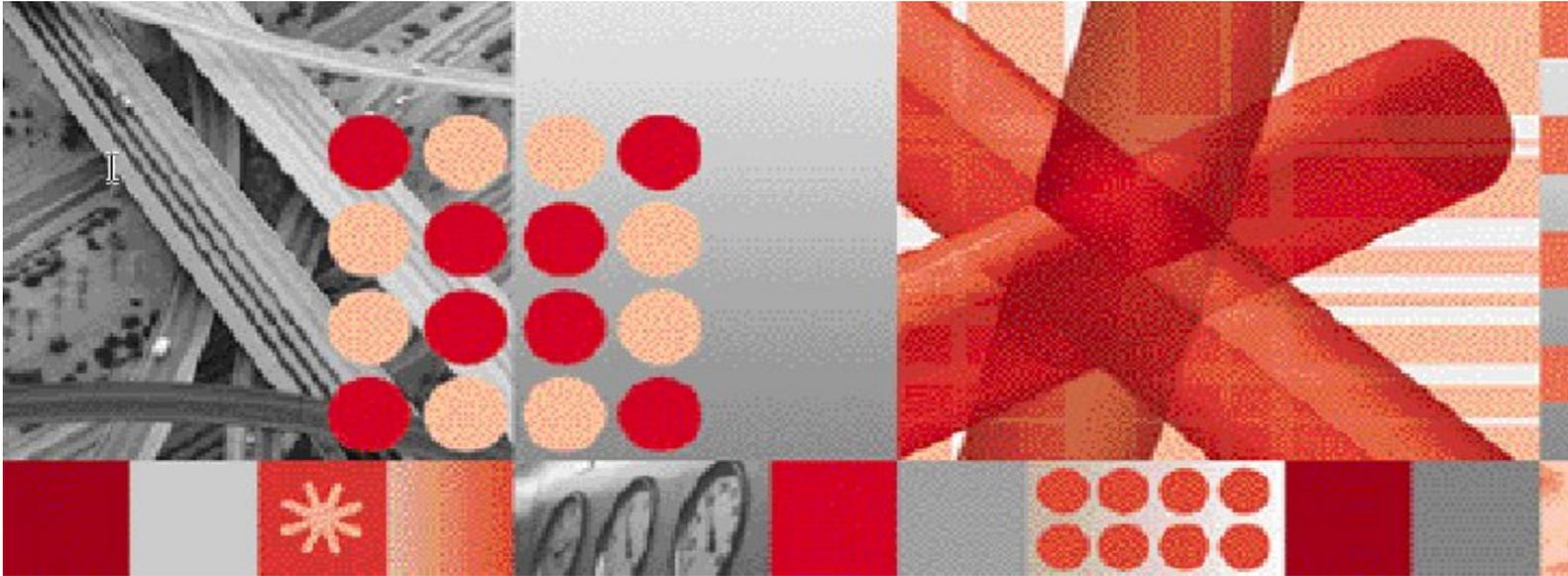


Motorola CDMA/AMPS/EVDO R23/S19/R10 RP5.1

(23.0.5.1-TIV-PROSPECT-MOTCDM-FP0000.tar)



Release Notes

Document Revision Number (v2.0)

Note: Before using this information and the product it supports, read the information in Notices section in this document.

This edition applies to IBM Prospect Motorola CDMA/AMPS/EVDO R23/S19/R10 RP5.1 and to all subsequent releases and modifications until otherwise indicated in new editions.

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1 Table of Contents

1	Table of Contents.....	3
2	About this Documentation.....	5
2.1	Audience	6
2.2	Required Skills and Knowledge	6
2.3	Document Conventions.....	6
2.4	User Publications	8
2.5	Accessing Publications online.....	8
2.6	RP5.1 Release Description.....	8
2.7	RP5.1 Recommended Upgrade Path	9
2.8	Data Acquisition Requirements.....	9
2.9	Prerequisites	10
3	Release Contents	11
3.1	New features	11
3.1.1	EVDO PM Data Handling	12
3.1.2	ExtBSC - Neighbor BSC-DO level new entity.....	12
3.1.3	pmC214 – OMCR PM New Group.....	13
3.1.4	pmC551 – PMServer PM New Group	14
3.1.5	New add_part.sh script.....	14
3.1.6	Usage of new wminstall checks.....	14
3.1.7	Vendor Admin Addendum introduced.....	14
3.1.8	Resolved PMRs/APARs	15
4	Media Content.....	16
5	Software Requirements & Installation.....	16
5.1	Software Requirements.....	16
5.1.1	Supported Platforms	16
5.2	Pre-Upgrade Checks.....	16
5.2.1	Check Prerequisites.....	17
5.2.2	Baseline and Patches Requirements	17
5.2.3	Disk space and Tablespace Requirement.....	17
5.2.4	Third-party software usage - <code>gtar</code>	18
5.2.5	Oracle version.....	18
5.2.6	Perl Version	18
5.3	Installation Privileges Required.....	19
5.3.1	Oracle Sys Account Access.....	19
5.4	Pre-Installation Instructions.....	20
5.4.1	System Backup.....	20
5.4.2	Recommend Export of Prospect documents	20
5.4.3	Prospect Web	20
5.4.4	Split-Server Instructions to be run before upgrade.....	20
5.4.5	Information Check and Pre-Installation Setup	21
5.4.6	Installation Steps	22
5.5	Post-Installation Instructions	24
5.5.1	Resource the updated profile.....	24
5.5.2	Configure Retention Period Settings	25
5.5.3	Enable server access in Prospect Web.....	25
5.5.4	Uninstallation Procedure.....	25
5.6	Release Restrictions	25
5.7	Known Issues	25
5.8	Dependent Known Issues in the core product	26
5.9	Useful Hints.....	26

IBM Prospect Motorola CDMA/AMPS/EVDO R23/S19/R10 RP5.1 Release Notes

5.9.1	Notes about wminstall return codes	26
5.9.2	Procedure to "jumpstart" the Prospect queues.....	27
6	IBM Support	28
6.1	Contacting IBM Support	28
7	Documentation Addendums	29
	Notices.....	30

2 About this Documentation

Table 1 below details the information provided by the *IBM Prospect*® Motorola CDMA/AMPS/EVDO R23/S19/R10 RP5.1 Release Notes.

