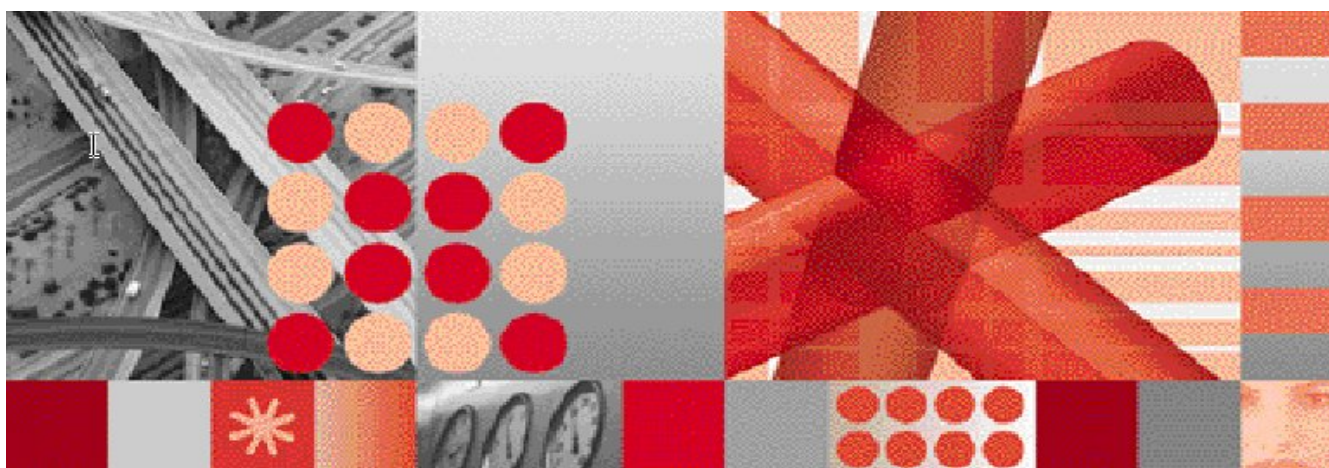




Netcool Service Quality Manager Roaming Service Solution

IBM

Version 1.2.1.2



Upgrade Guide

Note: Before using this information and the product it supports, read the information in [Notices](#) on page 24.

This edition applies to Version 1, Release 2, Modification 1.2 of IBM Tivoli Netcool Service Quality Manager For Roaming Service Solution.

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Table of Contents

1	About this Documentation	4
1.1	Audience.....	4
1.2	Required Skills and Knowledge	5
1.3	Document Conventions	5
1.4	User Publications	6
2	Software Requirements	9
3	Hardware Specification	9
4	Media Content.....	9
5	Upgrade Procedure	10
5.1	Stopping the Roaming AT and Probe Loaders	10
5.2	Create a backup directory	11
5.3	Backing up the Roaming Configuration.....	11
5.4	Installing Roaming GOM Version 1.2.1.2	12
5.5	Installing Roaming AT Version 1.2.1.2	13
5.6	Installing Roaming Probe Version 1.2.1.2	13
5.7	Upgrading the Roaming Provisioning to Version 1.2.1.2	14
5.8	Deploying the Roaming Version 1.2.1.2 Loaders	15
5.9	Restoring the Roaming Loader Configurations.....	15
5.10	Upgrading the Roaming Probe Schema.....	15
5.11	Upgrading the Roaming AT Schema	16
5.12	Restarting the Roaming Loader Processes.....	17
6	Rollback Procedure	18
6.1	Stopping the Roaming Loaders	18
6.2	Rolling back the Roaming GOM and Loader Provisioning Packages to Version 1.2.1.1.....	18
6.3	Deploying the Roaming Version 1.2.1.1 Loaders	19
6.4	Restoring the Roaming Version 1.2.1.1 Loaders Configuration	20
6.5	Restoring the Roaming Probe 1.2.1.1 Schema	20
6.6	Restoring the Roaming AT 1.2.1.1 Schema	20
6.7	Uninstalling Roaming GOM Version 1.2.1.2.....	21
6.8	Uninstalling Roaming AT Version 1.2.1.2.....	21
6.9	Uninstalling Roaming Probe Version 1.2.1.2.....	22
6.10	Restarting the Roaming Loader Processes.....	22
	Appendix A Notices	24

