



Technical Service Bulletin

Monitoring Products

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Subject: TSB-Flexnet Radio DNS 3.00.02 CVSM/CIWS

Distribution Scope: WA ASP's and Distributors
WA Technical Support, Product Service, & International Service Centers

Product(s) Referenced: Connex Vital Signs Monitor (CVSM) and Connex Integrated Wall System (CIWS) with the radio option; **406187** PLAT. RADIO, PROV. SPI,802.11A/B/G, **408472** PLAT. RADIO 2.30, PROV. SPI,802.11A/B/G, **409115** PLAT. RADIO 3.00, PROV. SPI,802.11A/B/G or **409437** PLAT. RADIO 3.00, PROV. SPI,802.11A/B/G

Serial No. / Lot Code: NA

Summary: The platform radio software is being updated to version 3.00.02 to add support for Domain Name Service (DNS). The DNS feature requires CVSM host software version 2.00.05 or later and CS 1.2 or later. CVSM/CIWS host version 1.71.03 does not support DNS.

This release becomes the new minimum software version for radios used in the CVSM with host software 2.00.05. The radio version 3.00.02 will be used in all new CVSMs (2.00.xx and 1.71.03) and CIWS (1.71.03) built after the release date. There is no requirement to update radios in CVSM or CIWS running host version 1.x to radio version 3.00.02. The software is compatible with previous versions of the platform radio; materials: **406187, 408472, 409115 and 409437.**

Issues: The following change request has been implemented in this release. Additional details may be found in TFS under the listed reference number.

TFS CR#26029 Add DNS support to address challenges in deployment of Connex RMS with respect to UDP broadcast.

Current architecture of the Connex RMS product uses a UDP broadcast from the device to identify the IP address of the required service. The UDP broadcast is not compatible with security protocols at many of our customer sites, consequentially those sites do not support UDP broadcast packets. Also, due to the nature of the configuration on Cisco routers, UDP port forwarding is a global setting and hence is difficult to get hospitals to allow this in their configuration.

To better address customer needs, the CVSM host software has been updated to use the domain name service (DNS) to provide the IP address of a NRS server. CVSM host software version 2.00.05 was tested with the DNS running on the following operating systems:

- BIND version 9 running on Linux Ubuntu version 10
- Microsoft DNS running on Microsoft Server 2008

DNS may be configured to provide up to three (3) IP address for a host lookup. The device will cycle through the list of returned IP address until the network rendezvous service is found or until all IP addresses have been checked for the service.

Action:

Technical Support will offer customers experiencing these issues the opportunity to update the radio software on their own, If the customer wants to perform the upgrade on their own, push the radio upgrade package to the customer using the WAST model from PartnerConnect, see procedure below. Before pushing this upgrade, please confirm through installation/training records and/or with the customer they have familiarized themselves and are competent to carry out the procedure detailed in DIR# 80018044 Radio configuration guide, Connex® Vital Signs Monitor 6000 Series and Connex® Integrated Wall System; document this confirmation (including names and dates of any discussions) in the service record. All other customers will either need an RMA, or to arrange an onsite visit. Customers may be charged for any on site upgrades. Customers must be advised if they loaded any custom certificates to the radio they will need to reload them after completing the upgrade.

Product Service will refer to 20012631 CVSM/CIWS Minimum Hardware/Software level Requirement to determine if a radio update is required.

Note on host compatibility –The 3.00.02 radio software was tested with CVSM/CIWS host software versions 1.71.03, and 2.00.05. Any configurations not listed in DIR 20012631 CVSM/CIWS minimum HW/SW level requirements are not supported.

Note on Connex VM 1.x compatibility – CVSM/CIWS host software version 1.70.04 does not support the patient query function when used with Connex VM 1.x. Support for patient query is restored in CVSM/CIWS 1.71.02. Connex VM 1.x customers upgrading to radio software version 3.00.02 must upgrade the CVSM/CIWS software to version 1.71.03.

Note on configuration – Configuring the radio through its web interface may cause the host to lose communication with the radio and display the Radio card inoperable technical alarm. If this happens, reboot the CVSM/CIWS and configure the radio through the CVSM/CIWS user interface. The web interface should only be used to update the software or load certificates.

Note on using WAST – When the CVSM is connected to WAST the USB connection takes priority over the wireless connection and the network status tab will display “Disconnected”. If the radio has an IP address and displays active session

information, access to the radios web interface is possible. When the radio upgrade is complete, close the WAST device tab, and disconnect the USB cable, to see the radio software version with complete network information.

Reference to Standards:

- 21 CFR Part 820, ISO 13485, MPD SOP-0002

Reference

- 20012631 CVSM/CIWS Minimum Hardware/Software level Requirement
- 80018044 Radio configuration guide, Connex® Vital Signs Monitor 6000 Series and Connex® Integrated Wall System
- 60053040 SRN,802.11a/b/g SW Version 3.00.02
- 20013452 TSB-CVSM 2.00.05 RELEASE

Service Strategy:

Revise DIR 20012631 CVSM/CIWS Minimum Hardware/Software level Requirement to make radio software version 3.00.02 the minimum required level for CVSM host version 2.00.05.

The original platform radio service kit **103356** containing **406187** PLATS RADIO,PROV. SPI,802.11A/B/G (SW version 2.20.00) will remain available to replace failed radios in CVSM's that cannot be upgraded to host software version 1.70.00 or later.

