VX Series Software 6.4.0

General Remarks:

VX Series Software Version 6.4.0 is a Software update suitable for all Nautel VX Series transmitters.

For those who do not require any of the bug fixes/improvements identified below, are satisfied with current transmitter behaviour or require any of the unimplemented features, do not update to this release.

You can download VX Series Software Version 6.4.0 here.

Software Upgrade procedures can be found in IS23006, *VX Series – Software Upgrade Procedure*. Please be sure to review and understand the complete set of instructions prior to beginning your upgrade.

Installation Considerations:

This software update will take approximately 30 minutes, but you will only be OFF-AIR during the rebooting process for approximately 2 minutes. This release is **not** recommended for use with SC4-based M/S or N+1 systems. Please revert to the latest compatible version from the applicable SC4 release notes found in SC4 Releases.

Nautel does not recommend downgrading to previously released software.

Added:

- Added VSWR Shutdown Override functionality.
  - New SWR Shutdown Override Active alarm.
  - New options in the Thresholds menu:
    - VSWR Shutdown Override
    - VSWR Override Timeout Reset
  - The new options are also available in the Digital Inputs as Control/Source options.
  - When the VSWR Shutdown Override is enabled, all transmitter SWR protections will be bypassed and the transmitter will produce 1 % of its nameplate power for only 24 hours, at which point the transmitter will resume normal operation. During the override, the SWR Shutdown Override Active alarm will be triggered.
  - Selecting the VSWR Override Timeout Reset will reset the override's timeout back to 24 hours.
  - Performing an Alarm Reset will cancel the override and the transmitter will resume normal operation.
- Added High SWR Threshold option to the Thresholds menu to change the High SWR alarm's threshold.
  - The High SWR Threshold's range is 1.0:1 to 3.0:1 with the default being 1.4:1.
  - The High SWR alarm will now clear when the transmitter's SWR meter reports 0.05 less than the set High SWR Threshold for at least 5 seconds.
- Added PA Fail Foldback alarm functionality for VX1.5 and VX2 transmitters.
  - If one PA Failure alarm is triggered while RF is on, the transmitter's RF will foldback and the PA Fail Foldback alarm will be triggered.
- Added PA/PS Fail Shutdown alarm functionality for VX150 to VX2 transmitters.
  - If the transmitter's power supply is removed while RF is on, the transmitter's RF will be inhibited and the PA/PS Fail Shutdown alarm will be triggered.

Changed:

- Changed the PA High Power Dissipation alarm trigger threshold from 350 W for 30 seconds to 375 W for 45 seconds.

- New presets created through the First Time Startup or through the FPUI's Presets menu will now have the Audio Low Alarm options defaulted to Enabled.
- The transmitter will now reboot when a new license is applied using the FPUI.
- Each of the Spectrum Analyzer's measurement options will now have their own Resolution Bandwidth and Span values.
    - If Internal FM is set as the Measurement Option with specific Resolution Bandwidth and Span values and then MPX is set as the Measurement Option, the Resolution Bandwidth and Span values will change to the values set for MPX. Changing back to Internal FM will show Internal FM's values for Resolution Bandwidth and Span.
- Improved reliability for Remote Inputs to detect contact closures of 500 ms or greater.
- Improved transmitter operation with pre-emphasis and AGC Limiter to reduce distortion.
- VS-TC-HP-related meters in the FPUI now show N/A instead of their last-known value when the VS-TC-HP is disconnected.
- The FPUI will now specify the reason when a preset cannot be deleted such as the following:
    - When the preset is the Active Preset.
    - When the preset is in a Scheduler rule.
    - When the preset is a backup preset.
    - When the preset is a Channel/Source in Remote I/O.