1 About this Documentation

The IBM® Tivoli® Netcool® Service Quality Manager Roaming Service Solution Version 1.2.1.1 to 1.2.1.2 Upgrade Guide is organized into the following chapters:

Table 1 Document Structure

<i>Chapter</i>	<i>Description</i>
About this Documentation	An overview of the Tivoli Netcool Service Quality Manager for Roaming Service Solution Upgrade Guide documentation, which gives details of the intended audience and the structure of the guide.
Media Content	Details of media provided for the release.
Hardware Specification	Details of hardware required for the release.
Software Requirements	Details of software required for the release.
Upgrade Procedure	Describes the upgrade procedure itself
Rollback Procedure	Describes the rollback procedure from version 1.2.1.2 back to version 1.2.1.1

1.1 Audience

The target audience of this guide is IBM Tivoli Netcool Service Quality Manager Roaming 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 Roaming Service Solution to version 1.2.1.2 you are strongly advised to read the release notes distributed with Tivoli Netcool Service Quality Manager Roaming version 1.2.1.2 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 Roaming
- 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

<i>Format</i>	<i>Examples</i>	<i>Description</i>
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.
<i>Italic</i>	A <i>busy hour</i> is... A web Server <i>must</i> be installed... See the <i>User Guide</i>	New terms, emphasis, and book titles.
Monospace	<code>./wminstall</code> <code>\$ cd /cdrom/cdrom0</code> <code>/xml/dict</code> <code>addmsc.sh</code> <code>core.spec</code> 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	<code>[root] # pkginfo grep -i perl</code> 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>	<code># cd <oracle_setup></code>	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]	<code>log-archiver.sh [-i][-w][-t]</code>	Used in code examples: indicates options.

1.4 User Publications

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

Table 3: Roaming Service Solution Documentation
TNSQM_Roaming_V1.2.1.1_to_V1.2.1.2_UpgradeGuide_v0.1.doc

Document	Description
<i>Tivoli Netcool Service Quality Manager Roaming Service Solution Release Notes</i>	Provides information on Tivoli Netcool Service Quality Manager Roaming Service Solution release contents, platform requirements, installation and upgrade procedures, and known issues.

<i>Tivoli Netcool Service Quality Manager Roaming Service Solution Overview Guide</i>	Provides a functional and architectural overview of the Roaming Service Solution product architecture.
<i>Tivoli Netcool Service Quality Manager Service Solutions Installation Guide</i>	Details the generic steps required to install any Service Quality Manager Service Solution including Roaming.
<i>Tivoli Netcool Service Quality Manager Roaming Interface Control Guide</i>	Details the Roaming Service Solution input interface for Probe and End-to-End Active Test.
<i>Tivoli Netcool Service Quality Manager Roaming Upgrade Guide</i>	Describes how to upgrade the Service Quality Manager Roaming Service Solution from version 1.2.1.1 to 1.2.1.2 while maintaining existing data and configuration.

The following user publications are provided with the Tivoli Netcool Service Quality Manager Version 4.1.1 software in Adobe Portable Document Format (PDF). Online Help is available in HTML format.

**Table 4 - Tivoli Netcool Service Quality Manager User Publications & Online help
TNSQM_Roaming_V1.2.1.1_to_V1.2.1.2_UpgradeGuide_v0.1.doc**

