



Nortel AMPS/TDMA/CDMA MTX17 for RP16.5

(17.0.16.5-TIV-PROSPECT-NORCDM-FP0000.tar)



Release Notes

Document Revision Number (v3.0)

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 Nortel AMPS/TDMA/CDMA RP16.5 and to all subsequent releases and modifications until otherwise indicated in new editions.

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2 About this Documentation

Table 1 below details the information provided by the *IBM Prospect*® Nortel AMPS/TDMA/CDMA RP16.5 Release Notes.

Table 1 - About this Documentation

| Chapter | Description |
|--|--|
| About this Documentation | An overview of the Prospect® Nortel AMPS/TDMA/CDMA RP16.5 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® Nortel AMPS/TDMA/CDMA RP16.5 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

| <i>Format</i> | <i>Examples</i> | <i>Description</i> |
|----------------------|--|---|
| 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. |

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| | | |
|-----------------------|--|--|
| 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</i> is... A web server <i>must</i> be installed... See the <i>User Guide</i> | New terms, emphasis, and book titles. |
| Monospace | <code>./wminstall \$ cd /cdrom/cdrom0 /xml/dict addmsc.sh core.spec Type OK to continue.</code> | 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 system Perl5 On-Line Manual Pages system Perl 5.005_03 (POD Documentation) system Perl 5.005_03</code> | 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® Nortel AMPS/TDMA/CDMA RP16.5 software in Adobe® PDF and HTML formats.

Table 3 - Prospect® Nortel AMPS/TDMA/CDMA RP16.5 User Publications

| <i>Document</i> | <i>Description</i> |
|------------------------|---------------------------------------|
| <i>AdminGuide.pdf</i> | Prospect Administration Guide |
| <i>PerfDataRef.pdf</i> | Prospect Performance Data Reference |
| <i>DA_Tools.pdf</i> | Prospect Data Acquisition Tools Guide |

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 RP16.5 Release Description

This document provides information on the upgrade release to Prospect® 8.0 Nortel AMPS/TDMA/CDMA MTX17 RP16.5 (17.0.16.5.0.2). The software is named 17.0.16.5-TIV-PROSPECT-NORCDM-FP0000.tar

The RP16.5 release is a cumulative upgrade that contains RP16 (EVDO 6.0 along with Core 8.0.5), RP16.1 (MTX16/NBSS16 support), RP16.2 (EVDO7 support), RP16.3 (EVDO8 support) and RP16.4 (MTX17/NBSS17 support) upgrade changes. That means customers on RP15.3 can upgrade to RP16.5 directly. More details in Section 6.1.1.

RP16.5 upgrade is a vendor release only.

The Core version certified against this release are 8.0.5.0.08, 8.0.5.8, Core 8.0.6, Core 8.0.6.1, Core 8.0.6.4 and **newly released Core 8.0.6.5**. Please check with support on the latest Core fix pack. **It is very important that you apply the Core 8.0.6.5 patch before applying RP16.5. (Otherwise the upgrade will fail).**

Core 8.0.6.3 or Core 8.0.6.4 is no longer needed as Core 8.0.6.5 is a cumulative upgrade. If customer still needs to apply Core 8.0.6.3 or Core 8.0.6.4 patches, it is important to apply them after RP16.3 only. **(Otherwise EVDO load will be impacted)**

The Client version certified against this release is [8.0.6-PROSPECT-IF0005-client.zip](#)

The DA Toolkit certified against this release is 7.1. **There is a new update to DA for RP16.5. (7.1.16.5-TIV-PROSPECTDA-NORCDM-FP0000.tar)**

The Prospect Web version is PWeb - 2.2.6 and **the newly released patch 2.2.6-PROSPECTWEB-IF0003**

The Oracle Database version certified against this release is Oracle 9i (9.2.0.8) and Oracle 10g (10.2.0.4).

2.6.1 Recommended upgrade path for customers on RP16.2 or RP16.3.

RP16.3-> Core 8.0.6.5 -> RP16.4 -> RP16.5
RP16.2-> RP16.3-> Core8.0.6.5-> RP16.4-> RP16.5

Or

RP16.3-> RP16.4 -> Core8.0.6.5-> RP16.5 (New RP16.4 fields will not be visible till you apply RP16.5. It is suggested all these upgrades be done together)

RP16.2-> RP16.3-> RP16.4-> Core8.0.6.5-> RP16.5 (New RP16.4 fields will not be visible till you apply RP16.5. It is suggested all these upgrades be done together)

2.7 Prerequisites

The table below shows all the prerequisites at a glance.

It is highly recommended that **customers upgrade the Prospect Core platform to Core 8.0.6.5** before applying Nortel vendor upgrade RP16.5. For customers that use Pweb to access Prospect data, it is recommended that Pweb 2.2.6-PROSPECTWEB-IF0003 to be applied before Core 8.0.6.5 is applied to Prospect server. Classic Client version is also updated to 8.0.6.3.

