



Aprisa **SR**



Software Release Notes

Version 1.3.4

October 2011

Contents

1.	Introduction.....	2
2.	Released Files	2
3.	Software Upgrade.....	3
3.1.	Radio Software Upgrade Process.....	3
3.2.	Protected Station Software Upgrade Process	6
4.	Software Enhancements	7
4.1.	Major Enhancements.....	7
4.2.	Minor Enhancements	7
5.	Software Bug Fixes	8
5.1.	Major Bug Fixes.....	8
5.2.	Minor Bug Fixes	8
6.	Hardware Enhancements	9

1. Introduction

Introduction

The previous Aprisa SR software version release relevant to this release is:

Software Version	Release Date
1.3.1	30 th September 2011

This release of Aprisa SR software is:

Software Version	Release Date
1.3.4	31 st October 2011

This document covers the major changes, product enhancements, new functionality, and bug fixes since Aprisa SR software version 1.3.1.

2. Released Files

Release Files

The following is a list of files released for Aprisa SR Software Version 1.3.4.

File Name	File Type	File Function
asraduc_25u	ADUC Code	Discriminator micro controller code UHF 25 kHz radios
asraduc_25v	ADUC Code	Discriminator micro controller code VHF 25 kHz radios
asraduc_u	ADUC Code	Discriminator micro controller code UHF 12.5 kHz radios
asraduc_v	ADUC Code	Discriminator micro controller code VHF 12.5 kHz radios
asrapp	Upgrade App Code	Used to initiate radio software upgrade
asrboot	Bootloader	Used to initiate radio software startup
asrmain	Application Code	Main radio system software
asrrootfs	Root File System	Catalog of system files
asrver	Version File	Release build version
version.txt	Public Version File	Release information


3. Software Upgrade

Upgrade Type If the Aprisa SR radio is a stand alone radio i.e. not part of a Aprisa SR Protected Station, follow the procedure 'Radio Software Upgrade Process'.

If the Aprisa SR radio is part of a Aprisa SR Protected Station, follow the procedure 'Protected Station Software Upgrade Process'.

Note: If a radio has been configured for a Protection Type of 'Redundant' (see Aprisa SR User Manual 'Terminal > Protection'), and that radio is no longer part of a Protected Station, the Protection Type must be changed to 'None' before the radio software upgrade can be achieved with the 'Radio Software Upgrade Process'.



3.1. Radio Software Upgrade Process

Method The Aprisa SR radio software is upgraded simply by plugging a USB flash drive containing the new software into the USB A host port  on the Aprisa SR front panel and power cycling the radio.

Procedure To minimize disruption of link traffic and prevent your radios from being rendered inoperative, please follow the procedures described in this section together with any additional information or instructions supplied with the upgrade package.

The radio software must be identical on all radios in the FAN (Field Area Network).

Process Steps

1. Check that the SuperVisor USB Upgrade setting is set to 'Enabled' (see Possible Upgrade Failure Causes below).
2. Unzip the software release files in to the root directory of a USB flash drive.
3. Power off the Aprisa SR and insert the USB flash drive into the Host Port .
4. Power on the Aprisa SR.
5. The software upgrade process is complete when the OK LED lights solid orange. This can take about 2 minutes.
The software will have loaded in to the radio Standby SW location.
6. Remove the USB flash drive from the Host Port .
7. Power cycle the Aprisa SR.

Upgrade Did Not Start

If the upgrade process did not start, the Aprisa SR could already be operating on the version of software on the USB flash drive. This will be indicated by flashing Display Panel OK LED and then the OK, DATA and CPU will light steady green.

If any Display Panel LED flashes red or is steady red during the upgrade process, it indicates that the upgrade has failed. This could be caused by incorrect files on the USB flash drive or a radio hardware failure.

