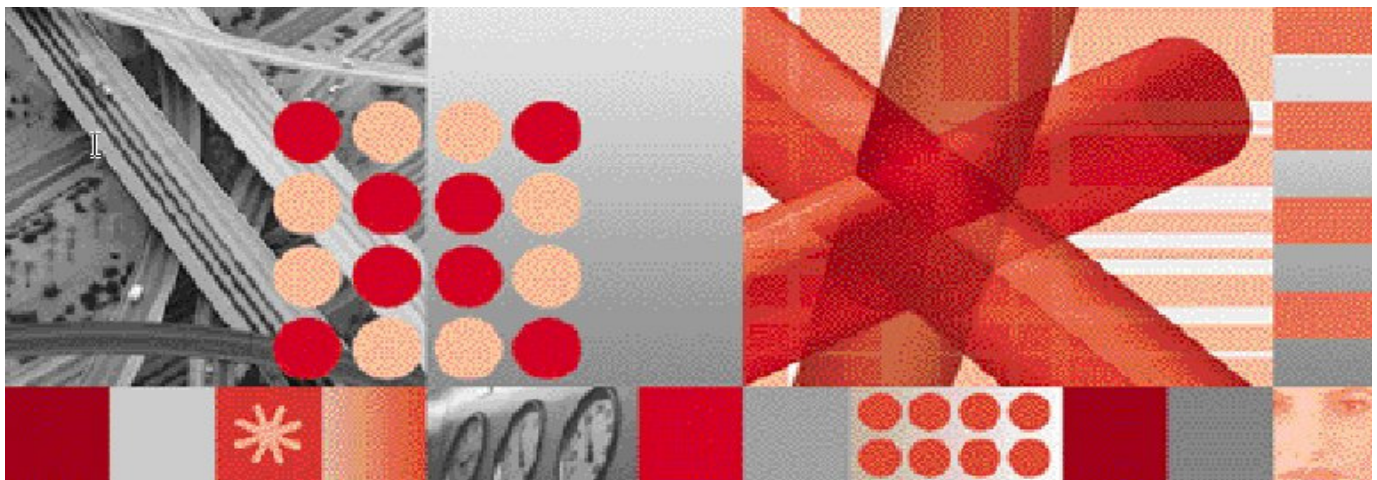




Version 3.5.0.1



## Huawei UTRAN V900R011 Gateway Configuration Distribution Note

**TIVOLI® NETCOOL® PERFORMANCE MANAGER FOR WIRELESS  
HUAWEI UTRAN V900R011 GATEWAY CONFIGURATION DISTRIBUTION NOTE**

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**Note:** Before using this information and the product it supports, read the information in  
Notices on page 15.

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

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# 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.

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**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.

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**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.

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## 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
[Gateways Install Note]	This document describes the steps required to install and run a Gateway.

### 2.2 Other Related Documents

Document Name	Document Description
[Gateway Framework User Guide]	Gateway Framework User Guide describing the management and configuration of the Gateway Framework.
[Generic CSV User Guide]	Generic CSV User Guide describing the management and configuration of the Vendor Gateway.
[3GPP XML User Guide]	3gpp XML User Guide describing the management and configuration of the Vendor 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 Vendor Gateway Version

This Gateway Configuration requires the following Vendor Gateway:

- Generic CSV 3.5.0.2 and above
- 3GPP XML 3.5.1.1 and above

## 4 Release History

### 4.1 Release 3.5.0.1

Release date 4 March 2010.

Listed below are the enhancements to this release.