Important Note: After applying Core 8.0.6.3/Core 8.0.6.4 /Core 8.0.6.5, there are some restrictions to reloading of data for certain Nortel datatypes such as SDMcsv/MCBTS/MTXpm/COMPACTBTS/BSC-BSSpm. EVDO (RNCpm and RNCcfg) data reloads are not affected. Similarly CSVS, CNFP, MTX Tables, BSMmap, CBRS data loads are also not affected. It is recommended that reloads for affected datatypes be completed prior to application of Core 8.0.6.3/Core 8.0.6.4 /Core 8.0.6.5.

If data needs to be reloaded, please consult product support.

Table 4 – Prospect list of components compatible to

| Prospect Component | Version Supported |
|---------------------------|---|
| Prospect Vendor | RP16.4,RP16.3, RP16.2 ,RP16.1,RP16,RP15.3 upgrades (See section 5.2.2 for details) |
| Prospect Core | 8.0.5.0.08, 8.0.5.8, 8.0.6.0 b13,8.0.6.1, 8.0.6.3 and Newly released 8.0.6.5 (Needs to be installed prior to RP16.5 to avoid upgrade errors) |
| Prospect Client | 8.0.5.0.06, 8.0.5.8, 8.0.6.0.13 and Newly released 8.0.6 P5 |
| Prospect Web | 2.2.5, 2.2.6, 2.2.6.1, 2.2.6.2 and Newly released 2.2.6.3 (Recommended for install prior to 8.0.6.5 on Pweb server) |
| Oracle | Oracle 9i (9.2.0.8 on Solaris 9) and Oracle 10g (10.2.0.4 on Solaris 10) |
| Solaris | 9 and 10 (Zoning not supported in Core 8.0.5 systems) |
| DAT | DA 7.1 Nortel CDMA RP16.4 Upgrade |
| Perl | 5.6.1 |
| JDK | 1.5.0_13 |

3 Release Contents

This section describes new features and enhancements made in RP16.5.

3.1 New features

3.1.1 Support for EVDO 8.0

Provided below is the number of additional pegs to be added in this release for the affected OM (Template) Groups. New entity or new groups or are indicated in **bold** type.

Note: Each OM metric may map to multiple Prospect pegs due to the detail provided by the template indices.

Table 5 – Newly Supported EVDO 8.0 Template

| <i>Template</i> | <i>Network Element</i> | <i>Interval (secs)</i> | <i>Permitted ConfName values</i> |
|---|------------------------|------------------------|--|
| T1E1BackHaul | DOM | 1800 | T1E1BackHaul |
| RnAConnectionResourceUsageHistogramPerModem | DOM | 1800 | RnAConnectionResourceUsageHistogramPerModem |

3.1.2 Support for EVDO Concat Feature

In EVDO releases 7.0 and before, the Nortel EVDO traffic data was cumulative in nature. The template data files at the EMS get written into each sampling period and thus the files size grows and becomes huge towards the end of the day. This format of data is referred to as Non-concatenated EVDO data. This created a heavy load on the EMS and the DA Server.

Due to these reasons, Nortel has introduced the concatenated file feature for EVDO 8.0. This concat feature involves both RNC and DOM templates. This file generated in this format is called the concatenated EVDO data.

Note: This feature is only available for EVDO 8.0 and later releases.

- The clusterId of the data should not be null. There should be some string present in that dataset otherwise preparsing will not happen properly.
- The OM concatenation feature will produce a file per template per EMS for every collection interval (15, 30 or 60 minutes). Each file will include OM data for all DOMs/RNCs or both (in the case of templates that are common to both DOM and RNC) per collection interval.
- The concatenated template file has the following naming convention:

`<TemplateName>_<RelNo>_<yyyy-mmdd>_<startTime>-<endTime>.dat`

Example: QoSPerfByConstraintCheck_R8.0_2006-0816_1200-1230.dat

Due to this concat feature, there are few changes on Prospect side as well. The file format produced by Nortel when the concat feature is turned on at the EMS is different than before. Due to this, the files coming into the 1xRaw directory are smaller. The Prospect code is updated to handle this new data format.

Table 6 – Changes to DA for RNCpm data type and collection of candidateRncQuery file as highlighted in **BOLD** font.

| Data Type | Format | Source file Naming Convention | Prospect Filename |
|------------------|---------------|---|---|
| RNCpm | ASCII | /appdata/dcFiles/concatenatedOM/<TemplateName>_<RelNo>_<YYYY-MMDD>_<startTime>-<endTime>.dat | <EMSIP>.<TSTAMP>.<Interval>.RNCpm[.gz] |
| n/a | ASCII | /appdata/dcFiles/candidateRncQuery<MMDDYYYY_HHMM>.txt | <EMSIP>.candidateRncQuery<MMDDYYYY>.txt |
| RNCcfg | ASCII | /appdata/dcFiles/domQuery<MMDDYYYY_HHMM>.txt | <RNC_ID>.DOM.<TSTAMP>.RNCcfg[.gz] |
| RNCcfg | ASCII | /appdata/dcFiles/ifaceQuery<MMDDYYYY_HHMM>.txt | <RNC_ID>.INTERFACE.<TSTAMP>.RNCcfg[.gz] |
| RNCcfg | ASCII | /appdata/dcFiles/pdsnQuery<MMDDYYYY_HHMM>.txt | <RNC_ID>.PDSN.<TSTAMP>.RNCcfg[.gz] |
| RNCcfg | ASCII | /appdata/dcFiles/pnQuery<MMDDYYYY_HHMM>.txt | <RNC_ID>.IS856CHANNELEMENT.<TSTAMP>.RNCcfg[.gz] |

3.1.3 Interface changes between DA and Prospect Server for Concat option

There are 2 main changes to the interface between DA and Prospect when the concat option is turned on.

