



***Aprisa*** **SR**



# Software Release Notes

Version 1.4.3

April 2012

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## 1. Introduction

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### Introduction

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

Software Version	Release Date
1.4.1	17 <sup>th</sup> January 2012

This release of Aprisa SR software is:

Software Version	Release Date
1.4.3	27 <sup>th</sup> April 2012

This document covers the major changes, product enhancements, new functionality, and bug fixes since Aprisa SR software version 1.4.1.

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## 2. Released Files

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### Release Files

The following is a list of files released for Aprisa SR Software Version 1.4.3

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

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### 3. Radio Software Upgrade

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#### Software Upgrade Method

If your Aprisa SR network / radio is running software version 1.4.1 or later, you can use the 3.1. Enhanced Software Upgrade Method on page 3.

If your Aprisa SR network / radio is running a software previous to 1.4.1, you must use the 3.2. Radio Software Upgrade Method on page 6.

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#### 3.1. Enhanced Software Upgrade Method

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##### Upgrade Type

A software upgrade can be performed on a single radio or an entire Aprisa SR network (FAN).

If you have an existing network of Aprisa SR radios, follow the procedure 'Network Software Upgrade'.

If you have a single Aprisa SR radio requiring upgrade, follow the procedure 'Single Radio Software Upgrade'.

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

See the Aprisa SR User Manual 1.4.1 for more information.

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**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'.

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### 3.1.1. Network Software Upgrade



#### File Transfer Method

This process allows customers to upgrade their Aprisa SR network from the central base station location without need for visiting remote sites.

The Software Pack is loaded into the base station with the file transfer process and distributed via the radio link to all remote stations.

When all remote stations receive the Software Pack version, the software can be remotely activated on all remote stations.

#### Process Steps

1. Unzip the software pack in to the root directory of a USB flash drive.
2. Insert the USB flash drive into the Host Port .
3. Using File Transfer, load the software pack into the base station (see SuperVisor > Software > File Transfer).
4. Remove the USB flash drive from the Host Port .
5. Distribute the software to the entire network of remote radios (see SuperVisor > Software > Distribution).

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**Note:** The distribution of software to remote stations does not stop customer traffic from being transferred. However, due to the volume of traffic, the software distribution process may affect customer traffic.

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Software distribution traffic is classified as 'management traffic' but does not use the Ethernet management priority setting. Software distribution traffic priority has a fixed priority setting of 'very low'.

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6. Activate the software on the entire network of remote radios (see SuperVisor > Software > Distribution).  
  
Where the new software has been activated, remote stations will re-register with the base station. The remote stations software version can be verified with SuperVisor > Network Status > Network Table.
  7. Activate the software on the base station radio (see SuperVisor > Software > Manager).
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### 3.1.2. Single Radio Software Upgrade