#	Description
1	Add new object and object ID



## 5 Data type and releases supported

Gateway Configuration Release Directory	Vendor Performance data	Supported Vendor Version
v900r011	Huawei UTRAN CSV & XML	r11, r10, r9, r8
r11	Huawei UTRAN CSV & XML	r11, r10, r9, r8
r10	Huawei UTRAN CSV & XML	r10, r9, r8
r8	Huawei UTRAN CSV	r8

### 5.1 Raw input files

Scope	Attended Format/Syntax
Input files names to expect	<p><b>CSV Format:</b> pmresult_&lt;block&gt;_&lt;start-timestamp&gt;_&lt;duration&gt;_&lt;end-timestamp&gt;.csv</p> <p>Where     &lt;block&gt; is the blockname     &lt;start-timestamp&gt; is the collection period start time in the form</p> <p>Example: pmresult_67109509_30_200704302300_200705010000.csv</p> <p><b>XML Format:</b> &lt;Type&gt;&lt;Startdate&gt;.&lt;Starttime&gt;-&lt;Endtime&gt;_[&lt;UniqueId&gt;].xml</p> <p>Example: A20080530.1100+0800-1200+0800_RNC_233.xml</p> <p>Or pmresult_&lt;FunctionSubsetID&gt;_&lt;GP&gt;_&lt;Start date/time&gt;_&lt;End</p>

[illegible]

	<pre> omc/cmNrm.doc#measCollec" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://latest/nmc- omc/cmNrm.doc#measCollec schema\pmResultSchedule.xsd"&gt;   &lt;fileHeader fileFormatVersion="32.435 V7.2" vendorName="Huawei"&gt;     &lt;fileSender elementType="RNC"/&gt;     &lt;measCollec beginTime="2008-05-30T11:00:00+08:00"/&gt;   &lt;/fileHeader&gt;   &lt;measData&gt;     &lt;managedElement userLabel="RNC_233"/&gt;     &lt;measInfo measInfoId="67109365"&gt;       &lt;granPeriod duration="PT3600S" endTime="2008-05- 30T12:00:00+08:00"/&gt;       &lt;repPeriod duration="PT3600S"/&gt;       &lt;measTypes&gt;67179298 67179299 67179302 67179303 67179304 67179305 67179306 67179307 67179329 67179330 67179331 67179332 67179333 67179334 67179335 67179336 67179337 67179338 67179339 67179340 67179341 67179342 67179343 67179344 67179345 67179346 67179347 67179348 67179457 67179458 67179459 67179460 67179461 67179462 67179463 67179464 67179465 67179466 67179467 67179468 67179469 67179470 67179471 67179472 67179473 67179474 67179475 67179476 67179633 67179634 67179649 67179650 67189400 67189401 67190586 67190587 67190588 67190589 67192607 67199510 67199511 67199660 67199661 67199662 &lt;/measTypes&gt;       &lt;measValue measObjLdn="RNC_233/Cell:Label=jmj1, CellID=65534"&gt;         &lt;measResults&gt;0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 NIL NIL 0 0 0 &lt;/measResults&gt; </pre>
Equipment/devices to expect data	N/A
Extraction mechanism	N/A
Transfer mechanism	N/A

## 5.2 Hierarchy input files

Scope	Attended Format/Syntax
Input files names to expect	Huawei_UTRAN_NodeB_Relationship.csv
Input file formats to expect	Standard 4 column CSV file Column 1 = Cell_Id

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	<p>Column 2 = Cell_Name  Column 3 = NodeB_Id  Column 4 = BS_Id</p> <p>Example:  Cell_Id,Cell_Name,NodeB_Id,BS_Id  CellID=0,CellName=CELL_0_ON_BTS3900,NodeB_Id=BTS3900,BS_Id=101  CellID=1,CellName=CELL_1_ON_BTS3900,NodeB_Id=BTS3900,BS_Id=101  CellID=4,CellName=CELL4 ,NodeB_Id=BTS3900,BS_Id=101</p> <p>Or Standard 2 column CSV file  Column 1 = Cell_Id  Column 2 = NodeB Id</p> <p>Example :  Cell_Id,NodeB_Id,  CellID=20302,NodeB_Id=N1234,  CellID=20303,NodeB_Id=N1234,</p>
Equipment/devices to expect data	N/A
Extraction mechanism	N/A
Transfer mechanism	N/A

