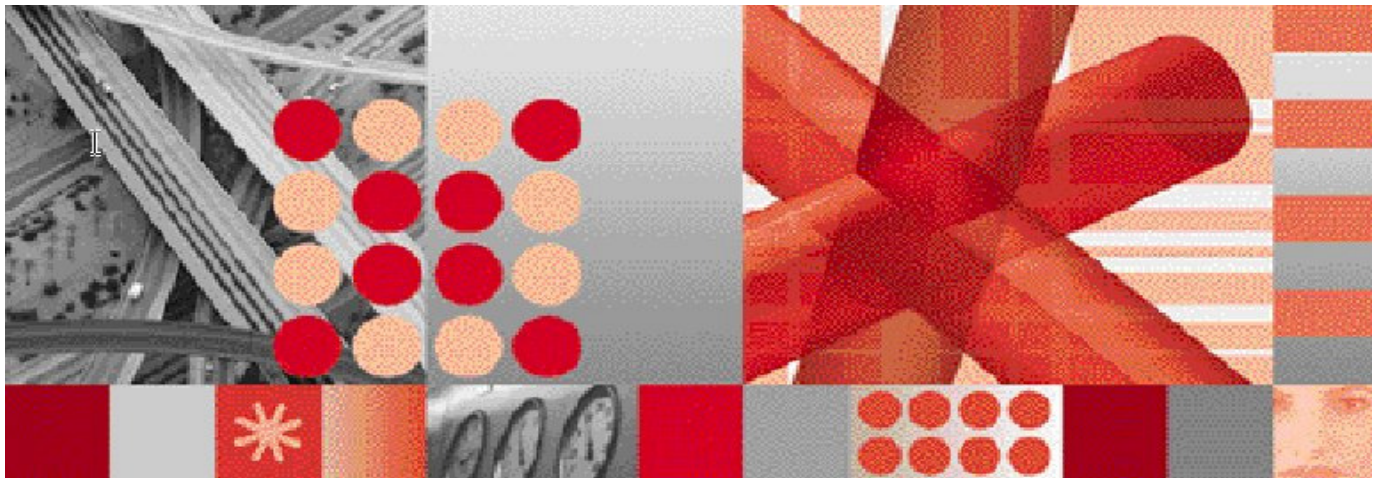




Version 3.5.0



Nortel BSS Gateway Distribution Note

**TIVOLI® NETCOOL® PERFORMANCE MANAGER FOR WIRELESS
NORTEL BSS GATEWAY DISTRIBUTION NOTE**

Note: Before using this information and the product it supports, read the information in Notices on page 11.

This edition applies to Version 4.1 of IBM® Tivoli® Netcool® Performance Manager for Wireless and to all subsequent releases and modifications until otherwise indicated in new editions.

© Copyright International Business Machines Corporation, 2009. All rights reserved.

US Government Users Restricted Rights - Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Table of Contents

1	About this Documentation	1
1.1	Audience	1
1.2	Required Skills and Knowledge	1
2	Associated Documents	2
2.1	Referenced Documents	2
2.2	Other Related Documents.....	2
3	Introduction	3
3.1	Operating System Support.....	3
3.2	Gateway Framework	3
4	Release History	4
4.1	Release 3.5.0	4
4.2	Release 3.4.0.1	4
4.3	Release 3.4.0	4
4.4	Release 3.3.1	4
4.5	Release 3.3.0	5
4.6	Release 3.0.0	5
4.7	Release 2.4.0	6
4.8	Release 2.1.2	6
4.9	Release 2.1.1	7
4.10	Release 2.1.0	7
5	Type(s) and release(s) supported	8
5.1	Raw input files	8
5.2	Hierarchy input files.....	9
Appendix A	Notices and Trademarks.....	11

1 About this Documentation

1.1 Audience

The target audience of this document is IBM Performance Manager for Wireless customers. They should be familiar with telecommunication and IT principles and should also have a good understanding of Solaris.

IMPORTANT: Before attempting an installation of Performance Manager for Wireless you are strongly advised to read the release notes and any readme files distributed with your Performance Manager for Wireless software. Readme files and release notes may contain information specific to your installation not contained in this guide. Failure to consult readme files and release notes may result in a corrupt, incomplete or failed installation.

