

# IBM Tivoli Netcool Service Quality Manager V4.1

## Startup and shutdown on Sun Solaris



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### **IBM Tivoli® Netcool® Service Quality Manager V4.1: Startup and shutdown on Sun Solaris.**

This training module is for the Tivoli Netcool Service Quality Manager version 4.1 startup and shutdown on Sun Solaris.

## Assumption

You have general database administration skills

### **Assumption.**

The assumption is that you have general database administration skills.

## Objectives

When you complete this module, you can perform these tasks:

- Start, check, and stop these applications:
  - Sun directory server
  - Sun Java™ system message queue
  - Service Quality Manager web portal
  - Service Quality Manager process monitor
  - Service Quality Manager process manager
  - Socks proxy
- Start, check, and stop Service Quality Manager
- Describe Service Quality Manager processes and groups
- Validate the status of the platform processes
- Locate the log files for the platform processes

### **Objectives.**

After you complete this module, you can start, check, and stop the Sun directory server, Sun Java system message queue, Service Quality Manager web portal, process monitor, and process manager, the socks proxy, and Service Quality Manager. You can also describe Service Quality Manager processes and groups, validate the status of the platform processes, and locate the log files for the platform processes.

## Start, check, and stop the Sun directory server

- Start the Sun directory server
  - Log in as user **root** and enter the command
  - # `svcadm enable ldap-sa`
- Check the Sun directory server
  - Change the user to **saserver** and verify that one `slapd` process is running
  - \$ `ps -ef | grep slapd`
  - The `slapd` process is started on port 1389
  - Verify that three `admin-serv` processes are running
  - \$ `ps -ef | grep admin-serv`
  - The `admin-serv` processes are started on port 16762
- Stop the Sun directory server
  - Log in as user **root** and enter the command
  - # `svcadm disable ldap-sa`

### Start, check, and stop the Sun directory server.

Log in as root and start the Sun directory server. Change the user to saserver and verify that one slapd process is running on the port shown. Verify that three admin-serv processes are running on the port shown. Log in as root and stop the Sun directory server.

## Sun Java system message queue

- Start broker 1 (SABroker) and broker 2 (SAClient)  
Log in as user **root** and enter the two commands  
# svcadm enable imq1-sa  
# svcadm enable imq2-sa  
Broker 1 is started on port 7681 and broker 2 is started on port 7680
- Check the Sun Java system message queue  
Change the user to **saserver** and verify that four imq processes are running  
\$ ps -ef | grep imq
- Stop broker 1 and broker 2  
Log in as user **root** and enter the two commands  
# svcadm disable imq1-sa  
# svcadm disable imq2-sa

### Sun Java system message queue.

Log in as root and start broker 1 and broker 2. Verify that both brokers are started on the ports shown. Change the user to saserver and verify that four imq processes are running. Log in as root and stop broker 1 and broker 2.

## Service Quality Manager web portal

- Start the Service Quality Manager web portal  
Log in as user **root** and enter the command `# svcadm enable wp-sa`
- Check the Service Quality Manager web portal  
Change the user to **saserver** and verify that one WebSphere® process is running  
`$ /usr/ucb/ps -auwx | grep WebSphere`
- Stop the Service Quality Manager web portal  
Log in as user **root** and enter the command `# svcadm disable wp-sa`

### **Service Quality Manager web portal.**

Log in as root and start Service Quality Manager web portal. Change the user to saserver and verify that one WebSphere process is running. Log in as root and stop the Service Quality Manager web portal.

## Service Quality Manager process monitor

- Start the Service Quality Manager process monitor  
Log in as user **root** and enter the command `# svcadm enable sapmon-sa`
- Check the Service Quality Manager process monitor  
Change the user to **saserver** and verify that one sapmon process is running  
`$ /usr/ucb/ps -auwwx | grep sapmon`
- Stop the Service Quality Manager process monitor  
Log in as user **root** and enter the command `# svcadm disable sapmon-sa`

### **Service Quality Manager process monitor.**

Log in as root and start the Service Quality Manager process monitor. Change the user to saserver and verify that one sapmon process is running. Log in as root and stop the Service Quality Manager process monitor.

