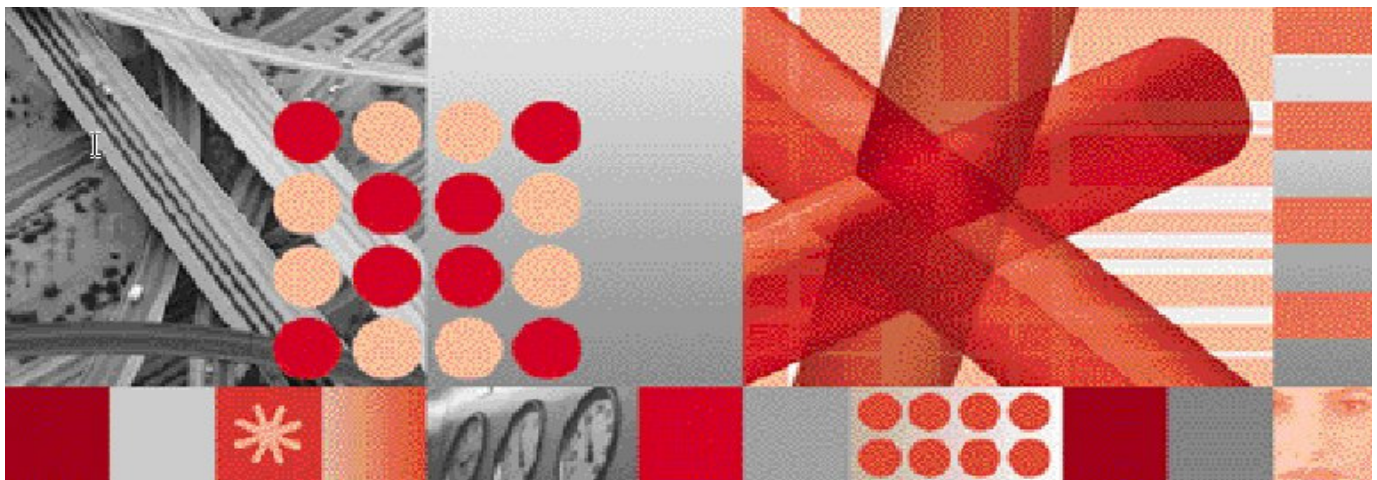




Version 3.4.1



Nokia XML Gateway Distribution Note

**TIVOLI® NETCOOL® PERFORMANCE MANAGER FOR WIRELESS
NOKIA XML GATEWAY DISTRIBUTION NOTE**

Note: Before using this information and the product it supports, read the information in
Notices on page 10.

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 | Perl Version..... | 3 |
| 3.3 | Gateway Framework | 3 |
| 4 | Release History | 4 |
| 4.1 | Release 3.4.1 | 4 |
| 4.2 | Release 3.4.0 | 4 |
| 4.3 | Release 3.3.1 | 4 |
| 4.4 | Release 3.3.0 | 4 |
| 4.5 | Release 3.0.0 | 5 |
| 4.6 | Release 2.4.1 | 5 |
| 4.7 | Release 2.4.0 | 6 |
| 4.8 | Release 2.2.0 | 6 |
| 4.9 | Release 2.1.1 | 6 |
| 5 | Type(s) and release(s) supported | 7 |
| 5.1 | Raw input files | 7 |
| 5.2 | Hierarchy input files..... | 7 |
| 6 | Configurations | 9 |
| 6.1 | Transfer Engine configuration..... | 9 |
| 6.2 | Parser Engine configuration..... | 9 |
| 6.3 | Post Parser user configuration..... | 9 |
| Appendix A | Notices and Trademarks..... | 10 |

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 common modules. |

2.2 Other Related Documents

| Document Name | Document Description |
|--------------------------------|---|
| [Nokia XML Gateway User Guide] | This document describes the vendor specific information on the Nokia Gateway. |

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 Perl Version

The Vendor Gateway requires Perl version 5.6.1.

3.3 Gateway Framework

The Vendor Gateway requires the Gateway Framework release 3.4 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 3.4.1

Release date 27 May 2009.

The table below lists the enhancements in this release:

| # | Description |
|---|--|
| 1 | Updated, corrected Configuration and Configuration Handler modules |

4.2 Release 3.4.0

Release date 29 January 2008.