Scope	Attended Format/Syntax
Input files names to expect	Huawei_UTRAN_Network_Region.csv
Input file formats to expect	<p>Standard 3 column CSV file  Column 1 = Network_ID  Column 2 = Region_ID  Column 3 = RNC_ID</p> <p>Example:  <b>Network_ID,Region_ID,RNC_ID</b>  Network_1,Region_1,RNC_1</p>
Equipment/devices to expect data	Populated by customer. This is an option hierarchy file. Refer to Section below on Network and Region Id . Sample available in \$GATEWAY_ROOT/config/huawei-utran/sample
Extraction mechanism	N/A
Transfer mechanism	N/A

## 6 Configurations

### 6.1 Transfer Engine configuration

N/A

### 6.2 Parser Engine configuration

Pre-parsing of raw files performed using PreParserConfig.pm:

- Clean up raw files to conform with expected input format

This configuration uses the Generic CSV vendor gateway with the following additional processing performed via HEADER\_DATA\_RECORD\_PROCESSING:

- Set START\_DATE and START\_TIME
- Perform counter renaming
- Process object name transformation (refer to OBJ\_ID\_XFORM.pm)

### 6.3 Post Parser user configuration

Source Block	Result Blocks	Post Parsing
B67109549	B67109549	FILE_SPLIT – Split into separate pif according to Proc_Type  PIF_REMOVE – Remove initial pif
All initial pif	Same as input block name	FILE_SPLIT – Split different time into separate pif where the PIF with file format name like 6710* and 5033*.  PIF_REMOVE – Remove initial pif
B67109394	B67109394	FILE_SPLIT - To split data into different block.  PIF_REMOVE – Remove initial pif
B50331653 B67109365 B67109366 B67109367 B67109368	B50331653 B67109365 B67109366 B67109367 B67109368	INFOINSERT – insert NodeB information into cell files  PIF_REMOVE – Remove II input files

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B67109369 B67109370 B67109371 B67109372 B67109373 B67109374 B67109375 B67109376 B67109377 B67109378 B67109379 B67109380 B67109381 B67109382 B67109383 B67109384 B67109385 B67109386 B67109387 B67109388 B67109389 B67109390 B67109391 B67109392 B67109413 B67109471 B67109505 B67109508 B67109509 B67109510 B67109545 B67109549	B67109369 B67109370 B67109371 B67109372 B67109373 B67109374 B67109375 B67109376 B67109377 B67109378 B67109379 B67109380 B67109381 B67109382 B67109383 B67109384 B67109385 B67109386 B67109387 B67109388 B67109389 B67109390 B67109391 B67109392 B67109393 B67109413 B67109471 B67109474 B67109505 B67109508 B67109509 B67109510 B67109523 B67109545 B67109549	
B50331648 B50331649 B50331650 B50331651 B50331652	Same as input block name	<p>INFOINSERT – Insert RNC_ID into NodeB file</p> <p>PERLIZE – Insert default value if RNC_ID is not inserted.</p> <p>PIF_REMOVE – Remove input files for INFOINSERT and PERLIZE rule</p>
B67109471 B67109391	B67109471_GRP B67109391_GRP	ACCUMULATE – Aggregate across Cells to NodeB level

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B67109390 B67109387	B67109390_GRP B67109387_GRP	
B67109471 B67109390	B67109471_RNC_GRP B67109390_RNC_GRP	ACCUMULATE – Aggregate across Cells to RNC level
B67109471_GRP B67109471_RNC_GRP B67109391_GRP B67109390_GRP B67109390_RNC_GRP	Same as input block name	INFOINSERT – Insert Network and Region Id
B67109387 B67109390	B67109387_GRP	JOIN – Joining for Cell_Traffic_busy_hour at NodeB level  PIF_REMOVE – Remove input pif files for ACCUMULATE and JOIN rule.
B67109429 B67109428	B67109428	JOIN – Joining for 67109428 and 67109429
B67109508 B67109378	B67109508	JOIN – Joining for Cell_ASE_busy_hour
B67109390 B67109387	B67109387	JOIN – Joining for Cell_Traffic_busy_hour
B67109387_GRP B67109428 B67109508 B67109387	Same as input block name	INFOINSERT - Infoinsert Network and Region ID for JOIN PIF  PIF_REMOVE – Remove JOIN input files for INFOINSERT rule
B67109453	Same as input block name	FILE_SPLIT – To split data into different block
B67109453 B67109549	Same as input block name	INFOINSERT - Infoinsert Network and Region ID for File Split
B67109453	B67109453 B67109453_V200 B67109453_V900	PIF_2_OUTPUT – Change blockname  PIF_REMOVE – Remove input file for PIF_2_OUTPUT rule
All PIF	Same as input block name	INFOINSERT – To Insert Network_ID and Region_ID into all PIF with counter RNC_ID as key  PIF_REMOVE – Remove input pif for INFOINSERT rule.
B67109380 B67109378 B67109365 B67109391 B67109376	B67109380 B67109378 B67109365 B67109391 B67109376	FILE_SPLIT – Split files according to RNC (Optional manual activation on a need to basis)

