



Version 1.2



Installation Guide

**TIVOLI NETCOOL CUSTOMER EXPERIENCE MANAGER MODULE FOR MOBILE USER PLANE SERVICE INSTALLATION
GUIDE**

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

This edition applies to version 1, release 2 of IBM Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service (Product Number 5724-V48) and to all subsequent releases and modifications until otherwise indicated in new editions.

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1 About this publication

The *IBM Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service Installation Guide* details the steps required to install the IBM® Tivoli® Netcool® Customer Experience Manager Module for Mobile User Plane Service running on Tivoli Netcool Service Quality Manager version 4.1.2.

1.1 Intended audience

This publication is for customers who need to install the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service.

Readers need to be familiar with the following topics:

- Information technology (IT) principles
- IP networking
- UNIX operating systems

1.2 What this publication contains

This publication contains the following chapters:

- Chapter 2 "Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service architecture and service components"
Provides a description of the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service architecture and service components.
- Chapter 3 "Installing the Global Object Model (GOM)"
Provides the steps required to install the GOM.
- Chapter 4 "Installing the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service"
Provides the steps required to install the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service.
- Chapter 5 "Uninstalling the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service"
Provides the steps required to uninstall the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service.

This publication contains the following appendices:

- Appendix A "Optional procedures"
Provides the following optional procedures:
 - Adjusting data input data retention
 - Adjusting service module configuration parameters
 - Adjusting collector pattern expressions
- Appendix B " Troubleshooting"
Provides details on some common error and warning scenarios.
- Appendix C "Product acronyms"
Provides a description of product acronyms.

1.3 Publications

This section lists the following publications:

- IBM Tivoli Netcool Service Quality Manager version 4.1.2 core library
- IBM Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service library

It also describes how to access Tivoli publications online and how to order Tivoli publications.

1.3.1 IBM Tivoli Netcool Customer Experience Manager core library

- *IBM Tivoli Netcool Service Quality Manager AIX Server Installation Guide, GC23-9847-00*
Describes how to install the Tivoli Netcool Service Quality Manager Server system on IBM AIX®.
- *IBM Tivoli Netcool Service Quality Manager Solaris Server Installation Guide, GC23-9846-00*
Describes how to install the Tivoli Netcool Service Quality Manager server system on Solaris.
- *IBM Tivoli Netcool Service Quality Manager Client Installation Guide, GC23-9850-00*
Describes how to install the Tivoli Netcool Service Quality Manager client.
- *IBM Tivoli Netcool Service Quality Manager Upgrade Guide, SC23-9842-00*
Details how to upgrade from one Tivoli Netcool Service Quality Manager version to another.
- *IBM Tivoli Netcool Service Quality Manager AIX System Administration Guide, SC23-9845-00*
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.
- *IBM Tivoli Netcool Service Quality Manager Solaris System Administration Guide, SC23-9844-00*
Provides an overview of the Solaris 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.
- *IBM Tivoli Netcool Service Quality Manager Provisioning Service SI Guide, SC23-9852-00*
Reference guide containing information for provisioning the Tivoli Netcool Service Quality Manager system.
- *IBM Tivoli Netcool Service Quality Manager Customer Experience Manager Provisioning Guide, SC23-9843-00*
Provides information for provisioning the Tivoli Netcool Customer Experience Manager system.
- *IBM Tivoli Netcool Service Quality Manager Customer Experience Manager Monitoring Guide, SC23-9482-00*
Describes how to use and monitor the Tivoli Netcool Customer Experience Manager feature in Tivoli Netcool Service Quality Manager.
- *IBM Tivoli Netcool Service Quality Manager Monitoring Guide, SC23-9103-01*
Describes monitoring (Service-level agreement (SLA) monitor, Key quality indicator (KQI) analyzer, alarm monitor, audit manager, and SLA Webview applications) in Tivoli Netcool Service Quality Manager.
- *IBM Tivoli Netcool Service Quality Manager Configuration Guide, SC23-9102-01*
Describes SLA provisioning (parties, SLAs, and SLA templates applications) and Tivoli Netcool Service Quality Manager provisioning (service resources, KQI models, and service module applications) in Tivoli Netcool Service Quality Manager.
- *IBM Tivoli Netcool Service Quality Manager BusinessObjects Installation and Configuration Guide, SC23-9473-00*
Provides information on the steps required to install and configure the BusinessObjects server and client for use with Tivoli Netcool Service Quality Manager.
- *IBM Tivoli Netcool Customer Experience Manager Customer Relationship Management Development Guide, SC23-9857-00*
Provides an overview of how to write some Java code to connect to a customer relationship management system with the Tivoli Netcool Customer Experience Manager product.
- *IBM Tivoli Netcool Service Quality Manager Release Notes, GI11-9221-00*
Provides information on the Tivoli Netcool Service Quality Manager release contents, platform requirements, installation and upgrade procedures, and known issues.

1.3.2 IBM Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service library

- *IBM Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service Installation Guide*

Provides the steps required to install the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service.

- *IBM Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service Interface Control Guide*

Provides details of the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service input interface.

- *IBM Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service Overview Guide*

Provides an overview of the product architecture and services.

- *IBM Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service Release Notes*

Provides information on the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service release contents, platform requirements, installation procedures, and known issues.

1.3.3 Accessing terminology online

The IBM Terminology Web site consolidates the terminology from IBM product libraries in one convenient location. You can access the Terminology Web site at the following Web address

<http://www.ibm.com/software/globalization/terminology>.

1.3.4 Accessing publications online

The product CD contains the publications that are in the product library. The format of the publications is PDF.

IBM posts publications for Tivoli products, as they become available and whenever they are updated, to the Tivoli Documentation Central Web site at <http://www.ibm.com/tivoli/documentation>.

Note: If you print PDF documents on other than letter-sized paper, set the option in the **File -> Print** window that allows Adobe Reader to print letter-sized pages on your local paper.

1.3.5 Ordering publications

You can order many Tivoli publications online at

<http://www.elink.ibm.com/publications/servlet/pbi.wss>.