## Service Quality Manager process manager

- Start the Service Quality Manager process manager  
Log in as user **root** and enter the command `# svcadm enable sapmgr-sa`
- Check the Service Quality Manager process manager  
Change the user to **saserver** and verify that one `sapmgr` process is running:  
`$ /usr/ucb/ps -auwwx | grep sapmgr`
- Stop the Service Quality Manager process manager  
Log in as user **root** and enter the command `# svcadm disable sapmgr-sa`  
**Note:** The command does not stop Service Quality Manager processes

### Service Quality Manager process manager.

Log in as root and start the Service Quality Manager process manager. Change the user to saserver and verify that one sapmgr process is running. Log in as root and stop the Service Quality Manager process manager. The command does not stop Service Quality Manager processes.



## Socks proxy

- Start the socks proxy  
Log in as user **root** and enter the command  

```
# svcadm enable socks-sa
```
- Check the socks proxy  
Change the user to **saserver** and verify that at least seven socks processes are running:  

```
$ ps -ef | grep sock
```
- Stop the socks proxy  
Log in as user **root** and enter the command  

```
# svcadm disable socks-sa
```

### Socks proxy.

Log in as root and start the socks proxy. Change the user to saserver and verify that at least seven socks processes are running. Log in as root and stop the socks proxy.

## Service Quality Manager

- Start the Service Quality Manager  
Log in as user **saserver** and enter the command `# sap start`
- Stop the Service Quality Manager  
`# sap stop`
- Check the status of the Service Quality Manager  
`$ sap disp`  
To see additional information, enter the command  
`$ sap disp -l`
- Start and stop the parameters  
To start a specific process or process group, enter the command  
`$ sap start <process>`  
To stop a specific process or process group, enter the command  
`$ sap stop <process>`

### Service Quality Manager.

Log in as saserver and start and stop Service Quality Manager. Verify the status of Service Quality Manager. Start and stop the individual processes using the sap commands shown on the slide.

## Service Quality Manager adapters

- Different adapters are associated with the Service Quality Manager process manager on different deployed systems
- To see the system adapters, enter the command  
# sap disp adapters
- Example:

```
# sap disp adapters
Name                State           Since
Cdrmonitoradapter1 STARTED Apr 16, 2007
Cdfadapter1         STARTED Apr 16, 2007
```

### **Service Quality Manager adapters.**

You can see which system adapters are associated with the Service Quality Manager process manager on different systems.

## Platform processes: Guide and svccfg command

- Platform processes
  - Are IBM and non-IBM prerequisites for IBM Tivoli Netcool Service Quality Manager
  - Are registered with the Solaris Service Management Facility (SMF).  
If you are not familiar with SMF, see the *Service Management Facility How To Guide* at the website:  
<http://www.sun.com/software/solaris/howtoguides/servicemgmthowto.jsp>

- The svccfg command shows the list of services in Service Management Facility that are related to Service Quality Manager

application/serviceassure/ldap-sa	application/serviceassure/sapmon-sa
application/serviceassure/imq1-sa	application/serviceassure/sapmgr-sa
application/serviceassure/imq2-sa	application/serviceassure/sap-sa
application/serviceassure/traprouter-sa	application/serviceassure/wp-sa
application/serviceassure/socks-sa	application/serviceassure/database-sa

### Platform processes: Guide and svccfg command.

The platform processes are the IBM and non-IBM prerequisites for IBM Tivoli Netcool Service Quality Manager. They are registered with the Solaris Service Management Facility (SMF). If you are not familiar with SMF, see the *Service Management Facility How To Guide*. You can use the svccfg command to show the list of services in Service Management Facility that are related to Service Quality Manager.