Table 1 - About this Documentation

<i>Chapter</i>	<i>Description</i>
About this Documentation	An overview of the Prospect® Motorola CDMA/AMPS/EVDO R23/S19/R10 RP5.1 documentation, which gives details of the intended audience and the structure of the guides.
Release Contents	Information on the release content included in the release.
Media Content	Details of media provided for the release.
Hardware Requirements	Details of hardware required for the release.
Software Requirements & Installation Information	Details on the Software required and the guides to be followed during the installation of the product for the release.
Known issues	Details on known issues included in the release and workarounds, if available.

2.1 Audience

The target audience of this guide is system administrators of Prospect or a person who installs / upgrades the Prospect system.

IMPORTANT: Before attempting an installation of Prospect® Motorola CDMA/AMPS/EVDO R23/S19/R10 RP5.1 you are strongly advised to read these release notes. Failure to consult the release notes may result in a corrupt, incomplete or failed installation.

2.2 Required Skills and Knowledge

This guide assumes that you are familiar with the following:

- *Knowledge of Solaris.*
- *General IT and telecommunications principles*
- *Basic knowledge of Oracle database*
- *Ability to run shell and Perl scripts.*
- *Knowledge of Prospect administrator scripts and client / Pweb interface*

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.

2.3 Document Conventions

The following command prompts can be seen throughout this document where the user has to enter commands at the command line:

- # (hash): This prompt will be displayed if the user is logged in as user root.
- \$ (dollar): This prompt will be displayed if the user is logged in as either the server or oracle user.

Please note the above prompts are not part of commands. All commands must be entered after these prompts.

This document uses the typographical conventions shown in the following table:

Table 2: General Document Conventions

Format	Examples	Description
ALL UPPERCAS E	GPS NULL MYWEBSERVER	Acronyms, device names, logical operators, registry keys, and some data structures.
Link	See www.sun.com	For links within a document or to the Internet.

IBM Prospect Motorola CDMA/AMPS/EVDO R23/S19/R10 RP5.1 Release Notes

Bold	Note: The busy hour determiner is...	Heading text for Notes, Tips, and Warnings.
SMALL CAPS	The STORED SQL dialog box... ...click VIEW... In the main GUI window, select the FILE menu, point to NEW, and then select TRAFFIC TEMPLATE.	Any text that appears on the GUI.
<i>Italic</i>	<i>A busy hour is...</i> <i>A web server must be installed...</i> <i>See the User Guide</i>	New terms, emphasis, and book titles.
Monospace	<code>./wminstall</code> <code>\$ cd /cdrom/cdrom0</code> <code>/xml/dict</code> <code>addmsc.sh</code> <code>core.spec</code> Type OK to continue.	Code text, command line text, paths, scripts, and file names. Text written in the body of a paragraph that the user is expected to enter.
Monospace Bold	<code>[root] # pkginfo grep -i perl</code> system Perl5 On-Line Manual Pages system Perl 5.005_03 (POD Documentation) system Perl 5.005_03	For contrast in a code example to show lines the user is expected to enter.
<Monospace italics>	<code># cd <oracle_setup></code>	Used in code examples: command-line variables that you replace with a real name or value. These are always marked with arrow brackets.
[square bracket]	<code>log-archiver.sh [-i][-w][-t]</code>	Used in code examples: indicates options.

2.4 User Publications

The following user publications are provided with the Prospect® Motorola CDMA/AMPS/EVDO R23/S19/R10 RP5.1 software in Adobe® PDF and HTML formats.

Table 3 - Prospect® Motorola CDMA/AMPS/EVDO R23/S19/R10 RP5.1 User Publications

<i>Document</i>	<i>Description</i>
<i>PerfDataRef.pdf</i>	Prospect Performance Data Reference
<i>VendorAdminAddendum.pdf</i>	Prospect Vendor Admin Guide Addendum (new in this release)

2.5 Accessing Publications online

All of the IBM Prospect publications, including Release Notes, are available online from the IBM Information Center website as follows:

http://publib.boulder.ibm.com/infocenter/tivihelp/v8r1/index.jsp?topic=/com.ibm.netcool_pm.doc/IBM_Prospect_060308.htm

2.6 RP5.1 Release Description

This document provides information on the Prospect® 8.0 – Motorola CDMA/AMPS/EVDO R23/S19/R10 RP5.1 upgrade release (23.0.5.1.0).

This release of Motorola CDMA/AMPS/EVDO is a cumulative release which contains the following releases

1. RP4.0 (Support for CDMA R20 and EVDO R7)
2. RP4.1 (Support for CDMA R21)
3. RP4.2 (Support for CDMA R22 and EVDO R8)
4. RP5.0 (Support for EVDOR9. Contains Core 8.0.6 as well)
5. RP5.1 (Support for CDMA R23 and EVDO R10)

Other features of this release are listed below.

- RP5.1 upgrade is a vendor release only.(There is no DA component released with this. **However there are some changes to the DA configuration to be made by customer.** See the next section for more information.)
- The Core versions certified against this release are Core 8.0.6.5, Core 8.0.6.6, Core 8.0.6.7, Core 8.0.7.1, Core 8.0.7.2, Core 8.0.7.3 and Core 8.0.7.4

This means that the Prospect server needs to be at Core 8.0.6.5 at the very least to install RP5.1

- It is highly recommended that customers upgrade to Oracle 10g (10.2.0.4)

2.7 RP5.1 Recommended Upgrade Path

Most Motorola customers are expected to be on the latest vendor release RP5.0 with at least Core 8.0.6.5 or Core 8.0.7.1 and any subsequent patch such as Core 8.0.7.3. Here is the suggested upgrade path for customers on RP5.0 (The last application upgrade for Prospect for Motorola)

RP5.0 -> Core 8.0.6.5 -> RP5.1

RP5.0 -> Core 8.0.7.1 -> Core8.0.7.3 -> RP5.1

For customers on older releases (such as RP4.1 or RP4.2) the following path is recommended

RP4.1 -> RP5.0 -> Core 8.0.6.5 or Core 8.0.7.1 with latest patch -> RP5.1

RP4.2 ->RP5.0 -> Core 8.0.6.5 or Core 8.0.7.1 with latest patch -> RP5.1

2.8 Data Acquisition Requirements

As part of the OMCR PM data, pmC214 and pmC551 are the 2 new record types introduced in this release. **There is no new DA software release, however the following steps need to be taken so that the data for these can be collected.**

- OMCR_mapping.cfg should be configured correctly based on the BSC_ID of the input filename (Sample: pmC214.**108**.200912031230). MMID should be configure to match the BSC_ID of the file that we going to collect. This MMID, subsequently used to map to ExtBSC in the \$FLEXDAHOME/cfg/OMCR_mapping.cfg to get the MSC_NAME which will be prefixed in the output filename (<MSC_NAME>.<ExtBSC>.<TIMESTAMP>.PM.gz)

For example if the raw file is pmC214.**108**.200912031230 (where **108** is the BSC_ID), then a sample entry in the OMCR_mapping.cfg would be:

#Market	OMCHOST	OMCRIP	OMCRNAME	IntBSC	ExtBSC	MSC_ID	MSC_NAME
SEATTLE	ledang	63.117.9.20	SeattleOMC2	1	108	5	SEATTLE02

Note: The 108 in the line above is the BSC_ID from the filename in bold.

