



Aprisa XE Software Release Notes

7.3.4

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1. Introduction

Introduction	<p>The previous Aprisa XE software version 7.3.1 was released for general use on the 22nd September 2006.</p> <p>Aprisa XE software versions 7.3.4 and 7.3.5 released specific FCC RF variants (and some bug fixes) with base software of 7.3.1.</p> <p>This release of Aprisa XE software version 7.3.4 was released for general use on the 13th October 2006.</p> <p>This document covers the major changes, product enhancements, new functionality, bug fixes and MIB changes since Aprisa XE software version 7.3.1.</p>
4RF Support	<p>Prior to upgrading Aprisa XE terminals with this software, please contact 4RF Customer Support at support@4rf.com to obtain the upgrade files and upgrade process.</p> <p>Where possible, the customer should consider upgrading in a controlled environment before upgrading the entire network.</p>

2. Released Files

Releases Files The following is a list of files released for Aprisa XE software version 7.3.4.

File Name	File Type	File Function
Rel_7_3_4a.cfg	TFTP Upgrade	Full TFTP upgrade - used when running 7.2.x or later
Rel_7_3_4.cfg	TFTP Upgrade	Standard TFTP upgrade - used when running 7.2.x or later
Rel_7_3_4p.cfg	TFTP Upgrade	Partial TFTP upgrade - used when running 7.2.x or later
release_7_3_4a.cfg	TFTP Upgrade	Full TFTP upgrade - used when running 7.1.x or earlier
release_7_3_4.cfg	TFTP Upgrade	Standard TFTP upgrade - used when running 7.1.x or earlier
release_7_3_4p.cfg	TFTP Upgrade	Partial TFTP upgrade - used when running 7.1.x or earlier
F1_7_3_4.cfg	TFTP Upgrade	Used to load images for the newest DFXO and DFXS cards (rev D)
F2_7_3_4.cfg	TFTP Upgrade	Used to load images for all revisions of DFXO and DFXS cards
F3_7_3_4.cfg	TFTP Upgrade	Used to load images for the newest Modem card (rev D)
F_7_3_4.cfg	TFTP Upgrade	Used by Rel_7_3_4a.cfg during TFTP upgrade (FPGA firmware)
M_7_3_4.cfg	TFTP Upgrade	Used by Rel_7_3_4a.cfg during TFTP upgrade (modem)
O_7_3_4.cfg	TFTP Upgrade	Used by Rel_7_3_4.cfg during TFTP upgrade (FPGA firmware old)
P_7_3_4.cfg	TFTP Upgrade	Used by Rel_7_3_4p.cfg during TFTP upgrade (FPGA firmware partial)
R_7_3_4.cfg	TFTP Upgrade	Used by Rel_7_3_4a.cfg during TFTP upgrade process (RF synth files)
S_7_3_4.cfg	TFTP Upgrade	Used by Rel_7_3_4a.cfg during TFTP upgrade process (software)
C-fpga_E1-0-7-0.img	Firmware Image	Motherboard 1 image file
C-fpga_E2-0-5-3.img	Firmware Image	Motherboard 2 image file
C-fpga_E5-0-7-0.img	Firmware Image	QJET image file
C-fpga_E7-1-3-3.img	Firmware Image	Q4EM image file
C-fpga_E7-2-3-3.img	Firmware Image	Q4EM image file
C-fpga_E8-1-4-0.img	Firmware Image	DFXO image file
C-fpga_E8-2-4-0.img	Firmware Image	DFXO image file
C-fpga_E8-3-5-1.img	Firmware Image	DFXO image file
C-fpga_E9-0-4-0.img	Firmware Image	DFXS image file
C-fpga_E9-1-4-0.img	Firmware Image	DFXS image file
C-fpga_E9-2-4-0.img	Firmware Image	DFXS image file
C-fpga_EA-0-5-1.img	Firmware Image	Modem image file
C-fpga_EA-1-0-0.img	Firmware Image	Modem image file
C-fpga_EB-0-1-0.img	Firmware Image	QV24 image file
C-fpga_EC-0-1-3.img	Firmware Image	HSS image file
C-fpga_EC-1-1-6.img	Firmware Image	HSS image file
C-CC-K-6_0_0.img	Kernel Image	Linux Kernel
C-CC-R-7_3_4.img	Software Image	Root File System
C-crossconnect_7_3_4.cfg	Configuration	Cross Connect upgrade file
modem_7_3_4.cfg	Configuration	Modem Upgrade file (last digit is independent of software version)
modem versions.txt	Readme file	List of modem versions vs RF variants
snmp_exclude_7_3_4.cfg	Configuration	Used by system for Aprisa Mux / Aprisa XE OID exclusion
XE_300_400_synth.cfg	Configuration	Synthesizer Upgrade file for 300, 400 MHz frequency bands
XE_600_700_800_900_synth.cfg	Configuration	Synthesizer Upgrade file for 600, 700, 800, 900 MHz frequency bands
XE_1400_synth.cfg	Configuration	Synthesizer Upgrade file for 1400 MHz frequency band
XE_2000_2500_synth.cfg	Configuration	Synthesizer Upgrade file for 2000, 2500 MHz frequency bands
C-crossconnect_7_3_4.jar	Java Application	Cross Connect - used when running 7.1.4 or later
crossconnect_7_3_4.jar	Java Application	Cross Connect - used when running 7.0.6 or earlier
C-ccapp_exe_7_3_4.jar	Java Application	Cross Connect (stand alone application)
C-CC-B-7_1_1.srec	System	Bootloader (cannot be uploaded)
C-CC-F-7_3_4.img	System	Flash File System (cannot be uploaded)
4RF-MIB.mib	SNMP MIB file	Top level MIB
4RF-APRISAXE-MIB.mib	SNMP MIB file	Aprisa XE MIB
4RF-COMMON-MIB.mib	SNMP MIB file	Common MIB
4RF-PRODUCTS-MIB.mib	SNMP MIB file	Products MIB
4RF-APRISAXE-TC.mib	SNMP MIB file	Aprisa XE Textual Conventions MIB
4RF-COMMON-TC.mib	SNMP MIB file	Common Textual Conventions MIB
4RF-APRISAXE-EVENTS.mib	SNMP MIB file	Aprisa XE Events MIB

