



Information Sheet IS23006A

VX Series – Software Upgrade Procedure

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INFORMATION SHEET

1 INTRODUCTION

The VX Series FM transmitter is a microprocessor-controlled unit. Periodically, enhancements or improvements to the system are identified and made available. Implementation of these improvements requires a software upgrade. This document describes how to effectively update transmitter software.

1.1 Equipment Affected

This procedure applies to all VX series transmitters running software VX SW 6.0.0 or later.

1.2 Responsibility for Implementation

This procedure should be carried out by qualified station maintenance personnel who are familiar with VX series transmitters. Nautel recommends you perform a software upgrade at the transmitter site.

NOTE

For port-forwarded transmitters, uploading of the .tgz file must occur locally or on the transmitter side of the router.

1.3 Scheduling

This procedure should be performed only when a software upgrade is required. The transmitter does not need to be off-air during the entire procedure, but will be off-air for between two and five minutes when the upgrade completes and the transmitter reboots.

IMPORTANT!

Ensure that ac power to the transmitter is uninterrupted for at least 20 minutes after the software upgrade is complete. Failure to observe this will render the transmitter inoperable.

1.4 Manpower Requirements

Implementing these instructions will require approximately 30 minutes.

1.5 Special Tools/Test Equipment

- Local computer for direct connection or network computer with Web browser
- CAT5 Ethernet cable
- Upgrade software (*.tgz file), provided by Nautel Customer Service via Dropbox or other secure file transfer method
- USB drive, minimum 1 GB, FAT32 formatted, to store upgrade software file

1.6 Publications Affected

This modification does not affect the VX series documentation.



2 SET THE TRANSMITTER'S DATE AND TIME

- (a) Use the front panel UI or remote AUI to ensure the transmitter's date and time are correct. You can set the date and time manually, or use (enable) NTP to automatically update the date and time. An NTP update requires an Internet connection to the transmitter via a LAN cable.

NOTE

If required, refer to the VX Operations & Maintenance Manual for assistance with the appropriate date and time setting.

Failure to correctly set the date and time will cause the upgrade to fail, with a statement that the authenticity of the software upgrade file cannot be verified.

3 PREPARING FOR LOCAL SOFTWARE UPGRADE

For local (i.e., on site) software upgrades only, prepare the upgrade file as follows (proceed to paragraph 4 if performing a remote upgrade):

- (a) Obtain the .tgz file provided by Nautel Customer Service (see paragraph 1.5) and copy it to the USB drive's root.
- (b) Plug the USB drive into one of the three USB ports on the VX transmitter – one front panel or two rear panel ports (see Figure 1).

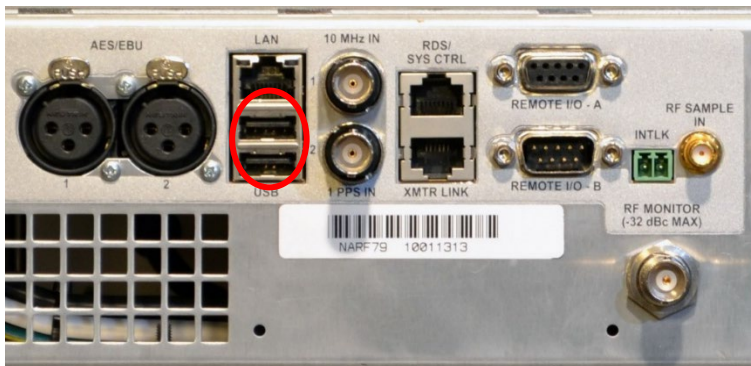


Figure 1: USB Ports on Rear Panel

4 UPGRADING SOFTWARE

Perform the following procedure using the VX transmitter's Front Panel User Interface (FPUI) (see paragraph 4.1) or the remote AUI (see paragraph 4.2):

NOTE

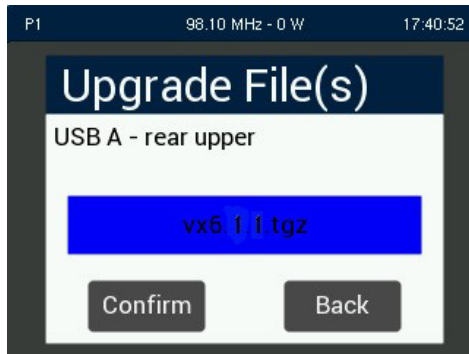
Software upgrades using the FPUI are not recommended for transmitters with software versions VX SW 6.1.0 and less. Use the steps in paragraph 4.2 to upgrade software.



4.1 Using the FPUI

Perform the software upgrade from the transmitter's front panel.

