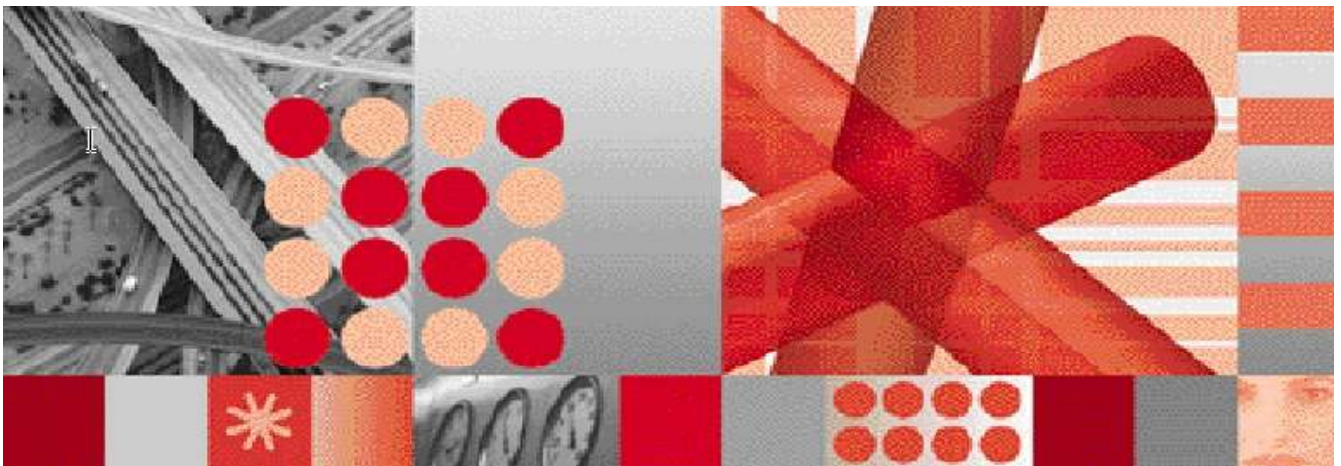IBM

SQM GSM Service Solution Version 1.4.2

Upgrade Guide

Note: Before using this information and the product it supports, read the information in "Notices" on page 26.

This edition applies to version 1, release 4, modification 2 of IBM Tivoli Netcool Service Quality Manager GSM service solution and to all subsequent releases and modifications until otherwise indicated in new editions.

Table of Contents

1 **About this Documentation**

The IBM® *Tivoli® Netcool® Service Quality Manager GSM Service Solution Version 1.4 to 1.4.2 Upgrade G*uide is organized into the following chapters:

Table 1: Document Structure

Chapter	Description
About this Documentation	An overview of the Tivoli Netcool Service Quality Manager for GSM Service Solution Upgrade Guide documentation, which gives details of the intended audience and the structure of the guide.
Software Requirements	Details of software required for the release.
Hardware Specification	Details of hardware required for the release.
Media Content	Details of media provided for the release.
Upgrade Procedure	Describes the upgrade procedure itself.
Rollback Procedure	Describes the rollback procedure from version 1.4.2 back to version 1.4.

1.1 Audience

The target audience of this guide is IBM Tivoli Netcool Service Quality Manager GSM Service Solution customers. They should be familiar with telecommunication and IT principles and should also have a good understanding of Solaris and/or AIX®.

IMPORTANT: Before attempting an upgrade of the Tivoli Netcool Service Quality Manager GSM Service Solution to version 1.4.2 you are strongly advised to read the release notes distributed with Tivoli Netcool Service Quality Manager GSM version 1.4.2 software. Release notes may contain information specific to your installation not contained in this guide. Failure to consult release notes may result in a corrupt, incomplete or failed installation.

Note: Tivoli Netcool Service Quality Manager Administrators should not, without prior consultation and agreement from IBM, make any changes to the database schema. Changes to the database schema may result in corruption of data and failure of the Service Quality Manager System. This applies to all releases of Tivoli Netcool Service Quality Manager using all versions of interfaces.

1.2 Required Skills and Knowledge

This guide assumes you are familiar with the following:

- General IT Principles

- Unix® Operating Systems

- IP Networking

- GSM

- Service Quality Manager modeling concepts i.e. service resources, KPIs, KQIs and SLAs

This guide also assumes that you are familiar with your company's network and with procedures for configuring, monitoring, and solving problems on your network.

1.3 Document Conventions

The following command prompts can be seen throughout this document where the user has to enter commands at the command line:

- `#` (hash): This prompt will be displayed if the user is logged in as user `root`.

- `$` (dollar): This prompt will be displayed if the user is logged in as either the `saserver` or `oracle` user.

Please note the above prompts are not part of commands. All commands must be entered after these prompts.