## Platform processes: Service Management Facility services defined

- **ldap-sa**: Sun Directory Server
- **imq1 and imq2**: Sun Message Queues
- **traprouter-sa**: User datagram protocol (UDP) Proxy
- **socks-sa**: SOCKS Proxy
- **sapmon-sa**: ServiceAssure Process Monitor
- **sapmgr-sa**: ServiceAssure Process Manager
- **sap-sa**: ServiceAssure Framework
- **wp-sa**: WebSphere Application Server
- **database-sa**: Oracle RDBMS

### **Platform processes: Service Management Facility services defined.**

On this slide, you see the definitions of the Service Management Facility services. The ServiceAssure Process Monitor provides system-wide configuration, coordination, and monitoring. The monitor process detects process termination, starts, and stops, and it restarts system processes. The monitor process is also responsible for system initialization and for orderly shutdown of all system processes, including processes running on remote hosts. The sapmon configuration is in the `/appl/sa/conf/processes/server.properties` file.

## Platform processes: svcs command

To see which of the services registered in SMF are running (online) and which are not, use the svcs command

```
saserver> /usr/bin/svcs '*-sa*'
STATE          STIME    FMRI
online         Apr_02  svc:/application/serviceassure/ldap-sa:sa
online         Apr_02  svc:/application/serviceassure/imq2-sa:sa
online         Apr_02  svc:/application/serviceassure/imq1-sa:sa
online         Apr_02  svc:/application/serviceassure/traprouter-sa:sa
online         Apr_02  svc:/application/serviceassure/wp-sa:sa
online         Apr_02  svc:/application/serviceassure/database-sa:gl
online         Apr_03  svc:/application/serviceassure/socks-sa:sa
online         Apr_03  svc:/application/serviceassure/sapmon-sa:sa
disabled       Apr_03  svc:/application/serviceassure/sap-sa:sa
online         Apr_03  svc:/application/serviceassure/sapmgr-sa:sa
```

### Platform processes: svcs command.

To see which of the services registered in SMF are running (online) and which are not, use the svcs command. An example is shown on the slide.

## Platform log files

Log files are available in these locations for each of the platform processes:

- `ldap-sa`                    `/appl/ds/slaped-<host name>/logs/`
- `imq1` and `imq2`        `/var/imq/instances/SABroker/log/`  
                              `/var/imq/instances/SAClient/log/`
- `traprouter-sa`            `/var/svc/log/application-serviceassure-traprouter-sa:sa.log`
- `socks-sa`                 By default there is no log for the SOCKS proxy. If you are using the proxy, an example SOCKS proxy configuration is shown next.
- `sapmon-sa`                `/var/svc/log/application-serviceassure-sapmon-sa:sa.log`  
                              `/appl/sa/logs/sapmon/`
- `sapmgr-sa`                `/var/svc/log/application-serviceassure-sapmgr-sa:sa.log`  
                              `/appl/sa/logs/sapmgr`
- `sap-sa`                    `/var/svc/log/application-serviceassure-sap-sa:sa.log`  
                              `/appl/sa/logs/sap_cli`
- `wp-sa`                    `/appl/IBM/WebSphere/AppServer/profiles/isc/logs/`  
                              `/appl/IBM/WebSphere/AppServer/logs/`
- `database-sa`             `/appl/sa/logs/database/`

### Platform log files.

Log files are available for each of the platform processes. The locations of the log files are shown on the slide.

## Summary

Now that you have completed this module, you can perform these tasks:

- Start, check, and stop these applications:
  - Sun directory server
  - Sun Java system message queue
  - Service Quality Manager web portal
  - Service Quality Manager process monitor
  - Service Quality Manager process manager
  - Socks proxy
- Start, check, and stop Service Quality Manager
- Describe Service Quality Manager processes and groups
- Validate the status of the platform processes
- Locate the log files for the platform processes

### **Summary.**

You can now start, check, and stop the applications identified in this module. You can also describe Service Quality Manager individual processes and groups, validate the status of the platform processes, and locate the log files for the platform processes.



## Training road map for IBM Tivoli Netcool Service Quality Manager

[http://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 visiting the website shown on the slide.

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