- (a) Using the transmitter's FPUI, navigate to the **Main Menu ▶ Software ▶ Upgrade File(s)** screen (see Figure 2).
- (b) Select the desired .tgz file from the list and select **Confirm** to initiate the upgrade process.



Upper rear panel USB port shown for reference

Figure 2: Upgrade File(s) screen - FPUI

- (c) Once the software upgrade has started, a bar graph displays the progress (see Figure 3).

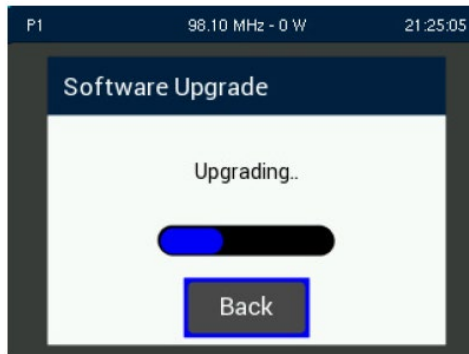


Figure 3: Software Upgrade in progress - FPUI

- (d) If the software upgrade is successful, a pop-up screen will be displayed, indicating that a system reboot is required for the new software installation to be completed (see Figure 4). Select **Reboot**.

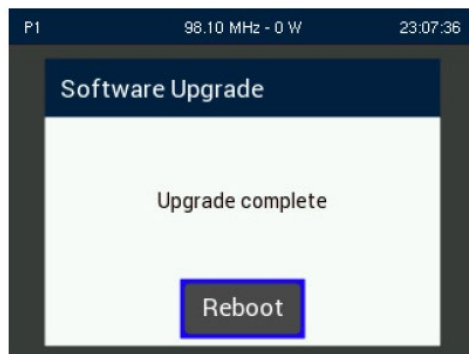


Figure 4: Software Upgrade complete - FPUI



IMPORTANT!

Ensure that ac power to the transmitter is uninterrupted for at least 20 minutes after the software upgrade is complete. Failure to observe this will render the transmitter inoperable.

- (e) If an error is encountered during the software upgrade, a pop-up screen will be displayed indicating that the upgrade was unsuccessful, and the Operating System will remain unchanged (see Figure 5). Select **Confirm** to accept the failed upgrade. Try to perform the software upgrade again by re-downloading the upgrade file or using a different USB.

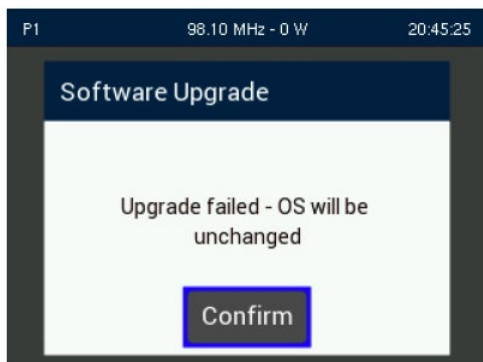


Figure 5: Software Upgrade fail - FPUI

4.2 Using the Remote AUI

Perform the software upgrade using a computer with a web browser connected to the transmitter's remote AUI.

- (a) Download the tgz file provided by Nautel Customer Service (see paragraph 1.5) to a folder on the computer.
- (b) Using the remote AUI, navigate to the **Main Menu ► Software ► Upgrades** screen (see Figure 6).