Fixed:

- Having an Orban Audio Processor installed and enabled no longer causes the transmitter to reboot randomly.
- If an Orban Audio Processor is installed and enabled in a preset, the Orban now uses the preset-configured pre-emphasis. In this condition, the correct pre-emphasis is applied throughout the transmitter.
- The transmitter will now correctly foldback temporarily when there is a PA/PS inhibit status change. (VX3 to VX6)
- The IPA PS Fail alarm no longer triggers after the IPA Fail alarm is already triggered. (VX3 to VX6)
- The IPA PS Fail and Analog Audio PWB Voltage Fail alarms no longer trigger during a software update where the interface boards are updated.
- Non-preset Sources options have been restored for a Remote Input and Remote Output in the FPUI.
- The SWR Foldback alarm now clears when RF is turned off.
- If the Pilot Unsync alarm is triggered and the Pilot 1PPS Sync option is disabled for the Active Preset, the Pilot Unsync alarm will now clear.
- Setting the Mod Loss Timeout to greater than 24 minutes and 2.8 seconds no longer immediately triggers the Mod Loss Action.
- If the SWR Shutdown Threshold and SWR Foldback Threshold values are changed and then an Exciter/Controller reboot or ac cycle is performed, the threshold settings will still be set to their new values.
- If the Ramp-Up Speed value is changed and then an Exciter/Controller reboot or ac cycle is performed, the setting will still be set to the new value.
- If VS-TC-HP-related alarms are shown in the AUI (Advanced User Interface)/FPUI (Front Panel User Interface) and the VS-TC-HP is disconnected from the VX, the alarms are now cleared instead of continuing to be shown.
- If SIB/ECSIB/PSIB-related alarms are shown in the AUI/FPUI and the device is disconnected, the device's alarms are now cleared instead of continuing to be shown.
- The High Reject Shutback alarm no longer triggers when the exciter/controller section cannot communicate with the amplifier section. (VX3 to VX6)

- If a software update, Exciter/Controller reboot or ac cycle was performed, the AUI/FPUI will no longer show incorrect network information.
- Changing the preset's Main Audio Source would not update the Hard Limiter correctly.
- If the preset is using MPX and the Hard Limiter is enabled, the Pilot and RDS Injection Levels would incorrectly be added on top of the Hard Limiter value.

Known Issues:

User Experience

- Software Upgrades using USB may not be functional for all VX transmitters.
- RF can be turned off remotely via SNMP when transmitter is set to Local-only.
- The Pilot 1PPS Sync may momentarily go out of sync and the Pilot Unsync alarm will trigger during long-term synchronous operations approximately 1-2 times per day.
    - The transmitter will adjust itself back to the desired pilot phase within seconds and clear the alarm.
- If RDS is enabled with Data Source set to Internal RDS and Alternate Frequencies set to something other than 0, the Alternate Frequencies are not correctly outputted.
    - ASCII over IP and UECP over IP are not affected.
- If RDS is enabled with Data Source set to either ASCII over IP or UECP over IP and there's a telnet connection to the transmitter, changing the Data Source to another option (even the other "over IP" option) and saving causes the Preset menu to freeze in a loading state with an error.
    - Closing the telnet connection will allow the Preset menu to start working again.
- If the transmitter is outputting audio and the AGC Limiter is enabled with AGC Time Constant set to 10 ms or less, the modulation meter will go to >600 % and the audio will stop being outputted.
    - An Exciter/Controller reboot will fix the issue.
- Performing a software update via the AUI may not show the Reboot button when the update is completed.
    - Refreshing the page will fix the issue.
- Transmitter does not inhibit RF correctly during reboot from a software update using the AUI. While the transmitter does inhibit the RF during the reboot, it does not properly inhibit the RF before the reboot.
    - Turn off RF before performing a post-software update reboot using the AUI to mitigate any undesirable behaviour.
- While uploading a software installation file, the "Connection Lost" message will appear in the top banner and the meters, date and time will stop updating.
    - When the software installation file finishes uploading, the "Connection Lost" message will disappear and the meters, date and time will resume updating as normal.
- The Display Failure alarm may not trigger if the FPUI display suffers a partial or full failure.
- During a reboot, entering the FPUI's Network menu before the AUI is available resets the network settings to DHCP enabled.
    - Wait approximately 2 minutes before accessing the FPUI's Network menu after a reboot.
- Turning RF off and then rebooting/ac cycling the transmitter within 20-30 seconds will cause the RF to turn back on after startup.
    - Wait approximately 2 minutes before rebooting/ac cycling the transmitter after turning RF off.
- VS-TC-HP-related alarms are currently not logged in the AUI or FPUI.
- RDS ASCII Over Serial is currently not functional.
- RDS UECP Over Serial is currently not functional.
- The increment values for the Low Forward Power and Very Low Forward Power fields in the AUI are 0.5 % when they should be 0.1 % to match the FPUI.