You can also order by telephone by calling one of these numbers:

In the United States: 800-879-2755

In Canada: 800-426-4968

In other countries, contact your software account representative to order Tivoli publications. To locate the telephone number of your local representative, perform the following steps:

1. Go to <http://www.elink.ibm.com/publications/servlet/pbi.wss>.
2. Select your country from the list and click **Go**.
3. Click **About this site** in the main panel to see an information page that includes the telephone number of your local representative.

1.4 Tivoli technical training

For Tivoli technical training information, refer to the following IBM Tivoli Education Web site at <http://www.ibm.com/software/tivoli/education>.

1.5 Tivoli user groups

Tivoli user groups are independent, user-run membership organizations that provide Tivoli users with information to assist them in the implementation of Tivoli Software solutions. Through these groups, members can share information and learn from the knowledge and experience of other Tivoli users. Tivoli user groups include the following members and groups:

- 23,000+ members
- 144+ groups

Access the link for the Tivoli Users Group at www.tivoli-ug.org.

1.6 Support information

If you have a problem with your IBM software, you want to resolve it quickly. IBM provides the following ways for you to obtain the support you need:

Online

Access the Tivoli Software Support site at

<http://www-01.ibm.com/software/sysmgmt/products/support/index.html?ibmprd=tivman>.

Access the IBM Software Support site at <http://www.ibm.com/software/support/probsub.html>.

IBM Support Assistant

The IBM Support Assistant is a free local software serviceability workbench that helps you resolve questions and problems with IBM software products. The Support Assistant provides quick access to support-related information and serviceability tools for problem determination. To install the Support Assistant software, go to <http://www.ibm.com/software/support/isa>.

Troubleshooting information

See *Appendix A: Optional procedures* in the *IBM Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service Installation Guide*, it provides the following optional procedures:

- Adjusting data input data retention
- Adjusting service module configuration parameters
- Adjusting collector pattern expressions

For more information about solving problems, see *Appendix B: Troubleshooting* in the *IBM Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service Installation Guide*.

1.7 Conventions used in this guide

This publication uses several conventions for special terms and actions, operating system-dependent commands and paths, and margin graphics.

Typeface conventions

This publication uses the following typeface conventions:

Bold

- Lowercase commands and mixed case commands that are otherwise difficult to distinguish from surrounding text.
- Interface controls (check boxes, push buttons, radio buttons, spin buttons, fields, folders, icons, list boxes, items inside list boxes, multicolumn lists, containers, menu choices, menu names, tabs, property sheets), labels (such as **Tip:**, and **Operating system considerations:**)
- Keywords and parameters in text.

Italics

- Citations (examples: titles of publications, diskettes, and CDs)
- Words defined in text (example: a nonswitched line is called a *point-to-point line*)
- Emphasis of words and letters (words as words example: "Use the word *that* to introduce a restrictive clause."; letters as letters example: "The LUN address must start with the letter *L*.")
- New terms in text (except in a definition list): a *view* is a frame in a workspace that contains data.
- Variables and values you must provide.... where *myname* represents.....

Monospace

- Examples and code examples.
- File names, programming keywords, and other elements that are difficult to distinguish from surrounding text.
- Message text and prompts addressed to the user.
- Text that the user must type.
- Values for arguments or command options.

Operating system-dependent variables and paths

This publication uses the UNIX convention for specifying environment variables and for directory notation. When using the Windows command line, replace *\$variable* with *%variable%* for environment variables and replace each forward slash (/) with a backslash (\) in directory paths. The names of environment variables are not always the same in the Windows and UNIX environments. For example, *%TEMP%* in Windows environments is equivalent to *\$TMPDIR* in UNIX environments.

Note: If you are using the bash shell on a Windows system, you can use the UNIX conventions.

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2 Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service architecture and service components

Note: Execute the following command to check the Tivoli Netcool Service Quality Manager version:

```
sap version
```

If the current version of Tivoli Netcool Service Quality Manager is already installed, then continue. If the current version of Tivoli Netcool Service Quality Manager is not installed, refer to the *Tivoli Netcool Service Quality Manager Installation Guides*, or the *IBM Tivoli Netcool Service Quality Manager Upgrade Guide*.

See the *IBM Tivoli Netcool Service Quality Manager Release Notes* for the current version of Tivoli Netcool Service Quality Manager to be used.

2.1 Service components

The Tivoli Netcool Service Quality Manager server architecture consists of four components. The components can be installed together on a single, consolidated server or set up across multiple servers, to form a distributed system.

Table 1: Server descriptions

Server name	Description
Application server	The server that is installed with the Tivoli Netcool Service Quality Manager software. This server is used to run the Tivoli Netcool Service Quality Manager core processes.
Gateway server	The server that is installed with the Tivoli Netcool Service Quality Manager software that handles the processing of service module data.
Database server	The server that is installed with the Oracle database and the Tivoli Netcool Service Quality Manager data store.

BusinessObjects server	The server installed with the BusinessObjects reporting tool software.
------------------------	--

Note: For a consolidated system, these installation procedures must be followed for each section unless marked otherwise. For a distributed system, follow the notes marked (**for distributed installations**) that will precede these sections.

2.2 Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service architecture

The Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service architecture consists of four components. The components can be installed together on a single, consolidated server or set up across multiple servers, to form a distributed system. This guide covers the installation of the service module components on the Tivoli Netcool Customer Experience Manager server and Business Objects server.

3 Installing the Global Object Model

Note (for distributed installations): In a distributed system, complete the procedures in this chapter on the application server only.

Note: Execute the following command on the application server as user saserver to determine whether a GOM version is already provisioned:

```
$ package_mgmt -l
```

Under the 'Model Name' field, check the list of packages for the `cots_gom` entry. If this entry is present, the GOM is already provisioned. If a current or later version of the GOM is already provisioned, then proceed to chapter 4.

See the *IBM Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service Release Notes* for the minimum GOM version to be used.

Note: COTS GOM 1.6 is the minimum version required for this service module. If a later version is available then the later version should be installed. If the minimum supported version or a later version is already installed then this section can be ignored, continue to chapter 4.

