PARADISE DATACOM APPLICATION NOTE

EVOLUTION / QUANTUM / VISION SERIES MODEM SOFTWARE UPGRADE NOTICE (INCLUDES IP TRAFFIC CARD UPGRADE)

AN_004J

Summary

This procedure allows an Evolution / Vision / Quantum Series modem to be upgraded with the latest version of base modem software and where applicable, IP Traffic Card software.

Failure to follow this procedure could render the modem unusable!

NOTE: Evolution and Quantum users of P3714 IP Traffic Cards need to upgrade the IP Traffic Card software to at least V2.0.0 to be compatible with V2.0.7 or greater base modem software. IP Traffic Cards currently being used with base modem software V1.9.x will not work with V2.x.x base modem software without being upgraded. This is because the communication mechanism between the base modem and IP Traffic Card has been significantly enhanced to improve performance and the previous communications mechanism is no longer supported.

Summary process for upgrading/downgrading when an IP Traffic card is fitted:

1) Run FB Upgrade utility

2) Upgrade IP Traffic Card software
   • Wait for 'Upgrade Completed' message
   • Close all browser sessions

3) Upgrade Base Modem software

Summary process for upgrading/downgrading when an IP Traffic Card is NOT fitted:

1) Run FB Upgrade utility
2) Upgrade Base Modem software

Summary process for upgrading/downgrading an IP Traffic Card:

Please note: If only upgrading/downgrading the IP Traffic Card the FB Upgrade utility is not required.

1) Upgrade IP Traffic Card software
   • Wait for 'Upgrade Completed' message
   • Close all browser sessions

Detailed Process

Please read the Notes at the end of this Application Note before proceeding!

It may be necessary to change some of the modem's parameters in order to complete the software upgrade. Before making any changes, save the current configuration and copy it to your PC using the Edit/Unit/Memory/Store and Download menus of the Web User Interface.

1. **Preliminary steps**

These steps are mandatory for all upgrades:

If 'DVB-S2 ACM' is being used, please turn **ACM OFF** prior to upgrading the Modem's software.

If the Modem's Terrestrial Interface is set to IP, please ensure the 'Ethernet Traffic Mode' is set to Bridge mode (i.e. turn routing or TCP acceleration modes off etc.). Select Main/Edit/Unit/Interface/Terrestrial/IP and set 'IP mode' to **Bridge mode**, press Enter and then set 'Ethernet traffic mode' to **Bridge mode**. Reboot the modem after making this change.

2. Run FB pre-upgrade utility

Please note that this step must be executed if the base modem software version is to be changed. If only the IP Traffic Card is to be upgraded, skip this section and move on to the Upgrade IP Traffic Card software procedure that follows.

The compact flash memory in the modem has a special piece of software called the fallback image that is used to recover from if an upgrade fails. It is essential that this is upgraded prior to any upgrade or downgrade as older versions of the fallback image are less reliable with newer versions of modem software. The pre-upgrade utility also suspends some of the processes on the modem. Normal operation is restored when the base modem software is replaced during an upgrade.

The pre-upgrade utility is used as follows:

Download the pre-upgrade utility to your PC from the Paradise website. Please save to a directory on your PC and place a shortcut to it on the desktop. If preferred the associated icon can set by right - clicking the new desktop icon and selecting 'Properties' and 'Change Icon…'. Browse to the downloaded directory and select the icon:

Double-clicking this icon will run the utility. Please delete any old copies of the upgrade utility. The upgrade utility **must** be used when upgrading modems which have software version V1.7.4 or higher.

Connect your PC to the modem M&C Ethernet interface using a straight Ethernet cable, ensuring the modem has an IP address compatible with the PC (i.e. on the same subnet). The modem IP address can be set via the Main/Edit/Unit/M&C/IP address and subnet mask options.

Enter the target Modem's M&C IP address into the field provided and click on the 'Prepare for Upgrade' button. The utility will automatically open a DOS window, run and then close once the transfer has completed, leaving the utility open for further upgrades if necessary. Manually close the utility if finished.

(Please note: If the transfer does not start, or only partially completes, please switch off the Windows Firewall and run the pre-upgrade utility again.)

The Modem will automatically reboot.

3. Upgrade IP Traffic Card software (if fitted)

If upgrading the IP Traffic Card, complete the procedures in this section. If no change is required to IP Traffic Card software skip to the Upgrade Base Modem Software section.

Download the latest IP Traffic Card software from the Paradise website.

Note: The same IP Traffic Card software is used on all series of Paradise modems.

Configure the IP Traffic Port address to be on the same subnet as your PC and modem M&C address. Select Main/Edit/Unit/Interface/IP and configure the IP address and subnet mask. Ensure the *Bridge M&C* option is set to *ON*.