1. The filename that is sent from DA server to Prospect "1xRaw" is called <EMSIP>.<TSTAMP>.30.RNCpm.gz (TSTAMP is in the format YYYYMMDDHHMM)

Sample file:

9.127.97.74.200903101100.30.RNCpm.gz

2. The <EMSIP>.candidateRncQuery<tstamp>.txt. is sent to \$PROSPECT_HOME/./ftpIN/evdo_cfg directory. This file is used by the Prospect preparer to make the association between RNCs and DOMs. The above directory will be created by the RP16.5 upgrade process. In RP16.4 and before, this file was used by the DA code.

Note: This file will be sent to Prospect server only for EMSs that have the concat feature turned on. The file is collected and transferred to Prospect server by the "rncfg" datatype DAT script.

Sample file:

9.127.97.74.candidateRncQuery09112009.txt (The file should be readable by flexpm)

3.1.4 New parameters in msc_list

In the existing msc_list file 3 additional fields are being introduced into this file which is indicated in **bold**: All these fields are mandatory for an entry with NEType RNC

| SYS_ID | NE_ID | BSS | Prefix | NEType | EMSIP | CONCAT | RNCIP |
|--------|-------|-------|--------|--------|--------------|---------------|--------------|
| ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

EMSIP: The IP Address of the EMS that the RNC belongs to. The format of the IP Address is nnn.nnn.nnn.nnn. The EMS IP Address should be known to the EMS Administrator.

CONCAT: To indicate whether concatenation feature is turned ON (Y) or OFF (N). Default value would be 'N' (OFF). When concat feature is turned on, the value needs to be "Y" for all the RNCs supported by that EMS. Similarly, when the concat feature is turned off on the EMS, the value should be "N" for all the RNCs on that EMS.

RNCIP: The IP Address of the RNC. Determine this IP Address by contacting the EMS Administrator. This is used by Prospect to index into the candidateRncQuery file in order to load the corresponding DOMs' OM data.

Note: Customer is responsible for maintaining the msc_list file accurately. The RP16.5 upgrade will update the msc_list with default entries for all RNC entries in the file. The default value for RNCIP and EMSIP are 0.0.0.0 and the default value for the concat option is "N"

Example to setup an RNC with concat option:

```
setup-msc-list -insert -name "SEATTLE_RNC1" -sys "1101" -ne "101" -bss "30" -p
"SEATTLE_RNC1." -type "RNC" -emsip "123.123.123.123" -concat "Y" -rncip "123.124.125.126"
```

3.1.5 New candidateRNCQuery in Prospect for RNCs loading concatenated data.

Prospect Loader will need to perform RNC lookup from the candidateRncQuery file available at the [\\$PROSPECT_HOME/./ftpIN/evdo_cfg](#) directory, It will identify the DOMs that are associated with each RNC and thus only load the OM data that are relevant for a particular RNC.

The file format will look like:-

<EMSIP>.candidateRncQuery<mmddyyy>.txt

EMSIP should match the EMSIP field in msc_list.

The above file should exist for the current day or the previous day if there are RNCs that are loading concatenated data.

Note: For RNCs that are loading "non-concatenated" format, this file is not needed.

3.1.6 Changes in callPreparse.sh

For non-concatenated data callPreparse.sh is invoked on the command line as follows:

```
[flexpm] $ cd PROSPECT_HOME/1.3/1xEVDO/scripts  
[flexpm] $ callPreparse.sh <RNCNAME> N  
RNCNAME is the name in the NE-Name field in msc_list.  
The “N” indicates concat option is turned off.
```

For concatenated data, callPreparse.sh is invoked on the command line as follows:

```
[flexpm] $ cd PROSPECT_HOME/1.3/1xEVDO/scripts  
[flexpm] $ callPreparse.sh <EMSIP> Y  
EMSIP is the IP Address of the EMS as specified for this RNC in the msc_list.  
The “Y” indicates concat option is turned on.
```

3.1.7 Changes in cron job for callPreparse.sh

In the RP16.5 release (CONCAT =Y or N), the callPreparse.sh will process one raw file in the \$PROSPECT_HOME/./ftpIN/MTXnn/1xRaw directory. Prior to this release, the callPreparse.sh processed all the files in a sequential manner for a certain RNC and did not allow multiple callPreparse.sh processes for a single RNC. In RP16.5, the script will also process more than one file for a certain RNC, thereby enabling parallel pre-parsing and loading. The current approach allows the script to make better use of all the available CPU resources in the system.

It is advised that customers make appropriate cron entries to call the “callPreparse.sh” every minute or so. If there is a backload situation, the callPreparse.sh will be started each minute and process a file. The number of files processed will be approximately same as the number of CPUs in the Prospect server.

