the system type :

All Inclusive (1)  
Application (2)  
Database (3)  
Gateway (4)

-----  
[ 1 / 2 / 3 / 4 ] :

**1**  
Please enter the location of the ORACLE\_HOME Directory [/appl/oracle/product/10.2.0/db\_1]:

Please enter the location of the sadb Database Archive Directory [/oradump/sadb]:

**/oradump**

Please enter the location of the repos Database Archive Directory [/oradump/repos]:

**/oradump**

Please enter the location of the IMQ Software Directory [/appl/imq]:

**/**

Please enter the location of the Directory Server Software Directory [/appl/ds]:

Please enter the location of the ServerAssure Log Directory [/data/trace\_log1]:

Please enter the location of the ServerAssure Archive Logs Directory [/data/trace\_archive1]:

### 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

- Respond **No** to these two steps:
  - Would you like to perform task ADAPTER\_INSTALL ? [yes/no] >**no**
  - Would you like to perform task ADAPTER\_CRON\_INSTALL ? [yes/no] >**no**
- IBM Tivoli Netcool Service Quality Manager replaces the plain text with encoded passwords when you answer **Yes** to the prompt:
  - Would you like to perform task ENCODE\_PASSWORDS ? [yes/no] >**yes**

### **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

- Define a generic resource type in the system
- Start the core set of IBM Tivoli Netcool Service Quality Manager services:  
**su - saserver**  
**sap start domain**
- Verify that the domain processes have started, and that the other process groups (monitoring and client) are stopped:  
**sap disp -I domain**
- If the monitoring or client processes are not stopped, issue the appropriate commands to stop them:  
**sap stop monitoring**  
**sap stop client**
- Provision the system:  
**provision -s**

### 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

- You should see similar results:

```
student148:sa:server> provision -s
Buildfile: /app/qa/admin/provision/build.xml

tasks:

install:
[wmcint] 21:52:21,387 [main] DEBUG logging - Created Logging Dir
[concat] ServiceAssure Provisioning Install
[mkdir] Created dir: /app/qa/var/provision/install/broker/medi
[xslt] Transforming into /app/qa/var/provision/install/broker
[xslt] Processing /app/qa/admin/provision/install/mediation/a
[xslt] Loading stylesheet /app/qa/admin/provision/stylesheet
[broker] 1 file(s) have been successfully validated.
[broker] Successfully processed 1 file
[info] Level <mediation> installed successfully
[mkdir] Created dir: /app/qa/var/provision/install/broker/tec
[xslt] Transforming into /app/qa/var/provision/install/broker
[mkdir] Created dir: /app/qa/var/provision/install/broker/serv
[xslt] Transforming into /app/qa/var/provision/install/broker
[mkdir] Created dir: /app/qa/var/provision/install/broker/cust
[xslt] Transforming into /app/qa/var/provision/install/broker
[xslt] Processing /app/qa/admin/provision/install/customer/sl
[xslt] Loading stylesheet /app/qa/admin/provision/stylesheet/
[broker] 1 file(s) have been successfully validated.
[broker] Successfully processed 1 file
[info] Level <customer> installed successfully

adhoc:

all:

BUILD SUCCESSFUL
Total time: 11 seconds
```

### Provision core system results.

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

## Export the basic provisioning

- Export the existing provisioning before provisioning new objects (before issuing the provision command):

```
student148:saserver> provision -e global  
Buildfile: /appl/sa/admin/provision/build.xml
```

tasks:

generate-package:

```
[wmcInit] 21:52:48,145 [main] DEBUG logging - Created Logging Dir  
[broker] 1 file(s) have been successfully validated.  
[broker] Successfully processed 1 file  
[xslt] Transforming into /appl/sa/var/provision/genpack  
[xslt] Processing /appl/sa/var/provision/broker/genpack  
[xslt] Loading stylesheet /appl/sa/admin/provision/genpack/gen  
BUILD SUCCESSFUL  
Total time: 10 seconds
```

### 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

- Copy the XML file to the user **saserver** home directory to re-create the base system if needed:  

```
cp /appl/sa/var/provision/genpack/global_package.xml ~/bare-install.xml
```
- The core IBM Tivoli Netcool Service Quality Manager server installation is now completed
- Logs are in the following locations:
  - /var/install/logs/
  - /appl/sa/logs/
  - /appl/sa/admin/logs/
  - /appl/ds/slapd-hostname/logs/
  - /appl/sa/tomcat/logs/

### 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

- To use time zone support and to read about the different time zone settings, perform these steps:
- Edit this file:  
`/appl/sa/conf/adapter/timezone.properties`
- Set **timezone.enabled** to **true**:  
`# enable/disable global timezone support`  
`com.comnitel.timezone.enabled=true`

### 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 (1 of 2)

- If you clean up using this script, you can start a reinstallation from the installation of the directory server:

```
#!/bin/sh
svcadm disable sap-sa sapmgr-sa sapmon-sa
svcadm disable wp-sa imq1-sa imq2-sa ldap-sa
svcadm disable traprouter-sa socks-sa
svcadm disable database-sa
sleep 10
svcs '*-sa*'
cd /appl
rm -rf bousemgmt
rm -rf sa
rm -rf ds
rm -rf /etc/software/*
```

Continued on next slide

### **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 (2 of 2)

```
rm -rf /var/adm/sa
rm -f /appl/*.tar /appl/*.tar.gz
su - oracle -c 'dbca -silent -deleteDatabase -sourceDB sadb'
sleep 10
su - oracle -c 'dbca -silent -deleteDatabase -sourceDB repos'
sleep 10
find /ora* -type d -name sadb | xargs rm -rf
find /ora* -type d -name repos | xargs rm -rf
cat /dev/null > /var/opt/oracle/oratab
rm -f tomcat* valleng-sa-med-* valleng-sa-sqm-* imq*
rm -f help* default.rsp upgrade.rsp
rm -f ant* core* db* install_patch.ksh java* jre* security*
rm -f socks* sa_install
rm -rf admin *pdf cots* bes-* db-install* ds* test.rsp
rm -f ibm-tn-med* ibm-tn-sqm*
rm -f swv.remove swv.sw swv.install swv.license
rm -rf InstallationGuide OverviewGuide ReleaseNotes
cd /appl/IBM/WebSphere/AppServer/uninstall
./uninstall -silent
cd /appl
```

### 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

- Shut down and remove the REPOS database:  
`su - oracle -c 'dbca -silent -deleteDatabase  
-sourceDB repos'`
- REPOS database:  
`su -  
/appl/sa/admin/oracle/install/scripts/database_install \  
-wmcr /appl/sa -sid repos -syspwd Sysdb01  
-systempwd Sysdb01`
- The REPOS database is now empty and ready for a business objects installation

### **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

- Now that you have completed this module, you should now be able to understand Service Quality Manager server installation, including:
  - Installing Oracle
  - Installing the Sun Directory Server
  - Installing the Sun Message Queue
  - Installing the WebSphere Application Server
  - Installing the Tivoli Netcool Service Quality Manager application
  - Performing post-installation configuration
  - Reinstalling IBM Tivoli Service Quality Manager
  - Reinstalling business objects

### **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

[www.ibm.com/software/tivoli/education/edu\\_prd.html](http://www.ibm.com/software/tivoli/education/edu_prd.html)

### **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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