This document uses the typographical conventions shown in the following table:

Table 2: General Document Conventions

Format	*Examples*	*Description*
ALL UPPERCASE	GPS NULL MYWEBSERVER	Acronyms, device names, logical operators, registry keys, and some data structures.
Link	See www.sun.com	For links within a document or to the Internet.
Bold	**Note**: The busy hour determiner is...	Heading text for Notes, Tips, and Warnings.
SMALL CAPS	The STORED SQL dialog box... ...click VIEW... In the main GUI window, select the FILE menu, point to NEW, and then select TRAFFIC TEMPLATE.	Any text that appears on the GUI.

Italic	A *busy hour* is... A web Server *must* be installed... See the *User Guide*	New terms, emphasis, and book titles.

`Monospace`	`./wminstall`
	`$ cd /cdrom/cdrom0`
	`/xml/dict`
	`addmsc.sh`
	`core.spec`
	`Type OK to continue.`
		Code text, command line text, paths, scripts, and file names.
		Text written in the body of a paragraph that the user is expected to enter.

`Monospace Bold`	**`[root] # pkginfo	grep -i perl`** system Perl5 On-Line Manual Pages system Perl 5.005_03 (POD Documentation) system Perl 5.005_03	For contrast in a code example to show lines the user is expected to enter.
`<Monospace italics>`	# cd *`<oracle_setup>`*	Used in code examples: command-line variables that you replace with a real name or value. These are always marked with arrow brackets.
[square bracket]	log-archiver.sh [-i][-w][-t]	Used in code examples: indicates options.

1.4 User Publications

The following user publications are provided with the Tivoli Netcool Service Quality Manager GSM Service Solution software in Adobe® Portable Document Format (PDF).

Table 3: GSM RAN PM Service Solution Customer Documentation

Document	Description
Tivoli Netcool Service Quality Manager Service Solutions Installation Guide	Details the generic steps required to install any Service Quality Manager Service Solution including GSM.
Tivoli Netcool Service Quality Manager GSM Interface Control Guides	Details the GSM Service Solution input interfaces.
Tivoli Netcool Service Quality Manager GSM Upgrade Guide	Describes how to upgrade the Service Quality Manager GSM Service Solution and associated GOM from version 1.4 to version 1.4.2 while maintaining existing data and configuration.
Tivoli Netcool Service Quality Manager GSM Service Solution Release Notes	Provides information on Tivoli Netcool Service Quality Manager GSM Service Solution release contents, platform requirements, installation and upgrade procedures, and known

	issues.

The following user publications are provided with the Tivoli Netcool Service Quality Manager Version 4.1.2 software in Adobe Portable Document Format (PDF). Online Help is available in HTML format.

Table 4: Service Quality Manager Customer Documentation and Online Help

Document	Description
Release Notes	Provides information on the Tivoli Netcool Service Quality Manager 4.1.2 release contents, platform requirements, installation and upgrade procedures, and known issues.
Configuration Guide	Describes SLA Provisioning (Parties, SLAs, and SLA Templates applications) and Service Quality Manager Provisioning (Services Resources, KQI and Service Models applications) in Service Quality Manager.
Monitoring Guide	Describes Monitoring (SLA Monitor, KQI Analyzer, Alarm Monitor, Audit Manager and SLA Web Monitor applications) in Tivoli Netcool Service Quality Manager.
Customer Experience Manager Monitoring Guide	Describes how to use and monitor the Customer Experience Management feature in Tivoli Netcool Service Quality Manager.
Customer Experience Manager Provisioning Guide	Reference guide containing information for provisioning the Customer Experience Manager system.
Solaris Server Installation Guide	Describes how to install the Tivoli Netcool Service Quality Manager Server system on Solaris 10g.
Client Installation Guide	Describes how to install the Tivoli Netcool Service Quality Manager Client.
AIX Server Installation Guide	Describes how to install the Tivoli Netcool Service Quality Manager Server system on AIX 5.3L.
Solaris System Administration Guide	Provides an overview of the Tivoli Netcool Service Quality Manager administrative tasks including instructions on how to complete the following tasks: - Starting and stopping Tivoli Netcool Service Quality Manager. - Running batch processes such as archiving trace files and log files. - Backing up and restoring the system.

AIX System Administration Guide	Provides an overview of the AIX Tivoli Netcool Service Quality Manager administrative tasks including instructions on how to complete the following tasks: - Starting and stopping Tivoli Netcool Service Quality Manager. - Running batch processes such as archiving trace files and log files. - Backing up and restoring the system.
Upgrade Guide	Details how to upgrade Tivoli Netcool Service Quality Manager from version 3.1.3 to version 4.1.1 (and above).
Business Objects Installation & Configuration Guide	Provides information on the steps required to install and configure the Business Objects (version 6.5 or Xi) Server and Client for use with Tivoli Netcool Service Quality Manager.
Service Quality Manager Core Online Help	Provides information and procedures for using Tivoli Netcool Service Quality Manager client applications.
Customer Experience Manager Online Help	Describes how to use and monitor Customer Experience Manager in *Tivoli* Netcool Service Quality Manager.
SLA Webview Online Help	Describes how to use and monitor the SLA Webview feature in the Tivoli Netcool Service Quality Manager.