3.1 Installing the Tivoli Netcool Customer Experience Manager GOM package

Complete the following steps as user saserver:

1. Transfer the Tivoli Netcool Customer Experience Manager GOM package `ibm-tn-sqm-cots_gom-1.6.tar.gz` to the `<target directory>` directory on the Tivoli Netcool Service Quality Manager host computer. It is recommended to use the `/appl` directory as the `<target directory>` value.
2. Verify the domain processes are all running by executing the following command:

```
$ sap disp domain -l
```

If any of the processes are in a STOPPED state, start them using the following command:

```
$ sap start <process>
```

Where <process> is the name of the process as it appears under the NAME column.

3. Install the package by executing the following command:

```
$ $WMCROOT/admin/common/install/scripts/deploy-service-solution -package  
/appl/ibm-tn-sqm-cots_gom-1.6.tar.gz
```

Where \$WMCROOT is a pre-defined location where the Tivoli Netcool Service Quality Manager base software is installed. The default location for \$WMCROOT is /appl/sa.

4. Enter 'Yes' when asked if you want to deploy the package.
5. Enter 'Yes' when asked if you want to continue.
6. Accept the license agreement.

On successful completion, output similar to the following is displayed:

```
Completed Software Installation  
SA Package Installation logs can be seen in  
/appl/sa/admin/logs/sa_install.log  
Installation is complete.  
ok  
All packages installed successfully  
Please view /appl/sa/admin/logs/sa_install.log for package installation  
logs
```

7. Verify the Tivoli Netcool Customer Experience Manager processes are all stopped by executing the following command:

```
$ sap disp domain -l
```

If any of the processes are in a STARTED state, stop them using the following command:

```
$ sap stop <process>
```

3.2 Provisioning the Tivoli Netcool Service Quality Manager GOM package

To provision the GOM, the processes in the domain and client groups must be running. All other process groups must be stopped. Complete the following steps as user saserver:

1. Check the state of all processes by executing the following command:

```
$ sap disp -l
```

2. Stop a process group by executing the following command:

```
$ sap stop <process group name 1>
```

Where <process group name> is: monitoring, cem, or adapters.

3. Start a process group by executing the following command:

```
$ sap start <process group name 1>
```

4. Provision the GOM by executing the following command:

```
$ package_mgmt -i cots_gom_1.6
```

When the provisioning operation is successfully completed, a message similar to this example will appear onscreen:

```
BUILD SUCCESSFUL  
Total time: 58 seconds
```

4 Installing the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service

4.1 Prerequisites

Note (for distributed installations): In a distributed system, complete the procedures in this section on the application, gateway, and database servers. For a consolidated system, complete the procedures once on the consolidated system.

Complete the following steps as user saserver:

1. Transfer the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service packages to the `<target directory>` directory on the Tivoli Netcool Customer Experience host computer. The four packages are
 - a. `ibm-tn-sqm-mup_prb_gom-1.1.tar.gz`
 - b. `ibm-tn-cem-cem_mup_prb_dns-1.2.tar.gz`
 - c. `ibm-tn-cem-cem_mup_prb_http-1.2.tar.gz`
 - d. `ibm-tn-cem-cem_mup_prb_other-1.2.tar.gz`.
2. Also transfer the `cem_mup_prb_deploy.sh` and `cem_mup_prb_deploy.xml` scripts to the same directory. It is recommended to use the `/appl/INSTALLFILES/` directory as the `<target directory>` value.
3. Make the `cem_mup_prb_deploy.sh` script script executable by running the following command:

```
$ chmod 755 cem_mup_prb_deploy.sh
```

4.2 Installing the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service GOM

Note: Execute the following command on the application server as user saserver to determine whether the Mobile User Plane GOM is already provisioned:

```
$ package_mgmt -l
```

Under the 'Model Name' field, check the list of packages for the mup_prb_gom entry. If this entry is present, the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane GOM is already provisioned and this section can be ignored, continue to section 4.3.

4.2.1 Installing the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service GOM

Complete the following steps as user saserver:

1. Execute the following command:

```
$ $WMCROOT/admin/common/install/scripts/deploy-service-solution -package  
/<target directory>/ibm-tn-sqm-mup_prb_gom-1.1.tar.gz
```

2. Enter 'Yes' when asked if you want to install the package.
3. Enter 'Yes' when asked if you want to continue.
4. Accept the license agreement.

When the installation has successfully completed, a message similar to this example appears on screen

```
~~~~~  
Finished Post-Installation Steps  
~~~~~  
  
Completed Software Installation  
  
SA Package Installation logs can be seen in  
/appl/INSTALLFILES/sa/admin/logs/sa_install.log  
  
Installation is complete.
```

4.2.2 Provisioning the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service GOM

Note (for distributed installations): In a distributed system, complete the procedures in this section only on the application server.

Use the following tasks to load the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service on the system.

Complete the following steps as user saserver:

1. Check the list of processes running by executing the following command:

```
$ sap disp -l
```

Verify that all the processes for the `DOMAIN` group are in a `STARTED` state. If any of the domain processes are stopped, execute the following command:

```
$ sap start domain
```

1. Provision the system by executing the following command:

```
$ package_mgmt -i mup_prb_gom_1.1 -f
```

When the provisioning operation is successfully completed, a message similar to this example appears onscreen:

```
BUILD SUCCESSFUL  
Total time: 24 seconds
```

4.3 Installing the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service data source

4.3.1 Installing the loaders

4. Execute the following command to install the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service packages. This command must be executed in the directory containing the `.tar.gz` packages:

```
$ cd <target directory>
```

```
$ ./cem_mup_prb_deploy.sh -i
```

5. Enter 'Yes' when asked if you want to install the package for each adapter.
6. Accept the license agreement for each adapter. Note that there are three adapters for the service module (DNS, HTTP, OTHER).
7. When the installation is successfully completed, a message similar to this example appears on screen:

```
~~~~~  
Finished Post-Installation Steps  
~~~~~
```

```
Completed Software Installation
```

```
Package Installation logs can be seen in
/appl/sa/admin/logs/sa_install.log
```

```
Installation is complete.
```

4.3.2 Installing BusinessObjects reports

The Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service includes pre-defined reports for the BusinessObjects reporting tools.