Check the Result

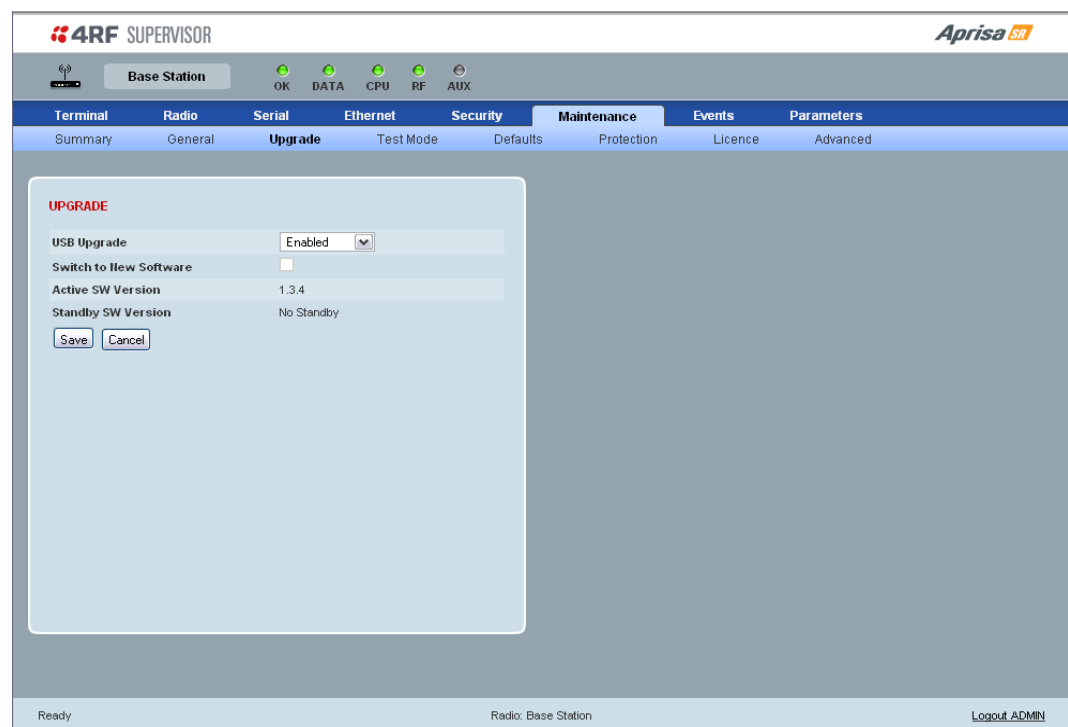
If the upgrade process did complete, you can login in to the radio to view the Active and Standby SW version (see 'View the Software Version' below).

If the upgrade process was successful, the Active SW Version will show the new software version and the Standby SW Version will be shown as 'No Standby'.

Possible Upgrade Failure Causes

1. USB Upgrade setting set to 'Disabled'

Check that the SuperVisor USB Upgrade setting is set to 'Enabled'.



2. USB Upgrade setting set to 'Authenticate'

If the radio is not operating on the new software (after the power cycle), it could be caused by the SuperVisor USB Upgrade setting set to 'Authenticate'.

The new software will have uploaded in to the Aprisa SR but will not have activated. The new software version will be displayed in the Standby SW version.

In this case, tick the 'Switch to new Software' checkbox and click 'Save' to apply the changes.