2 **Software Requirements**

The minimum pre-requisite software requirements are:

- Tivoli Netcool Service Quality Manager Version 4.1.2.

Note: Refer to the *Tivoli Netcool Service Quality Manager Version 4.1.2 Release Notes* for the minimum software required to operate the Service Quality Manager product.

- Tivoli Netcool Service Quality Manager GSM Service Solution version 1.4 is successfully installed prior to performing this upgrade.

- Any installed test data for the Tivoli Netcool Service Quality Manager GSM Service Solution is uninstalled prior to performing this upgrade.

3 **Hardware Specification**

Refer to the *Tivoli Netcool Service Quality Manager GSM Service Solution Release Notes* for details on the hardware specification for GSM version 1.4.2.

4 **Media Content**

Refer to the *Tivoli* Netcool *Service Quality Manager GSM Service Solution Release Notes* for details on the media content for GSM version 1.4.2

5 Upgrade Procedure

The upgrade procedure is composed of the following steps in sequence:

- Stopping the GSM RAN PM , MSC PM, E2E AT and SS7 loaders

- Backing up the GSM Loader configuration

- Installing GSM GOM (Global Object Model) version 1.4.2

- Installing GSM RAN PM version 1.4.2

- Installing GSM MSC PM version 1.4.2

- Installing GSM E2E AT version 1.4.2

- Installing GSM SS7 version 1.4.2

- Upgrading the GSM Provisioning to version 1.4.2

- Deploying the GSM version 1.4.2 loaders

- Restoring the GSM loader configurations

- Upgrading the GSM RAN PM schema

- Restarting the GSM RAN PM , MSC PM, E2E AT and SS7 loaders

Refer to the sections below for details on how to complete each of the main steps identified above.

5.1 Stopping the GSM Loaders

Note (Distributed Installation): In a distributed system, perform the procedures in this section on the Gateway server only.

To stop the `GSM loader` processes, complete the following as user `saserver`:

- Execute the commands:

```
$ sap stop gsm_ran_pm_loader
$ sap stop gsm_msc_pm_loader
$ sap stop gsm_e2e_at_loader
$ sap stop gsm_ss7_loader
```

5.2 Backing up the GSM Loader Configuration

Note (Distributed Installation): In a distributed system, perform the procedures in this section on the Gateway server only.

To backup the `gsm_ran_pm_loader`, `gsm_msc_pm_loader`, `gsm_e2e_at_loader` and `gsm_ss7_loader` configurations, choose a directory `<BACKUP_DIR>` where the backup will be stored, and then complete the following as user `saserver`:

1. Create the backup directory:

    ```
    $ cd $WMCROOT

    $ mkdir <BACKUP_DIR>
    ```

    Where `<BACKUP_DIR>` denotes the directory where the backup is to be stored.

2. Execute the following commands:

    ```
    $ rm $WMCROOT/conf/adapter/data/gsm_ran_pm_contextdef.xml

    $ rm $WMCROOT/conf/adapter/data/gsm_ran_pm_loader_parser.bl

    $ rm $WMCROOT/bin/gsm_ran_pm_loader.env

    $ rm $WMCROOT/conf/adapter/data/gsm_msc_pm_contextdef.xml

    $ rm $WMCROOT/conf/adapter/data/gsm_msc_pm_loader_parser.bl

    $ rm $WMCROOT/bin/gsm_msc_pm_loader.env

    $ rm $WMCROOT/conf/adapter/data/gsm_e2e_at_contextdef.xml

    $ rm $WMCROOT/conf/adapter/data/gsm_e2e_at_loader_parser.bl

    $ rm $WMCROOT/bin/gsm_e2e_at_loader.env

    $ rm $WMCROOT/conf/adapter/data/gsm_ss7_contextdef.xml

    $ rm $WMCROOT/conf/adapter/data/gsm_ss7_loader_parser.bl

    $ rm $WMCROOT/bin/gsm_ss7_loader.env
    ```

3. Back up the datasource configuration by executing the following commands:

    ```
    $ cd $WMCROOT/conf/adapter/datasource

    $ cp gsm_ran_pm_loader.properties
    $WMCROOT/<BACKUP_DIR>/gsm_ran_pm_loader.properties.datasource

    $ cp gsm_msc_pm_loader.properties
    $WMCROOT/<BACKUP_DIR>/gsm_msc_pm_loader.properties.datasource

    $ cp gsm_e2e_at_loader.properties
    $WMCROOT/<BACKUP_DIR>/gsm_e2e_at_loader.properties.datasource
    ```

```
$ cp gsm_ss7_loader.properties
$WMCROOT/<BACKUP_DIR>/gsm_ss7_loader.properties.datasource
```

4. Back up the collector configuration by executing the following commands:

```
$ cd $WMCROOT/conf/adapter/collector

$ cp gsm_ran_pm_loader.properties
$WMCROOT/<BACKUP_DIR>/gsm_ran_pm_loader.properties.collector

$ cp gsm_msc_pm_loader.properties
$WMCROOT/<BACKUP_DIR>/gsm_msc_pm_loader.properties.collector

$ cp gsm_e2e_at_loader.properties
$WMCROOT/<BACKUP_DIR>/gsm_e2e_at_loader.properties.collector

$ cp gsm_ss7_loader.properties
$WMCROOT/<BACKUP_DIR>/gsm_ss7_loader.properties.collector
```

Note: Make a note of the directory location where the `gsm_ran_pm_loader`, `gsm_msc_pm_loader`, `gsm_e2e_at_loader` and `gsm_ss7_loader` configuration is backed up to, its contents may be needed at a later date if a rollback needs to be performed.