Enter the modem's M&C IP address to your browser and the Web interface will appear. A login is required, the default user name is *admin* and the password is *paradise*.

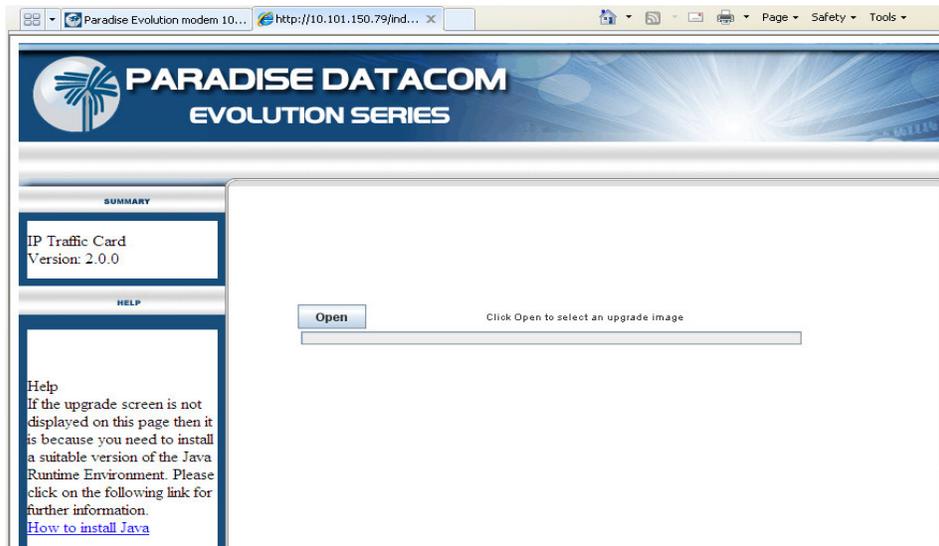The PC will require the latest Java Runtime Environment (a free download from www.java.com)

Navigate to the Edit/Unit/Upgrade screen on base modem:

If the following pop-up security message is seen: 'The application's digital signature cannot be verified. Do you want to run the application?', tick the 'Always trust content from this publisher' box and click on the 'Run' button to start the upgrade Java applet.

Connect an additional Ethernet cable between the upper base modem RJ45 port (labelled IP TRAFFIC) and one of the RJ45 connectors on the IP Traffic Card. The cable can be either a crossover or straight, as the IP Traffic Card is auto-sensing.

Open a second web browser session and enter the IP Traffic Card address as the URL.
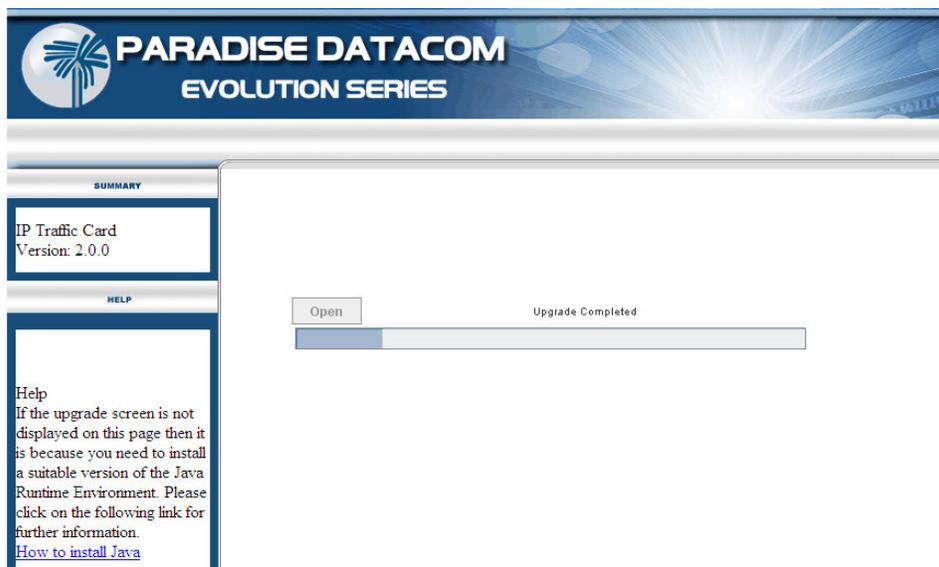Keep the base modem web session open on the upgrade page.

IMPORTANT NOTE: If current software is V1.0.12 or earlier, a Kernel upgrade is required prior to loading the latest version. This will require V1.0.13 Kernel.zip to be loaded. Please contact Teledyne Paradise Datacom technical support for details.