The DA sample output file will be called SEATTLE02.108.200912031230.PM.gz

- The customer should make sure that pmC214 and pmC551 are not present in the \$FLEXDAHOME/cfg/DB_loading_control.list. If they are present, they need to be removed.

2.9 Prerequisites

The table below shows all the prerequisites at a glance.

It is mandatory for **customers to upgrade the Prospect Core platform to Core 8.0.6.5 at least** (or 8.0.6.6 or 8.0.6.7) or to Core 8.0.7.4 patch before applying Motorola vendor upgrade RP5.1. For customers that use Pweb to access Prospect data, it is recommended that Pweb 2.2.6 or Pweb 2.2.7 to be applied before Core 8.0.6.5 or to Core 8.0.7.4 is applied to Prospect server.

Table 4 – Prospect list of components compatible to

Prospect Component	Version Supported
Prospect Vendor	RP5.0, RP4.2 ,RP4.1,RP4 upgrades (See section 5.2.2 for details)
Prospect Core	8.0.6.5 , 8.0.6.6, 8.0.6.7, Core 8.0.7 (8.0.7.1) , Core 8.0.7.2, Core 8.0.7.3, Core 8.0.7.4
Prospect Client	8.0.5.0.06, 8.0.5.8, 8.0.6.0.13, 8.0.6.5, 8.0.7.0.13, 8.0.7.3.2, 8.0.7.4.2
Prospect Web	2.2.5, 2.2.6, 2.2.6.1, 2.2.6.2 , 2.2.6.3, 2.2.7.0.13, 2.2.7.3.2 , 2.2.7.4.2
Oracle	Oracle 9i (9.2.0.8 on Solaris 9) and Oracle 10g (10.2.0.4 on Solaris 10) (recommended)
Solaris	9 and 10
DAT	7.1 (7.1.4.2-TIV-PROSPECTDA-MOTCDM-IF0000)
Perl	5.6.1
JDK	1.5.0_13 or higher

3 Release Contents

This section describes new features and enhancements made in RP5.1

3.1 New features

Support has been added for Motorola CDMA R23 and EVDO 10 counters and Pcalcs in this upgrade release.

The following table lists those data types which are new/extended/updated in this release.

- For the OMCR PM data, two new record types **pmC214** and **pmC551** are introduced in this release.
- For EVDO PM data, new ExtBSC group is added to new entity Neighbor_BSC_DO.

Table 5 – Newly Supported feature

Data Type	Data Set	Notes
PM	pmC table 02	3 extended pegs added
PM	pmC table 21	2 extended pegs added
PM	pmC table 25	1 extended pegs added
PM	pmC table 200	1 extended counter
PM	pmC table 214	new pmC table with 25 new counters
PM	pmC table 551	new pmC table with 20 new counters
EVDO aemsC	aemsC604	18 new pegs added for aemsC604
	aemsC605	1 new peg added for aemsC605
	aemsC608	2 new pegs added for aemsC608
EVDO PM CSV	LBSC table	1 extended peg added
	APC table	10 extended pegs added
	CC table	2 extended pegs added
	TC table	8 extended pegs added
	MCC-DO Table	11 extended pegs added
	ExtBSC table	new group with 11 new pegs

3.1.1 EVDO PM Data Handling

In prior releases the EVDO PM loader checked for the EVDO version number (which is contained in the EVDO PM file in the first line “#FORMAT <Ver>”). The version number in the file was checked against the directory in which the data was loaded in and if there was a mismatch, an error was thrown out and file not loaded. However this caused the data to be discarded when customers migrated to point releases for EVDO for which a Prospect upgrade was not immediately available. Hence in RP5.1, the strict version checking is removed from version R7 onwards. Refer to the table below on each version to be loaded for each release.

Table 6 – Directories for data loading for EVDOpm data

File Type	R5/in	R6/in	R6.1/in	R7/in	R8/in	R9/in	R10/in
BSCDO Data	R5 data only	R6 data only	NA	R7 and higher releases	R7 and higher releases	R7 and higher releases	R7 and higher releases
EMH Data	NA	NA	R6.1 data only	R7 and higher releases	R7 and higher releases	R7 and higher releases.	R7 and higher releases.

NA- Indicates “Not Applicable” because the particular file type is not applicable for that release.

3.1.2 ExtBSC - Neighbor BSC-DO level new entity

The EVDO Device Entity hierarchy is shown below. One new scenario entity **Neighbor_BSC_DO** is introduced in this release, highlighted in **BLUE** as shown in the entity hierarchy below.

Details:

- The EMH collects and reports a group of BSC-DO per Neighbor BSC-DO level measurements in the BSC-DO per Neighbor BSC-DO, that is the ExtBSC table format (in the PM CSV file). The EMH generates data only for the configured Neighbor BSC-DOs for a specific IP-BSC-DO.
- ExtBSC-IP-BSC-DO#-256 (Unknown) row shall be generated only when any of the pegs for unknown neighbor is non-zero value.
- The ExtBSC data is loaded under a new scenario entity called Neighbor_BSC_DO which is a child of the BSC_DO entity.
- File Format for ExtBSC is
<EMH_Core_Server name>.EMH<Node_ID>.<Timestamp>_<DST>.pm.tgz

The primary key for this group in Prospect is System-BSCDO-Neighbor_BSC_DO where BSCDO comes from the Node_ID in the filename format below.

Neighbor_BSC_DO comes from the TNODE_Id field in the file contents.