Note: Unless otherwise specified, the procedures in this section must be completed on the designated BusinessObjects server only.

Prerequisite

BusinessObjects XI release 2 server with Oracle client software must be installed and configured.

Note (for distributed installations): In a distributed system, the `report.zip` file is available either on the gateway server or the application server.

Complete the following steps as user saserver:

- Copy the `$WMCROOT/packages/cem_mup_prb_dns_1.2/report.zip` file from your Tivoli Netcool Service Quality Manager server to the BusinessObjects server instance using ftp or other methods available.

Defining the service name using Oracle Net Manager

If the core reports or any other service module set of reports are deployed, then use the existing service name for the connection to the SADB database. If this is the first set of reports being deployed then create an Oracle service name by following these directions.

Before exporting BusinessObjects artifacts, you need to create an Oracle service name (also called protocol address) in the BusinessObjects server to connect the BusinessObjects software with the `sadb` database server. The BusinessObjects universe will use this service name in its connection and reports will refresh against the database this service name points to.

To create a new service name in Oracle, you can use the Oracle Net Manager tool, provided in the Oracle client installed on the BusinessObjects server.

See section *Configuring Clients for Oracle Connection Manager*, Chapter 11. *Configuring and Administering Oracle Connection Manager* in the Oracle 10g online documentation available at the following link:

http://download.oracle.com/docs/cd/B19306_01/network.102/b14212/cman.htm#i484544

Extracting BusinessObjects deliverables

The prerequisites are:

- The BusinessObjects report files delivered with the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service must be copied to the BusinessObjects server before they can be added to the BusinessObjects repository.

To copy the BusinessObjects deliverable to the BusinessObjects server, complete the following steps:

1. Create a new destination directory for the contents of the BusinessObjects deliverables.
2. Transfer and unzip the `report.zip` file to the destination directory created in step 1.

Depending on the contents of the BusinessObjects deliverable, some or all of the following directories can be created when the `report.zip` file is unzipped:

- `bo/logos`
- `bo/lovs`
- `bo/reports`
- `bo/universes`

Applying the logo file

A logo graphic appears in each report and must be added to the BusinessObjects server. To apply the logo file, complete the following step:

- Open the directory where the `report.zip` file was extracted to (completed in the *Extracting BusinessObjects deliverables* section). Copy the `Tivoli.jpg` file from the `bo/logos` directory into the following directory.

```
<BO_INSTALL_DRIVE>\Program Files\Business Objects\BusinessObjects Enterprise  
11.5\Images
```

Where `<BO_INSTALL_DRIVE>` denotes the drive where the BusinessObjects applications are installed (the default drive is `C:`).

Associating List of Value (LOV) files with universe

Note: LOV files are not available for every service model so these steps can be ignored in case the `bo/lovs` directory does not exist.

LOV files must be in the same directory as the universe before exporting the universe to the Business Objects repository. To comply with this requirement, complete the following step:

1. Open the directory where the `report.zip` file was extracted to (completed in the *Extracting BusinessObjects deliverables* section). Copy the contents of the `bo/lovs` directory into the `bo/universes` directory.

Exporting the universe and the list of values (LOV) files to the BusinessObjects server

The process of exporting the universe with its list of values (LOV) files must be completed with the BusinessObjects XI Universe Designer tool.

To complete the process, follow these steps:

1. Define a new BusinessObjects connection pointing to the `sadb` database. The `sadb` database is the one located in the Tivoli Netcool Service Quality Manager database server and the one that contains the installed Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service.

To complete this step you need to define the following parameters within the BusinessObjects connection:

- Database middleware: Oracle 10
- Service: Oracle Service Name
- User Name: Oracle user
- Password: Oracle Password for the Oracle User

The default username and password for the `sadb` database are `saserver/saserver01` (if the password has changed, then enter the new password as appropriate). Enter the Oracle service name as previously defined in the *Defining the Service Name using Oracle Net Manager* section.

Note: To complete the connection definition, see the *Setting universe parameters → Defining a new connection* subsection in chapter 2 of the Designer's Guide for Business Objects XI release 2, available from the following link:

http://help.sap.com/businessobject/product_guides/

2. Open universe file (`.unv`) from the `bo/universes` directory.
3. Change universe connection parameters and use the new BusinessObjects connection created during step 1.
4. Save the universe with the new parameters.
5. Export the universe with its LOV files to the BusinessObjects repository.

Note: Refer to the Exporting a universe to the repository sections in chapter 2 of the Designer's Guide for Business Objects XI Release 2, available from the following link:

http://help.sap.com/businessobject/product_guides/

Changing universes to local time format settings

Note: All universes delivered in the `report.zip` file are preset with European date formats.

If deploying on a non-European BusinessObjects system, the following is recommended:

- Change the following objects where applicable in the universes to your localized time format settings: Week/Day/Month-Day/Hour/Sample. These objects are normally found under the 'Calendar' class.

Complete the following steps to change from European to localized time formats, note the following example details changing the objects for American format.

- To change the object format right click on the different time objects and each time select **object format**. Update the format with the recommendations here.

Objects Name = `Week`

ObjectFormat = `mm/dd/yyyy`

Object Name = `Day (or Month-Day)`

ObjectFormat = `mm/dd/yyyy`

Object Name = `Hour`

ObjectFormat = `mm/dd/yyyy hh:mm AM/PM`

Object Name = `Sample`

ObjectFormat = `mm/dd/yyyy hh:mm AM/PM`

These changes must be made with the BusinessObjects Universe Designer tool. For more details, see the *Designer's Guide* for Business Objects XI Release 2 available from the following link:

http://help.sap.com/businessobject/product_guides/

Access the *Designer's Guide* quickly using these filters:

- Select **all products** under **all products**.
- Select **BusinessObjects XI Release 2** under **all releases**.