Note: Performance Manager for Wireless Administrators should not, without prior consultation and agreement from IBM, make any changes to the Index Organized tables or database schema. Changes to the Index Organized tables or database schema may result in corruption of data and failure of the Performance Manager for Wireless System. This applies to all releases of Performance Manager for Wireless using all versions of interfaces.

1.2 Required Skills and Knowledge

This guide assumes you are familiar with the following:

- General IT Principles
- Sun Solaris Operating System
- Oracle Database
- Windows operating systems
- Graphical User Interfaces
- Network Operator's OSS and BSS systems architecture

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

2 Associated Documents

The following documentation accompanies this release:

2.1 Referenced Documents

Document Name	Document Description
[Install Note]	This document describes the steps required to install and run a Gateway.
[Gateway Framework Distribution Note]	This document provides an overview of the release history of the Gateway Framework.

2.2 Other Related Documents

Document Name	Document Description
N/A	N/A

3 Introduction

You should read this Distribution Note before proceeding to install the Gateway Configuration.

For information on the Gateway Framework, its configuration and use refer to the [Gateway Framework User Guide].

The Gateway Framework and Vendor Gateway are supplied as separate packages. As part of the Vendor Gateway installation process, it must reference a Gateway Framework installation. This separation simplifies the maintenance and version control of multiple vendor Gateway installations on a single server.

This Distribution Note provides an overview of the release history of the Gateway Configuration.

3.1 Operating System Support

The Vendor Gateway is built using the generic Gateway Framework. The Vendor Gateway is currently supported on the platforms as in the Gateway Framework Distribution Note.

3.2 Gateway Framework

The Vendor Gateway requires the Gateway Framework release 3.5 and above.

See [Gateway Framework Distribution Note].

The Gateway Framework and Vendor Gateway release and installation have been decoupled into separate packages and procedures.

See [Install Note].

4 Release History

4.1 Release 3.5.0

Release date 22 September 2008.

Listed below are the enhancements to this release.

#	Description
1	Support Gateway Framework 3.5.0

4.2 Release 3.4.0.1

Release date 3 April 2008.

The defects fixed as part of this release are summarised in the table below.

Bug #	Description	Solution
59056	HEADER_INFO_TO_KEY_PIF_FILENAME option in Nortel BSS parser	Added HEADER_INFO_TO_KEY_PIF_FILENAME option in NORBSS_data rule type
58737	HEADER_DATA_RECORD_PROCESSING in NORBSS_config.pm and NORBSS_data.pm parser modules	Apply workaround listed in the description

4.3 Release 3.4.0

Release date 28 January 2008.

Listed below are the enhancements to this release.

#	Description
1	Support Gateway Framework 3.4.0

4.4 Release 3.3.1

Release date 1 November 2007.

The table below lists the enhancements in this release:

#	Description
---	-------------

1	Include modules directory for Vendor Gateways
---	---

Note:

The `VENDOR_GATEWAY` environment variable must be set to include the modules directory in the path before running Gateway, e.g.:

```
VENDOR_GATEWAY=${GATEWAY_ROOT}/modules/nortel-bss
```

4.5 Release 3.3.0

Release date 23 July 2007.

The defects fixed as part of this release are summarised in the table below.

Bug #	Description	Solution
51495	Renaming header counter from DATE & TIME to START_DATE & START_TIME respectively	Apply workaround listed in the description

The enhancements in this release are summarised in the table below.

#	Description
1	Included v16 Tech Pack support configuration.
2	Included of ADD_RECORDS, JOIN_15 and AGGREGATE rules
3	Included PreParserConfig.pm to configure pre-parser processing of raw files
4	Included 'INPUT_DATE_FORMAT' option for handling of different input date formats
5	Blue wash exercise

4.6 Release 3.0.0

Release date 27th June 2006.

The defects fixed as part of this release are summarised in the table below.

Bug #	Description	Solution
39851	Incorrect handling of empty values in raw data.	Add an empty string at the end of the array to simulate non-empty value. Then remove the empty string after parsing.
44200	Lack of up-to-date documentation from previous version to current version	Updated README files within the package, and produced Nortel BSS User Guide.
44201	Confusion between NEW_COUNTER_NAME=>'DEF TCH' and NEW_COUNTER_NAME=>'DEF CCH'	Corrected accordingly.