Document	Description
<i>Release Notes</i>	Provides information on the Tivoli Netcool Service Quality Manager 4.1.1 release contents, platform requirements, installation and upgrade procedures, and known issues.
<i>Configuration Guide</i>	Describes SLA Provisioning (Parties, SLAs, and SLA Templates applications) and SQM Provisioning (Services Resources, KQI and Service Models applications) in Service Quality Manager.
<i>Monitoring Guide</i>	Describes Monitoring (SLA Monitor, KQI Analyzer, Alarm Monitor, Audit Manager and SLA Web Monitor applications) in <i>Tivoli Netcool Service Quality Manager</i> .
<i>CEM Monitoring Guide</i>	Describes how to use and monitor the Customer Experience Management [CEM] feature in Tivoli Netcool Service Quality Manager.
<i>CEM Provisioning Guide</i>	Reference Guide containing information for provisioning the Customer Experience Management system.
<i>Solaris Server Installation Guide</i>	Describes how to install the Tivoli Netcool Service Quality Manager Server system on Solaris 10g.

<i>Client Installation Guide</i>	Describes how to install the Tivoli Netcool Service Quality Manager Client.
<i>AIX Server Installation Guide</i>	Describes how to install the Tivoli Netcool Service Quality Manager Server system on AIX 5.3L.
<i>Solaris System Administration Guide</i>	Provides an overview of the Tivoli Netcool Service Quality Manager administrative tasks including instructions on how to complete the following tasks: <ul style="list-style-type: none"> - 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.
<i>AIX System Administration Guide</i>	Provides an overview of the AIX Tivoli Netcool Service Quality Manager administrative tasks including instructions on how to complete the following tasks: <ul style="list-style-type: none"> - 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.
<i>Upgrade Guide</i>	Details how to upgrade Tivoli Netcool Service Quality Manager from v3.1.3 to v 4.1.1.
<i>Business Objects Installation & Configuration Guide</i>	Provides information on the steps required to install and configure the Business Objects (v 6.5 or Xi) Server and Client for use with Tivoli Netcool Service Quality Manager.
<i>Service Quality Manager Core Online Help</i>	Provides information and procedures for using Tivoli Netcool Service Quality Manager client applications.
<i>Customer Experience Management Online Help</i>	Describes how to use and monitor the Customer Experience Management feature in the Tivoli Netcool Service Quality Manager.
<i>SLA Webview Online Help</i>	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 4.1.1.

Note: Refer to the *Tivoli Netcool Service Quality Manager Version 4.1.1 Release Notes* for the minimum software required to operate the Service Quality Manager product.

- Tivoli Netcool Service Quality Manager Roaming Service Solution version 1.2.1 (IF0001) is successfully installed prior to performing this upgrade.
- Any installed test data for the Tivoli Netcool Service Quality Manager Roaming Service Solution is uninstalled prior to performing this upgrade.

3 Hardware Specification

Refer to the *Tivoli Netcool Service Quality Manager Roaming Service Solution Release Notes* for details on the hardware specification for Roaming version 1.2.1.2

4 Media Content

Refer to the *Tivoli Netcool Service Quality Manager Roaming Service Solution Release Notes* for details on the media content for Roaming version 1.2.1.2

5 Upgrade Procedure

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

- Stopping the Roaming AT and Probe Loaders
- Backing up the Roaming Configuration
- Installing Roaming GOM Version 1.2.1.2
- Installing Roaming AT Version 1.2.1.2
- Installing Roaming Probe Version 1.2.1.2
- Upgrading the Roaming Provisioning to Version 1.2.1.2
- Deploying the Roaming Version 1.2.1.2 Loaders
- Restoring the Roaming Loader Configurations
- Upgrading the Roaming Probe Schema
- Upgrading the Roaming AT Schema
- Restarting the Roaming AT and Probe Loaders

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

5.1 Stopping the Roaming AT and Probe Loaders

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

To stop the `roaming_at_loader` and `roaming_probe_loader` processes, complete the following as user `saserver`:

1. Execute the command:

```
$ sap stop roaming_at_loader
$ sap stop roaming_probe_loader
```

5.2 Create a backup directory

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

A directory needs to be created to store the existing configuration and other artifacts for the loaders. Choose a directory name *<BACKUP_DIR>* and then complete the following as user *saserver*:

```
$ cd $WMCROOT
$ mkdir <BACKUP_DIR>
```

where *<BACKUP_DIR>* denotes the name chosen for the backup directory.