Very Important: It is important to set the PREPARSE_LIMIT using set_evdo_option to 1 less than the number of CPUs in your box. This makes sure that the preparser processes do not take up too much CPU time. Monitor the load on the box using ‘prstat’ unix command from time to time and make adjustments to the PREPARSE_LIMIT value.

e.g. set_evdo_option pp=2 (If you have 3 CPU box)

ps-mgr restart sn (Restart sentry so it picks up the new setting)

3.1.8 Updating the scenario label with RNCName

RP16.5 has the ability to update the RNC scenario label with RNCName. The steps to update the scenario are as follows:

1. Upgrade the Prospect server to RP16.5 and load at least 1 datafile for all RNCs in msc_list
2. Stop the Sentry and make sure EVDO data load is complete. Important: All the logs for EVDO should show that the data load is complete. Do not proceed to next step if loaders are hanging or logs are incomplete due to some other reason. If necessary halt the middleware and let all the loader processes complete.
3. Get the system_id and msc_id from the msc_list for the RNC for which you need to update the scenario. Both SYS_ID and MSC_ID should be numeric values. Use the following command to determine this. Substitute <RNCNAME> with actual name of the RNC. RNCNAME is the prefix for the files in the 1xRaw directory

```
grep <RNCNAME> $PROSPECT_HOME/msc_list
```

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4. Run the script below while logged in as flexpm user

```
[flexpm] $ cd PROSPECT_HOME/1xEVDO/scripts  
[flexpm] $ ./del_key_lookup.pl <SYS_ID> <RNC_ID>
```
5. Repeat steps 2 and 3 for all the RNCs for which the label needs update.
6. Start sentry when you are done.
7. Load new prepared data for each of the RNCs.
8. Start the Client or Pweb to see the scenario name updated with RNCNAME in msc_list.
Prior to this, label DO_RNC will be displayed for all RNCs

3.1.9 Error message file for concatenated data format

In RP16.5, a new error file for EVDO is created in the “ok” directory for RNCs that produce data in concatenated format. The file contains all error messages related to EVDO configuration. E.g:-

- The errors relating to any instances in data that could not be mapped correctly,
- Information about templates unknown to Prospect,
- Information about mismatches between msc_list and candidateRNCquery file. E.g if an RNC is defined in candidateRNCFile but not in msc_list, this will be output to the log file.

Sample entries in error file below:-

- The RNC RNC_nnn.nnn.nnn.nnn in candidateQueryFile for EMS mmm.mmm.mmm.mmm does not have a corresponding entry in msc_list. This will cause missing traffic data in the Prospect database. Please make an entry in msc_list for this RNC RNC_nnn.nnn.nnn.nnn, run addmsc.sh -remake, restart sentry so new data can be prepared correctly
- # Key lookup failed for
DOM||||BSC20/Compact800BTS34_3C_3S/2|20090510110000|PerModemChanElmtLimit|12
Fix: Make sure the RNCcfg file has the proper configuration for the entity or instance specified.
- # Data template ConfName=RnSectorCchStatsTest is not a recognized template
Fix: Fix the EMSFILELIST variable in the DA configuration to make sure that only supported templates are being passed over to Prospect.

3.1.10 Resolved PMRs/APARs

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

Table 7: Release Details – Resolved Issues

| <i>ClearQuest ActivityID / APARName / PMR Number</i> | <i>Problem Description</i> |
|--|--|
| valnt00088575 / PMR 06758 / IZ51498 | Nortel EVDO CALLPREPARSE.SH script is not keeping up with incoming EVDO data |
| valnt00090679 / PMR 80575 / IZ54335 | Newly defined RNCs not showing correctly in the active scenario |
| valnt00092055 / PMR 82241 / IZ55765 | Cells mapping to wrong CBSCs |
| valnt00093477 / FITS MR0804096720 | Adding support for T1E1BackHaul template |
| valnt00096606 / FITS MR091709526 / PMR # 89111 | Support for RnAConnectionResourceUsageHistogramPerModem |

4 Media Content

Prospect® Nortel AMPS/TDMA/CDMA RP16.5 is composed of the following media:

1. Prospect software 17.0.16.5-TIV-PROSPECT-NORCDM-FP0000.tar
2. DA Software 7.1.16.5-TIV-PROSPECTDA-NORCDM-FP0000.tar
3. Release notes for Prospect and DA.
4. Documentation: AdminGuide.pdf, DA_Tools.pdf, PerfDataRef.pdf

5 Software Requirements & Installation

5.1 Software Requirements

To view the software products required to install the Prospect® Nortel AMPS/TDMA/CDMA RP16.5 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 for Nortel AMPS/TDMA/CDMA MTX17 RP16.5. 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 Note: The RP16.5 upgrade is a cumulative upgrade that contains RP16 (along with Core 8.0.5), RP16.1 (MTX16/NBSS16 specific), RP16.2 (EVDO7 specific), RP16.3 (EVDO8 specific) and RP16.4 (MTX17/NBSS17) upgrade changes. That means RP16.5 upgrade can be applied against an existing RP15.3, RP16, RP16.1, RP16.2, RP16.3 or RP16.4 system. The wminstall command will detect if you have a RP15.3 system and if so it will apply RP16, RP16.1, RP16.2, RP16.3, RP16.4 and RP16.5 upgrades. If wminstall detects a RP16 system already, it will install RP16.1, RP16.2, RP16.3, RP16.4 and RP16.5. If wminstall detects a RP16.1 system already, it will install RP16.2, RP16.3, RP16.4 and RP16.5. If wminstall detects a RP16.4 system already, it will just apply RP16.5 specific

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upgrade changes. Since these upgrades could take a while, please ensure that there are no cron jobs or backup software accessing the Prospect database for the duration of the upgrade.