3. Upgrade Process

3.1. TFTP Upgrade

TFTP upgrade process

To run a TFTP upgrade process:

Select the SuperVisor menu item Local > Maintenance > Upload > TFTP Upgrade

Type the IP address of the TFTP server in the **TFTP Server** field.

Type the version number in the **Upgrade Version** field e.g. '7_3_4'.

Click the Apply button and wait for the upgrade process to complete and report 'success'.

Reboot the terminal.

TFTP upgrade process types

Aprisa XE terminals running the older Bootloader software have a limitation on the number of software images that can be loaded simultaneously into a terminal.

First, determine which Bootloader version your terminal is running by using the SuperVisor menu item Maintenance > Support Summary and look for the 'Bootloader Version' number.

(1) If your terminal is running Bootloader version 1, use the TFTP full upgrade process.

(2) If your terminal is running Bootloader version 0 and running a software version prior to 7.0.6, use the TFTP partial upgrade process.

(3) If your terminal is running Bootloader version 0 and running a software version 7.0.6 or later, use the TFTP standard upgrade process.

TFTP partial upgrade process

Run the TFTP upgrade process by typing 7_3_4p in the Upgrade Version field.

This will perform a partial upgrade which will delete unnecessary image files that might be taking up space in the Image Table (which could prevent a normal upgrade).

Reboot the terminal.

Run a TFTP standard upgrade process on the terminal.

Reboot the terminal again.

TFTP standard upgrade process

This TFTP standard upgrade process excludes FPGA images for the newly introduced revisions of the Modem, DFXO and DFXS cards.

Reboot the terminal.

Run the TFTP upgrade process by typing '7_3_4' in the Upgrade Version field.

If the standard upgrade fails, it may be necessary to make space for the new images by manually deleting 'Inactive' firmware image files.

To delete a firmware image file, select the SuperVisor menu item Maintenance > Image Table, select the firmware image and click on Edit. Set the IMAGE DETAILS Command to 'Delete' and click 'Apply'.

Reboot the terminal again.

