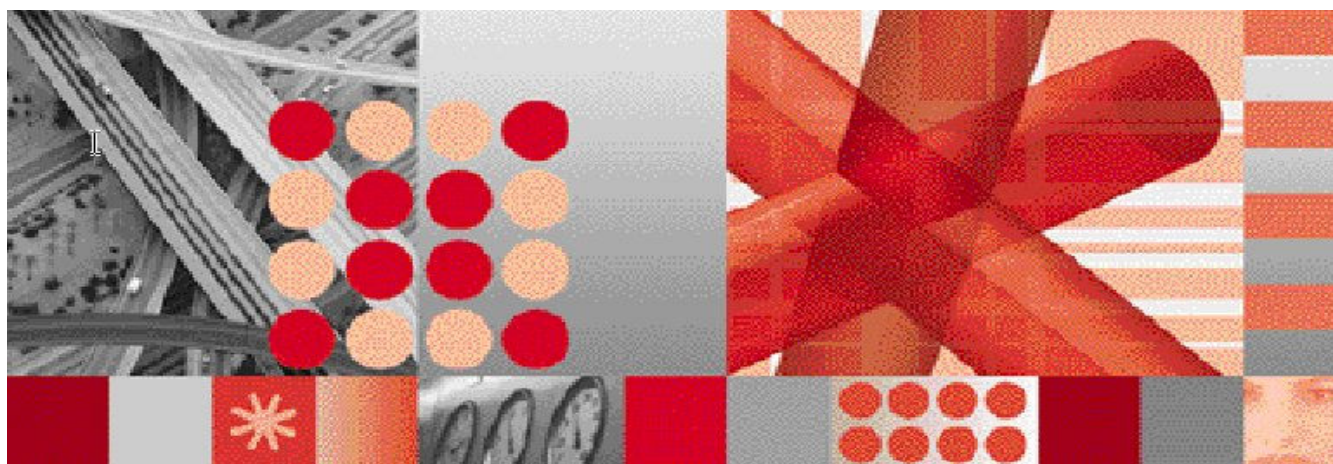




# Netcool Customer Experience Manager Module for Mobile User Plane Service

Version 1.2

IBM



## Release Notes

**TIVOLI NETCOOL CUSTOMER EXPERIENCE MANAGER MODULE FOR MOBILE USER PLANE SERVICE RELEASE  
NOTES**

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**Note:** Before using this information and the product it supports, read the information in “Notices”.

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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 Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service provides information on IBM® Tivoli® Netcool® Customer Experience Manager Module for Mobile User Plane Service version 1.2 release contents, platform requirements, installation and upgrade procedures, and known issues.

## 1.1 Intended audience

This publication is for customers who use IBM Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service version 1.2.

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 "Release details"  
Provides information on functionality provided in the release.
- Chapter 3 "Hardware specification"  
Provides details of hardware required for the release.
- Chapter 4 "Software requirements"  
Provides details of software required for the release.
- Chapter 5 "Installation"  
Provides details of software required for the release.
- Chapter 6 "Known issues"  
Provides details on known issues included in the release and workarounds, if available.

This publication contains the following appendix:

- Appendix A "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 Service Quality 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 IBM 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 (services resources, KQI models, and service models 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 the Customer Relationship Management (CRM) proxy server and the CRM plug-in module. The CRM plug-in modules, developed using Java code, mediate between the Tivoli Netcool Customer Experience Management framework and an external CRM system.

- *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 service module and its data sources.

- *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 Interface Control Guide*

Provides details of the input interface for the service module.

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

Provides information on the service module 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>

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**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.

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### 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](http://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:

### 1.6.1 Online

Access the Tivoli Software Support site at <http://www.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>.

### 1.6.2 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>

## 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.

### 1.7.1 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 (example: ...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.

### 1.7.2 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.

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

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## 2 Release details

**Note:** Sample data provided with this service module uses sample manufacturer, device and international mobile subscriber identities (IMSI) for the data attached. The data associated with these IMSIs is selected at random by the development team as sample data. It does not represent any real world view of any product.