Importing reports BIAR file to the repository database

A business intelligence archive resource (BIAR) file can be found in the `bo/reports` directory. The BIAR file contains all the reports for the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service and must be deployed to the BusinessObjects server.

To import the BIAR file into the BusinessObjects server, use the BusinessObjects Import Wizard tool. For details on how to use this tool, refer to the section *Using the Import Wizard* in chapter 13 of the *Windows BusinessObjects Enterprise XI Release 2 Installation Guide* for Business Objects XI Release 2, available from the following link:

http://help.sap.com/businessobject/product_guides/

Access the *Windows BusinessObjects Enterprise XI Release 2 Installation Guide* quickly using these filters:

- Select **BusinessObjects Enterprise** under **all products**.

- Select **BusinessObjects XI Release 2** under **all releases**.

When importing the BIAR file, select the following options:

- In the **Source environment** display screen, select **Business Intelligence Archive Resource (BIAR) File** in the combo box and browse to the file in the **BIAR File** section.
- In the **Destination environment** display screen, type the name of the BusinessObjects central management server (CMS) and the username and password.
- In the **Select objects to import** display screen, just select these two options:
 - **Import folders and objects**
 - **Import application folders and objects**
- In the **Incremental import** display screen, keep **Overwrite object contents** checked and uncheck **Overwrite object rights**.
- In the **Folders and objects** display screen, select **all the reports**.

Checking the BusinessObjects reports installation

When the reports are imported to the BusinessObjects server, check they are installed and available in the server.

To complete the process, follow these steps:

- Open BusinessObjects Infoview in a navigator. The default URL is:
http://<BO_SERVER>:8080/businessobjects/enterprise115/desktoplaunch
where *<BO_SERVER>* is the name of the server with BusinessObjects platform installed.
- Navigate through **Public Folders** → **TNCEM** → **Service** in the **Folders** menu on the left. The content of the last directory should contain the reports listed here:
 - Customer MobileUserPlane Service Summary
 - Customer MobileUserPlane Service Failure Analysis
 - Customer Group MobileUserPlane Service Summary
 - Customer Group MobileUserPlane Service Detailed
 - Customer Group MobileUserPlane Service Failure Analysis
 - Device Type MobileUserPlane Service Summary
 - Device Type MobileUserPlane Service Detailed
 - Device Type MobileUserPlane Service Failure Analysis
 - Daily MobileUserPlane Service Summary

Note: See the latest Tivoli Netcool Service Quality Manager BusinessObjects documentation for details to set up the authorization rights assigned to the report directory created in the BusinessObjects server during the installation.

4.3.3 Creating adapter tablespaces

Note (for distributed installations): Complete the procedures in this section on the application server.

Complete the following steps as user saserver:

To determine the IBM Tivoli-Netcool Service Quality Manager software version on the database server execute the following command:

```
$ sap version
```

Examine the value for “Current Version” and execute the corresponding steps below for your IBM Tivoli-Netcool Service Quality Manager software version.

Note (for distributed installations): Complete the procedures in this section on the database server.

- Create the service module tablespaces by executing the following commands¹:

For Current Version 4.1.2.19 or lower:

```
$ cd $WMCROOT/packages/cem_mup_prb_dns_1.2/admin/oracle/bin
```

```
$ ./create_db_tablespace -sid <sadb> -dbowneruser <owner_user> -dbownerpwd  
<owner_pwd> -name cem_mup_prb_dns_1.2
```

```
$ cd $WMCROOT/packages/cem_mup_prb_http_1.2/admin/oracle/bin
```

```
$ ./create_db_tablespace -sid <sadb> -dbowneruser <owner_user> -dbownerpwd  
<owner_pwd> -name cem_mup_prb_http_1.2
```

```
$ cd $WMCROOT/packages/cem_mup_prb_other_1.2/admin/oracle/bin
```

```
$ ./create_db_tablespace -sid <sadb> -dbowneruser <owner_user> -dbownerpwd  
<owner_pwd> -name cem_mup_prb_other_1.2
```

Where *dbowneruser* is set to *saowner* and the *<owner_pwd>* must be enclosed in single quotes ‘’.

Alternatively, for Current Version 4.1.2.20 or higher:

```
$ cd $WMCROOT/admin/oracle/bin
```

```
$ ./create_db_tablespace -sid <sadb> -dbowneruser <owner_user> -dbownerpwd  
<owner_pwd> -name cem_mup_prb_dns_1.2
```

¹ Please note the `create_db_tablespace` script may take a considerable amount of time to run.

```
$ ./create_db_tablespace -sid <sadb> -downeruser <owner_user> -downerpwd  
<owner_pwd> -name cem_mup_prb_http_1.2  
  
$ ./create_db_tablespace -sid <sadb> -downeruser <owner_user> -downerpwd  
<owner_pwd> -name cem_mup_prb_other_1.2
```

Where *downeruser* is set to *saserver* and *<owner_pwd>* is the associated password for the user.

On successful completion, the command will display the following:

```
Creating tablespaces, please wait...  
  
Database Tablespace Created Successfully
```

4.3.4 Provision the system

Note (for distributed installations): In a distributed system, complete the procedures in this section on the application server only.

Use the following tasks to load the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane on the system.

Complete the following steps as user *saserver*:

2. Check the list of processes running by executing the following command:

```
$ sap disp -l
```

Verify that all the processes for the `DOMAIN` group are in a `STARTED` state. If any of the domain processes are stopped, execute the following command:

```
$ sap start domain
```

3. Provision the system by executing the following command:

```
$ wmc_ant -f $WMCROOT/packages/cem_mup_prb_deploy.xml do-provision
```

4. When the provisioning operation is successfully completed, a message similar to this example appears onscreen:

```
BUILD SUCCESSFUL  
Total time: 58 seconds
```

4.3.5 Creating adapter database tables

Note (for distributed installations): Complete the procedures in this section on the database server.

Note: You are not required to specify the *db.pwd* variables if the default settings are in use. Contact your Tivoli Netcool Service Quality Manager administrator for the correct passwords.