Sample Line in file:

```

#"CollectUnit", "NodeKind", "NodeID", "TNodeKind", "TNodeID", "StartTime", "EndTime", "
MarketID", "Inter BSC Neighbor Non-Active H.O. successes (H.O. out)", "Inter BSC
    
```

Neighbor Non-Active

- ❖ System
 - BSC_DO
 - APC
 - APC_MCC
 - APC_Modem
 - BSC_DO_Cage
 - EMH_Core
 - EMH_Med
 - SSC
 - EMHBLADE
 - BSC_DO_Card
 - BTS_DO
 - MCC_DO
 - MCC_DO_Modem
 - Sector_DO
 - SectorCarrier_DO
 - CC
 - SCA
 - SVM
 - TC
 - TRA
 - **Neighbor_BSC_DO**

- The following section describes the entity fields for the new entity Neighbor_BSC_DO. It shows the fields and the values in the data file that will be used to load them.

Table 7: Entity fields for Neighbor_BSC_DO

Entity Field	Source in data file
NeighborBSCDOColorCode	#CollectUnit (Field Format is 'ExtBSC-IP-BSC-DO#-NeighborBSCDOColorCode#')
NeighborBSCDOVendorType	TNodeKind.

3.1.3 pmC214 – OMCR PM New Group

The pmC214 is a new group in the OMCR PM file. The group monitors the call processing activity.

Key points:

The data in this record is loaded under BSC entity with key as System-MSB-BSC. System and MSB are used to load this data and are obtained from the ne_list file. The BSC information is obtained from the MM_id field in the data.

File Format for pmC214 is: <MSB name>.<BSC>.<Time stamp>.PM[.gz]

pmC214 data is one per BSC per 30 min interval. There are 360 rows per file, each row represents 5 second sub interval. E.g. First row represents first 5s interval, second row represents second 5s interval and so on. Data is aggregated to 30 min in Prospect.

3.1.4 pmC551 – PMServer PM New Group

The pmC551 is a new group in the CDLpm file. It contains mode usage information. Here is the format of the pmC551 record that is collected as part of the OMCR PM file. The data in this record loads under the Cell_Sector entity. The Primary key for this record in Prospect is:

<System>-<MSC>-<BSC>-<BTS>-<BTS_Cell>-<Sector>

File format for pmC551 is : <pm-server-name>.<omc-id>.<bsc-id>.<timestamp>.CDLpm.gz

- All parts of the key except the MSC are obtained from filename and contents.
- The <pm-server-name> is used to find the SYSTEM_ID value from the ne_list.
- The SYSTEM_ID, <omc-id> and <bsc-id> is used to lookup MSC_ID from **MOT_PM_MAP_BSC_TAB**.
- BTS and BTS_Cell are same and are obtained from data (subj_id_1)
- Sector id is also from data itself (subj_id2)

3.1.5 New add_part.sh script

The moto_add_part.sh script allows you to define partitions that will not be dropped by the nightly part maint job. This script replaces the add_part.sh for Motorola Application. The script resides in \$FLEXPM_BASE/MotoEVDO/post-vendor directory.

Usage: To retain traffic data for a certain day for later analysis or troubleshooting, you can use the command:

```
$FLEXPM_BASE/MotoEVDO/post-vendor/moto_add_part.sh traffic 20100220 20100221
```

3.1.6 Usage of new wminstall checks

The wminstall configuration file spec.xml has new checks that help prevent upgrade failures.

- assert_middlewares_down.sh checks whether middlewares are down and if its not, the script will abort the preview with an error.
- check_for_invalid_cons.ksh checks and fixes invalid database objects (constraints) that were introduced in Core 8.0.7.3
- middlewares_down_up shuts down middlewares before the upgrade. It will wait for existing loaders and reports to finish. If the middlewares are already down before doing the upgrade, you may see the following message in the wminstall.log
wminstall.log:123:2010-03-15 16:29:56,440 - [main] **FATAL** middlewares_down_up - Middlewares are already stopped

3.1.7 Vendor Admin Addendum introduced

In this release, a new vendor specific administrator guide is being introduced. This is called “Vendor Admin Addendum”. This document will contain the administrator commands that are used in a Motorola system such as addNE.sh, addNEJ.sh etc. The administrator guide will no longer contain such commands starting in Core 8.0.7. The users can access this addendum from the Help menu in the Prospect client. The corresponding VendorAdminGuideAddendum.pdf will also be released along with RP5.1

3.1.8 Resolved PMRs/APARs

Following is a list of problems present in the previous release that have been resolved.

Table 8: Release Details – Resolved Issues

APAR number/CQ Number	Abstract
Issues resolved in this Fix Pack:	
IZ63755/ valnt00097540	MCC_DO Entity level reports fail with ORA-01455
IZ65780	Motorola CDMA PM DATA Files fail to load because of Oracle deadlock errors.
Issues resolved in prior Interim Fixes and included in this Fix Pack:	
IZ53506 and IZ56755	<p>MotoEVDO files failing with the following ORA- errors</p> <p>STORED PROCEDURE: ORA-20090: Something wrong with aggregate data to MOT_TF_DO_PM_MCC2_TAB - ORA-01438: value larger than specified precision allowed for this column ORA-06512: at "MOTCDMA.MOTO_EVDO_LOAD", line 989 ORA-06512: at line 1</p> <p>The problem comes up because the MOT_TF_DO_PM_MCC2_TAB and _LTM tables needed to be resized to be float(126) - same as the _TMP table Summary tables as well as BusyHour table will also be adjusted.</p> <p>IZ53506 affected by columns: RevBundlePktsConv LINECODEVIOLATIONSPAN2</p> <p>IZ56755 affected by columns: LINECODEVIOLATIONSPAN1 LINECODEVIOLATIONSPAN3 LINECODEVIOLATIONSPAN4 PATHCODEVIOLATIONSPAN1 PATHCODEVIOLATIONSPAN2 PATHCODEVIOLATIONSPAN3 PATHCODEVIOLATIONSPAN4</p>

IZ54093	pmC171 10 min files failing to load The DA splits up the half hourly pmC171 data files but only the 00 and 30 minute files are loaded. The 10, 20,40 and 50 files fail and end up in the fail directory.
valnt00065989	Sizing tool to be updated to create Enterprise tablespace. New SizingTool spreadsheet provided in this release.
Other issues from prior releases fixed in this release.	
valnt00099288	Sentry.sh updated to pick up 2010 files.
valnt00078766	Data for 3 datatypes was not deleted during complete partition. This causes old data to be left behind in traffic tables for few cases.
valnt00071032	add_part.sh failed with ORA-01422 for aemsC30min and aemsC10min datatypes only: exact fetch returns more than requested number of rows. A new script called moto_add_part.sh has been introduced to prevent this

4 Media Content

Prospect® 8.0 – Motorola CDMA/AMPS/EVDO R23/S19/R10 RP5.1 is composed of the following media:

1. Prospect software 23.0.5.1-TIV-PROSPECT-MOTCDM-FP0000.tar
2. Release notes for Prospect.
3. Documentation: VendorAdminAddendum.pdf, PerfDataRef.pdf

5 Software Requirements & Installation

5.1 Software Requirements

To view the software products required to install the Prospect® 8.0 – Motorola CDMA/AMPS/EVDO R23/S19/R10 RP5.1 system refer to the Prospect Installation Note, which is included in the release media packaging (CD/DVD) or online download via web portal.