- The 10 MHz Delta Meter in Exciter VCXO requires a page refresh to update the meter value.
- The VCXO 10 MHz Calibration Start button does not automatically change its state based on the external 10 MHz connection.
    - Refreshing the page will fix the issue.
- If the User logs into a transmitter within a minute of startup, the AUI's time will not appear in the banner or the Time menu.
    - Refreshing the page after a minute will show the time.
- Clearing the Transmitter Name/Call Sign, saving and rebooting the transmitter causes the Transmitter Name/Call Sign to go back to the previous value.
- Depending on the AUI's browser size, the Source for Software Upgrade files may not be shown.
    - Change the AUI's browser size until the Source appears.
- If the Spectrum Analyzer's Measurement Source is set to MPX and the Resolution Bandwidth is not set to a specific value, then the minimum, center and maximum frequencies show incorrect values. The Resolution Bandwidth values where this does not happen are 250 Hz, 500 Hz, 750 Hz, 1000 Hz, 2000 Hz and 2500 Hz.
- If the VCXO 10 MHz Calibration is started via the AUI, the FPUI shows the calibration and then changes to the Exciter VCXO instead of its original screen when the calibration is completed.
- After performing an Exciter/Controller reboot or ac cycle and accessing the FPUI's Network menu, the MAC Address shows all 0s.
    - Exiting and reentering the menu shows the correct MAC Address.
- Setting the High SWR Threshold to 1.000 will result in an error and will revert to 1.400.
    - Setting the High SWR Threshold to 1.001 will save the High SWR Threshold as 1.000.
- Hard Limiter may allow some modulation overshoot of around 1 % to 2 % in MPX Audio Sources.

Notifications

- If an email is being inputted into an email field and the local-part (contents on the left of the @) is made up of 32 or more characters and then the @ symbol is inputted, adding any character after the @ makes the AUI more and more unresponsive.
    - Enter the @ symbol and complete the domain name before entering the local-part to avoid this issue.
- If there's an apostrophe in an Email Server Configuration field, emails will not be sent and result in an error.
- Emails sent for Transfer Controller alarms do not include the device or alarm name in the subject.
- Emails sent for various alarms do not include the alarm name in the subject.

Orban Audio Processor

- A temporary "SP:" Orban preset is created when a new custom Orban preset is created.
    - It disappears after reloading the page.
    - This does not affect functionality.
- An Orban preset may hold onto an unsaved changed value in its settings instead of showing its saved value.
    - Reactivating the Orban preset will set the settings back to their saved values.
- Setting ST ENC NO LIM as the active Orban preset and reloading the Audio Processing page shows none of the Orban presets as active.

Presets

- Changing and saving a preset and then immediately attempting to delete the preset will result in an error and the preset will not be deleted.
    - Changing and saving another preset and attempting to delete the original preset will result in a successful deletion.

    - Making a new preset using cloning and attempting to delete the original preset will result in a successful deletion.
    - An Exciter/Controller reboot will fix the issue.
- If a preset is set as the Active Preset and is not attached to any scheduled rules, Remote I/O or Mod Loss Timeout and the Active Preset is changed to another preset, the original preset's Delete button does not activate. This also happens for a preset becoming the Active Preset where the Delete button does not deactivate.
    - An Exciter/Controller reboot will fix the issue.
- Switching back and forth between 2 presets with less than 5 second intervals can cause AUI instability.
- Repeatedly updating a preset's frequency can cause AUI instability.
    - Allow at least 5 seconds between saving preset frequency changes.
- Audio Delay units in the AUI's Presets do not match the units in the FPUI's Presets.
- If a new custom Orban preset is created, viewing the Orban Preset list in Presets will not show the new custom Orban preset. This also applies to deleting a custom Orban preset where the Orban Preset list will still show the deleted preset.
    - Refreshing the page will fix the issue.
- Quickly deleting two scheduled rules in their order of creation causes a Connection Lost and the AUI does not reconnect.
    - An Exciter/Controller reboot will fix the issue.
- Attempting to save a preset with the frequency less than 87.50 MHz will result in an error.
- If a new Preset is created, deleted or a Preset name is changed, viewing a Preset's Mod Loss Preset option will not show the new changes to the presets.
    - Refreshing the Remote AUI's page remedies this issue.