The base environment that this patch will be applied against:

1. Prospect 8.0 Nortel MTX13 RP11 Base Release (**FRESH INSTALL PATH**):

- Prospect 8.0 Nortel MTX13 RP11 Fresh Install
- Prospect 8.0 Nortel MTX13 RP11 Patch10
- Prospect 8.0 Nortel MTX13 RP11 HF11
- Prospect 8.0 Nortel MTX14 RP12
- Prospect 8.0 Nortel MTX14 RP12 HF01
- Prospect 8.0 Nortel MTX14 RP12 HF02
- Prospect 8.0 Nortel MTX14 RP12 HF03
- Prospect 8.0 Nortel MTX14 RP12 HF04
- Prospect 8.0 Nortel MTX14 RP12 HF05
- Prospect 8.0 Nortel MTX14 RP13
- Prospect 8.0 Nortel MTX14 RP13 HF01
- Prospect 8.0 Nortel MTX14 RP14
- Prospect 8.0 Nortel MTX14 RP14 HF01
- Prospect 8.0 Nortel MTX14 RP14 HF02
- Prospect 8.0 Nortel MTX14 RP14 HF03
- Prospect 8.0 Nortel MTX14 RP14 Patch 10
- Prospect 8.0 Nortel MTX15 RP15 (Core upgrade)
- Prospect 8.0 Nortel MTX15 RP15.1
- Prospect 8.0 Nortel MTX15 RP15.2
- Prospect 8.0 Nortel MTX15 RP15.3
- Prospect 8.0 Nortel MTX15 RP15.3 Patch10 (Optional)
- Prospect 8.0 Nortel MTX15 RP16 (**See important note above**)
- Prospect 8.0 Nortel MTX15 RP16 HF01 (Optional)
- Prospect 8.0 Nortel MTX16 RP16.1
- Prospect 8.0 Nortel MTX16 RP16.2
- Prospect 8.0 Nortel MTX16 RP16.3
- Prospect 8.0 Nortel MTX16 RP16.4

3. Prospect 8.0 Nortel MTX15 RP15.1 Base Release (**FRESH INSTALL PATH**):

- Prospect 8.0 Nortel MTX15 RP15.1 Fresh Install
- Prospect 8.0 Nortel MTX15 RP15.2
- Prospect 8.0 Nortel MTX15 RP15.3
- Prospect 8.0 Nortel MTX15 RP15.3 Patch10 (Optional)
- Prospect 8.0 Nortel MTX15 RP16 (**See important note above**)
- Prospect 8.0 Nortel MTX15 RP16 HF01 (Optional)
- Prospect 8.0 Nortel MTX16 RP16.1
- Prospect 8.0 Nortel MTX16 RP16.2
- Prospect 8.0 Nortel MTX16 RP16.3
- Prospect 8.0 Nortel MTX16 RP16.4

4. Prospect 8.0 Nortel MTX15 RP15.2 Base Release (**FRESH INSTALL PATH**):

- Prospect 8.0 Nortel MTX15 RP15.2 Fresh Install
- Prospect 8.0 Nortel MTX15 RP15.3
- Prospect 8.0 Nortel MTX15 RP15.3 Patch10 (Optional)
- Prospect 8.0 Nortel MTX15 RP16 (**See important note above**)
- Prospect 8.0 Nortel MTX15 RP16 HF01 (Optional)
- Prospect 8.0 Nortel MTX16 RP16.1
- Prospect 8.0 Nortel MTX16 RP16.2
- Prospect 8.0 Nortel MTX16 RP16.3

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- Prospect 8.0 Nortel MTX16 RP16.4
5. Prospect 8.0 Nortel MTX15 RP15.3 Base Release (**FRESH INSTALL PATH**):
- Prospect 8.0 Nortel MTX15 RP15.3 Fresh Install
 - Prospect 8.0 Nortel MTX15 RP15.3 Patch10 (Optional)
6. Prospect 8.0 Nortel MTX15 RP15.3 Base Release (**FRESH INSTALL PATH**):
- Prospect 8.0 Nortel MTX15 RP15.3 Fresh Install
 - Prospect 8.0 Nortel MTX15 RP15.3 Patch10 (Optional)
 - Prospect 8.0 Nortel MTX15 RP16 (**See important note above**)
 - Prospect 8.0 Nortel MTX15 RP16 HF01 (Optional)
 - Prospect 8.0 Nortel MTX16 RP16.1
 - Prospect 8.0 Nortel MTX16 RP16.2
 - Prospect 8.0 Nortel MTX16 RP16.3
 - Prospect 8.0 Nortel MTX16 RP16.4
7. Prospect 8.0 Nortel MTX15 RP16.0 Base Release (**Fresh Install PATH**)
- Prospect 8.0 Nortel MTX15 RP16 Fresh Install
 - Prospect 8.0 Nortel MTX15 RP16 HF01 (Optional)
 - Prospect 8.0 Nortel MTX16 RP16.1
 - Prospect 8.0 Nortel MTX16 RP16.2
 - Prospect 8.0 Nortel MTX16 RP16.3
 - Prospect 8.0 Nortel MTX16 RP16.4

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.