5.1.1 Supported Platforms

See Pre-requisites section for a table with all supported software.

5.2 Pre-Upgrade Checks

The following instructions are for install of Prospect® 8.0 – Motorola CDMA/AMPS/EVDO R23/S19/R10 RP5.1. For further information consult the *Prospect Installation Guide*.

Important! Uninstallation of this upgrade is not supported. A complete system back up is recommended before installing this upgrade.

5.2.1 Check Prerequisites

Please see the Table in Section 2 for the prerequisites. Please note the Prospect / Core and the JDK version to make sure they are correct.

Note: To install the Oracle 9.2.0.8 DST patch on an existing Solaris 10 system, the following command need to be used:

```
$ runInstaller -ignoreSysPrereqs
```

5.2.2 Baseline and Patches Requirements

Important! The RP5.1 upgrade is a cumulative upgrade that contains the older RP4.1, RP4.2 and RP5.0 upgrades. This means that RP5.1 can be applied against an existing RP4, RP4.1, RP4.2 or RP5.0 system with the correct Core environment. The wminstall command will check the current patch level and apply the required upgrades.

The base environment that this patch will be applied against:

- Prospect 8.0 Motorola CDMA RP4.0 Fresh Install (20.0.4.0.0 b3)
- Prospect 8.0 Motorola CDMA RP4.1 Upgrade (20.0.4.1.0 b2)
- Prospect 8.0 Motorola CDMA RP4.2 Upgrade (22.0.4.2.0 b2)

- Prospect 8.0 Motorola CDMA RP5.0 Upgrade (22.0.5.0.0 b2)
- Prospect 8.0 Motorola CDMA RP5.0 Patch1 (22.0.5.0.1 b1) (optional)
- Prospect 8.0 Motorola CDMA RP5.0 Patch2 (22.0.5.0.2 b2) (optional)
- Prospect 8.0 Motorola CDMA RP5.0 Patch3 (22.0.5.0.3 b1) (mandatory)

Important! It is critical that you apply this patch to an environment at the correct patch level. Please verify the environment carefully. For more information, please contact IBM customer support.

5.2.3 Disk space and Tablespace Requirement

The installation of the patch requires additional 500 MB disk space under /u01 file system. The install script also requires that at least 10% of total tablespace size is available for each tablespace. Please contact IBM customer support if there is less than 10% of total tablespace available for any of the tablespaces.

Additional Oracle table space is required to support the changes in tables introduced in this release. The following lists the disk requirement for each table space during install only. More will be required depending on data volume:

- TRAFFIC_JUMBO: 1GB
- TRAFFIC_LARGE: 500MB
- TRAFFIC_MEDIUM: 300MB
- TRAFFIC_SMALL:100MB
- WM_FLEXP: 50MB

Note: It is recommended to always keep 10% of total table space size available for each table space in the Prospect system

5.2.4 Third-party software usage - gtar

gtar is being used for the file extraction of the upgrade package. Make sure gtar is available at the below location.

```
$ ls -la /usr/sfw/bin/gtar
```

```
-r-xr-xr-x 1 root bin 195400 Jan 23 2005 /usr/sfw/bin/gtar
```

5.2.5 Oracle version

It is **highly** recommended that the Oracle version on the Prospect server is either 9.2.0.8 or 10.2.0.4. Other versions are not supported. The wminstall preview command will check for these specific versions and will throw out warnings if this check fails.

5.2.6 Perl Version

Make sure that /usr/bin/perl is version 5.6.1. Type the following command to verify:

```
$ /usr/bin/env perl -v
```

The first line of the output should show:

```
This is perl, v5.6.1 built ...
```

Note: If the Perl version is incorrect, the installation should not proceed.

Here are the steps to verify and install Perl 5.6.1 if needed.

Step 1: To determine the version of Perl

1. Find out which version of Perl is installed by entering the following command:

```
$ /usr/bin/perl -v
```

2. If you see 5.6.1 then you can proceed to Step 2: Verifying/Creating Perl installation directory and Symbolic links.
3. If you see a version other than 5.6.1, then first check to see if Perl 5.6.1 is installed. Run the following command to determine this.

```
$ ls /usr/perl5/5.6.1
```

If the above command produces no error, then proceed to Step 2.

If the above directory does not exist, then you need to install Perl 5.6.1 from the standard Perl website. Perl is not included in Prospect iso image. After the install, run the above command to make sure the install went ok. Then proceed to the Step 2 about Creating Symbolic Links to Perl Directory

Step 2: Verifying/Creating Symbolic Links to the Perl Directory

The following steps verify and create symbolic links to the Perl directory. You will need the “root” user password to make links.

4. Determine the current location of Perl. This is normally /usr/bin/perl. Identify the directory where Perl is located by entering the following command:

```
$ whereis perl
```

```
You should see perl:/usr/bin/perl /usr/local/bin/perl
```

If you see other directories then you will still need to go through the steps below.

5. Determine whether /usr/bin/perl is a symbolic link to the correct Perl directory:

```
$ ls -l /usr/bin/perl
```

This should point to the directory /usr/perl5/5.6.1/bin/perl.

If it does not, then:

Log on as root, and change to the /usr/bin directory.

```
[root] $ cd /usr/bin
[root] $ rm -f perl
[root] $ ln -s /usr/perl5/5.6.1/bin/perl perl
```

5.3 Installation Privileges Required

Privilege	Required
Oracle flexpm user DBA role	No
UNIX flexpm user in DBA group	Yes
Root privilege for non-split server setup	No
Root privilege for split server setup *	Yes
Oracle sys user password set to default (change_on_install)	Yes

Important! Please do not proceed with installation if the required privileges are not present.