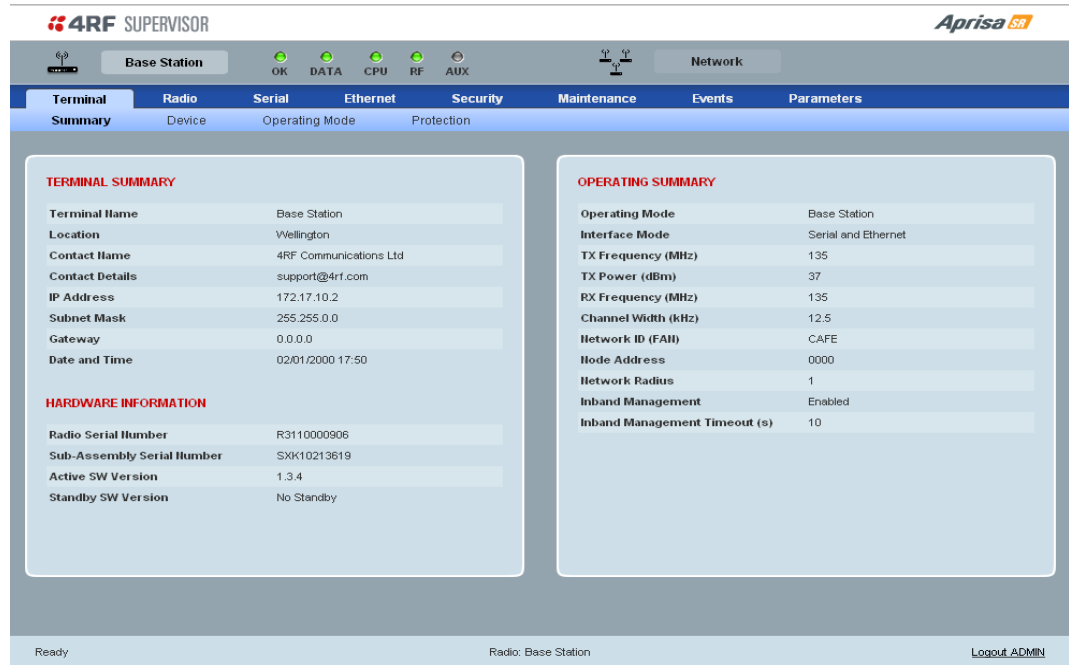
[View the Software Version](#)

To view the uploaded software version:

Select Terminal Settings > Terminal > Summary

If USB Upgrade setting is set to 'enabled', then the version of software uploaded will be displayed in 'Active SW Version' field.

If USB upgrade setting is set to 'Authenticate', then the version of software uploaded will be displayed in 'Standby SW Version' field.



The screenshot shows the 4RF SUPERVISOR interface. At the top, there's a status bar with icons for OK, DATA, CPU, RF, and AUX. Below this is a navigation menu with tabs for Terminal, Radio, Serial, Ethernet, Security, Maintenance, Events, and Parameters. The 'Terminal' tab is selected, and within it, the 'Summary' sub-tab is active. The main content area is divided into two columns. The left column contains 'TERMINAL SUMMARY' and 'HARDWARE INFORMATION'. The right column contains 'OPERATING SUMMARY'. At the bottom, there's a status bar showing 'Ready', 'Radio: Base Station', and a 'Logout ADMIN' link.

TERMINAL SUMMARY	
Terminal Name	Base Station
Location	Wellington
Contact Name	4RF Communications Ltd
Contact Details	support@4rf.com
IP Address	172.17.10.2
Subnet Mask	255.255.0.0
Gateway	0.0.0.0
Date and Time	02/01/2000 17:50

HARDWARE INFORMATION	
Radio Serial Number	R3110000906
Sub-Assembly Serial Number	SXK10213619
Active SW Version	1.3.4
Standby SW Version	No Standby

OPERATING SUMMARY	
Operating Mode	Base Station
Interface Mode	Serial and Ethernet
TX Frequency (MHz)	135
TX Power (dBm)	37
RX Frequency (MHz)	135
Channel Width (kHz)	12.5
Network ID (FAN)	CAFE
Node Address	0000
Network Radius	1
Inband Management	Enabled
Inband Management Timeout (s)	10

Ready Radio: Base Station Logout ADMIN



3.2. Protected Station Software Upgrade Process

Procedure

The Protected Station software upgrade can be achieved without disruption to traffic.

This procedure assumes that the Primary radio is active and the Secondary radio is standby.