5.3 Backing up the Roaming Configuration

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

To backup the *roaming_at_loader* and *roaming_probe_loader* configuration to *<BACKUP_DIR>* complete the following as user *saserver*:

1. Execute the following commands:

```
$ rm $WMCROOT/conf/adapter/data/roaming_at_contextdef.xml
$ rm $WMCROOT/conf/adapter/data/roaming_at_loader_parser.bl
$ rm $WMCROOT/conf/adapter/data/roaming_probe_contextdef.xml
$ rm $WMCROOT/conf/adapter/data/roaming_probe_loader_parser.bl
$ rm $WMCROOT/bin/roaming_at_loader.env
$ rm $WMCROOT/bin/roaming_probe_loader.env
```

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

```
$ cd $WMCROOT/conf/adapter/datasource
$ cp roaming_at_loader.properties
$WMCROOT/<BACKUP_DIR>/roaming_at_loader.properties.datasource
$ cp roaming_probe_loader.properties
$WMCROOT/<BACKUP_DIR>/roaming_probe_loader.properties.datasource
```

3. Back up the collector configuration by executing the following commands:
-

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

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

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

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

5.4 Installing Roaming GOM Version 1.2.1.2

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

Complete the following as user `root`:

1. Transfer the Roaming package `ibm-tn-sqm-roaming_gom-1.2.1.2.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 `roaming_gom` package by executing the command:

```
# gzip -d ibm-tn-sqm-roaming_gom-1.2.1.2.tar.gz
```

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

```
# tar -xvf ibm-tn-sqm-roaming_gom-1.2.1.2.tar
```

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

```
ibm-tn-sqm-roaming_gom.install
ibm-tn-sqm-roaming_gom.license
ibm-tn-sqm-roaming_gom.remove
ibm-tn-sqm-roaming_gom.sw
```

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

```
# ./ibm-tn-sqm-roaming_gom.install
```

Follow the on-screen prompts as directed.

5.5 Installing Roaming AT Version 1.2.1.2

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 `root`:

1. Transfer the Roaming package `ibm-tn-sqm-roaming_at-1.2.1.2.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 `roaming_at` package by executing the command:

```
# gzip -d ibm-tn-sqm-roaming_at-1.2.1.2.tar.gz
```
4. Untar the contents of the `roaming_at` package by executing the command:

```
# tar -xvf ibm-tn-sqm-roaming_at-1.2.1.2.tar
```
5. Verify the following files are now located in the `/appl` directory:

```
ibm-tn-sqm-roaming_at.install  
ibm-tn-sqm-roaming_at.license  
ibm-tn-sqm-roaming_at.remove  
ibm-tn-sqm-roaming_at.sw
```
6. Execute the `roaming_at` install procedure using the command:

```
# ./ibm-tn-sqm-roaming_at.install
```

Follow the on-screen prompts as directed.

5.6 Installing Roaming Probe Version 1.2.1.2

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 `root`:

1. Transfer the Roaming package `ibm-tn-sqm-roaming_probe-1.2.1.2.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 `roaming_probe` package by executing the command:
-

```
# gzip -d ibm-tn-sqm-roaming_probe-1.2.1.2.tar.gz
```

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

```
# tar -xvf ibm-tn-sqm-roaming_probe-1.2.1.2.tar
```

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

```
ibm-tn-sqm-roaming_probe.install  
ibm-tn-sqm-roaming_probe.license  
ibm-tn-sqm-roaming_probe.remove  
ibm-tn-sqm-roaming_probe.sw
```

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

```
# ./ibm-tn-sqm-roaming_probe.install
```

Follow the on-screen prompts as directed.

5.7 Upgrading the Roaming Provisioning to Version 1.2.1.2

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 `roaming_gom` package to version 1.2.1.2 by executing the command:

```
$ package_upgrade -t roaming_gom_1.2.1.2 -s roaming_gom_1.2.1.1
```

Follow the on-screen prompts as directed.