**TIVOLI® NETCOOL® PERFORMANCE MANAGER FOR WIRELESS
NORTEL BSS GATEWAY DISTRIBUTION NOTE**

44202	Problems with counters pchfailures and pagings	Output all pchfailures and pagings counters into PIF for Post Parsing.
-------	--	--

The enhancements in this release are summarised in the table below.

#	Description
1,2	Migrate to Gateway Framework 3.0 compatibility
3	Support parsing of v13, v14.3, v15 Nortel BSS raw and configuration data.
5	Included configuration for coding line within Engine configuration.
6	Updated Statistics Configuration.
7	Included v15 Tech Pack support configuration.
9	Provided Nortel BSS Gateway User Guide

4.7 Release 2.4.0

Release date 9 February 2004.

No bugs were identified for inclusion in this release.

The enhancements in this release are summarised in the table below.

#	Description
22730	NORBSS_config: This engine rule now supports extraction of PIF name elements both from the filename and the directory name of the raw configuration file.
1, 2	Support parsing of v14.3 Nortel BSS raw and configuration data.
3	Migrate internal configuration within NORBSS_data.pm out to the NORBSS_data rule configuration in the EngineConfig.pm.

Further details on these requirements can be found in [Nortel BSS 2.4.0 Requirements Specification].

4.8 Release 2.1.2

Release date 18 October 2002.

The defects fixed as part of this release are summarised in the table below.

Bug #	Description	Solution
26913	Channel information is not being correctly inserted in the PIF file from the secondary channel data PIF.	A new rule, INFOINSERT_TCHANNEL has been added. It derives the channel counter information from the secondary PIF for insertion into the primary data PIF. A sample of the configuration and a description are supplied in the docs directory
28466	The PCU PIF data must be aggregated and joined at a BSC	A new rule, ADD_NEWTIME has been added. This rule takes a header counter, in

	level. A new counter must also be added to the header and data blocks of the PIF, containing a rounded time value.	this case TIME, and derives the rounded time value from it. This new value is inserted in every row in the new PIF. Example configuration for the full PCU join is also supplied.
28437	LAPD and PROC counter data must be extracted from BSC PIF files into separate blocks for loading into the LIF.	A new rule, COUNTER_EXTRACT has been added. This rule can extract key and counter information from a counter name, and use this information to create a PIF. For example counter CUM_1084_004_12 consists of the counter name CUM_1084_004, with the last 2 digits representing the key, LAPD. A description and sample of this rule configuration is contained in the docs directory of the installation.

4.9 Release 2.1.1

Release date 28 January 2002. The release had the following updates

Bug #	Description	Solution
N/A	Support for Nortel BSS v13 data.	N/A
N/A	Included GPRS configurations for TRZ, TMA, FRM, PBK, LPR, CCH.	N/A
N/A	Sample v13 files included in kit.	N/A
N/A	Sample SDO GPRS loadmap.	N/A

4.10 Release 2.1.0

Release date 6 April 2000. First version of the Nortel BSS Gateway using the Gateway Framework.

5 Type(s) and release(s) supported

The Gateway has been fully tested for:

Vendor Performance data	Type	Release
Nortel	BSS	V12, v13, v14.3, v15, v16

5.1 Raw input files

Scope	Attended Format/Syntax
Performance Measurement File Types	The input file format expected is configured as part of the NORBSS_config.pm rule. This can be many different formats depending on whether the data is factorized or not, the classname of the data and whether the data format is extended, compact fixed or compact variable.
Input file names to expect	<p>Configuration/Format Files</p> <p>There are 3 subtypes of files expected. For configuration as described above there is the configuration file: <SDONAME>.<network>.<configParameter>.CNF.<date>_<HHMM> e.g. sdo1.001.CHANNEL.CNF.20000224_1106</p> <p>and the associated format file <SDONAME>.<network>.<configParameter>.format.<date>_<HHMM> e.g. sdo1.001.CHANNEL.format.20000224_1106</p> <p>Raw data files: The raw data can be either in a raw or sum format. The data filenames are: <SDONAME>.<raw sum>.<Network>.<cl</p>