Using the *IP Traffic Card upgrade page*, load the new software to the IP Traffic Card by selecting *Open* and navigating to where the software is saved on your PC. The filename for IP Traffic Card software will be in the format 'Q3714-*x.y.z*.zip' where *x.y.z* is the version number. With the correct filename selected, click on the *Open* button and the IP Traffic Card upgrade process will begin.

The software will be automatically unzipped and uploaded to the Modem's IP Traffic Card (CF image and UImage files)

Wait for the 'Upgrade Completed' message and then close all browser sessions.

This completes the IP Traffic Card software upgrade. If the base modem software is also to be upgraded continue with the next section.

If no change is required to the base modem software, the modem must now be rebooted before moving on to the Post-upgrade procedures.

4. Upgrade Base Modem Software

Download the latest modem software to your PC from the Paradise website.

The software filename for Evolution or Quantum series modems will be in the format 'Quantum-*x.y.z*.zip' and Vision series will be 'Vision-*x.y.z*.zip' where *x.y.z* is the version number.

At this stage, please ensure that the files listed in Note 1 are NOT present within the user profile directory or the PC desktop. If any of the files are found, delete them. This is very important!

From Internet Explorer, login to the modem's Web User Interface (the default user name is *admin* and the default password is *paradise*) and browse to the modem's Edit/Unit/Upgrade web page.

If the following pop-up security message is seen: 'The application's digital signature cannot be verified. Do you want to run the application?', tick the 'Always trust content from this publisher' box and click on the 'Run' button to start the upgrade Java applet.

A Java applet will appear within the page and present the user with an Open button. Select the Open button and navigate to where the new base modem software .zip file is located, by double-clicking on the folders as necessary.

With the correct filename selected, click on the *Open* button and the upgrade will begin automatically. Leave the modem to upgrade and restart before attempting any further action. This will take around 10 minutes.

5. Post-upgrade procedures

Verify the new software version(s) from the Main/View/Unit menu. Note that the IP Traffic Card software information is only displayed if the terrestrial interface is currently configured as IP.

If the LCD contrast needs adjusting, hold the 0 key pressed whilst using the up / down arrows to set a comfortable contrast.

If any of the modem's parameters were changed during the upgrade procedure (e.g. ACM or IP Traffic Card settings) either correct them individually or restore the original configuration from a previously saved file using the Main/Edit/Memories/Recall menu.

By default, HTTP access on port 80 will be enabled after an upgrade. If it is desired to block this access, it can be disabled from the Web User Interface at Edit/Unit/Advanced/Operation/HTTPS.

SNMP is disabled after an upgrade. It can be restarted by clicking on the Reconfigure button in the Web User Interface at Edit/Unit/M&C/SNMP.

Disconnect any Ethernet cables that were added as part of the upgrade procedures and restore the original connections to the M&C and IP traffic interfaces.

6. Notes

Note 1: Prior to starting an upgrade, please ensure none of the following files appear on either the PC desktop or within the User profile directory as a result of a previous failed upgrade:

uImage   cf.img.gz   u-boot.bin

To check the location of the User profile directory please go to the DOS command prompt and type: cd %USERPROFILE%

This will display the location of the directory used by the previous upgrade. Use Windows Explorer or similar to navigate to both this directory and the desktop. If any of the three files are present, they must be deleted before running the upgrade process.

Note 2: If not already set, change the modem from Local control to Takeaway to allow PC control of the modem via the Web User Interface to facilitate the software download. On the modem keypad select: Main/Edit/Unit/M&C/Control and select Takeaway.

Note 3: Ensure the modem's current configuration has been saved using the menu at Main/Edit/Memories/Store and copied to your PC. This will enable the original modem configuration to easily be restored when the upgrade is complete. (Some settings may need to be changed during the upgrade procedure.)

Note 4: You may need to delete the Java Cache temporary Internet files if the Java will not load at the point of starting the software download. To do this go to Control Panel, select Java, select Temporary Internet Files and Delete Files. Restart the Browser session.

Note 5: If Internet Explorer is timing out whilst loading the browser, delete the Browser history. Under the Tools menu, select Internet Options and delete browser history.

Note 6: There is a potential problem with Java version 6 update 10 (build 1.6.10-b33) which causes java to hang when loading the upgrade screen. This problem occurs with Internet Explorer 6 & 7 and Firefox version 3. (Firefox 2 is ok.)

To resolve the problem; on your PC select START -> CONTROL PANEL -> JAVA. Select the ADVANCED tab and open the Java Plug-in section. Un-check the tick box entitled "Enable the next-generation Plug-in". The browser needs to be restarted for the change to take effect.

Note 7: To successfully upgrade a modem using Internet Explorer running on a Windows Vista PC or Windows 7, you must turn Protected Mode OFF on the PC.

Note 8: The procedures apply equally to software downgrades as well as upgrades. The same procedures should be used.