Remote I/O

- Unassigned is missing as a Control in Digital Inputs and Digital Outputs.
- The Unassigned channel in Digital Outputs has Active High and Active Low for options instead of Unassigned.
- If the Remote AUI is opened in a new browser tab and an Analog Output Sample Full Scale value is changed and saved, the AUI page refreshes. The Sample Full Scale value successfully saves.
- Changing Analog Output Sample Full Scale value and performing an Exciter/Controller reboot or ac cycle may revert the Sample Full Scale value back to its original value.

Reports

- Sorting by Meter Collection, Meter Name, Value or Units in Meters under Reports will "freeze" the AUI and the AUI cannot be changed from the Meters page under Reports and no actions can be made.
    - Refreshing the Remote AUI's page will fix the issue.
- When filtering options from the Audio section in Reports, Audio Delay from Other Settings is included when it should not be.
- Power and frequency changes are not currently logged in Event History.
- Sorting by Device in Event History does not sort correctly.
- Local/Remote events in a downloaded report file are not translated.

SNMP

- SNMP OIDs that are invalid for the transmitter type appear in an SNMP walk.

Users

- If a User is logged in with only RF Control permissions, the User cannot change the RF On/Off state.
- If a User is logged in with the Edit Presets permission disabled, the User cannot view the Active Preset page in Reports.
- If a User is logged in with the Administrator permission disabled, the User cannot download the Event History report.

Miscellaneous

- The transmitter is incorrectly pinging www.google.com while checking for network connectivity.
- Error handling for the VCXO 10 MHz DAC Value field is incorrect.
- DMPX AES1/2's DMPX Level maximum value is 0.1 dBFS when it should be 0 dBFS.
- Mod Loss Timeout Seconds' maximum value is shown as 59.95 s when it should be 59.9 s.
- Minute selection maximum in the FPUI's Time menu is 100 instead of 59.
- If entering an incorrect value into a field, the error message will appear without attempting to save the value.
- Settings in Network have an "*" next to their names to indicate that the fields require values. Since the page cannot be changed using the AUI, the "*" should not be there.
- Switching from DHCP IP addressing to Static IP addressing will not reset IP address to 0.0.0.0.
- Setting a Scheduler Rule Time's To value to 24:00 and saving fails to create the rule.

VX Series Software 6.3.2

General Remarks:

VX Series Software Version 6.3.2 is a software update suitable for all Nautel VX Series transmitters.

For those who do not require any of the bug fixes/improvements identified below, are satisfied with current transmitter behaviour or require any of the unimplemented features, do not update to this release.

You can download VX Series Software Version 6.3.2 here.

Software upgrade procedures can be found in IS23006, *VX Series – Software Upgrade Procedure*. Please be sure to review and understand the complete set of instructions prior to beginning your upgrade.

Fixed:

- Amplifier Fan Fail alarms no longer persist and require an RF On/Off cycle to clear them when the exciter/controller and amplifier sections of VXHP transmitters simultaneously have their ac power interrupted for a period of 500 ms to 10 s.