	<p>assname>.<GPO OFS>.<period measured>.<date></p> <p>An example of such a name is: SDO1.RAW.001.003.BSC.OFS.P00001200.20000331</p>
V16 input file names to expect for raw data files	<p>The raw data can be either in a raw or sum format. The expected data filenames are: <SDO>.<FileType>_<objClass>.<FileID>.<FileDate>.<FileTime> <SDO>.<FileType>_<objClass>.<FileID>.<FileDate>.<FileTime>.Z</p> <p>Examples of such a name is: SDO1.OFS_BSC.001.03072007.0000 SDO1.OFS_BSC.001.03072007.0000.Z</p> <p>The raw data files must be placed in the following input directory structure according to the format type: \$INPUT_DIR/<raw sum></p>

5.2 Hierarchy input files

Scope	Attended Format/Syntax
Input hierarchy file names to expect	<p>This Gateway requires two types of configuration files for the processing of the Nortel BSS data. These files are: CNF files which contain rows of hierarchy data for the Nortel BSS, which is processed as part of the NORBSS_config.pm rule format files which contain information on the format of the files above. The format file is required to be able to parse and process the CNF file.</p> <p>For example sdo1.001.CHANNEL.CNF.20000224_1106 would contain raw channel information with no column information and sdo1.001.CHANNEL.format.20000224_1106 contains the associated formatting information needed to interpret the data in this file.</p> <p>See samples of both of these files in docs/EXAMPLES/input_dir/config.</p>
V16 input hierarchy file names to expect	<p>The V16 tech pack support for this Gateway requires two types of configuration files for the processing of the Nortel BSS data. These files are:</p>

TIVOLI® NETCOOL® PERFORMANCE MANAGER FOR WIRELESS
NORTEL BSS GATEWAY DISTRIBUTION NOTE

	<p>CNF files which contain rows of hierarchy data for the Nortel BSS, which is processed as part of the NORBSS_config.pm rule \$INPUT_DIR/<SDO>.<objClass>.CNF.<FileDate> \$INPUT_DIR/<SDO>.<objClass>.CNF.<FileDate>.Z</p> <p>format files which contain information on the format of the files above. The format file is required to be able to parse and process the CNF file. format_<configParameter>.YYYYMMDD_HHMN</p> <p>For example sdo1.CHANNEL.CNF.03072007 (or sdo1.CHANNEL.CNF.03072007.Z) would contain raw channel information with no column information and format_CHANNEL.03072007_0000 contains the associated formatting information needed to interpret the data in this file.</p> <p>The CNF and associated format files must be placed in the same directory (e.g. \$INPUT_DIR).</p>
Input hierarchy file names to expect	<p>This Gateway requires two types of configuration files for the processing of the Nortel BSS data. These files are: CNF files which contain rows of hierarchy data for the Nortel BSS, which is processed as part of the NORBSS_config.pm rule format files which contain information on the format of the files above. The format file is required to be able to parse and process the CNF file.</p> <p>For example sdo1.001.CHANNEL.CNF.20000224_1106 would contain raw channel information with no column information and sdo1.001.CHANNEL.format.20000224_1106 contains the associated formatting information needed to interpret the data in this file.</p> <p>See samples of both of these files in docs/EXAMPLES/input_dir/config.</p>

Appendix A Notices and Trademarks

This appendix contains the following:

- Notices
- Trademarks

Notices

This information was developed for products and services offered in the U.S.A.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk NY 10504-1785
U.S.A.

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

IBM World Trade Asia Corporation
Licensing
2-31 Roppongi 3-chome
Minato-ku
Tokyo 106-0032
Japan.

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some

states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation
5300 Cork Airport Business Park
Kinsale Road
Cork
Ireland.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

Trademarks

IBM, IBM logo, Tivoli, and Netcool are trademarks of International Business Machines Corporation in the United States, other countries or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Intel and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

Other company, product or service names may be trademarks or service marks of others.

IBM

© Copyright IBM Corporation 2009

International Business Machines Corporation
5300 Cork Airport
Business Park
Kinsale Road
Cork
Ireland

Printed in the Republic of Ireland
All Rights Reserved
IBM, IBM logo, Tivoli, and Netcool are trademarks
of International Business Machines Corporation in
the United States, other countries or both.

Other company, product and service names may
be trademarks or service marks of others.