***Split Server setup means the Oracle database and the Prospect application reside on separate servers**

5.3.1 Oracle Sys Account Access

Prospect 8.0 requires that all logins using the sys account must be qualified *as* sysdba. The following Oracle changes are required.

1. Verify that the change is needed. From a remote system (that is, not the Prospect server), try to log in using sqlplus:

```
$ sqlplus /nolog
```

```
SQL> connect sys/change_on_install@flexpm as sysdba
```

Note: If you can log in, you can skip the rest of this procedure.

2. If you get an error concerning privileges, then you need to continue with the following steps.
3. Set the remote_login_passwordfile parameter in the init<sid>.ora file. On most Prospect systems the sid is flexpm. Log in as the oracle user, and then enter the following command.

```
$ cd $ORACLE_BASE/admin/flexpm/pfile
```

4. Edit the init<sid>.ora file (for example, initflexpm.ora) and add the following line.

```
remote_login_passwordfile=EXCLUSIVE
```

5. Create the Oracle password file to allow remote sys access. While still logged in as the oracle user verify that \$ORACLE_HOME and \$ORACLE_SID are correct, then enter the following command.

```
$ orapwd file=${ORACLE_HOME}/dbs/orapw${ORACLE_SID} \  
password=change_on_install entries=10
```

6. Bounce the database so that the parameter and password file take effect. If you get an error concerning the password file, verify that it is in the dbs directory and that the filename is orapwflexpm.
7. To verify that the changes have taken effect, repeat step 1.

5.4 Pre-Installation Instructions

5.4.1 System Backup

This upgrade cannot be uninstalled. This upgrade involves updates to the database and the metadata, therefore recovery from backup is the only way to reverse the changes made by this upgrade. You must perform a full system backup before installing this upgrade. If needed, please refer to the "Backing up the Database" section of the Prospect Administration Guide. Please contact IBM customer support if you require further support.

5.4.2 Recommend Export of Prospect documents

As mentioned in the above paragraph the upgrade cannot be reversed and if for some reason the upgrade fails, restoration from backup is the only option and if there is no good backup then customer will have to do a fresh install. Hence it is **highly recommended** that users do "*export_docs.sh -h*". This will show the parameters necessary to invoke the script. Once the script is invoked with appropriate parameters, it can export all user documents such as templates/reports/UDCs etc. Then on a fresh install system user can import the user documents. For more details please refer to the Admin Guide.

5.4.3 Prospect Web

Important! Disable server access in Prospect Web and any backup software that could be accessing the database objects at this time.

If Prospect Web is accessing this Prospect installation, then use the admin tool to disable the corresponding data source. Failure to do this step may results in errors in the upgrade. Consult IBM customer support if you have questions. Also do consult your system administrator to ensure that there are no oracle backup jobs running at this time. It is important that the database objects are not accessed in anyway during the upgrade.

5.4.4 Split-Server Instructions to be run before upgrade

Important Steps for Split Server Configuration: A split server configuration for Prospect has the database and the application software residing on separate physical servers. If your server is NOT configured this way, you can skip to the next section. If you have a split Server configuration, please follow instructions below to mount the /u01/apps/WatchMark/FlexPM/Motorola directory to the database server. **(Otherwise the upgrade will fail) These instructions will need the root password of the database server and Prospect server both.**

- a. On the Prospect middleware server, make sure the proper NFS daemons are started.

```
[root] $ /etc/init.d/nfs.server start
```

```
[root] $ share -F nfs -o rw=<IP Address of DB Server>
```

```
/u01/apps/WatchMark/FlexPM/Motorola
```

- b. On the Oracle database server create the required mount point

```
[root] $ mkdir -p /u01/apps/WatchMark/FlexPM/Motorola
```

IBM Prospect Motorola CDMA/AMPS/EVDO R23/S19/R10 RP5.1 Release Notes

- c. Mount the Prospect file system on the Database Server
[root] \$ mount -f nfs <IP Address Of ProspectServer>:/u01/apps/WatchMark/FlexPM/Motorola
/u01/apps/WatchMark/FlexPM/Motorola
- d. Make sure that the /u01/apps/WatchMark/FlexPM/Motorola file system and its sub-directories are accessible on the database server. Log off the database server. You can proceed with the upgrade

(Please contact customer support in case you have questions before proceeding with the upgrade)

5.4.5 Information Check and Pre-Installation Setup

Copy the upgrade package to the Prospect server

Download the upgrade package from the IBM support website and copy it to the appropriate Prospect server into a staging directory.

1. Download the upgrade package from the IBM support site
2. Login to the target Prospect server as flexpm and source the .profile (if you have not already done this)
3. Stop the middleware.

```
[flexpm] $ ps-mgr stop all
```

Wait until you see: Command complete: stop all.

```
[flexpm] $ ps-mgr halt
```

4. Backup current retention period for past_part_maint.sh:

```
[flexpm] $ past_part_maint.sh > $FLEXPM_BASE/past_part_maint.bak
```

5. Make a staging area for the upgrade package to be copied to. For example:

```
$ mkdir -p ~flexpm/upgrades/23.0.5.1-TIV-PROSPECT-MOTCDM-FP0000
```

6. Copy the upgrade package into the staging directory

7. cd to the staging directory

```
$ cd ~flexpm/upgrades/23.0.5.1-TIV-PROSPECT-MOTCDM-FP0000
```

8. Untar the upgrade package

```
$ tar -xvf 23.0.5.1-TIV-PROSPECT-MOTCDM-FP0000.tar
```

9. Preview the installation for problems before installing the update on Oracle 10g based Prospect servers:

```
[flexpm]$ ./wminstall -b $FLEXPM_BASE -d $DB_CONNECT \  
-portbase $PORT_GROUP -spec spec.xml -preview -v
```

For Prospect servers with Oracle 9i, use the following command

```
[flexpm]$ ./wminstall -b $FLEXPM_BASE -d $DB_CONNECT \  
-portbase $PORT_GROUP -spec spec9i.xml -preview -v
```

Note: The preview command should be run right before the actual upgrade. That means, if the above command is run hours / days before the upgrade, then it still needs to be re-run right before the upgrade to prevent failures.

Check the results of the preview command and take action on any failures.