Known Issues:

User Experience

- Software Upgrades using USB are not functional for high-power VX transmitters. (VX3 to VX6)
- The Pilot 1PPS Sync may momentarily go out of sync and the Pilot Unsync alarm will trigger during long-term synchronous operations approximately 1-2 times per day.
    - The transmitter will adjust itself back to the desired pilot phase within seconds and clear the alarm.
- Performing a software update via the AUI (Advanced User Interface) may not show the Reboot button when the update is completed.
    - Refreshing the page will fix the issue.
- Transmitter does not inhibit RF correctly during reboot from a software update using the AUI. While the transmitter does inhibit the RF during the reboot, it does not properly inhibit the RF before the reboot.
    - Turn off RF before performing a post-software update reboot using the AUI to mitigate any undesirable behaviour.
- While uploading a software installation file, the “Connection Lost” message will appear in the top banner and the meters, date and time will stop updating.
    - When the software installation file finishes uploading, the “Connection Lost” message will disappear and the meters, date and time will resume updating as normal.
- IPA PS Fail and Analog Audio PWB Voltage Fail alarms trigger and clear during software updates when the interface boards are updated.
- The IPA PS Fail alarm may trigger after the IPA Fail alarm is triggered. (VX3 to VX6)
- The Display Failure alarm may not trigger if the FPUI (Front Panel User Interface) display suffers a partial or full failure.
- During a reboot, entering the FPUI’s Network menu before the AUI is available resets the network settings to DHCP enabled.
    - Wait approximately 2 minutes before accessing the FPUI’s Network menu after a reboot.
- If the SWR Shutdown Threshold and SWR Foldback Threshold values are changed and then an Exciter/Controller reboot or ac cycle is performed, the threshold settings are changed back to their previous values.
- If the Ramp-Up Speed value is changed and then an Exciter/Controller reboot or ac cycle is performed, the setting is changed back to its previous value.

- Turning RF off and then rebooting/ac cycling the transmitter within 20-30 seconds will cause the RF to turn back on after startup.
    - Wait approximately 2 minutes before rebooting/ac cycling the transmitter after turning RF off.
- If the transmitter is RF on and operating into a 1.5:1 VSWR, the SWR Foldback alarm triggers. If RF is turned off, the SWR Foldback alarm does not clear.
    - Operating the transmitter into a less than 1.5:1 VSWR and turning RF on will clear the SWR Foldback alarm.
- VS-TC-HP-related alarms are currently not logged in the AUI or FPUI.
- If VS-TC-HP-related alarms are shown in the AUI/FPUI and the VS-TC-HP is disconnected from the VX, the alarms are still present.
    - An Exciter/Controller reboot will clear the VS-TC-HP-related alarms.
- RDS ASCII Over Serial is currently not functional.
- RDS UECP Over Serial is currently not functional.
- If a DNS option is set to 1.1.1.1 while DHCP is off and the transmitter is rebooted or ac cycled, DHCP will change to on.
- The increment values for the Low Forward Power and Very Low Forward Power fields in the AUI are 0.5 % when they should be 0.1 % to match the FPUI.
- The 10 MHz Delta Meter in Exciter VCXO requires a page refresh to update the meter value.
- The VCXO 10 MHz Calibration Start button does not automatically change its state based on the external 10 MHz connection.
    - Refreshing the page will fix the issue.
- If the User logs into a transmitter within a minute of startup, the AUI's time will not appear in the banner or the Time menu.
    - Refreshing the page after a minute will show the time.
- Clearing the Transmitter Name/Call Sign, saving and rebooting the transmitter causes the Transmitter Name/Call Sign to go back to the previous value.
- Depending on the AUI’s browser size, the Source for Software Upgrade files may not be shown.
    - Change the AUI’s browser size until the Source appears.

Notifications

- Emails sent for Transfer Controller alarms do not include the device or alarm name in the subject.
- Emails sent for various alarms do not include the alarm name in the subject.

Orban Audio Processor

- If an Orban Audio Processor is installed, the transmitter may reboot a few times daily.
    - For those who are not using Orban Audio Processor functionality, disable Orban Inside Present in the FPUI to remedy the issue.
- A temporary "SP:" Orban preset is created when a new custom Orban preset is created.
    - It disappears after reloading the page.
    - This does not affect functionality.
- An Orban preset may hold onto an unsaved changed value in its settings instead of showing its saved value.
    - Reactivating the Orban preset will set the settings back to their saved values.
- Setting ST ENC NO LIM as the active Orban preset and reloading the Audio Processing page shows none of the Orban presets as active.