Process Steps

1. Using the Hardware Manual Lock switch, force the primary radio to active.
2. Carefully remove the Host Port USB cable connecting the secondary radio to the Protection Switch and insert the USB flash drive with the new software release into the secondary radio Host Port .
3. Power cycle the secondary radio. The radio will be upgraded with the new software.
4. When the secondary radio upgrade is completed, remove the USB flash drive, restore the Host Port USB cable to Protection Switch, power cycle the secondary radio and wait for it to become standby.
5. Using the Hardware Manual Lock switch, force the secondary radio to active.
6. Carefully remove the Host Port USB cable connecting the primary radio to the Protection Switch and insert the USB flash drive with the new software release into the primary radio Host Port .
7. Power cycle the primary radio. The radio will be upgraded with the new software.
8. When the primary radio upgrade is completed, remove the USB flash drive, restore the Host Port USB cable to Protection Switch, power cycle the primary radio and wait for it to become standby.
9. Set the Hardware Manual Lock switch to the Auto position. The secondary radio will remain active and the primary radio will remain standby. To set the primary radio to active, use the hardware lock switch to select the primary radio and wait for it to become active, then set the hardware manual lock switch to the Auto position.

4. Software Enhancements

4.1. Major Enhancements

New Channel Access Mode

In software version 1.3.4, support has been added for an additional Channel Access mode called Access Request.

The Aprisa SR radio now has two modes of channel access, Access Request and Listen Before Send.

Access Mode	Function
Access Request	This mode is a general purpose access method for high and low load networks
Listen Before Send	This mode is optimised for low load networks and repeated networks

See the Aprisa SR User Manual 1.3.4 for more information.

Aprisa SR Data Driven Protected Station

In software version 1.3.4, support has been added for the Aprisa SR Data Driven Protected Station.

This Aprisa SR Data Driven Protected Station is a new product which provides radio and RS-232 serial port user interface protection for Aprisa SR radios when configured as a Base Station.

See '6. Hardware Enhancements'.

4.2. Minor Enhancements

Transmit Power Output

Previously, the transmit power output was selectable over a range from +20 to +37 dBm, in 1 dB steps (0.1 to 5.0 W).

In software version 1.3.4, this transmit power output has been extended to +10 to +37 dBm, in 1 dB steps (0.01 to 5.0 W).

Unicast Traffic Only L2 Filter

In software version 1.3.4, a new L2 filtering enhancement has been added to allow 'Unicast Traffic Only'. This L2 filtering allows for Unicast only traffic and drop broadcast and multicast traffic. This filtering is achieved by adding two rules.

See the Aprisa SR User Manual 1.3.4 for more information.

Ethernet Priority Queues	In software version 1.3.4, separate priority queues have been assigned for Ethernet Traffic and Ethernet Management data. The relative priorities are fixed as medium and can be changed from CLI.
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Control Message Indicator	In software version 1.3.4, when the Channel Access mode is set to Access Request, the RF LED blinks to indicate control messages being passed over the air.
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5. Software Bug Fixes

5.1. Major Bug Fixes

None

5.2. Minor Bug Fixes

Remote Station Ethernet Licence	<p>Previously, on remote stations the Ethernet Licence was incorrectly shown on the Maintenance > Licence screen as Disabled when it was Enabled. It was displayed correctly as Enabled in the base station.</p> <p>This bug has been corrected in software version 1.3.4</p>
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Event History Messages	<p>Previously, Event History messages were not displayed correctly in the Additional Information field when the event history log had greater than 1500 entries.</p> <p>This bug has been corrected in software version 1.3.4</p>
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6. Hardware Enhancements

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The Aprisa SR Data Driven Protected Station shown is comprised of two standard Aprisa SR dual antenna port option radios and two external duplexers mounted on 19" rack mounting shelves.

The Aprisa SR radios can be any of the currently available Aprisa SR radio frequency bands, channel sizes or single / dual antenna port options.

Option Example	Part Number
Aprisa SR Radio (Dual Antenna Port option)	APSR- <u>N</u> 400-012-DO-12-ETAA
Aprisa SR Data Driven Protected Station	APSR- <u>D</u> 400-012-DO-12-ETAA

See the Aprisa SR User Manual 1.3.4 for more information.
