



## Software Field Change Order

SFCO-VIP110-002

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### Product

VIP110-24

### Software Version

2.50.9

***Note: Please read this entire document before proceeding with the upgrade, there may be special instructions or prerequisites that need to be followed.***

### Reason for Change

The software, as listed in the “Files Section”, including the procedures defined in this document will provide the following changes (enhancements and bug fixes) for your Wi-Lan product.

#### Enhancements:

1. *Improved Output Power Accuracy* - Added ability to load additional calibration tables from EEPROM to improve output power accuracy. Calibration tables can be stored to EEPROM at the factory if necessary, and will be used if present.
2. *Security* - Some commands that could render the network temporarily inoperable were accessible without requiring the “enable-configuration” password. The following commands have been modified to only execute when a user has entered the “enable-configuration” password:
  - a. spectrum-analysis
  - b. time-analysis
  - c. reboot
  - d. run-file
  - e. boot-file
  - f. ping
  - g. antenna-alignment-aid

#### Fixes:

1. *Development Parameter* - A parameter “develop” for the display configuration command was not removed from a development version. Executing “display-configuration source=develop” would cause the radio to display incorrect configuration parameters and/or garbage characters and eventually reboot. The “develop” parameter has been removed.
2. *Unrestricted Operation* – The rf-from-parent and rf-from-children channel numbers were limited to the FCC and ETSI limits, even if the radio was configured to be in the “Unrestricted” region of operation. Existing channel

settings weren't affected, but it wasn't possible to set channels 0-4 or 36-50 after the upgrade to 02.50.03.

3. *Lost Channel Settings* – The rf-from-parent channel settings weren't retained when upgrading from versions 2.42 and lower on auto-acquire leaf radios.

Remaining Issues:

1. The multicast traffic-blocking feature has two choices. Blocking 1 allows multicast traffic to be blocked from entering a radio's LAN port. Blocking 2 prevents multicast traffic from retransmitted down stream when received by a parent radio, repeater or root, from its children. The blocking of LAN multicast traffic operates as specified, i.e. when the LAN multicast blocking is enabled on a radio, regardless of root, repeater or leaf, multicast traffic is discarded. The blocking of RF multicast traffic by a root radio operates as specified, i.e. when the RF multicast filter is enabled on the root radio, multicast traffic received from a child radio is not retransmitted to other child radio and is sent out the root's LAN port only. The operation of RF multicast blocking on a repeater radio exhibits unusual behaviour. When RF multicast blocking is enabled on a repeater, the repeater does stop re-transmission of multicast traffic received from one child radio to other child radios of its own. However, the repeater also stops passing of multicast traffic received from its parent, e.g. a root, to its children. Furthermore, the enabling of RF multicast blocking on a repeater seems to have the same effect as enabling it on its parent, which is very odd.

### Status (Mandatory, Recommended or Optional)

Recommended - This SFCO is a Recommended upgrade and should be applied at the earliest opportunity.

### Prerequisites

In order to fully implement version 2.50.9, the boot loader MUST be version 1.14 or higher. Failure to do so WILL cause the radio to become inoperable, requiring a software re-build that can only be done at Wi-LAN's Calgary factory. Boot loader 1.15.1 is supplied with this version as part of a bug fix in this upgrade. Failing to upgrade from boot loader version 1.14 to 1.15.1 will not render the radio inoperable, but the fix as described above will not be realized.

The instructions on how to upgrade the boot loader are given in Application Note VIP11024-148C, supplied with this upgrade package. Follow the instructions carefully to upgrade the software correctly. The VIP software image files are held in the BinFiles.zip archive which is password protected. The password to open the file is "Calgary".

***Please note that by opening the BinFiles.zip using the password supplied, you acknowledge that you have read and understood the warning notice.***

## Upgrade Procedure

*This section provides details specific to this upgrade. User Manual and Application Note procedures may be referenced to aid in the upgrade.*

Upgrade the VIP product using following procedures:

1. Unzip the file ***vip110-24\_v2-50-9.zip*** to your c:\ directory. There will be 5 files:
  - a. **BinFiles.zip** – The software for the VIP product.
  - b. **SFCO-VIP110-002.pdf** – These Software Release Notes.
  - c. **APP148C.pdf** – Application Note for Boot Loader and Operational Code upgrade
  - d. **Operators Manual RevG.pdf** – New version of Operators Manual
  - e. **Warning\_Must\_Read\_First.txt** – Warning Notice
2. Read the WARNING\_Must\_Read\_First.txt file or the Prerequisite section, then extract the contents of the BinFiles.zip archive to the directory containing the ECON program, or a known directory if you are using a serial cable connection to transfer files to the radio.
3. If a parent-radio is running a dynamic polling version, disable it, i.e. set the polling level to 1 by issuing the command “*polling-list level=1*”.
4. Follow application note APP148C.pdf to upgrade the bootloader and operational firmware.

## Back-out Procedure

For this version there are no special requirements or procedures to follow to revert back to an older version of Operational Software. Follow the upgrade procedure in the User Manual, selecting the older version of Operational Code as the default program.

DO NOT revert back to an older version of Boot Loader code unless advised to do so by Wi-LAN technical support. Technical Support will advise you at that time on the safest way to proceed, based on the current status of your radio.

### Files Included

The following files are found in the password protected BinFiles.zip archive which is included in the VIP110-24\_V2-50-9.zip archive.

bvip01-15-01.dwn	652,556 Bytes	5/28/2004 9:50 AM
vip02-50-09.dwn	1,339,628 Bytes	9/22/2004 11:09 AM
bvip01-15-01.bin	260,992 Bytes	2/20/2004 12:28 PM
vip02-50-09.bin	534,864 Bytes	9/22/2004 11:09 AM