B67109372 B67109508 B67109395	B67109372 B67109508 B67109395	
B67109390 B67109387	B67109387_GRP	JOIN - Joining for Cell_Traffic_busy_hour at NodeB level
B67109390 B67109372 B67109471 B67109376 B67109391 B67109368	UtranCellBlock	JOIN and ACCUMULATE– To join the initial block to become UtranCellBlock . ( is a Vendor Neutral Block )
B67109382 B67109383 B67109384	cellUpdate	JOIN and ACCUMULATE– To join the initial block to become block cellUpdate . ( is a Vendor Neutral Block )
B67109443 B67109444 B67109446 B67109447	rncMobility	JOIN and ACCUMULATE– To join the initial block to become rncMobility . ( is a Vendor Neutral Block )
B67109420 B67109422 B67109426	rncAccessibility	JOIN and ACCUMULATE– To join the initial block to become rncAccessibility . ( is a Vendor Neutral Block )
B67109405 B67109406	IU	JOIN and ACCUMULATE– To join the initial block to become IU . ( is a Vendor Neutral Block )
All pif	Same as input block name	PIF_REMOVE - Remove PIF files for INFOINSERTed PIFs
B67109549 B67109394 B67109395	B67109549 B67109549_V200 B67109549_V900	PIF_2_OUTPUT – Convert to LIF  PIF_REMOVE – Remove the input pif files.
All remaining pif files	Same as input block name	PIF_2_OUTPUT - Output all LIF files

## 6.4 Network ID and Region ID

The Gateway Configuration uses two methods to populate Network\_ID and Region\_ID .

### a) Directory Header Field

The Engine configuration extracts the following information from the directory path where the raw input files are stored.



- NETWORK\_ID - Second last directory in the path
- REGION\_ID - Last directory in the path

Example:

```
spool/input_d/NETWORK_1/REGION_1/  
pmresult_67109554_60_200903051100_200903051200.csv
```

The NETWORK\_ID is 1 and REGION\_ID is 1

#### **b) Huawei\_Utran\_Network\_Region.csv mapping file**

This mapping file is required to be together with the raw data in the following directory structure.

\$GATEWAY\_ROOT/spool/input

Eg

\$GATEWAY\_ROOT/spool/input/pmresult\_67109554\_60\_200903051100\_200903051200.csv

\$GATEWAY\_ROOT/spool/input/Huawei\_UTRAN\_Network\_Region.csv

Sample of Huawei\_Utran\_Network\_Region.csv can be found in

\$GATEWAY\_ROOT/config/huawei-utran/sample.

User can choose not to set this mapping file, just remain the sample structure as given below:

```
Network_ID,Region_ID,RNC_ID  
network_1,region_1,rnc_1
```

The UserConfig.pm will read the pif generated from the mapping file

Huawei\_Utran\_Network\_Region.csv to insert Network\_ID and Region\_ID into all the pifs base on key RNC\_ID.

For the PIF with RNC\_ID = rnc\_1 , the LIFs will produce Network\_ID=network\_1

When using mapping method, all RNC\_ID must be set correctly in

Huawei\_UTRAN\_Network\_Region.csv. When RNC\_ID does not have matching value with RNC\_ID from the performance file, Network and Region Id will not be populated.

## **6.5 Time Normalization**

Not Availailable

## Appendix A      Notices and Trademarks

This appendix contains the following:

- Notices
- Trademarks

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