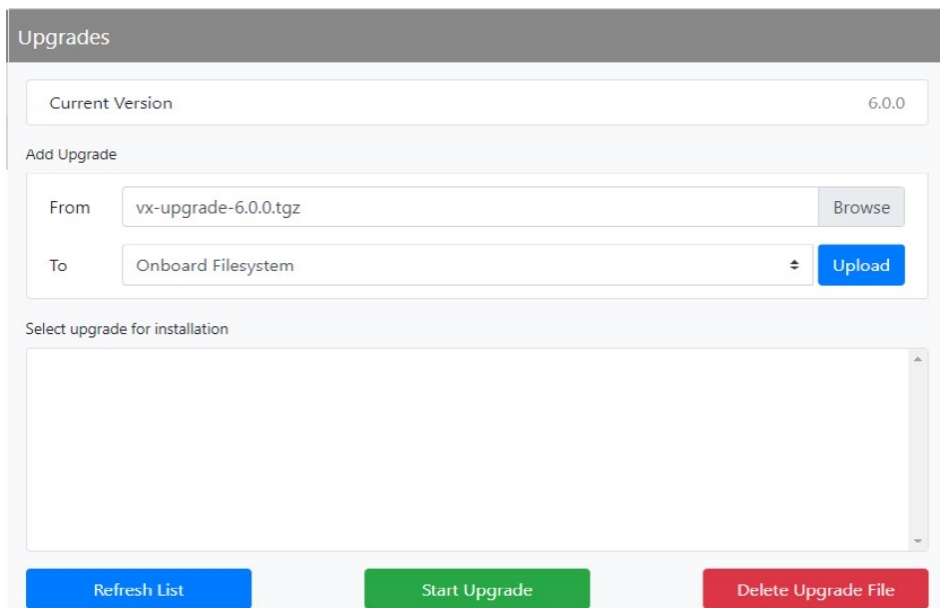


Figure 6: Software Upgrades screen – Remote AUI



- (c) Select **Browse**. Locate the .tgz file downloaded in step (a) and click the blue **Upload** button to save the file in the 'Select upgrade for installation' field. A status bar will be displayed showing the percentage completed (see Figure 7).

tgz file shown for reference, software upgrade file name will differ

Figure 7: File upload in progress – Remote AUI

- (d) When the file is fully uploaded, the file will be displayed in the 'Select upgrade for installation' field (see Figure 8). Click the blue **Refresh List** button if necessary.

Figure 8: File upload field Populated – Remote AUI



- (e) Click on the desired upgrade file name from the list. The file name line will turn blue. Click the green **Start Upgrade** button to initiate the software upgrade process. A warning will be displayed (see Figure 9), indicating that the upgrade can take up to fifteen (15) minutes to complete and cannot be stopped once started. Also, the transmitter can remain in an on-air state during the upgrade. Select **Yes** to start the upgrade process or **Cancel** to not proceed with an upgrade.

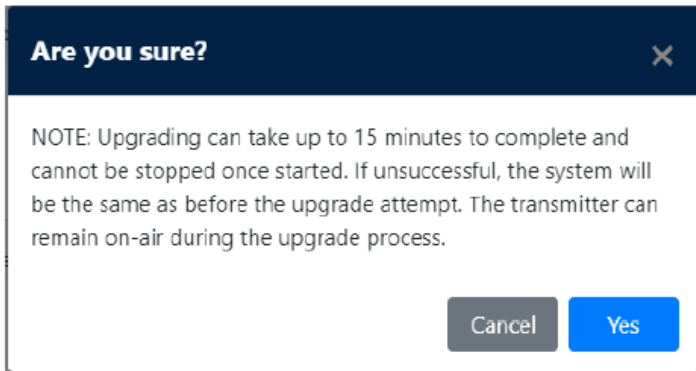


Figure 9: Upgrade Warning – Remote AUI

- (f) A status bar will be displayed showing the percentage completed (see Figure 10).

NOTE

If the Software upgrade status stalls at 99% for more than 5 minutes, refresh the browser session to continue.

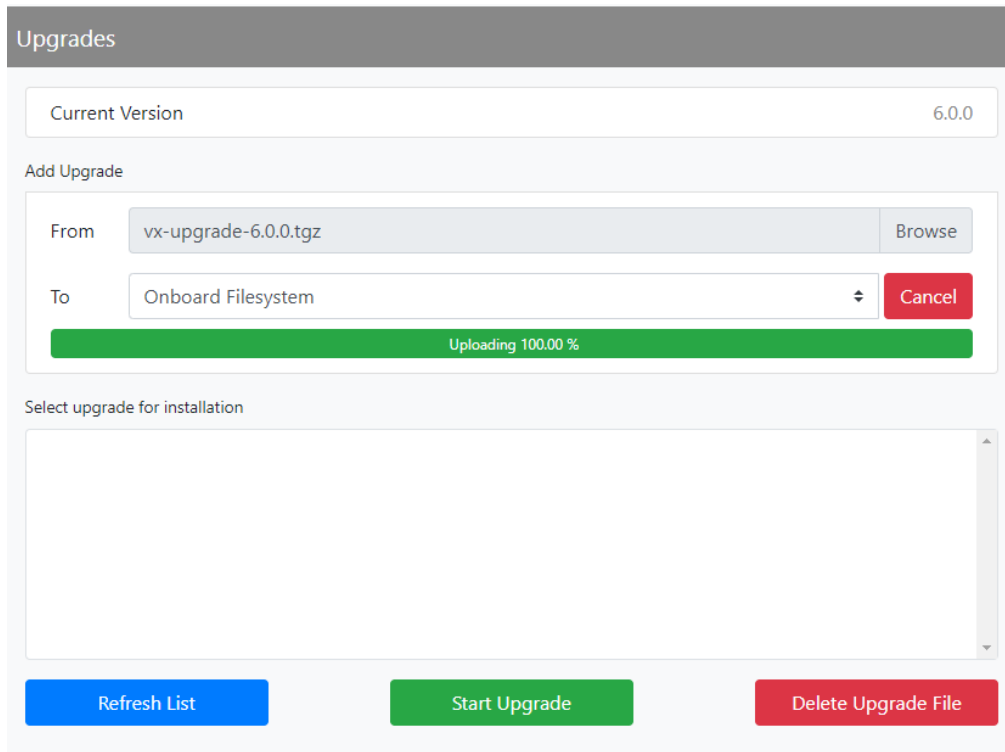


Figure 10: File upgrade in process – Remote AUI



(g) A notification will be displayed if the upgrade was successful or has failed.