5.3 Installing GSM GOM Version 1.4.2

Note (Distributed Installation): In a distributed system, perform the procedures in this section on the Application server only.

Complete the following as user `saserver`:

1. Transfer the GSM package `ibm-tn-sqm-gsm_gom-1.4.2.tar.gz` to the `/appl` directory on the Service Quality Manager host machine.

2. Move to the `/appl` directory by executing the command:
   ```
   $ cd /appl
   ```

3. Unzip the contents of the `gsm_gom` package by executing the command:
   ```
   $ gzip -d  ibm-tn-sqm-gsm_gom-1.4.2.tar.gz
   ```

4. Untar the contents of the `gsm_gom` package by executing the command:
   ```
   $ tar -xvf ibm-tn-sqm-gsm_gom-1.4.2.tar
   ```

5. Verify the following files are now located in the `/appl` directory:
   ```
   ibm-tn-sqm-gsm_gom.install
   ibm-tn-sqm-gsm_gom.license
   ibm-tn-sqm-gsm_gom.remove
   ```

```
ibm-tn-sqm-gsm_gom.sw
```

6. Execute the `gsm_gom` install procedure using the command:

```
$ ./ibm-tn-sqm-gsm_gom.install
```

Follow the on-screen prompts as directed.

5.4 Installing GSM RAN PM Version 1.4.2

Note (Distributed Installation): In a distributed system, perform the procedures in this section on both the Application server and Gateway server.

Complete the following as user `saserver`:

1. Transfer the GSM RAN PM package `ibm-tn-sqm-gsm_ran_pm-1.4.2.tar.gz` to the `/appl` directory on the Service Quality Manager host machine.

2. Move to the `/appl` directory by executing the command:
   ```
   $ cd /appl
   ```

3. Unzip the contents of the `gsm_ran_pm` package by executing the command:
   ```
   $ gzip -d ibm-tn-sqm-gsm_ran_pm-1.4.2.tar.gz
   ```

4. Untar the contents of the `gsm_ran_pm` package by executing the command:
   ```
   $ tar -xvf ibm-tn-sqm-gsm_ran_pm-1.4.2.tar
   ```

5. Verify the following files are now located in the `/appl` directory:

   ```
   ibm-tn-sqm-gsm_ran_pm.install

   ibm-tn-sqm-gsm_ran_pm.license

   ibm-tn-sqm-gsm_ran_pm.remove

   ibm-tn-sqm-gsm_ran_pm.sw
   ```

6. Execute the `gsm_ran_pm` install procedure using the command:

   ```
   $ ./ibm-tn-sqm-gsm_ran_pm.install
   ```

Follow the on-screen prompts as directed.

5.5 Installing GSM MSC PM Version 1.4.2

Note (Distributed Installation): In a distributed system, perform the procedures in this section on both the Application server and Gateway server.

Complete the following as user `saserver`:

1. Transfer the GSM MSC PM package `ibm-tn-sqm-gsm_msc_pm-1.4.2.tar.gz` to the `/appl` directory on the Service Quality Manager host machine.

2. Move to the `/appl` directory by executing the command:

    ```
    $ cd /appl
    ```

3. Unzip the contents of the `gsm_msc_pm` package by executing the command:

    ```
    $ gzip –d ibm-tn-sqm-gsm_msc_pm-1.4.2.tar.gz
    ```

4. Untar the contents of the `gsm_msc_pm` package by executing the command:

    ```
    $ tar –xvf ibm-tn-sqm-gsm_msc_pm-1.4.2.tar
    ```

5. Verify the following files are now located in the `/appl` directory:

    ```
    ibm-tn-sqm-gsm_msc_pm.install

    ibm-tn-sqm-gsm_msc_pm.license

    ibm-tn-sqm-gsm_msc_pm.remove

    ibm-tn-sqm-gsm_msc_pm.sw
    ```

6. Execute the `gsm_msc_pm` install procedure using the command:

    ```
    $ ./ibm-tn-sqm-gsm_msc_pm.install
    ```

Follow the on-screen prompts as directed.

5.6 Installing GSM E2E AT Version 1.4.2

Note (Distributed Installation): In a distributed system, perform the procedures in this section on both the Application server and Gateway server.

Complete the following as user `saserver`:

1. Transfer the GSM E2E AT package `ibm-tn-sqm-gsm_e2e_at-1.4.2.tar.gz` to the `/appl` directory on the Service Quality Manager host machine.