Complete the following as user saserver:

1. Create the adapter database tables by executing the following command:

```
$ wmc_ant -f $WMCROOT/packages/cem_mup_prb_deploy.xml do-schema -  
Ddb.pwd=<user_pwd>
```

2. When the provisioning operation is successfully completed, a message similar to this example appears onscreen:

```
BUILD SUCCESSFUL  
Total time: 58 seconds
```

Note: If you encounter any errors or warnings, see *Appendix B Troubleshooting*.

4.3.6 Deploying the loader

Note (for distributed installations): In a distributed system, complete the procedures in this section on the gateway server (the server that hosts the service module loader process) only.

Complete the following steps as user saserver:

1. Deploy the loader by executing the following command:

```
$ wmc_ant -f $WMCROOT/packages/cem_mup_prb_deploy.xml do-gateway-  
deploy
```

On successful completion the following output will be displayed:

```
BUILD SUCCESSFUL  
Total time: 29 seconds
```

Note: If you encounter any errors or warnings, see *Appendix B Troubleshooting*.

4.3.7 Deploying the adapter configuration (for distributed installations)

Note (for distributed installations): This section should only be completed for a distributed installation. **For a consolidated system, this section can be ignored.** Complete these steps on the application server.

Complete the following steps as user saserver:

1. Deploy the loader by executing the following command:

```
$ wmc_ant -f $WMCROOT/packages/cem_mup_prb_deploy.xml do-application-deploy
```

On successful completion the following output will be displayed:

```
BUILD SUCCESSFUL  
Total time: 33 seconds
```

2. Edit the following files:

```
$WMCROOT/conf/processes/processes-cem_mup_prb_dns_loader.properties  
$WMCROOT/conf/processes/processes-cem_mup_prb_http_loader.properties  
$WMCROOT/conf/processes/processes-cem_mup_prb_other_loader.properties
```

Replace the reference to `${SAHOST}` with the name of the gateway server that the loader runs on.

4.3.8 Restarting the sapmgr process

Note (for distributed installations): In a distributed system, complete the procedures in this section on the application server.

Complete the following steps as user saserver:

1. Restart the `sapmgr` process to pick up the newly instantiated loader.

```
$ sapmgr stop  
$ sapmgr start
```

When the `sapmgr` process is successfully restarted, proceed with the next steps.

2. Ensure the loader is available by executing the following command:

```
$ sap disp
```

3. Start the monitoring processes:

```
$ sap start monitoring
```

4. Start the Tivoli Netcool Customer Experience Manager processes:

```
$ sap start cem
```

4.3.9 Starting the loader

Note (for distributed installations): In a distributed system, complete the procedures in this section on either the gateway server or application server.

Complete the following steps as user saserver:

1. Start the loader using the following command:

```
$ sap start cem_mup_prb_dns_loader
$ sap start cem_mup_prb_http_loader
$ sap start cem_mup_prb_other_loader
```

2. Verify the loaders are successfully started using the following command:

```
$ sap disp adapters
```

3. The current state of the loader is displayed on-screen, as shown in the following example:

NAME	STATE	SINCE
cem_mup_prb_dns_loader	STARTED	14:02:27
cem_mup_prb_http_loader	STARTED	14:02:49
cem_mup_prb_other_loader	STARTED	14:03:15

The `STATE` should read as `STARTED`. The loader can take several minutes to complete startup, in which case the `STATE` will read as `init`. If the loader cannot startup, a `STATE` of `failed` will appear on-screen.

For any error and warning messages which appear when starting the adapter, see *Appendix B Troubleshooting*.

5 Uninstalling the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service

5.1 Prerequisites

Note (for distributed installations): Complete the procedures in this section on the application server only.

Before uninstalling the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service, you must delete any dependent artifacts that may have been created outside of the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service provisioning package. These artifacts comprise any service-level agreements (SLAs), service-level objectives (SLOs), SLA templates, key performance indicators (KPIs), and combined key quality indicator (KQI) models, which reference a resource type provisioned exclusively by the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service.

To find dependencies on the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service package execute the following commands as user saserver:

```
$ package_mgmt -d cem_mup_prb_dns_1.2
$ package_mgmt -d cem_mup_prb_http_1.2
$ package_mgmt -d cem_mup_prb_other_1.2
```

When the dependencies are successfully located, a message similar to this example appears on screen:

```
-----
-----
Dependency report for package: 'cem_mup_prb_dns_1.2'
-----
-----
```

Resource Type Resource Cat

Sla Name Category Name Party Name

Sla Template Name Category Name

Simple Kqi Model Name Category Name

Combined Kqi Model Name Category Name

Service Element Name Service Model Name Name

5.2 Shutdown the processes

Note (for distributed installations): Complete the procedures in this section on the application server only.

Complete the following steps as user saserver:

1. Shutdown the monitoring and adapter processes by executing the following commands:

```
$ sap stop monitoring
```

```
$ sap stop adapters
```

2. If Tivoli Netcool Customer Experience Manager is installed, stop the Tivoli Netcool Customer Experience Manager processes by executing the following command:

```
$ sap stop cem
```

5.3 Uninstalling the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service data source

5.3.1 Unprovisioning the data source

Note (for distributed installations): Complete the procedures in this section on the application server only.

Complete the following step as user saserver:

- To unprovision the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service data source, execute the following command:

```
$ wmc_ant -f $WMCROOT/packages/cem_mup_prb_deploy.xml do-provision-clean
```

On successful completion the following output will be displayed:

```
BUILD SUCCESSFUL  
Total time: 32 seconds
```

5.3.2 Dropping the data source schema

Note (for distributed installations): Complete the procedures in this section on the database server only.

Note: It is not necessary to specify the *db.pwd* variable if the default settings are in use. Contact your Tivoli Netcool Service Quality Manager administrator for the correct password.