IBM Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service provides the following data sources:

- Mobile User Plane (cem\_mup\_prb)

### 2.1. Software distribution contents

**Table 1: Description of software distribution contents**

<i>Filename or guide title</i>	<i>Description</i>
ibm-tn-sqm-mup_prb_gom-1.1.tar.gz	The installation package for the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service Global Object Model (GOM).
ibm-tn-cem-cem_mup_prb_http-1.2.tar.gz	The installation package for the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service HTTP adapter.
ibm-tn-cem-cem_mup_prb_dns-1.2.tar.gz	The installation package for the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service DNS Adapter.
ibm-tn-cem-cem_mup_prb_other-1.2.tar.gz	The installation package for the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service adapter for processing all other transactions.
cem_mup_prb_deploy.sh	A script used to aid the installation process.
cem_mup_prb_deploy.xml	An ant script used to aid the installation process.
cem_mup_test_1.2.zip	The demo package for the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service.
cem_mup_readme.txt	The installation instructions for the demonstration package for Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service.

<b>Filename or guide title</b>	<b>Description</b>
<i>Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service Installation Guide</i>	Details the steps required to install the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service.
<i>Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service Interface Control Guide</i>	Details the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service input interface.
<i>Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service Release Notes</i>	Provides information on the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service release contents, platform requirements, installation and upgrade procedures, and known issues.

## 3 Hardware specification

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**Note:** Refer to the *Tivoli Netcool Service Quality Manager Version 4.1.2 Server Installation Guides* for the minimum hardware required to operate this product.

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## 4 Software requirements

The minimum prerequisite software requirements are:

- Tivoli Netcool Service Quality Manager version 4.1.2
- Global Object Model (GOM) 1.6 or higher

## 5 Installation

### 5.1. Installation

To install the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service, refer to the *Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service Installation Guide*.

### 5.2. Service module model version

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**Note:** The *Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service Installation Guide* requires the person installing the software to input the service module name, data source name and model version of this service module.

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The service module name, data source name(s) and model version of this service module are as follows:

- Module name = cem\_mup\_prb\_dns
- Data source name = cem\_mup\_prb\_dns
- Model version = 1.2.
  
- Module name = cem\_mup\_prb\_http
- Data source name = cem\_mup\_prb\_http
- Model version = 1.2.
  
- Module name = cem\_mup\_prb\_other
- Data source name = cem\_mup\_other
- Model version = 1.2.

### 5.3. Default resource mapping

Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service supports Tivoli Netcool Customer Experience Manager "Default Resource" instances. These are provided so that data with the following characteristics can be processed and stored by the service module:

- Any data row which contains resource type references that cannot be recognised against the provisioned resource set
- Any data row which has missing references to one or more resource types

In each of these cases the reference will be attributed to the "default resource" instance of that resource type. For example if the resource type is "Enterprise" then the default resource for that resource type is named "unknown\_Enterprise". To all other intents and purposes the default resource can be treated the same as any other instance of the resource type. The service module produces key quality indicator (KQI) values for the default resource and these can be monitored for diagnostic purposes if required.

If a customer does not want to have any default resource **metrics** created, the default resource **instances** can be safely deleted through the Tivoli Netcool Customer Experience Manager user interface or through the provisioning broker. Any data rows matching the characteristics detailed above are subsequently not included in any KQI metrics.

## 6 Known issues

### CR 13352

During the installation of the Tivoli Netcool Customer Experience Manager Module for Mobile User Plane Service test package the following error can be displayed after executing the `package_mgmt -i cem_mup_test_1.2 -f` command:

#### **Error**

```
CMOM-0128 : A duplicate customer was found in the system. Please ensure
that the provisioning file does not contain duplicate customer creation
requests, or creation requests for customers that are already in the
system.
```

If the error above is encountered you must un-install the `cem_mup_test_1.2` package by following the un-install procedure in the `cem_mup_readme.txt` file along with all other Tivoli Netcool Customer Experience Manager test packages before attempting to re-install the `cem_mup_test_1.2` package.

### CR 13474

The following reports are designed to run for a 15 minute period starting at a time specified by the user. This behaviour is not very clear from the prompt names.

The following 2 reports use the prompt 'Time' :

- Customer Group MobileUserPlane Service Failure Analysis
- Device Type MobileUserPlane Service Failure Analysis

The following report uses the prompt 'Beginntime' :

- Daily MobileUserPlane Service Summary





## Appendix A: Product acronyms

Table 3: Description of product acronyms

<i><b>Acronym</b></i>	<i><b>Description</b></i>
CR	Change Request
CRM	Customer Relationship Management
GOM	Global Object Model
IMSI	International Mobile Subscriber Identity
KQI	Key Quality Indicator
MUP	Mobile User Plane
SLA	Service-level Agreement

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