2. Move to the `/appl` directory by executing the command:

    ```
    $ cd /appl
    ```

3. Unzip the contents of the `gsm_msc_pm` package by executing the command:

    ```
    $ gzip –d  ibm-tn-sqm-gsm_e2e_at-1.4.2.tar.gz
    ```

4. Untar the contents of the `gsm_msc_pm` package by executing the command:

    ```
    $ tar –xvf  ibm-tn-sqm-gsm_e2e_at-1.4.2.tar
    ```

5. Verify the following files are now located in the `/appl` directory:

    ```
    ibm-tn-sqm-gsm_e2e_at.install

    ibm-tn-sqm-gsm_e2e_at.license

    ibm-tn-sqm-gsm_e2e_at.remove

    ibm-tn-sqm-gsm_e2e_at.sw
    ```

6. Execute the `gsm_msc_pm` install procedure using the command:

```
$ ./ibm-tn-sqm-gsm_e2e_at.install
```

Follow the on-screen prompts as directed.

5.7 Installing GSM SS7 Version 1.4.2

Note (Distributed Installation): In a distributed system, perform the procedures in this section on both the Application server and Gateway server.

Complete the following as user `saserver`:

1. Transfer the GSM SS7 package `ibm-tn-sqm-gsm_ss7-1.4.2.tar.gz` to the `/appl` directory on the Service Quality Manager host machine.

2. Move to the `/appl` directory by executing the command:
```
$ cd /appl
```

3. Unzip the contents of the `gsm_ss7` package by executing the command:
```
$ gzip -d ibm-tn-sqm-gsm_ss7-1.4.2.tar.gz
```

4. Untar the contents of the `gsm_ss7` package by executing the command:
```
$ tar -xvf ibm-tn-sqm-gsm_ss7-1.4.2.tar
```

5. Verify the following files are now located in the `/appl` directory:
```
ibm-tn-sqm-gsm_ss7.install
ibm-tn-sqm-gsm_ss7.license
ibm-tn-sqm-gsm_ss7.remove
ibm-tn-sqm-gsm_ss7.sw
```

6. Execute the `gsm_ss7` install procedure using the command:

```
$ ./ibm-tn-sqm-gsm_ss7.install
```

Follow the on-screen prompts as directed.

5.8 Upgrading the GSM Provisioning to Version 1.4.2

Note (Distributed Installation): In a distributed system, perform the procedures in this section on the Application server only.

Complete the following as user `saserver`:

1. Execute the command:

```
$ cd $WMCROOT/packages
```

2. Upgrade the `gsm_gom` package to version 1.4.2 by executing the command:

```
$ package_upgrade -t gsm_gom_1.4.2 -s gsm_gom_1.4
```

Follow the on-screen prompts as directed.

3. Upgrade the `gsm_ran_pm` package to version 1.4.2 by executing the command:

```
$ package_upgrade -t gsm_ran_pm_1.4.2 -s gsm_ran_pm_1.4
```

Follow the on-screen prompts as directed.

4. Upgrade the `gsm_msc_pm` package to version 1.4.2 by executing the command:

```
$ package_upgrade -t gsm_msc_pm_1.4.2 -s gsm_msc_pm_1.4
```

Follow the on-screen prompts as directed.

5. Upgrade the `gsm_e2e_at` package to version 1.4.2 by executing the command:

```
$ package_upgrade -t gsm_e2e_at_1.4.2 -s gsm_e2e_at_1.4
```

Follow the on-screen prompts as directed.

6. Upgrade the `gsm_ss7` package to version 1.4.2 by executing the command:

```
$ package_upgrade -t gsm_ss7_1.4.2 -s gsm_ss7_1.4
```

Follow the on-screen prompts as directed.

5.9 Deploying the GSM Version 1.4.2 Loaders

Note (Distributed Installation): In a distributed system, perform the procedures in this section on the Gateway server only.

Complete the following as user `saserver`:

1. Execute the command:

```
$ cd $WMCROOT/packages
```

2. Deploy the `gsm_ran_pm_loader` by executing the command:

```
$ wmc_ant -f adp_deploy.xml -Dsa.package=gsm_ran_pm_1.4.2 do-deploy
```

3. Deploy the `gsm_msc_pm_loader` by executing the command:

```
$ wmc_ant -f adp_deploy.xml -Dsa.package=gsm_msc_pm_1.4.2 do-deploy
```

4. Deploy the `gsm_e2e_at_loader` by executing the command:

```
$ wmc_ant -f adp_deploy.xml -Dsa.package=gsm_e2e_at_1.4.2 do-deploy
```

5. Deploy the `gsm_ss7_loader` by executing the command:

```
$ wmc_ant -f adp_deploy.xml -Dsa.package=gsm_ss7_1.4.2 do-deploy
```

5.10 Restoring the GSM Loader Configurations

Note (Distributed Installation): In a distributed system, perform the procedures in this section on the Gateway server only.