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

```
$ ls -lrt /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.

- 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.

- If you get an error concerning privileges, then you need to continue with the following steps.
- 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
```

- 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 RP16.5 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 Information Check and Pre-Installation Setup

The following instructions must be executed on the Prospect server:

1. Log in as user `flexpm`.

2. Source the profile. This can be done by

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

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. Place the downloaded tarball at `/var/tmp` or wherever you have enough space and go to the location of the installer and un-tar the file.

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

```
[flexpm] $ mkdir INSTALL_NORTEL
```

```
[flexpm] $ cd INSTALL_NORTEL
```

```
[flexpm] $ tar -xvf 17.0.16.5-TIV-PROSPECT-NORCDM-FP0000.tar
```

```
[flexpm] $ cd /var/tmp/INSTALL_NORTEL/sun-server-1/WMInstall
```

6. Read the license agreement in `license.txt` and edit `responseFile.txt`

In prior releases, the user had to type in “yes” to accept the license agreement. In this release, the user can read the `license.txt` (present in `/var/tmp/INSTALL_NORTEL/sun-server-1/WMInstall` directory or wherever you extracted the tarball).

If user agrees with the license text, then they should edit the `responseFile.txt` (present in `/var/tmp/INSTALL_NORTEL/sun-server-1/WMInstall` directory or wherever you extracted the tarball) and set `LICENSE_AGREEMENT` to “true” like shown below. The default value for this parameter is false. It needs to be set to true for the upgrade to proceed.

```
LICENSE_ACCEPTANCE = true
```

7. Check the `FLEXPM_HOME`

```
[flexpm] $ env |grep FLEXPM_HOME
```

The output would look like either

a) `FLEXPM_HOME=/u01/apps/WatchMark/FlexPM/NorCDMA`

Or

b) `FLEXPM_HOME=/u01/apps/WatchMark/FlexPM/NortelMTX`

Note: The last part of the `FLEXPM_HOME` variable needs to be used in the “-i” option below.

If the `FLEXPM_HOME=/u01/apps/WatchMark/FlexPM/NorCDMA` then use the following command to do the install preview.

```
[flexpm] $ ./wminstall -r responseFile.txt -b
/u01/apps/WatchMark/FlexPM -i NorCDMA -spec spec.xml -d $DB_CONNECT
-portbase $PORT_GROUP -preview
```

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If the `FLEXPM_HOME=/u01/apps/WatchMark/FlexPM/NortelMTX` then use the following command to do the install preview.

```
[flexpm] $ ./wminstall -r responseFile.txt -b
/u01/apps/WatchMark/FlexPM -i NortelMTX -spec spec.xml -d
$DB_CONNECT -portbase $PORT_GROUP -preview
```

Note: That all parameters should be in the same line

Note: If you are on Oracle 9i environment, replace `spec.xml` with `spec9i.xml` in the commands above

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`. The script will output UDCs with same name as Prospect PCALC to be introduced in this release. If there is an output like the one below which means there is/are one or more matching UDC(s) that has the same name as Prospect PCALC. In this case, **DO NOT PROCEED** with the upgrade. Instead, run the following steps to fix this issue first.

If the script does not output anything, then it is ok to proceed with the upgrade. The script needs a parameter 2.

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

```
[flexpm] $ cd /var/tmp/INSTALL_NORTEL/sun-server-1/WMinstall/install
```

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

Important Note A!:

Sample script output with one UDC match.

| UDC_NAME | UDC_FIELD_ID | ENTITY_NAME |
|-----------------------|--------------|-------------|
| perSectorRUPercent000 | 16443 | DOM_Sector |

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='perSectorRUPercent000_IBM'
where name='perSectorRUPercent000';
SQL> commit;
```

Important Note B!:

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` (Any doubt please 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.

```
SQL> exit;
```

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 `perSectorRUPercent000` will use the new PCALC and not the UDC unless a manual change is made to the template.

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- **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. Then a Oracle 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 /var/tmp/INSTALL_NORTEL/sun-server-1/WMInstall/install
[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

5.5 Installation Instructions

To carry out the installation of Nortel AMPS/TDMA/CDMA RP16.5 refer to the Prospect Installation Guide which is included in the Documentation CD-ROM or online as appropriate.

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 proceed with install step 1. If you have a split Server configuration, please follow instructions below to mount the `/u01/apps/WatchMark/FlexPM/NorCDMA` or `NortelMTX` 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/NorCDMA
```
- b. On the Oracle database server create the required mount point

```
[root] $ mkdir -p /u01/apps/WatchMark/FlexPM/NorCDMA
```
- c. Mount the Prospect file system on the Database Server

```
[root] $ mount -f nfs <IP Address Of ProspectServer>:/u01/apps/WatchMark/FlexPM/NorCDMA
/u01/apps/WatchMark/FlexPM/NorCDMA
```
- d. Make sure that the `/u01/apps/WatchMark/FlexPM/NorCDMA` 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)

5.5.1 Installation Steps

1. Log in as user `flexpm`
2. Source the profile. This can be done by

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

3. Stop the middleware.

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

Wait until you see: Command complete: stop all.