3. Upgrade the `roaming_at` package to version 1.2.1.2 by executing the command:

```
$ package_upgrade -t roaming_at_1.2.1.2 -s roaming_at_1.2.1.1
```

Follow the on-screen prompts as directed.

4. Upgrade the `roaming_probe` package to version 1.2.1.2 by executing the command:

```
$ package_upgrade -t roaming_probe_1.2.1.2 -s roaming_probe_1.2.1.1
```

Follow the on-screen prompts as directed.

5.8 Deploying the Roaming Version 1.2.1.2 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 `roaming_at_loader` by executing the command:

```
$ wmc_ant -f adp_deploy.xml -Dsa.package=roaming_at_1.2.1.2 do-deploy
```

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

```
$ wmc_ant -f adp_deploy.xml -Dsa.package=roaming_probe_1.2.1.2 do-deploy
```

5.9 Restoring the Roaming 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:

```
$ cd $WMCROOT/conf/adapter/datasource
$ cp $WMCROOT/<BACKUP_DIR>/roaming_at_loader.properties.datasource
./roaming_at_loader.properties
$ cp $WMCROOT/<BACKUP_DIR>/roaming_probe_loader.properties.datasource
./roaming_probe_loader.properties
```

2. Restore the collector configuration:

```
$ cd $WMCROOT/conf/adapter/collector
$ cp $WMCROOT/<BACKUP_DIR>/roaming_at_loader.properties.collector
./roaming_at_loader.properties
$ cp $WMCROOT/<BACKUP_DIR>/roaming_probe_loader.properties.collector
./roaming_probe_loader.properties
```

5.10 Upgrading the Roaming Probe Schema

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

Note (Distributed Installation): The schema files must be retrieved from the gateway server under the `$WMCROOT/packages/roaming_probe_1.2.1.2/admin/oracle/schema/roaming_probe/` directory and transferred to same directory location on the Database server before proceeding. If the directory `$WMCROOT/packages/roaming_probe_1.2.1.2/admin/oracle/schema/roaming_probe/` does not exist then the user must create it on the database server.

Complete the following as user `saserver`:

1. Check the name of the directory containing the Roaming Probe schema files. Make a note of this directory name i.e. `$WMCROOT/admin/oracle/schema/<roaming probe schema directory>`
2. Note the name of the backup directory `<BACKUP_DIR>` created previously in section 5.2
3. Backup the existing schema for Roaming Probe

```
$ cp -r $WMCROOT/admin/oracle/schema/<roaming probe schema directory>/roaming_probe
$WMCROOT/<BACKUP_DIR>/roaming_probe_schema
```

where `<roaming probe schema directory>` denotes the name of the directory obtained in the first step.

4. Deploy the Roaming Probe Version 1.2.1.2 schema files

```
$ cp $WMCROOT/packages/roaming_probe_1.2.1.2/admin/oracle/schema/roaming_probe/*
$WMCROOT/admin/oracle/schema/<roaming probe schema directory>/roaming_probe/
```

where `<roaming probe schema directory>` denotes the name of the directory obtained in the first step.

5.11 Upgrading the Roaming AT Schema

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

Note (Distributed Installation): The schema files must be retrieved from the gateway server under the `$WMCROOT/packages/roaming_at_1.2.1.2/admin/oracle/schema/roaming_at/` directory and transferred to same directory location on the Database server before proceeding. If the directory `$WMCROOT/packages/roaming_probe_1.2.1.2/admin/oracle/schema/roaming_at/` does not exist then the user must create it on the database server.

Complete the following as user `saserver`:

1. Check the name of the directory containing the Roaming AT schema files. Make a note of this directory name i.e. `$WMCROOT/admin/oracle/schema/<roaming at schema directory>/`
 2. Note the name of the backup directory `<BACKUP_DIR>` created previously in section 5.2
 3. Backup the existing schema for Roaming AT
-


```
$ cp -r $WMCROOT/admin/oracle/schema/<roaming AT schema directory>/roaming_at  
$WMCROOT/<BACKUP_DIR>/roaming_at_schema
```

where *<roaming at schema directory>* denotes the name of the directory obtained in the first step.