Important: If you get an error at the end of wminstall -preview command run above, then see the Useful Hints section for more information on the return codes and steps to fix them. The error codes should not be ignored otherwise the upgrade may fail. Contact product support if needed.

5.4.6 Installation Steps

Important! Un-installation of this upgrade is not supported. A complete system back up is recommended before installing this upgrade

NOTE: For installations and upgrades to Solaris 10 see the Server Preparation Guide to install Perl and Java

1. Log in as user flexpm.
2. If the server is running multiple Prospect schemas or the Motorola profile is not configured to be executed on log in as the flexpm user, then the Motorola profile must be sourced before applying this upgrade.
If a menu system is in place to allow selection of the Motorola system from a list of installed Prospect applications, then select the Motorola option. Alternatively, navigate to the location of the Motorola installation and manually source the *.profile* in the *ProspectBase* directory. Assume Motorola is installed under *~flexpm/Motorola* directory.

```
[flexpm]$ cd ~flexpm/Motorola/ProspectBase
```

```
[flexpm]$ . ./profile
```

3. Check for incorrectly named partitions using the following script. If the script returns rows, contact IBM customer support for advice on how to resolve it. **Do not run the upgrade.**

```
[flexpm] $ cd <staging location>
```

```
[flexpm] $ sqlplus $DB_CONNECT
```

```
SQL> @check_partitions.sql
```

```
SQL> exit
```

4. Make sure that the log table has partitions for the current day. Copy and paste the following 2 SQL commands into a sqlplus prompt.

SQL1:

```
[flexpm] $ sqlplus $DB_CONNECT
```

```
SQL> select * from (select TABLE_NAME , PARTITION_NAME from user_tab_partitions  
where TABLE_NAME='WM_MESSAGE_LOG' order by partition_name desc)
```

```
where ROWNUM <2;
```

SQL2 :

```
SQL> select sysdate from dual;
```

Make sure that the partition returned by SQL1 (which is of the format PYYYYMMDD is higher than the output of SQL2.

e.g if SQL1 outputs P2010041900 (or Apr 19'2010) and the SQL2 output is Apr 17'2010 , then it is ok to proceed with the upgrade. If instead SQL1 returned Apr 14'2010, then consult product support first. This means that middleware was down for a prolonged period of time and pm_daily needs to run first successfully before the upgrade can be started.

5. Read the license.txt agreement file “*license.txt*” which will be in the staging area created in section [5.4.5](#) and make sure you understand the terms and conditions of the Prospect license
6. Edit the response file “*responseFile.txt*” and find the entry:
LICENSE_ACCEPTANCE = *false*

Change the entry to the following to indicate that you agree to the terms and conditions of the Prospect license:
LICENSE_ACCEPTANCE = *true*
7. For installation, it is possible to run the command in the background with No Hangup (nohup) if you are using Solaris 9 or Solaris 10.

For normal installation (without nohup)

For Prospect servers with Oracle 10g, use the following command:

```
[flexpm]$ ./wminstall -b $FLEXPM_BASE -d $DB_CONNECT \  
-portbase $PORT_GROUP -spec spec.xml -r responseFile.txt -v
```

For Prospect servers with Oracle 9i, use the following command:

```
[flexpm]$ ./wminstall -b $FLEXPM_BASE -d $DB_CONNECT \  
-portbase $PORT_GROUP -spec spec9i.xml -r responseFile.txt -v
```

For installation using "nohup"

For Prospect servers with Oracle 10g, use the following command:

```
[flexpm] $ nohup ./wminstall -b $FLEXPM_BASE -d $DB_CONNECT \  
-portbase $PORT_GROUP -spec spec.xml -r responseFile.txt -v &
```

For Prospect servers with Oracle 9i, use the following command:

```
[flexpm]$ nohup ./wminstall -b $FLEXPM_BASE -d $DB_CONNECT \  
-portbase $PORT_GROUP -spec spec9i.xml -r responseFile.txt -v &
```

The output will look like:

```
$ Sending output to nohup.out
```

At this point *wminstall* is running via *nohup*. It is now safe to exit the console if you wish to. Type exit twice to quit from the console:

```
[flexpm] $ exit
```

You have running jobs.

```
[flexpm] $ exit
```

Note: The output of the *wminstall* command will go to *nohup.out* (file created at the installer directory or *\$HOME* if there is no permission to the installer directory) as well as the usual install log in the */var/tmp/yyyy_mm_dd**.

```
[flexpm] $ cd /var/tmp
```

```
[flexpm] $ ls -ltr
```

8. The installation of the upgrade might take a while to complete. The log file (with filename like <YYYY>__<MM>__<DD>__<HH>__<MM>__<SS>) under */var/tmp* can be viewed from another console during the installation for the installation progress.

After `wminstall` is completed, please examine the `detail.log` or `summary.log` under the directory of `$FLEXPM_HOME/audit/<YYYY>_<MM>_<DD>_<HH>_<MM>_<SS>_<running number>` for any error messages.

The following command can be used to search through the log file.

```
$ cd $PM_HOME/audit/<YYYY>_<MM>_<DD>_<HH>_<MM>_<SS>_<runningnumber>
$ egrep -i 'warning|error|fail|ora-|sp2-|pls-' detail.log > check_detail.log
```

Open the `check_detail.log` and search for “`call_procs.sh`” to make sure there are no serious errors. If you see “`ERROR: call_procs.sh`”, call the product support for further instructions.

If you have any concerns, please contact the IBM Customer Support team for help.

9. Perform the post `wminstall`:
[flexpm]\$ cd post-install
[flexpm]\$ post-install.sh
End with
Post installation completed!

5.5 Post-Installation Instructions

5.5.1 Resource the updated profile.

1. Log out and log back in as `flexpm`, if you have not already done so.
2. If the server is running multiple Prospect schemas or the Motorola profile is not configured to be executed on log in as the `flexpm` user, then the Motorola profile must be sourced.

```
[flexpm]$ cd ~flexpm/Motorola/ProspectBase
[flexpm]$ . ./profile
```

To check if the correct profile has been sourced and also verifying that all components have been successfully installed, running the command `show_installed` should result in the following output being displayed:

COMPONENT	INSTALL_TY	INSTALL_DATE
CORE Prospect rev 8.0.7.1 b2	UPGRADE	10-APR-22 15:34:13
VENDOR MotoCDMA rev 23.0.5.1.0 b2	UPGRADE	10-APR-22 15:57:36
VENDOR MotoEVDO rev 10.0.5.1.0 b2	UPGRADE	10-APR-22 16:09:59

Note: The version numbers (rev) should be the same as those shown. The build numbers (e.g. b1, b2 or b3, etc) might be different. The install type (INSTALL, PATCH or UPGRADE) is not important. The install dates and times will be different from those shown.