- If the upgrade was successfully completed, the transmitter will require a reboot. Select the Reboot button or the link in the top banner to start the reboot process (see Figure 11).
- If the upgrade failed, the Operating System will remain unchanged and a pop-up screen will be displayed for the user to acknowledge the failed attempt. Nautel recommends that you re-download the tgz upgrade file, re-upload the file, and repeat the procedure, otherwise contact Nautel Customer Service (support@nautel.com).

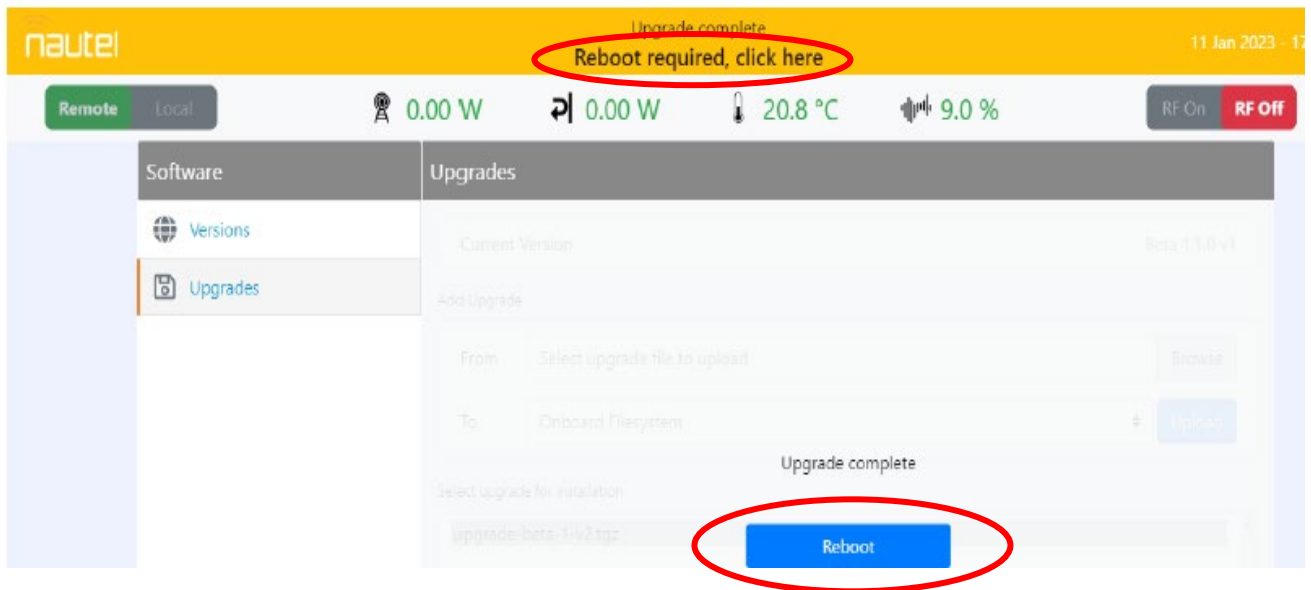


Figure 11: File upgrade complete/reboot – Remote AUI

(h) Upon selecting **Reboot**, a warning will be displayed (see Figure 12), indicating that the transmitter will be off-air for between two and five minutes during a reboot. Select **Yes** to reboot that transmitter or **Cancel** to revert to the previous software.

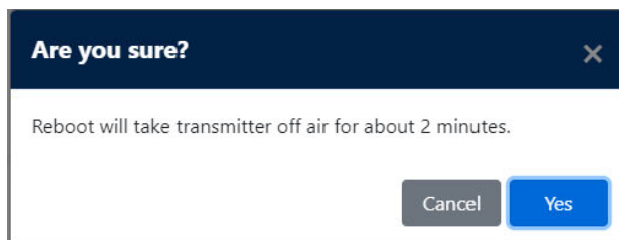


Figure 12: Reboot Warning – Remote AUI

(i) Once rebooted, you will have to log back into the transmitter, using your Username and Password.

IMPORTANT!

Ensure that ac power to the transmitter is uninterrupted for at least 20 minutes after the software upgrade is complete. Failure to observe this will render the transmitter inoperable.