To restore the loader configurations, complete the following as user `saserver`:

1. Restore the datasource configuration by executing the commands:

   ```
   $ cd $WMCROOT/conf/adapter/datasource

   $ cp $WMCROOT/<BACKUP_DIR>/gsm_ran_pm_loader.properties.datasource
   ./gsm_ran_pm_loader.properties

   $ cp $WMCROOT/<BACKUP_DIR>/gsm_msc_pm_loader.properties.datasource
   ./gsm_msc_pm_loader.properties

   $ cp $WMCROOT/<BACKUP_DIR>/gsm_e2e_at_loader.properties.datasource
   ./gsm_e2e_at_loader.properties

   $ cp $WMCROOT/<BACKUP_DIR>/gsm_ss7_loader.properties.datasource
   ./gsm_ss7_loader.properties
   ```

2. Restore the collector configuration by executing the commands:

   ```
   $ cd $WMCROOT/conf/adapter/collector

   $ cp $WMCROOT/<BACKUP_DIR>/gsm_ran_pm_loader.properties.collector
   ./gsm_ran_pm_loader.properties

   $ cp $WMCROOT/<BACKUP_DIR>/gsm_msc_pm_loader.properties.collector
   ./gsm_msc_pm_loader.properties

   $ cp $WMCROOT/<BACKUP_DIR>/gsm_e2e_at_loader.properties.collector
   ./gsm_e2e_at_loader.properties

   $ cp $WMCROOT/<BACKUP_DIR>/gsm_ss7_loader.properties.collector
   ./gsm_ss7_loader.properties
   ```

5.11 Upgrading the GSM RAN PM Schema

Note (Distributed Installation): In a distributed system, perform the procedures in this section on the Database server only.

Note : No schema upgrade is necessary for GSM MSC, E2E AT and SS7 interfaces.

Complete the following as user `saserver`:

1. cd `$WMCROOT/packages/gsm_ran_pm_1.4.2/admin/oracle/schema`
2. Connect to oracle database `sadb` as user `saserver` using `sqlplus`: (**Note**: you will be prompted for the saserver DB user password)

   ```
   $ sqlplus saserver@sadb
   ```

3. Upgrade the GSM RAN PM schema files Version 1.4 to Version 1.4.2 by executing the command:

```
$ @@upgd_kpi_tab.ddl;
```

5.12 Restarting the GSM Loader Processes

Note (Distributed Installation): In a distributed system, perform the procedures in this section on the Application server only.

To restart the GSM loader processes, complete the following as user `saserver`:

1. Execute the commands:

```
$ sap start gsm_ran_pm_loader
$ sap start gsm_msc_pm_loader
$ sap start gsm_e2e_at_loader
$ sap start gsm_ss7_loader
```

6 Rollback Procedure

The rollback procedure is composed of the following steps in sequence:

- Stopping the GSM loaders

- Rolling back the GSM GOM and GSM loader provisioning to version 1.4

- Deploying the GSM version 1.4 loader

- Restoring the GSM loader configuration

- Restoring the GSM RAN PM schema

- Uninstalling GSM GOM version 1.4.2

- Uninstalling GSM RAN PM version 1.4.2

- Uninstalling GSM MSC PM version 1.4.2

- Uninstalling GSM E2E AT version 1.4.2

- Uninstalling GSM SS7 version 1.4.2

- Restarting the GSM loader processes

6.1 Stopping the GSM Loaders

Note (Distributed Installation): In a distributed system, perform the procedures in this section on the Application server only.

To stop the `GSM loader` process, complete the following as user `saserver`:

- Execute the commands:

```
$ sap stop gsm_ran_pm_loader
$ sap stop gsm_msc_pm_loader
$ sap stop gsm_e2e_at_loader
$ sap stop gsm_ss7_loader
```

6.2 Rolling back the GSM GOM and GSM Loader Provisioning Packages to Version 1.4

Note (Distributed Installation): In a distributed system, perform the procedures in this section on the Application server only.

Complete the following as user `saserver`:

1. Execute the following command:

```
$ cd $WMCROOT/packages/gsm_gom_1.4.2/admin/provision/rollback/
```

2. Rollback the `gsm_gom` package to version 1.4.2 by executing the command:

```
$ wmc_ant -f rollback-4.1.2.xml -Dpackage.from=gsm_gom_1.4.2
-Dpackage.name=gsm_gom_1.4 rollback
```

3. Execute the following command:

```
$ cd $WMCROOT/packages/gsm_ran_pm_1.4.2/admin/provision/rollback/
```

4. Rollback the `gsm_ran_pm` package to version 1.4 by executing the command:

```
$ wmc_ant -f rollback-4.1.2.xml -Dpackage.from=gsm_ran_pm_1.4.2
-Dpackage.name=gsm_ran_pm_1.4 rollback
```