4. Deploy the Roaming AT Version 1.2.1.2 schema files

```
$ cp $WMCROOT/packages/roaming_at_1.2.1.2/admin/oracle/schema/roaming_at/*  
$WMCROOT/admin/oracle/schema/<roaming at schema directory>/roaming_at/
```

where *<roaming at schema directory>* denotes the name of the directory obtained in the first step.

5.12 Restarting the Roaming Loader Processes

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

To restart the roaming process, complete the following as user `saserver`:

1. Execute the commands:

```
$ sap start roaming_at_loader  
$ sap start roaming_probe_loader
```

6 Rollback Procedure

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

- Stopping the Roaming Loaders
- Rolling back the Roaming GOM and Roaming Loader Provisioning to Version 1.2.1.1
- Deploying the Roaming Version 1.2.1.1 Loaders
- Restoring the Roaming Loaders Configuration
- Restoring the Roaming Probe schema
- Restoring the Roaming AT schema
- Uninstalling Roaming GOM Version 1.2.1.2
- Uninstalling Roaming AT Version 1.2.1.2
- Uninstalling Roaming Probe Version 1.2.1.2
- Restarting the Roaming Loader Processes

6.1 Stopping the Roaming Loaders

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

To stop the `roaming_probe_loader` and `roaming_at_loader` process, complete the following as user `saserver`:

- Execute the command:

```
$ sap stop roaming_probe_loader  
$ sap stop roaming_at_loader
```

6.2 Rolling back the Roaming GOM and Loader Provisioning Packages to Version 1.2.1.1

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 commands:

```
$ cd $WMCROOT/packages/roaming_gom_1.2.1.2/admin/provision/rollback/
```

2. Rollback the `roaming_gom` package to version 1.2.1.1 by executing the command:

```
$ wmc_ant -f rollback.xml -Dpackage.from=roaming_gom_1.2.1.2 -  
Dpackage.name=roaming_gom_1.2.1.1 rollback
```

3. Rollback the `roaming_at` package to version 1.2.1.1 by executing the command:

```
$ wmc_ant -f rollback.xml -Dpackage.from=roaming_at_1.2.1.2 -  
Dpackage.name=roaming_at_1.2.1.1 rollback
```

4. Rollback the `roaming_probe` package to version 1.2.1.1 by executing the command:

```
$ wmc_ant -f rollback.xml -Dpackage.from=roaming_probe_1.2.1.2 -  
Dpackage.name=roaming_probe_1.2.1.1 rollback
```

6.3 Deploying the Roaming Version 1.2.1.1 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`:

Remove the existing loader by executing the commands:

```
$ rm $WMCROOT/bin/roaming_at_loader.env  
$ rm $WMCROOT/bin/roaming_probe_loader.env  
$ rm $WMCROOT/conf/adapter/data/roaming_at_contextdef.xml  
$ rm $WMCROOT/conf/adapter/data/roaming_probe_contextdef.xml  
$ rm $WMCROOT/conf/adapter/data/roaming_at_loader_parser.bl  
$ rm $WMCROOT/conf/adapter/data/roaming_probe_loader_parser.bl
```

Deploy the `roaming_probe_1.2.1.1` and `roaming_at_1.2.1.1` loaders by executing the commands:

```
$ cd $WMCROOT/packages  
$ wmc_ant -f adp_deploy.xml -Dsa.package=roaming_at_1.2.1.1 do-deploy  
$ wmc_ant -f adp_deploy.xml -Dsa.package=roaming_probe_1.2.1.1 do-deploy
```

6.4 Restoring the Roaming Version 1.2.1.1 Loaders Configuration

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

To restore the `roaming_at_loader` and `roaming_probe_loader` configuration, complete the following as user `saserver`:

- Restore the datasource configuration:

```
$ cd $WMCROOT/conf/adapter/datasource
$ cp $WMCROOT/<BACKUP_DIR>/roaming_at_loader.properties.datasource
./roaming_at_loader.properties
$ cp $WMCROOT/<BACKUP_DIR>/roaming_probe_loader.properties.datasource
./roaming_probe_loader.properties
```