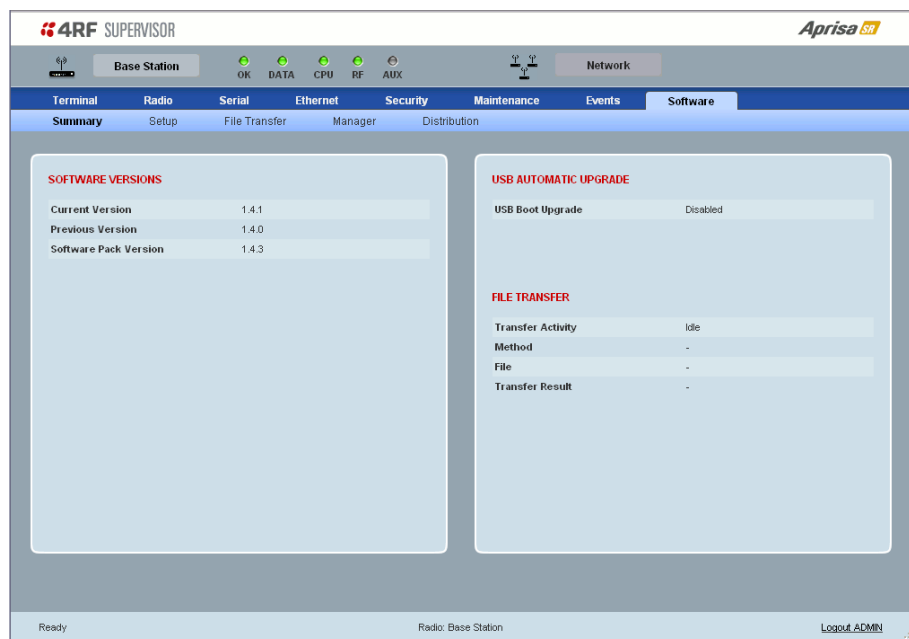
#### File Transfer Method

This process allows customers to upgrade a single Aprisa SR radio.

The Software Pack is loaded into the radio with the file transfer process and activated.

#### Process Steps

1. Unzip the software pack in to the root directory of a USB flash drive.
2. Insert the USB flash drive into the Host Port .
3. Using File Transfer, load the software pack into the radio (see SuperVisor > Software > File Transfer).
4. Remove the USB flash drive from the Host Port .
5. Activate the software on the radio (see SuperVisor > Software > Manager). This can take up to a few minutes.
6. The new software version can be verified with SuperVisor > Software > Summary Current Version.



#### 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.

### 3.2. Radio Software Upgrade Method

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#### 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.

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#### 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).

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#### Process Steps

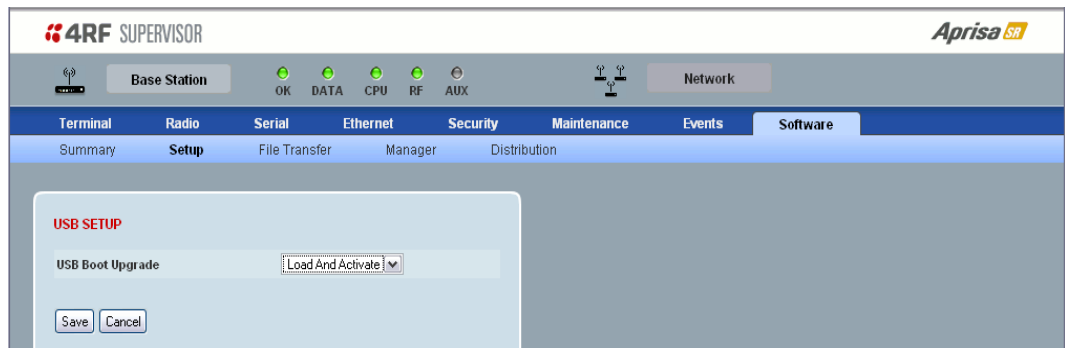
1. Check that the SuperVisor USB Boot Upgrade setting is set to 'Load and Activate' (see SuperVisor > Software > Setup).
  2. Unzip the software release files in to the root directory of a USB flash drive.
  3. Power off the Aprisa SR and insert the USB flash drive into the Host Port .
  4. Power on the Aprisa SR.
  5. The software upgrade process is complete when the OK LED lights solid orange. This can take about 2 minutes.
  6. Remove the USB flash drive from the Host Port .
  7. Power cycle the Aprisa SR.
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### Upgrade Did Not Start

If the USB boot 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 that the SuperVisor USB Boot Upgrade setting is set to 'Load and Activate'.



### Check the Result

Login in to the radio to view the Active and Previous software versions.





### 3.2.1. Protected Station Software Upgrade

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#### 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.