Presets

- If an Orban Audio Processor is installed and enabled in a preset, the Orban always applies 75 µs of pre-emphasis which may result in the output signal having double the pre-emphasis.
    - If using the Orban Audio Processor, the lowest pre-emphasis value would be 75 µs with the preset's Pre-emphasis set to 0 µs.
- If the preset is using MPX and the Hard Limiter is enabled, the Pilot and RDS Injection Levels are incorrectly added on top of the Hard Limiter value.
- Changing and saving a preset and then immediately attempting to delete the preset will result in an error and the preset will not be deleted.
    - Changing and saving another preset and attempting to delete the original preset will result in a successful deletion.
    - Making a new preset using cloning and attempting to delete the original preset will result in a successful deletion.
    - An Exciter/Controller reboot will fix the issue.
- If the Pilot Unsync alarm is triggered and the Pilot 1PPS Sync option is disabled for the Active Preset, the Pilot Unsync alarm will persist.
    - An Exciter/Controller reboot will fix the issue.
- If the User configures the active preset to use Internal RDS and has multiple Alternate Frequencies defined, reducing the number of Alternate Frequencies without changing any of the Alternate Frequency values will cause the transmitter to continue broadcasting all the originally set Alternate Frequencies.
- If a preset is set as the Active Preset and is not attached to any scheduled rules, Remote I/O or Mod Loss Timeout and the Active Preset is changed to another preset, the original preset's Delete button does not activate. This also happens for a preset becoming the Active Preset where the Delete button does not deactivate.
    - An Exciter/Controller reboot will fix the issue.
- Switching back and forth between 2 presets with less than 5 second intervals can cause AUI instability.
- Repeatedly updating a preset's frequency can cause AUI instability.
    - Allow at least 5 seconds between saving preset frequency changes.
- Audio Delay units in the AUI's Presets do not match the units in the FPUI's Presets.
- If a new custom Orban preset is created, viewing the Orban Preset list in Presets will not show the new custom Orban preset. This also applies to deleting a custom Orban preset where the Orban Preset list will still show the deleted preset.
    - Refreshing the page will fix the issue.
- Quickly deleting two scheduled rules in their order of creation causes a Connection Lost and the AUI does not reconnect.
    - An Exciter/Controller reboot will fix the issue.
- Attempting to save a preset with the frequency less than 87.50 MHz will result in an error.
- If a new Preset is created, deleted or a Preset name is changed, viewing a Preset's Mod Loss Preset option will not show the new changes to the presets.
    - Refreshing the Remote AUI's page remedies this issue.

Remote I/O

- Non-preset Sources cannot be enabled for a Remote Input or Output using the FPUI.
    - The Sources can be changed to non-preset options via the AUI using the Digital Inputs/Digital Outputs' Channels.

- Unassigned is missing as a Control in Digital Inputs and Digital Outputs.
- The Unassigned channel in Digital Outputs has Active High and Active Low for options instead of Unassigned.

Reports

- Sorting by Meter Collection, Meter Name, Value or Units in Meters under Reports will “freeze” the AUI and the AUI cannot be changed from the Meters page under Reports and no actions can be made.
    - Refreshing the Remote AUI’s page will fix the issue.
- When filtering options from the Audio section in Reports, Audio Delay from Other Settings is included when it should not be.
- Power and frequency changes are not currently logged in Event History.
- Sorting by Device in Event History does not sort correctly.
- Local/Remote events in a downloaded report file are not translated.

SNMP

- SNMP OIDs that are invalid for the transmitter type appear in an SNMP walk.

Users

- If a User is logged in with only RF Control permissions, the User cannot change the RF On/Off state.
- If a User is logged in with the Edit Presets permission disabled, the User cannot view the Active Preset page in Reports.
- If a User is logged in with the Administrator permission disabled, the User cannot download the Event History report.