Complete the following step as user saserver:

1. Drop the schema associated with the data source by executing the following command:

```
$ wmc_ant -f $WMCROOT/packages/cem_mup_prb_deploy.xml do-schema-clean -  
Ddb.pwd=<user_pwd>
```

On successful completion the following output will be displayed:

```
BUILD SUCCESSFUL  
Total time: 22 seconds
```

5.3.3 Dropping adapter database table space

Note (for distributed installations): Complete the procedures in this section on the application server.

Complete the following steps as user saserver:

To determine the Tivoli Netcool Service Quality Manager software version on the database server execute the following command

TIVOLI NETCOOL CUSTOMER EXPERIENCE MANAGER MODULE FOR MOBILE USER PLANE SERVICE INSTALLATION GUIDE

```
$ sap version
```

Examine the value for “Current Version” and execute the corresponding steps below for your IBM Tivoli Netcool Service Quality Manager software version.

Note (for distributed installations): Complete the procedures in this section on the database server.

- Drop the service module tablespaces by executing the following commands²:

For Current Version beginning with 4.1.2.19 or less:

```
$ cd $WMCROOT/packages/cem_mup_prb_dns_1.2/admin/oracle/bin
$ ./drop_db_tablespace -sid <sadb> -downeruser <owner_user> -downerpwd
<owner_pwd> -name cem_mup_prb_dns_1.2
$ cd $WMCROOT/packages/cem_mup_prb_http_1.2/admin/oracle/bin
$ ./drop_db_tablespace -sid <sadb> -downeruser <owner_user> -downerpwd
<owner_pwd> -name cem_mup_prb_http_1.2
$ cd $WMCROOT/packages/cem_mup_prb_other_1.2/admin/oracle/bin
$ ./drop_db_tablespace -sid <sadb> -downeruser <owner_user> -downerpwd
<owner_pwd> -name cem_mup_prb_other_1.2
```

Where *downeruser* is set to *saowner* and the *<owner_pwd>* must be enclosed in single quotes “’”.

Alternatively, for Current Versions 4.1.2.20 or higher:

```
$ cd $WMCROOT/admin/oracle/bin
$ ./drop_db_tablespace -sid <sadb> -downeruser <owner_user> -downerpwd
<owner_pwd> -name cem_mup_prb_dns_1.2
$ ./drop_db_tablespace -sid <sadb> -downeruser <owner_user> -downerpwd
<owner_pwd> -name cem_mup_prb_http_1.2
$ ./drop_db_tablespace -sid <sadb> -downeruser <owner_user> -downerpwd
<owner_pwd> -name cem_mup_prb_other_1.2
```

On successful completion, the command will display the following:

```
Dropping tablespaces, please wait...

Database Tablespace Dropped Successfully
```

² Please note that the `drop_db_tablespace` script can require a considerable amount of time to run depending on your system configuration.

5.3.4 Cleaning the gateway server artifacts

Note (for distributed installations): Complete the procedures in this section on the gateway server.

Complete the following step as user saserver:

- Clean up the gateway artifacts by executing the following command:

```
$ wmc_ant -f $WMCROOT/packages/cem_mup_prb_deploy.xml do-gateway-  
clean
```

On successful completion the following output will be displayed:

```
BUILD SUCCESSFUL  
  
Total time: 2 seconds
```

Remove the processed .csv files by executing the following command:

```
$ rm -f $WMCROOT/var/adapter/cem_mup_prb_dns_loader/*.processed  
  
$ rm -rf $WMCROOT/var/adapter/cem_mup_prb_dns_loader  
  
$ rm -f $WMCROOT/var/adapter/cem_mup_prb_http_loader/*.processed  
  
$ rm -rf $WMCROOT/var/adapter/cem_mup_prb_http_loader  
  
$ rm -f $WMCROOT/var/adapter/cem_mup_prb_other_loader/*.processed  
  
$ rm -rf $WMCROOT/var/adapter/cem_mup_prb_other_loader
```

5.3.5 Cleaning the application server artifacts

Note (for distributed installations): Complete the procedures in this section only on the application server. This is only required in the case of a distributed installation.

Execute the following command as user saserver:

```
$ wmc_ant -f $WMCROOT/packages/cem_mup_prb_deploy.xml do-application-  
clean
```

On successful completion the following output will be displayed:

```
BUILD SUCCESSFUL
```

Total time: 22 seconds

5.4 Uninstalling the service module Global Object Model (GOM)

Note: Complete the procedures in this chapter on the application server only.

Before uninstalling the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane GOM, you must delete any dependent artifacts that may have been created outside of the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service provisioning package. These artifacts comprise any service-level agreements (SLAs), service-level objectives (SLOs), SLA templates, key performance indicators (KPIs), and combined key quality indicator (KQI) models, which reference a resource type provisioned exclusively by the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service.

To find dependencies on the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane GOM package execute the following commands as user saserver:

```
$ package_mgmt -d mup_prb_gom_1.1
```

If satisfied that the above dependencies are sorted out and that no other Tivoli Netcool Customer Experience Manager Service Module requires the `mup_prb_gom` being installed then complete the following steps as user saserver:

- Un-provision the service module GOM by executing the following command:

```
$ package_mgmt -c mup_prb_gom_1.1
```

On successful completion, the following output is displayed:

```
BUILD SUCCESSFUL
```

```
Total time: n seconds
```

5.5 Removing the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service data source package

Note (for distributed installations): Complete the procedures in this section on the application and gateway servers.

Complete the following step as user saserver:

- Remove the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service data source packages and the global object model package by executing the following command in the <target directory> specified in section 4.2.1 :

```
$ ./cem_mup_prb_deploy.sh -c
```

Enter 'Yes' when asked if you want to remove the package for each adapter.

On successful removal of each package the following output will be displayed:

```
Cleaning up init scripts...
Removing/restoring installed files...
Checking configuration files...
Removing empty installation directories...
Removal is complete.
```

5.6 Removing the service module GOM package

Note: Complete the procedures in this section on the application server only.

Complete the following as user saserver:

- Remove the service module GOM, by executing the following commands:

```
$ cd $WMCROOT/admin/software/adapters
```

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

Enter 'yes' when asked if you want to continue.