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#### 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.
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## 4. Software Enhancements

### 4.1. Major Enhancements

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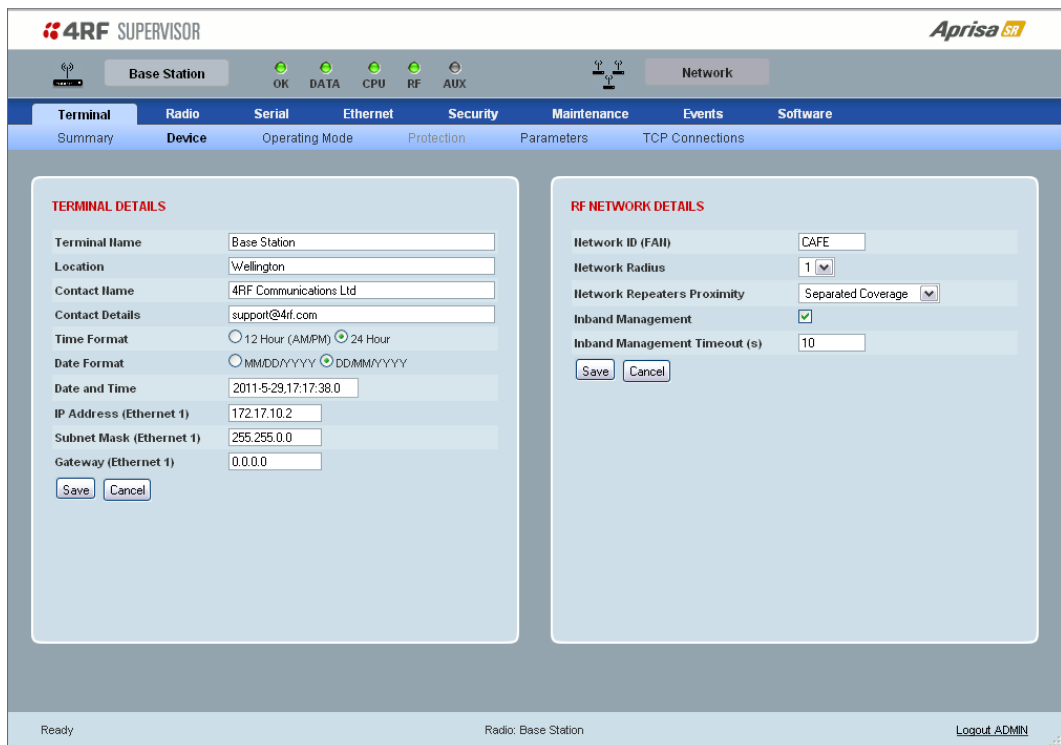
None

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### 4.2. Minor Enhancements

#### Network Repeaters Proximity

In software version 1.4.3, a parameter setting has been added in the Terminal Device > RF Network Details page. This parameter 'Network Repeaters Proximity', is set in base stations and repeater stations to indicate the proximity of repeaters in the FAN. It has no affect if the Network Radius is set to 1.



**4RF SUPERVISOR** Aprisa SR

Base Station OK DATA CPU RF AUX Network

**Terminal** Radio Serial Ethernet Security Maintenance Events Software

Summary Device Operating Mode Protection Parameters TCP Connections

**TERMINAL DETAILS**

Terminal Name: Base Station

Location: Wellington

Contact Name: 4RF Communications Ltd

Contact Details: support@4rf.com

Time Format: ☐ 12 Hour (AMPM) ☒ 24 Hour

Date Format: ☐ MM/DD/YYYY ☒ DD/MM/YYYY

Date and Time: 2011-5-29 17:17:38.0

IP Address (Ethernet 1): 172.17.10.2

Subnet Mask (Ethernet 1): 255.255.0.0

Gateway (Ethernet 1): 0.0.0.0

**RF NETWORK DETAILS**

Network ID (FAN): CAFE

Network Radius: 1

Network Repeaters Proximity: Separated Coverage

Inband Management: ☒

Inband Management Timeout (s): 10

Ready Radio: Base Station Logout ADMIN

Option	Function
No Repeater	No repeater in the FAN.
Single Repeater Only	Only one repeater in the FAN.
Overlapping Coverage	Multiple one hop repeaters where the remote station can see more than one repeater.
Separated Coverage	Multiple one hop repeaters where the remote station can only see one repeater. This option provides better network performance than the Overlapping Coverage option.

## 5. Software Bug Fixes

### 5.1. Major Bug Fixes

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None

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### 5.2. Minor Bug Fixes

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None

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## 6. Hardware Enhancements

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None

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