5. Execute the following command:

```
$ cd $WMCROOT/packages/gsm_msc_pm_1.4.2/admin/provision/rollback/
```

6. Rollback the `gsm_msc_pm` package to version 1.4 by executing the command:

```
$ wmc_ant -f rollback-4.1.2.xml -Dpackage.from=gsm_msc_pm_1.4.2
-Dpackage.name=gsm_msc_pm_1.4 rollback
```

7. Execute the following command:

```
$ cd $WMCROOT/packages/gsm_e2e_at_1.4.2/admin/provision/rollback/
```

8. Rollback the `gsm_e2e_at` package to version 1.4 by executing the command:

```
$ wmc_ant -f rollback-4.1.2.xml -Dpackage.from=gsm_e2e_at_1.4.2
-Dpackage.name=gsm_e2e_at_1.4 rollback
```

9. Execute the following command:

```
$ cd $WMCROOT/packages/gsm_ss7_1.4.2/admin/provision/rollback/
```

10. Rollback the `gsm_ss7` package to version 1.4 by executing the command:

```
$ wmc_ant -f rollback-4.1.2.xml -Dpackage.from=gsm_ss7_1.4.2
-Dpackage.name=gsm_ss7_1.4 rollback
```

6.3 Deploying the GSM Version 1.4 Loaders

Note (Distributed Installation): In a distributed system, perform the procedures in this section on the Gateway server only.

Complete the following as user `saserver`:

1. Remove the existing loaders by executing the commands:

```
$ rm $WMCROOT/bin/gsm_ran_pm_loader.env
$ rm $WMCROOT/conf/adapter/data/gsm_ran_pm_contextdef.xml
$ rm $WMCROOT/conf/adapter/data/gsm_ran_pm_loader_parser.bl
$ rm $WMCROOT/bin/gsm_msc_pm_loader.env
$ rm $WMCROOT/conf/adapter/data/gsm_msc_pm_contextdef.xml
$ rm $WMCROOT/conf/adapter/data/gsm_msc_pm_loader_parser.bl
```

```
$ rm $WMCROOT/bin/gsm_e2e_at_loader.env

$ rm $WMCROOT/conf/adapter/data/gsm_e2e_at_contextdef.xml

$ rm $WMCROOT/conf/adapter/data/gsm_e2e_at_loader_parser.bl

$ rm $WMCROOT/bin/gsm_ss7_loader.env

$ rm $WMCROOT/conf/adapter/data/gsm_ss7_contextdef.xml

$ rm $WMCROOT/conf/adapter/data/gsm_ss7_loader_parser.bl
```

2. Deploy the version `1.4` loaders by executing the commands:

```
$ cd $WMCROOT/packages

$ wmc_ant -f adp_deploy.xml -Dsa.package=gsm_ran_pm_1.4 do-deploy

$ wmc_ant -f adp_deploy.xml -Dsa.package=gsm_msc_pm_1.4 do-deploy

$ wmc_ant -f adp_deploy.xml -Dsa.package=gsm_e2e_at_1.4 do-deploy

$ wmc_ant -f adp_deploy.xml -Dsa.package=gsm_ss7_1.4 do-deploy
```

6.4 Restoring the GSM Version 1.4 Loader Configuration

Note (Distributed Installation): In a distributed system, perform the procedures in this section on the Gateway server only.

To restore the `gsm_ran_pm_loader` configuration, complete the following as user `saserver`:

1. Restore the datasource configuration by executing the commands:

```
$ cd $WMCROOT/conf/adapter/datasource

$ cp $WMCROOT/<BACKUP_DIR>/gsm_ran_pm_loader.properties.datasource
./gsm_ran_pm_loader.properties

$ cp $WMCROOT/<BACKUP_DIR>/gsm_msc_pm_loader.properties.datasource
./gsm_msc_pm_loader.properties

$ cp $WMCROOT/<BACKUP_DIR>/gsm_e2e_at_loader.properties.datasource
./gsm_e2e_at_loader.properties

$ cp $WMCROOT/<BACKUP_DIR>/gsm_ss7_loader.properties.datasource
./gsm_ss7_loader.properties
```

2. Restore the collector configuration by executing the commands:

```
$ cd $WMCROOT/conf/adapter/collector

$ cp $WMCROOT/<BACKUP_DIR>/gsm_ran_pm_loader.properties.collector
./gsm_ran_pm_loader.properties

$ cp $WMCROOT/<BACKUP_DIR>/gsm_msc_pm_loader.properties.collector
./gsm_msc_pm_loader.properties

$ cp $WMCROOT/<BACKUP_DIR>/gsm_e2e_at_loader.properties.collector
./gsm_e2e_at_loader.properties

$ cp $WMCROOT/<BACKUP_DIR>/gsm_ss7_loader.properties.collector
./gsm_ss7_loader.properties
```

6.5 Restoring the GSM RAN PM 1.4 Schema

Note (Distributed Installation): In a distributed system, perform the procedures in this section on the Database server only.

