



**Release Notes**

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

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This edition applies to version 1, release 3, modification IF0001 of IBM Tivoli Netcool Customer Experience Manager Module for GPRS 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 GPRS Service Release Notes* provides information on IBM® Tivoli® Netcool® Customer Experience Manager Module for GPRS Service version 1.3 IF0001 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 GPRS Service version 1.3 IF0001.

Readers need to be familiar with the following topics:

- Telecommunication and information technology (IT) principles
- IP networking
- Good understanding of UNIX® operating systems
- General packet radio service (GPRS)
- Tivoli Netcool Customer Experience Manager modeling concepts, such as service resources, key performance indicators (KPIs), key quality indicators (KQIs), service-level agreements (SLAs) and service-level objectives (SLOs).

## 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 which guides to follow during installation.
- Chapter 6 "Performance issues"  
Provides details of known performance issues included in the release and workarounds, if available.
- Chapter 7 "Known issues"

Provides details of known issues included in the release and workarounds, if available.

- Chapter 8 "Fixed issues"

Provides details of fixed issues included in the release.

- Chapter 9 "Documentation addenda"

Provides details of documentation addenda included in the release.

This publication contains the following appendix:

- Appendix A "Product acronyms"

Provides a description of product acronyms used in this guide.

### 1.3 Publications

This section lists the following publications:

- IBM Tivoli Netcool Service Quality Manager core library
- IBM Tivoli Netcool Customer Experience Manager Module for GPRS Service library

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

#### 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 Business Objects 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, G111-9221-00*  
Provides information on the Tivoli Netcool Service Quality Manager release contents, platform requirements, installation and upgrade procedures, and known issues.

### **IBM Tivoli Netcool Customer Experience Manager Module for GPRS Service library**

- *IBM Tivoli Netcool Customer Experience Manager Module for GPRS Service Installation Guide*  
Provides the steps required to install the Tivoli Netcool Customer Experience Manager Module for GPRS Service and its data sources.
- *IBM Tivoli Netcool Customer Experience Manager Module for GPRS Service Overview Guide*

Provides an overview of the Tivoli Netcool Customer Experience Manager Module for GPRS Service product architecture.

- *IBM Tivoli Netcool Customer Experience Manager Module for GPRS Service Interface Control Guide*

Provides details of the Tivoli Netcool Customer Experience Manager Module for GPRS Service input interface.

- *IBM Tivoli Netcool Customer Experience Manager Module for GPRS Service Release Notes*

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

### Prerequisite publications

To use the information in this publication effectively, you must have some prerequisite knowledge, which you can obtain from the following publications:

- *IBM Tivoli Netcool Customer Experience Manager Module for GPRS Service Overview Guide*

Provides an overview of the Tivoli Netcool Customer Experience Manager Module for GPRS Service product architecture.

- *IBM Tivoli Netcool Customer Experience Manager Module for GPRS Service Installation Guide*

Provides the steps required to install the Tivoli Netcool Customer Experience Manager Module for GPRS Service and its data sources.

### Related publications

The following document also provides useful information:

- *IBM Tivoli Netcool Customer Experience Manager Module for GPRS Service Interface Control Guide*

Provides details of the Tivoli Netcool Customer Experience Manager Module for GPRS Service input interface.

### 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>

### 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 this and all other 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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## Ordering publications

You can order many Tivoli publications online at <http://www.elink.ibm.link.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.link.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:

### 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>.

### 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

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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.

### 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.

### 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 people names for the data attached. The data associated with these names is selected at random by the development team as sample data. It does not represent any real world view of any product.

Tivoli Netcool Customer Experience Manager Module for GPRS Service is a pre-packaged solution that can be installed on the Tivoli Netcool Service Quality Manager product.

The Tivoli Netcool Customer Experience Manager Module for GPRS Service can be deployed in a multi-vendor environment efficiently with value delivered immediately. It enables service providers to monitor, analyze, and report on the experience delivered to their end customers.

The Tivoli Netcool Customer Experience Manager Module for GPRS Service has two data sources – `gb_prb` and `gn_prb`. Both sources should be installed even if only one data source is of interest.

### 2.1 Software distribution contents

Filename or guide title	Description
<code>ibm-tn-cem-cem_gprs_gom-1.3.0.5.tar.gz</code>	Installation package for the Tivoli Netcool Customer Experience Manager Module for GPRS Service version 1.3 IF0001 Global Object Model.
<code>ibm-tn-cem-cem_gprs_gb_prb-1.3.0.5.tar.gz</code>	Installation package for the Tivoli Netcool Customer Experience Manager Module for GPRS Service version 1.3 IF0001 Gb probe.
<code>ibm-tn-cem-cem_gprs_gn_prb-1.3.0.5.tar.gz</code>	Installation package for the Tivoli Netcool Customer Experience Manager Module for GPRS Service version 1.3 IF0001 Gn probe.
<i>Tivoli Netcool Customer Experience Manager Module for GPRS Service version 1.3 IF0001 Installation Guide</i>	Details the steps required to install the Tivoli Netcool Customer Experience Manager Module for GPRS Service version 1.3 IF0001.
<i>Tivoli Netcool Customer Experience Manager Module for GPRS Service version 1.3 IF0001 Release Notes</i>	Provides information on the Tivoli Netcool Customer Experience Manager Module for GPRS 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 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 pre-requisite software requirements are:

- Tivoli Netcool Service Quality Manager version 4.1.2
- Global object model (GOM) 1.5 or higher



## 5 Installation

### 5.1 Installation

To install this service module, refer to the *Tivoli Netcool Customer Experience Manager Module for GPRS Service version 1.3 IF0001 Installation Guide*.

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**Note:** The *Tivoli Netcool Customer Experience Manager Module for GPRS Service version 1.3 IF0001 Installation Guide* supersedes the *Tivoli Netcool Customer Experience Manager Module for GPRS Service Installation Guide*. The *Tivoli Netcool Customer Experience Manager Module for GPRS Service Installation Guide* is not to be used when installing this service module.

Please also note that version 1.3 IF0001 cannot be installed if version 1.3 has already been installed. To install version 1.3 IF0001, version 1.3 must first be uninstalled, then the *Tivoli Netcool Customer Experience Manager Module for GPRS Service version 1.3 IF0001 Installation Guide* must be followed.

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The installation procedure requires 2 software distributions of the Tivoli Netcool Customer Experience Manager Module for GPRS Service module :

- Tivoli Netcool Customer Experience Manager for GPRS Service module version 1.3, available to download from Xtreme Leverage
- Tivoli Netcool Customer Experience Manager for GPRS Service module version 1.3 IF0001 (this release)

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**Note:** This service module is dependent on the Tivoli Netcool Service Quality Manager GOM, version 1.5 or higher.

Deploy this software using the instructions in chapter 3 of the *Tivoli Netcool Customer Experience Manager Module for GPRS Service version 1.3 IF0001 Installation Guide* prior to proceeding with the installation of this service module.

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#### 5.1.1 Service module model version

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**Note:** Chapter 4 of the *Tivoli Netcool Customer Experience Manager Module for GPRS Service version 1.3 IF0001 Installation Guide* requires the person installing the software to input the service module name, data source name and model version of the Tivoli Netcool Customer Experience Manager Module for GPRS Service.

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The service module name, data source names, and model version of the Tivoli Netcool Customer Experience Manager Module for GPRS Service are as follows:

- Solution name = `cem_gprs`
- Data source name = `gb_prb`
- Model version = 1.3

and

- Solution name = `cem_gprs`
- Data source name = `gn_prb`
- Model version = 1.3



## 6 Performance issues

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**Note:** In a distributed system, complete the procedures in this section on the gateway server only.

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Depending on the size of the network to be monitored and the volume of data to be processed for a particular deployment, it may be necessary to increase the amount of memory available to the `cem_gprs_gb_prb_loader` and `cem_gprs_gn_prb_loader` adapters. When insufficient memory is available to the adapter, it will eventually fail and the following text will appear in the adapter process trace file:

```
java.lang.OutOfMemoryError
```

If either adapter fails and insufficient memory allocation is suspected, you can confirm this by executing the following as `saserver`:

```
$ grep OutOfMemory $WMCROOT/logs/<adapter>/*
```

[Where `<adapter>` is `cem_gprs_gb_prb_loader` or `cem_gprs_gn_prb_loader`].

If insufficient memory is allocated, it is necessary to increase the maximum memory allocation available to the affected adapter(s) as `saserver`:

1. Edit the environment file for the affected adapter(s):

```
$WMCROOT/bin/<adapter>.env
```

Increase the value of the property.

```
maximum_mem_size
```

2. Restart the adapter(s):

```
$ sap stop <adapter>  
$ sap start <adapter>
```



## 7 Known issues

There are no known issues.



## 8 Fixed issues

There are no fixed issues.



## 9 Documentation addenda

There are no documentation addenda.



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## Appendix A: Product acronyms

**Table 2: Description of product acronyms**

<b>Acronym</b>	<b>Description</b>
AIX	Advanced Interactive Executive
CEM	Customer Experience Management
Gb	Interface between SGSN and PCU
GOM	Global Object Model
GPRS	General Packet Radio Service
GPS	Global Positioning System
Gn	Interface between GPRS support nodes
GUI	Graphical User Interface
IF	Interim Fix
IP	Internet Protocol
IT	Information Technology
KQI	Key Quality Indicator
PCU	Packet Control Unit
POD	Plain Old Documentation
PRB	Probe
SGSN	Serving GPRS Support Node
SLA	Service-Level Agreement
SQL	Structured Query Language
XML	Extensible Markup Language





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