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

4. Go to the directory that contains the Prospect software.

```
[flexpm] $ cd /var/tmp/INSTALL_NORTEL/sun-server-1/WMInstall/
```

Run the installation tool by typing the following command. This command installs the upgrade (Make sure the `-i` option is entered correctly as explained below). It is possible to run the command in the background with No Hangup (`nohup`) if you are using Solaris 9 or Solaris 10. Please note that the `nohup` option is NOT SUPPORTED for Solaris 8.

Note: If you are on Oracle 9i environment, replace `spec.xml` with `spec9i.xml` in the commands below

If the `FLEXPM_HOME=/u01/apps/WatchMark/FlexPM/NorCDMA` then use the following command to start the install

```
[flexpm] $ nohup ./wminstall -r responseFile.txt -b
/u01/apps/WatchMark/FlexPM -i NorCDMA -spec spec.xml -d $DB_CONNECT
-portbase $PORT_GROUP
```

If the `FLEXPM_HOME=/u01/apps/WatchMark/FlexPM/NortelMTX` then use the following command to start the install

```
[flexpm] $ nohup ./wminstall -r responseFile.txt -b
/u01/apps/WatchMark/FlexPM -i NortelMTX -spec spec.xml -d
$DB_CONNECT -portbase $PORT_GROUP
```

Note: that all parameters should be in the same line

Note: The output of the `wminstall` command will go to `nohup.out` as well as the usual install log in the `/var/tmp/yyyy_mm_dd*`.

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

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

General Notes:

- If there is not enough disk space on the destination file system, the program stops and reports an error without installing any files.
 - The installation of the upgrade might take a while to complete. The main terminal where the install command was executed, may seem to hang from time-to-time at the `INSTALL` section for each module. 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. **DO NOT terminate the upgrade at any time without consulting a product support person first.**
5. 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>__<runningnumber>` for and 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
```

Examine `check_detail.log` to make sure there are no serious errors.

The following messages are harmless and can be ignored:

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```
: create table tmp_table (field_name varchar2(200))
: ERROR at line 1:
: ORA-00955: name is already used by an existing object

: alter table NOR_DORNC_ST_TAB add instance_id NUMBER
: ERROR at line 1:
: ORA-01430: column being added already exists in table

: drop view NOR_TF_UAS_RES_VBH
: ERROR at line 1:
: ORA-00942: table or view does not exist

: drop view NOR_TF_UAS_VBH
: ERROR at line 1:
: ORA-00942: table or view does not exist
```

6. Check the installation on the system after installation is complete. The output should look like shown below.

```
[flexpm] $ show_installed
```

| COMPONENT | INSTALL_TY | INSTALL_DATE |
|---------------------------------------|------------|--------------------|
| CORE Prospect rev 8.0.6.5 b4 | PATCH | 09-OCT-14 17:18:22 |
| VENDOR NortelMTX17 rev 17.0.16.5.0 b2 | UPGRADE | 09-OCT-21 11:47:38 |

The version numbers (rev) should be the same as shown above. The build numbers (e.g. b0, 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.

7. Log off as *flexpm*.

5.6 Post-Installation Instructions

5.6.1 Setting up PREPARSE_LIMIT and updating cron jobs.

1. Login as *flexpm*, if not already logged in.
2. Source the *.profile* in *FLEXPM_HOME*
[flexpm] \$ *./profile*
3. If customer's database server IP address is different from the Prospect server IP Address (i.e customer has split Server configuration), then the following variable needs to be set in *\$FLEXPM_HOME/vendor/Nortel/.profile.vendor*

Open the above file using the 'vi' or other unix based editor.

```
[flexpm] $ vi $FLEXPM_HOME/vendor/Nortel/.profile.vendor
```

Search for *DB_HOSTIP*. If NOT exist please add the line below at the bottom of the file. The IP Address of the Database server should be in the quotes.

```
eg. export DB_HOSTIP="nnn.nnn.nnn.nnn"
```

Save the file and exit the editor. Bounce the middleware.

4. RP16.5 enables parallel loading of files from the same RNC. The *callPreparse.sh* script has been changed to preparse one file at a time. The cron interval controls how often the *callPreparse.sh* runs.

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The cronjob times for callPreparse.sh can be tweaked to run at shorter intervals (say 5 min or less). This will help in back loading situations. Existing customers can schedule cron jobs for 5 min and see if the files are pre parsing and loading within the half hour.

The following script helps setting up of cron job for callPreparse.sh. The cron job can be scheduled to run every 5 minutes (recommended), or every 10 min, every 15 min or every 30 minutes. The script gen_EVDO_cron.pl can be run from any directory as long as you are logged in as 'flexpm' user.