Additional TFTP upgrade options have been provided to load the new images separately. Run the TFTP upgrade process using the file:

- 'F1_7_3_4' to load images for the newest DFXO and DFXS cards (rev D).
- 'F2_7_3_4' to load images for all revisions of DFXO and DFXS cards.
- 'F3_7_3_4' to load images for the newest Modem card (rev D).

Reboot the terminal again.

TFTP full upgrade process

Run the TFTP upgrade process by typing '7_3_4a' in the Upgrade Version field.

Reboot the terminal.

3.2. Synthesizer File Update

Synthesizer Files Update

Synthesizer files can now be updated without the need for a new software release.

When upgrading terminals that are currently running software version 7.0.6 or earlier, the Synthesizer File appropriate for the terminal frequency band, must be uploaded to each terminal before doing the TFTP software upgrade.

Frequency Band	Synthesizer File (to be installed)
300 MHz	XE_300_400_synth.cfg
400 MHz	XE_300_400_synth.cfg
600 MHz	XE_600_700_800_900_synth.cfg
700 MHz	XE_600_700_800_900_synth.cfg
800 MHz	XE_600_700_800_900_synth.cfg
900 MHz	XE_600_700_800_900_synth.cfg
1400 MHz	XE_1400_synth.cfg
2000 MHz	XE_2000_2500_synth.cfg
2500 MHz	XE_2000_2500_synth.cfg

4. Major Changes

Major enhancements

The following major enhancements have been implemented in Aprisa XE software version 7.3.4:

- FCC part 90 25 kHz channel size
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Major bug fixes

The following major bug fixes have been implemented in Aprisa XE software version 7.3.4:

- Incompatible modem parameters with HSC 3 transceiver
 - Synth file error for 900 MHz terminals.
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5. SuperVisor

5.1. SuperVisor Enhancements

New FCC 25 kHz support

Support has been added for the FCC part 90 25 kHz channel size. This channel size is available in the 400 MHz frequency band.

Channel Size	Gross Capacity
25 kHz	88 kbit/s @ 64 QAM

5.2. SuperVisor Bug Fixes

DFXS DFXO Q4EM pcm law change

Previously, changing the PCM law (A-law to u-law or vice versa) on the DFXS, DFXO and Q4EM interface card caused all ports on the card to stop operating (signalling and audio) and could only be cleared with a terminal reset.

This has been corrected in 7.3.4.

DFXO tool tip

Previously, the tool tip for the DFXO Control signalling 'On Hook Speed', incorrectly displayed 'Sets the ringer on-hook-speed'.

This has been corrected in 7.3.4 and now displays 'Sets the transition time between off-hook and on-hook'.

Framed T1 modes

Previously, changing between framed T1 modes e.g. ESF 4 to ESF 16 caused the T1 signalling to fail.

This has been corrected in 7.3.4.

Incompatible modem parameters

Previously, on some transceivers, incorrect modem parameters are loaded with transceivers that have an HSC number of 3.

This has been corrected in 7.3.4 .

Synth file error

Previously, there was an error in the synth file 'XE_700_800_900_synth.cfg' for 900 MHz terminals.

Terminals operating at 900 MHz must be upgraded from software release 7.3.1 to 7.3.4 or later.

This has been corrected in 7.3.4.

6. Cross Connection Application

6.1. Cross Connections Application Enhancements

None

6.2. Cross Connections Application Bug Fixes

DFXO or DFXS to QJET cross connections

Previously, when dragging and dropping a DFXO or DFXS multiplexed signalling connection to a QJET, an error message displayed 'Cannot drop multiplexed signalling here'.

This bug was caused by a mismatch of signalling type 'multiplexed / non multiplexed' between the two ports on the DFXO or DFXS card.

This has been corrected in 7.3.4.

7. Setup Menu

7.1. Setup Enhancements

None

8. MIB Changes

8.1. MIB Bug Fixes

None

8.2. New MIB Events

None

8.3. New MIB Objects

None

9. Backward Compatibility Issues

Hardware Variants

Any hardware variant of Aprisa XE terminal can be upgraded with this software.

Link Software

Aprisa XE radio links with different software versions can exist in the same network, however, both terminals of an individual link must be running the same software version.

10. Recommendations

Java 1.5 JRE

That all PCs running the Aprisa XE support software, SuperVisor and the Cross Connections application be upgraded to Java 1.5 JRE (JVM).