- Restore the collector configuration:

```
$ cd $WMCROOT/conf/adapter/collector
$ cp $WMCROOT/<BACKUP_DIR>/roaming_at_loader.properties.collector
./roaming_at_loader.properties
$ cp $WMCROOT/<BACKUP_DIR>/roaming_probe_loader.properties.collector
./roaming_probe_loader.properties
```

6.5 Restoring the Roaming Probe 1.2.1.1 Schema

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

Complete the following as user `saserver`:

1. Check the name of the directory containing the Roaming Probe schema files. Make a note of this directory name i.e. `$WMCROOT/admin/oracle/schema/<roaming probe schema directory>/`
2. Copy the backup from step 5.9 into the schema directory:

```
$ cp $WMCROOT/<BACKUP_DIR>/roaming_probe_schema/*
$WMCROOT/admin/oracle/schema/<roaming probe schema directory>/roaming_probe
```

where `<roaming probe schema directory>` denotes the name of the directory obtained in the first step.

6.6 Restoring the Roaming AT 1.2.1.1 Schema

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

Complete the following as user `saserver`:

1. Check the name of the directory containing the Roaming AT schema files. Make a note of this directory name i.e. \$WMCROOT/admin/oracle/schema/<roaming at schema directory>
2. Copy the backup from step 5.10 into the schema directory:

```
$ cp $WMCROOT/<BACKUP_DIR>/roaming_at_schema/*  
$WMCROOT/admin/oracle/schema/<roaming at schema directory>/roaming_at
```

where <roaming at schema directory> denotes the name of the directory obtained in the first step.

6.7 Uninstalling Roaming GOM Version 1.2.1.2

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

Complete the following as user `root`:

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

```
# cd /appl
```
2. Execute the removal procedure using the command:

```
# ./ibm-tn-sqm-roaming_gom.remove
```

Follow the on-screen prompts as directed.
3. Untar the contents of the Roaming GOM Version 1.2.1.1 package by executing the command:

```
# tar -xvf ibm-tn-sqm-roaming_gom-1.2.1.1.tar
```
4. Reinstall the Roaming GOM Version 1.2.1 package to restore the Roaming GOM software:

```
# ./ibm-tn-sqm-roaming_gom.install
```

Follow the on-screen prompts as directed.

6.8 Uninstalling Roaming AT Version 1.2.1.2

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 `root`:

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

```
# cd /appl
```

2. Execute the removal procedure using the command:

```
# ./ibm-tn-sqm-roaming_at.remove
```

Follow the on-screen prompts as directed.

3. Untar the contents of the Roaming AT Version 1.2.1.1 package by executing the command:

```
# tar -xvf ibm-tn-sqm-roaming_at-1.2.1.1.tar
```

4. Reinstall the Roaming AT Version 1.2.1 package to restore the Roaming AT software:

```
# ./ibm-tn-sqm-roaming_at.install
```

Follow the on-screen prompts as directed.

6.9 Uninstalling Roaming Probe Version 1.2.1.2

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 `root`:

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

```
# cd /appl
```

2. Execute the removal procedure using the command:

```
# ./ibm-tn-sqm-roaming_probe.remove
```

Follow the on-screen prompts as directed.

3. Untar the contents of the Roaming Probe Version 1.2.1 package by executing the command:

```
# tar -xvf ibm-tn-sqm-roaming_probe-1.2.1.tar
```

4. Reinstall the Roaming Probe Version 1.2.1 package to restore the Roaming Probe software:

```
# ./ibm-tn-sqm-roaming_probe.install
```

Follow the on-screen prompts as directed.

6.10 Restarting the Roaming Loader Processes

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

To restart the `roaming_at_loader` and `roaming_probe_loader` processes, complete the following as user `saserver`:

- Execute the command:

```
$ sap start roaming_probe_loader
```

```
$ sap start roaming_at_loader
```

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