3. Remake the `ne_list` and the `nej_list` files.

```
[flexpm]$ addNE.sh -remake
[flexpm]$ addNEJ.sh -remake
```

5.5.2 Configure Retention Period Settings

During the upgrade, the retention periods for some tables were reset back to 'Unlimited'. This needs to be **reconfigured manually** as shown below so that these tables can be managed by the nightly jobs.

1. Use the `past_part_maint.bak` file to set the retention period back for the following datatypes (Refer to the section on Pre-Installation Setup where this file was created.) **Use the values for each of these types shown in that file for the commands below.**
2. **[flexpm]** \$ `past_part_maint.sh traffic <traffic original value>`
[flexpm] \$ `past_part_maint.sh sBHDaily <sBHDaily original value>`
[flexpm] \$ `past_part_maint.sh sSUMWeekly <sSUMWeekly original value>`
[flexpm] \$ `past_part_maint.sh sSUMMonthly <sSUMMonthly original value>`

Example:

```
[flexpm] $ past_part_maint.sh traffic 10
```

(This command will set the retention period of "traffic" to 10 days)

3. Repeat step 2 above for other class types that has been reset to unlimited by the upgrade.

5.5.3 Enable server access in Prospect Web

If you disable access to the Prospect server from Prospect Web in step [5.4.3](#), then use the admin tool to re-enable access to the corresponding data source in Prospect Web.

5.5.4 Uninstallation Procedure

This release/patch cannot be uninstalled. This patch involves updates to the database or the metadata, therefore recovery from backup is the only way to reverse the changes made by this release/patch. You must perform a full system backup before installing this patch. If needed, please refer to the "Backing up the Database" section of the *Prospect Administration Guide*. Please contact IBM customer support if you require further support.

Detail any specific installation instructions that you want to highlight as part of the release notes in this section. (This should include any specific pre-installation or post installation instructions, which are not already captured in the Prospect Installation Guide)

5.6 Release Restrictions

This release is for General availability.

5.7 Known Issues

None.

5.8 Dependent Known Issues in the core product

None.

5.9 Useful Hints

5.9.1 Notes about wminstall return codes

- **Note1:** If you get an error about the check_UDC_match.sh that means there is a UDC in your system with the same name as a new Pcalc being introduced in the upgrade. You can determine which UDCs are matching using the check_UDC_match.sh.

Execute the script below to ensure there is no UDC with the same name as PCALC.

```
[flexpm] $ cd <staging location>/scripts
```

```
[flexpm] $ ./check_UDC_match.ksh 2
```

Important Note A:

Sample script output with one UDC match.

UDC_NAME	UDC_FIELD_ID	ENTITY_NAME
-----	-----	-----
otiAvgFwdBWUtilization	44561	BTS_DO

Steps to fix:

e.g To fix the UDC above, we will change the UDC to have a “_IBM” by executing the command below. It can also be changed to any other name that will help other users locate this UDC easily.

```
[flexpm] $ sqlplus $DB_CONNECT
SQL> update wmd_dict_name set name='otiAvgFwdBWUtilization_IBM'
where name='otiAvgFwdBWUtilization';
SQL> commit;
SQL> exit;
```

Important Note B:

IBM Prospect Motorola CDMA/AMPS/EVDO R23/S19/R10 RP5.1 Release Notes

If there are more than one matching UDCs, please run the above SQL update statement for EACH UDC that is output by the `check_UDC_match.ksh` (**If you have any doubt, call IBM customer support to confirm BEFORE proceeding with the upgrade**). Once satisfied that all UDCs were renamed, run the `check_UDC_match.ksh` one more time to make sure the script does not output any UDCs.

This step has to be repeated until no rows displayed (no UDC that has the same name as the Prospect PCALC).

Note: All templates that use `otiAvgFwdBWUtilization` will use the new PCALC and not the UDC unless a manual change is made to the template.

- **Note 2:** If you get an error about the `check_db_lock.sql`, then you need to run the following script to determine which objects are locked. The DBA should be able to remove these locks. **Locks on database objects could potentially cause the upgrade to fail and should be removed before the upgrade is started.**

Check for existing processes locking Oracle objects for flexpm user using the following SQL script.

```
[flexpm] $ cd <staging location>/scripts
[flexpm] $ ./check_db_lock.sh 2
```

Important Note: The script should return no rows before you proceed with the upgrade.

- **Note 3:** If you get a warning about the space in `/var/tmp` even though `df -k` shows that `/var/tmp` has enough space then use the `-t /home/xyz` option in `wminstall` (`/home/xyz` is any valid directory that can be used as a temp directory and has 400MB free.)

Example warning message below:

```
Warning scripts/check_space.class -s 400 -i /var/tmp Return Code: 1
```

5.9.2 Procedure to “jumpstart” the Prospect queues.

If the schedule does not start after the upgrade you can use SQL script to “jumpstart” the Prospect queues. It will update `next_time` for jobs other than immediate and scheduled jobs. So after the upgrade is completed and the middleware is up, run `schedule_maint` and if the NEXT RUN is not populated for all jobs then the following sql script need to be executed. (Use either one based on what reports need to be started.)

```
[flexpm] $ sqlplus $DB_CONNECT
-- Fix non-report schedules (also fixes timezone issue).
    UPDATE schedule
    SET next_time = start_time, needs_msg_update = 'Y'
    WHERE period NOT IN ('T', 'O')
    AND NVL(end_time, sysdate) >= sysdate
    AND job_type NOT IN (1, 10);

-- Only change scheduled reports that will run in the future.
    UPDATE schedule
    SET next_time = start_time, needs_msg_update = 'Y'
    WHERE period NOT IN ('T', 'O')
    AND NVL(end_time, sysdate) >= sysdate
    AND job_type = 10
    AND next_time > sysdate;
```

SQL> commit;

6 IBM Support

6.1 Contacting IBM Support

Please use the IBM Tivoli Support website:

<http://www-306.ibm.com/software/sysmgmt/products/support/assistance.html>

7 Documentation Addendums

None.

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