The table below lists the enhancements in this release:

| # | Description |
|---|-------------------------------------|
| 1 | Support for Gateway Framework 3.4.0 |

4.3 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 |
| 2 | Enhancements for HEADER_DATA_RECORD_PROCESSING to allow changes to block names within EngineConfig |

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/nokia-xml
```

4.4 Release 3.3.0

Release date 17 July 2007.

The following enhancements are included in this release:

| # | Description |
|---|-------------|
| 1 | Bluewash |

The following bugs are included in this release:

| Bug# | Description |
|-------|---|
| 58221 | Issues in Behaviour of Parser - Nokia XML (UMTS_NOKIA_UTRAN_RAS05.1_1.0.38 - Build2) |
| 58115 | Redundant LIF in UserConfig.pm |
| 58071 | Parsing Failed : Nokia UTRAN RAS5.1 - ERROR : Some required CPAN modules were not found |
| 57862 | Non - Additive counters repeated in UserConfig.pm |
| 55815 | XML_OUTPUT_BLOCK_DESCRIPTION should apply to final output block |
| 55777 | Not enough details in the Parser documentation |
| 55776 | Parser hang when handling a large number of files |
| 55638 | PIF output fails when too many output files |
| 55518 | UTRAN parser - PIF_Handler error |
| 54863 | Useful logging |
| 54793 | Nokia XML parser did not produce the data require by the loader(Nokia UTRAN TP) |
| 47677 | DN attribute not available in the header |
| 47676 | No ordering mechanism for XML_HEADER_INFO_FOR_PIF_FILENAME counters |
| 47674 | Nokia XML GGSN parser doesn't support OMeS2 format |
| 37726 | Parser does not accept compressed input files |

4.5 Release 3.0.0

Release date 6 March 2006.

The following enhancements are included in this release:

| # | Description |
|---|--|
| 1 | Use of XML::Parser and Expat parsing technology |
| 2 | Compatible with Gateway Framework 3.0 and above |
| 3 | Support for Nokia OMeS 1.0 and 2.0 XML data format |
| 4 | Enhanced configuration with coding functionality for customised header and data records processing |
| 5 | Streamlined with 3GPP XML Gateway configuration entries |
| 6 | Linux support |

4.6 Release 2.4.1

Release date 5 January 2004.

The following enhancements are included in this release:

| # | Description |
|---|---|
| 1 | Support for Nokia XML network configuration data parsing. |

4.7 Release 2.4.0

Release date 14 November 2003.

The following bugs are fixed in this release:

| Bug # | Description |
|-------|---|
| 35735 | Nokia XML does not handle character data correctly |
| 35769 | Nokia XML parser can produce identical LIFs for SGSN and GGSN stats. |
| 35773 | NOKIA XML PARSER NEEDS TO SPLIT OBJECT NAMES |
| 35783 | The DN field must be cut into ID and NAME in our default configuration. |
| 35786 | Remove any element name and release information from the block name. |
| 35801 | Nokia XML Parser does not mark corrupt data with “.bad” extension |

4.8 Release 2.2.0

Release Date 18 March 2003

Ported to Xerces XML framework and version 2.2 of the Gateway framework.

4.9 Release 2.1.1

Release Date 12 January 2002

Initial release supporting Nokia UTRAN XML files and Inventory management XML files.

5 Type(s) and release(s) supported

| Vendor Performance data | Release | Element Sender Test |
|----------------------------|---------------|---------------------|
| Nokia NetAct | 1.0, 1.1, 1.2 | UTRAN |

The format supported by the gateway is the xml that complies with XML specification from Nokia.

5.1 Raw input files

| Scope | Attended Format/Syntax |
|----------------------------------|---|
| Input files names to expect | data_exp_YYYYMMDDHHMMSSaa.xml File format: <prefix>.<mediator>.<target>.<yyyymmdd>.<hhmmss>.<number>.<type> where <prefix> Constant string "PM" 2 <mediator> Hostname of the mediator 1-20 <target> Target name 1-20 <yyyymmdd> Date of the measurements 8 SPECIFICATION 19 (24) NET/CO/PS/OSS/EMS 06/08/01 1.0 <hhmmss> Stopping time of the interval 6 <number> If two files would get same name. Optional. 0-3 <type> Type of file like "xml" 0-3 |
| Input file formats to expect | XML |
| Equipment/devices to expect data | 3G Network elements |

5.2 Hierarchy input files

| Scope | Attended Format/Syntax |
|------------------------------|------------------------|
| Input files names to expect | N/A |
| Input file formats to expect | N/A |

TIVOLI® NETCOOL® PERFORMANCE MANAGER FOR WIRELESS
NOKIA XML GATEWAY DISTRIBUTION NOTE

| | |
|----------------------------------|-----|
| Equipment/devices to expect data | N/A |
| Extraction mechanism | N/A |
| Transfer mechanism | N/A |

6 Configurations

6.1 Transfer Engine configuration

<Details the transfer configuration required to collect data>

6.2 Parser Engine configuration

<Details the configuration for various measurement types>

6.3 Post Parser user configuration

<Details any post parser process, i.e. unpegging, aggregation, info insert, and block join>

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.