The BOM for the newer platform radio service kit **104560** SERV KIT,PLFM RADIO 2.30 will be updated to replace **409437** PLAT RADIO 3.00.01,PROV SPI,802.11a/b/g with **409594** PLAT RADIO 3.00.02,PROV SPI,802.11a/b/g.

If a customer requires a radio with an older software version, as may be the case if the customer is limited to using an older version of the host software to maintain compatibility with third party software, it is acceptable to upgrade a **406187** radio or downgrade a **409594** radio using the process described in DIR# **80018044**. Where that is the case customers should be encouraged to install the most current radio software compatible with their host software.

Upgrades may be delivered onsite by field service or the customer may be offered the opportunity to perform the upgrade themselves on an as needed basis as determined below. Customers may be charged for any on site upgrades.

Customers who call with radio connectivity issues will be evaluated by Technical Support. If the issue cannot be resolved, it will be escalated to Service Engineering. Service Engineering will work with the radio team to determine if an upgrade will resolve the issue and how it will be deployed.

If an on-site upgrade is needed, Field Service or Product Service will be requested to assist. In the event Field Service or Product Service is unable to make an onsite visit within the customer's time frame, the customer will be offered the option of performing the upgrade themselves or returning the device to a service center. Customers opting to perform the upgrade will receive instructions for performing the upgrade along with the upgrade software via PartnerConnect.

Warranty coverage will remain in effect for any damage to the radio resulting from the customers attempt at upgrading the radio software, provided the case was not opened and no modifications were made to the hardware. In the event the customer is unable to complete the upgrade the device may be returned to product

service for repair.

Service centers will continue the policy of upgrading device host software to current levels as required in 20012631 CVSM Minimum Hardware/Software Level Requirement. The minimum radio software level will be changed to version 3.00.02. for CVSM host software 2.00.05 or later. Devices that cannot be upgraded to the current host software version shall only be upgraded to the highest compatible version. See CVSM Minimum Hardware/Software Level Requirement for current software levels DIR# 20012631. Upgrade the radio SW to the highest compatible version to address any issues corrected in an updated release. The upgrade is provided under warranty for those customers needing the upgrade to address issues corrected in a later release.

Customers shall be notified the upgrade may return the radio configuration to default settings and any custom certificates installed on the radio will need to be reloaded by the customer.

The radio software install process is detailed in the Radio configuration guide, Connex® Vital Signs Monitor 6000 Series and Connex® Integrated Wall System DIR# 80018044. The process may be used to upgrade or downgrade the software.

Required Tools: See Radio configuration guide, Connex® Vital Signs Monitor 6000 Series and Connex® Integrated Wall System DIR# 80018044.

Required Materials: The radio software files may be downloaded from SAP or PartnerConnect

SAP

DIR 50011038 , SWF: PLFM Radio 3.00.02

You will need the following four files from DIR 50011038:

1. NK_5_0_2.bin
2. nk_5_0_2.sha1.txt
3. Lamarr2_SPI_FIPS.cab
4. Lamarr2_SPI_FIPS.sha1.txt

PartnerConnect

From the WAST dashboard select Upgrade this asset from the Tasks pane, and deploy Lamar2_Radio_SW_Upgrade_3.00.02

The zip file containing all four files is downloaded to either:

Windows 7 C:\Program Files (x86)\Welch Allyn\RSDS\DefaultProject\WA ServiceTool\Downloads.

Windows XP C:\Program Files\Welch Allyn\RSDS\DefaultProject\WA ServiceTool\Downloads.

A copy of the radio configuration guide DIR 80018044 is included with the upgrade package.

Procedure: See Radio configuration guide, Connex® Vital Signs Monitor 6000 Series and Connex® Integrated Wall System DIR# 80018044

PartnerConnect

From the WAST dashboard select Upgrade this asset from the Tasks pane, and deploy Lamar2_Radio_SW_Upgrade_3.00.02

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Windows 7 C:\Program Files (x86)\Welch Allyn\RSDS\DefaultProject\WA ServiceTool\Downloads.

Windows XP C:\Program Files\Welch Allyn\RSDS\DefaultProject\WA ServiceTool\Downloads.

A copy of the radio configuration guide DIR 80018044 is included with the upgrade package.

Note: If the radio is configured to use custom certificates, they will be deleted during the upgrade. For that reason do not perform the upgrade using a network requiring certificates. After completing the upgrade the customer will need to reinstall any certificates required to connect to their network.

Note: This table cross references the Lamar II radio software Server and Kernel version:

Server version	Kernel version	Server version	Kernel version
2.20.00	4.1.22	3.00.00	5.0.0
2.30.00	4.1.26	3.00.01	5.0.1
2.30.02	4.1.30	3.00.02	5.0.2
2.30.03	4.1.31		

Quality Documents: **All service centers using SAP to record service transactions:** For each monitor serviced, record the service activity in SAP.

All other service centers and Field Service: For each monitor serviced, complete and file a service report and attach to the service DHR.

Notes:

1. Contact the Welch Allyn Complaints Department to initiate or process a medical device complaint resulting from this or other issues.
2. Drawings, illustrations, and part numbers in this document are for reference purposes only and subject to change.

End of Bulletin

Revision History					
Version	Description	Change #	Init	Release Date	Appr
A	Initial Release	D*	GCS	D*	D*
D* SEE SAP DIR FOR CHANGE NUMBER, APPROVER NAME AND DATE OF APPROVAL					