On successful execution the following output is displayed:

```
Cleaning up init scripts...
Removing/restoring installed files...
```

```
Checking configuration files...
Removing empty installation directories...
Running post-remove commands...
Removal is complete.
```

5.7 Restarting the processes

Note (for distributed installations): Complete the procedures in this section on the application server only.

Complete the following steps as user saserver:

1. Restart the `sapmgr`; execute the following commands:

```
$ sapmgr stop
$ sapmgr start
```

2. Restart the processes which were shutdown before uninstall:

```
$ sap start monitoring
$ sap start adapters
```

3. If Tivoli Netcool Customer Experience Manager is installed, start the Tivoli Netcool Customer Experience Manager process group by executing the following command:

```
$ sap start cem
```

4. Verify that the adapter instance uninstalled successfully, by executing the following command:

```
$ sap disp -l
```


Appendix A: Optional procedures

Adjusting the adapter input data retention

Adapter input data is maintained for a limited period in the adapter input directory before being purged to free space. The default retention period for all adapters is seven days. If the maintenance period needs to be adjusted for the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service data source, complete the following steps as user saserver:

Add the `com.comnitel.sm.adapter.collector.fileretention=<X>`

parameter to the collector configuration properties files for the adapter. The collector configuration properties files are:

```
$WMCROOT/conf/adapter/collector/cem_mup_prb_dns_loader.properties  
$WMCROOT/conf/adapter/collector/cem_mup_prb_http_loader.properties  
$WMCROOT/conf/adapter/collector/cem_mup_prb_other_loader.properties
```

Note: Because the purge command is based on the UNIX `find(1)` command, the system purges input files that are `x+1` days old. For example, if `X` is 2, then files that are three days and older are purged.

Adjusting service model configuration parameters

If the configuration properties shipped with the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service must be adjusted, for example:

(`$WMCROOT/conf/adapter/collector/cem_mup_prb_dns_loader.properties` or `$WMCROOT/conf/adapter/datasource/cem_mup_prb_dns_loader.properties`) the following syntax rules should be adhered to.

Any correctly escaped special or punctuation character other than the dollar symbol '\$' can be used. The escape character is the back-slash character '\'.

Use of the '\$' character assumes that a matching environment variable exists in the `$WMCROOT/conf/environment/default.properties` file.

See the table here for details on how to specify the keyboard accessible special characters in the property file.

Table 2: Keyboard accessible special characters

<i>Character</i>	<i>Tivoli Netcool Customer Experience Manager compatible version</i>	<i>Comment</i>
!	!	
“	\”	Requires escaping.
£	£	
\$		Cannot be used.
%	%	
^	^	
&	&	
*	*	
((
))	
=	=	
+	+	
-	-	
=	=	
{	{	
}	}	
[[
]]	
;	;	
‘	\‘	Requires escaping.
#	#	
:	:	
@	@	
~	~	
,	,	
.	.	
/	\	Requires escaping.
<	<	
>	>	
\	\\	Requires escaping.

Adjusting collector pattern expressions

A file name filter can be applied to incoming comma-separated value (CSV) files by modifying the following property:

```
com.comnitel.sm.adapter.collector.input.pattern
```

Within the configuration files:

```
$WMCROOT/conf/adapter/collector/cem_mup_prb_dns_loader.properties
```

```
$WMCROOT/conf/adapter/collector/cem_mup_prb_http_loader.properties
```

```
$WMCROOT/conf/adapter/collector/cem_mup_prb_other_loader.properties
```

Entities specified here must conform to the Java Regular Expression (Regex) syntax. More information on this syntax can be found at <http://java.sun.com/j2se/1.5.0/docs/api/java/util/regex/Pattern.html>.

The following is an example pattern for matching on a `.csv` file extension:

```
com.comnitel.sm.adapter.collector.input.pattern= .+\\.csv
```

Appendix B: Troubleshooting

Adapter errors and warning messages

Missing custom resource mappings file

The Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service requires custom resource mapping (CRM) files to enable the bulk loading of customer to customer group mappings. If the CRM file is available when the service module loader is started, an error similar to the following error can be displayed:

```
18:10:36,370 [ResourceMappingController_cem_mup_prb_loader0] WARN @.sm.rm.mapping
- Unable to parse CSV file
$WMCROOT/var/adapter/mappings/resources/cem_mup_cellarea.map for mapping
cellAreaMap.
18:10:36,371 [ResourceMappingController_cem_mup_prb_loader0] WARN @.sm.rm.mapping
- The following Resource Mapping could not be created: cellAreaMap. Check
implementation.
```

```
18:10:36,370 [ResourceMappingController_cem_mup_prb_loader0] WARN @.sm.rm.mapping
- Unable to parse CSV file
$WMCROOT/var/adapter/mappings/resources/cem_mup_service.map for mapping
serviceMap.
18:10:36,371 [ResourceMappingController_cem_mup_prb_loader0] WARN @.sm.rm.mapping
- The following Resource Mapping could not be created: serviceMap
```

See section 3.6 of the *IBM Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service Interface Control Guide* for details on how to populate the mapping file.

Installation errors and warning messages

Deploying non-CRM enabled loaders

When deploying a non-CRM enabled service module, a warning message similar to the following is displayed:

```
[copy] Warning: Could not find file
$WMCROOT/packages/cem_mup_prb_dns_1.2/conf/service/resourcemgmt/cem_mup_prb_dn
s_loader.properties to copy.
```

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or

```
[copy] Warning:  
$WMCROOT/packages/cem_mup_prb_dns_1.2/conf/service/resourcegmt not found.
```

These warnings can be ignored, because there are no properties files to be transferred.

Appendix C: Product acronyms

Table 3: Description of product acronyms

<i>Acronym</i>	<i>Description</i>
BIAR	Business Intelligence Archive Resource
CMS	Central Management Server
CRM	Customer Relationship Management
CSV	Comma-Separated Value
GOM	Global Object Model
KQI	Key Quality Indicator
LOV	List of Values
PDF	Portable Document Format
SLA	Service-level Agreement
SLO	Service-level Objective
URL	Uniform Resource Locator

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