1. cd `$WMCROOT/packages/gsm_ran_pm_1.4.2/admin/oracle/schema`
2. Connect to the Oracle database sadb as user `saserver using sqlplus` (**Note**: You will be prompted for the saserver DB user password)

```
$ sqlplus saserver@sadb
```

3. Downgrade the GSM RAN PM schema files Version 1.4.2 to Version 1.4 by executing the command:

```
$ @@rlbk_kpi_tab.ddl;
```

6.6 Uninstalling GSM GOM Version 1.4.2

Note (Distributed Installation): In a distributed system, perform the procedures in this section on the Application server only.

Complete the following as user `saserver`:

1. Change to the `/appl` directory by executing the command:

```
$ cd /appl
```

2. Execute the removal procedure using the command:

```
$ ./ibm-tn-sqm-gsm_gom.remove
```

Follow the on-screen prompts as directed.

3. Untar the contents of the GSM GOM Version 1.4 package by executing the command:

```
$ tar -xvf ibm-tn-sqm-gsm_gom-1.4.1.3.tar
```

4. Reinstall the GSM GOM Version 1.4 package to restore the GSM GOM software:

```
$ ./ibm-tn-sqm-gsm_gom.install
```

Follow the on-screen prompts as directed.

6.7 Uninstalling GSM RAN PM Version 1.4.2

Note (Distributed Installation): In a distributed system, perform the procedures in this section on both the Application server and Gateway servers.

Complete the following as user `saserver`:

1. Change to the `/appl` directory by executing the command:

```
$ cd /appl
```

2. Execute the removal procedure using the command:

    ```
    $ ./ibm-tn-sqm-gsm_ran_pm.remove
    ```

    Follow the on-screen prompts as directed.

3. Untar the contents of the GSM RAN PM Version 1.4 package by executing the command:

    ```
    $ tar –xvf ibm-tn-sqm-gsm_ran_pm-1.4.1.3.tar
    ```

4. Reinstall the GSM RAN PM Version 1.4 package to restore the GSM RAN PM software:

    ```
    $ ./ibm-tn-sqm-gsm_ran_pm.install
    ```

    Follow the on-screen prompts as directed.

6.8 Uninstalling GSM MSC PM Version 1.4.2

Note (Distributed Installation): In a distributed system, perform the procedures in this section on both the Application server and Gateway servers.

Complete the following as user `saserver`:

1. Change to the `/appl` directory by executing the command:

    ```
    $ cd /appl
    ```

2. Execute the removal procedure using the command:

    ```
    $ ./ibm-tn-sqm-gsm_msc_pm.remove
    ```

    Follow the on-screen prompts as directed.

3. Untar the contents of the GSM MSC PM Version 1.4 package by executing the command:

    ```
    $ tar –xvf ibm-tn-sqm-gsm_msc_pm-1.4.1.3.tar
    ```

4. Reinstall the GSM MSC PM Version 1.4 package to restore the GSM MSC PM software:

    ```
    $ ./ibm-tn-sqm-gsm_msc_pm.install
    ```

    Follow the on-screen prompts as directed.

6.9 Uninstalling GSM E2E AT Version 1.4.2

Note (Distributed Installation): In a distributed system, perform the procedures in this section on both the Application server and Gateway servers.

Complete the following as user `saserver`:

1. Change to the `/appl` directory by executing the command:

    ```
    $ cd /appl
    ```

2. Execute the removal procedure using the command:

    ```
    $ ./ibm-tn-sqm-gsm_e2e_at.remove
    ```

    Follow the on-screen prompts as directed.

3. Untar the contents of the GSM E2E AT Version 1.4 package by executing the command:

```
$ tar –xvf ibm-tn-sqm-gsm_e2e_at-1.4.1.3.tar
```

4. Reinstall the GSM E2E AT Version 1.4 package to restore the GSM E2E AT software:

```
$ ./ibm-tn-sqm-gsm_e2e_at.install
```

Follow the on-screen prompts as directed.

6.10 Uninstalling GSM SS7 Version 1.4.2

Note (Distributed Installation): In a distributed system, perform the procedures in this section on both the Application server and Gateway servers.

Complete the following as user `saserver`:

1. Change to the `/appl` directory by executing the command:

```
$ cd /appl
```

2. Execute the removal procedure using the command:

```
$ ./ibm-tn-sqm-gsm_ss7.remove
```

Follow the on-screen prompts as directed.

3. Untar the contents of the GSM SS7 Version 1.4 package by executing the command:

```
$ tar –xvf ibm-tn-sqm-gsm_ss7-1.4.1.3.tar
```

4. Reinstall the GSM SS7 Version 1.4 package to restore the GSM SS7 software:

```
$ ./ibm-tn-sqm-gsm_ss7.install
```

Follow the on-screen prompts as directed.

6.11 Restarting the GSM Loader Processes

Note (Distributed Installation): In a distributed system, perform the procedures in this section on the Application server only.

To restart the loader processes, complete the following as user `saserver`:

- Execute the commands:

```
$ sap start gsm_ran_pm_loader
$ sap start gsm_msc_pm_loader
$ sap start gsm_e2e_at_loader
$ sap start gsm_ss7_loader
```

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