To generate cron entries each 5 min use

```
gen_EVDO_cron.pl -i 5 > out
```

To generate cron entries each 10 min use

```
gen_EVDO_cron.pl -i 10 > out
```

To generate cron entries each 15 min use

```
gen_EVDO_cron.pl -i 15 > out
```

To generate cron entries each 30 min use

```
gen_EVDO_cron.pl -i 30 > out
```

If you view the out file, it will have entries for each RNC at the specified intervals. You can use the "out" file above and edit the crontab using "crontab -e" and cut and paste entries from "out".

- Existing EVDO customers need to make sure the PREPARSER_LIMIT is setup correctly. . PREPARSER_LIMIT is the number of callPreparse.sh scripts that can run simultaneously Set the PREPARSER_LIMIT=3 using the following set_evdo_option command
[flexpm] \$ set_evdo_option pp=3

Note: The value of the PREPARSER_LIMIT is really determined by CPU speed, load on the box and MAX_COMMANDER value as well. e.g if MAX_COMMANDER=16 on a 20 CPU box, then you would want at least 16 callPreparse.sh processes to be pre parsing at any given time. But at the same time, you would not want more than 18 -19 callPreparse.sh processes. That means PREPARSER_LIMIT could be between 16 and 18.

PREPARSER_LIMIT can be changed at any time depending on machine load. There is no need to bounce sentry after making this change. The default value of the PREPARSER_LIMIT is 10. Important: Verify that there is no error after the installation.

If there are errors about "Error:Template <nnn> not recognized" in the loader logs, after the upgrade when the callPreparse.sh is run, you may need to update the templateFile with the backup from prior release. (See the templateFile.Before_RP16.5) Please work with product support on that if needed.

- Updated msc_list – The upgrade script updates all RNC entries in the msc_list to have 3 extra options. EMSIP, CONCAT and RNCIP. The default value for EMSIP and RNCIP is 0.0.0.0. The default value for CONCAT is 'N'.
- The following step is needed only if you have changed your msc_list manually after the upgrade. Check to make sure that the \$PROSPECT_HOME/msc_list does not have any lines with any missing fields. That means each line in the msc_list of type RNC should have the following

```
NE_NAME SYS_ID NE_ID BSS Prefix NEType EMSIP CONCAT RNCIP
```

Also make sure that there is only one header line in msc_list. If you see 2 lines in the msc_list with ne_name or msc_name, remove the msc_name line. Run the following command to make sure the msc_list is formatted correctly:

```
[flexpm] $ addmsc.sh -remake
```

- Remove the scratch directory where you un-tar'd the software. (.e.g /var/tmp/INSTALL_NORTEL)

9. Start the middleware.
[flexpm] \$ ps-mgr init

5.6.2 Configure Retention Period Settings [SEAd69879]

During the upgrade, some of the retention period may be reset back to 'Unlimited'. This can be reconfigured as follows:

1. Compare the output of `past_part_maint.sh` against the original values recorded in `past_part_maint.bak` (Refer to Section 6.3.5 step 4).
2. If any values are different, please change it back to the original values using the following command. E.g. if "traffic":

```
[flexpm] $ past_part_maint.sh <class type> <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.

5.6.3 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.

5.6.4 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)

5.7 Release Restrictions

This release is for General availability.

5.8 Known Issues

Listed below are the known issues in Prospect® Nortel AMPS/TDMA/CDMA RP16.5

Issue Tracking Number: **valnt00089367**

Issue: On a Core 8.0.6.2 patched system applying a vendor upgrade (RP16.4) will result in new fields not being reportable.

Description: If you have a current RP16.3 system with Core 8.0.6.2, and you applied RP16.4, then the new fields in RP16.4 will not be reportable Please follow the upgrade path suggested in Section 1.

Customer Impact: New fields not reportable.

Workaround: Apply the new Core 8.0.6.5 available on the DCF site **prior** to applying RP16.5 Contact support for details.

Issue Tracking Number: **valnt00097838**

Issue: Issue on admin guide

Description: On page 103 (Updating the scenario label with RNCName) section of the admin guide is missing the file extension ".pl". It must be “./del_key_lookup.pl <SYS_ID> <RNC_ID>”

Customer Impact: No impact, ensure invoke right script.

Workaround: Refer to the .pdf format for the correct command. While executing, ensure the command to be as “./del_key_lookup.pl <SYS_ID> <RNC_ID>”.

5.9 Dependent Known Issues in the core product

None.

5.10 Useful Hints

5.10.1 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;
```

5.10.2 Parsing error explained

This section explains the reasons for the following error in the callPreparse.sh output from cron.

“Number of pegs in header doesn’t match number of pegs in data (<number>)

If you get this error in the DA log file, it is possible that there is a “space” instead of a “tab” in the RNCpm data file before the date field. To fix this, you may have to change this in the data file using a global replace ‘sed’ Unix command. E.g.

```
sed -e 's/ 01\19\2007/      01\19\2007/'
```

```
RNC_ISSHO_PerfBySecondarySectorCarrier_R4.0_RNC_ISSHO_PerfBySecondarySectorCarrier_
R4.0.dat
```

It is also possible to get this error when the variables in the header do not match the values in the rows below. This can typically happen during an EVDO RNC cutover from one release to next. The data generated during this interval could have this problem. Its also possible that an EVDO file has incomplete record for the last template in the file. This could happen if the EVDO file is collected too soon from the EMS while its being written into.

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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