Miscellaneous

- The transmitter is incorrectly pinging www.google.com while checking for network connectivity.
- Error handling for the VCXO 10 MHz DAC Value field is incorrect.
- DMPX AES1/2’s DMPX Level maximum value is 0.1 dBFS when it should be 0 dBFS.
- Mod Loss Timeout Seconds’ maximum value is shown as 59.95 s when it should be 59.9 s.
- Minute selection maximum in the FPUI’s Time menu is 100 instead of 59.
- If entering an incorrect value into a field, the error message will appear without attempting to save the value.
- Settings in Network have an “*” next to their names to indicate that the fields require values. Since the page cannot be changed using the AUI, the “*” should not be there.
- Switching from DHCP IP addressing to Static IP addressing will not reset IP address to 0.0.0.0.
- Setting a Scheduler Rule Time’s To value to 24:00 and saving fails to create the rule.

Installation Considerations:

This software update will take approximately 30 minutes, but you will only be OFF-AIR during the rebooting process for approximately 2 minutes.

VX Series Software 6.3.1

General Remarks:

VX Series Software Version 6.3.1 is a Software update suitable for all Nautel VX Series transmitters.

You can download VX Series Software Version 6.3.1 here.

Software Upgrade procedures can be found in IS23006, *VX Series – Software Upgrade Procedure*. Please be sure to review and understand the complete set of instructions prior to beginning your upgrade.

Fixed:

- Low Forward Power and Very Low Forward Power alarms no longer trigger when there is a carrier frequency change.
- Issues with false triggering of PA High Power Dissipation alarms during RF output dropouts such as during a frequency change.
- SIB/ECSIB/PSIB-related alarms would incorrectly log with a Unix epoch timestamp when a power supply was disconnected/reconnected.

Known Issues:

- Software Upgrades using USB are not functional for high-power VX transmitters. (VX3 to VX6)
- Performing a software update via the AUI (Advanced User Interface) may not show the Reboot button when the update is completed.
    - Refreshing the page will fix the issue.
- Transmitter does not inhibit RF correctly during reboot from a software update using the AUI. While the transmitter does inhibit the RF during the reboot, it does not properly inhibit the RF before the reboot.
    - Turn off RF before performing a post-software update reboot using the AUI to mitigate any undesirable behaviour.
- During a reboot, entering the FPUI's (Front Panel User Interface) Network menu before the AUI is available resets the network settings to DHCP enabled.
    - Wait approximately 2 minutes before accessing the FPUI's Network menu after a reboot.
- Turning RF off and then rebooting/ac cycling the transmitter within 20-30 seconds will cause the RF to turn back on after startup.
    - Wait approximately 2 minutes before rebooting/ac cycling the transmitter after turning RF off.
- If a DNS option is set to 1.1.1.1 while DHCP is off and the transmitter is rebooted or ac cycled, DHCP will change to on.
- If a User is logged in with only RF Control permissions, the User cannot change the RF On/Off state.
- If a User is logged in with the Edit Presets permission disabled, the User cannot view the Active Preset page in Reports.
- If a User is logged in with the Administrator permission disabled, the User cannot download the Event History report.
- The Pilot 1PPS Sync may momentarily go out of sync and the Pilot Unsync alarm will trigger during long-term synchronous operations approximately 1-2 times per day.
    - The transmitter will adjust itself back to the desired pilot phase within seconds and clear the alarm.
- Attempting to save a preset with the frequency less than 87.50 MHz will result in an error.
- RDS Alternative Frequency range is 87.6 to 107.9 MHz when it should be 87.5 to 108.0 MHz.
- RDS ASCII Over Serial is currently not functional.

- RDS UECP Over Serial is currently not functional.
- Changing and saving a preset and then immediately attempting to delete the preset will result in an error and the preset will not be deleted.
    - Changing and saving another preset and attempting to delete the original preset will result in a successful deletion.
    - Making a new preset using cloning and attempting to delete the original preset will result in a successful deletion.
    - An Exciter/Controller reboot will fix the issue.
- If the User configures the active preset to use Internal RDS and has multiple Alternate Frequencies defined, reducing the number of Alternate Frequencies without changing any of the Alternate Frequency values will cause the transmitter to continue broadcasting all the originally set Alternate Frequencies.
- If a preset is set as the Active Preset and is not attached to any scheduled rules, Remote I/O or Mod Loss Timeout and the Active Preset is changed to another preset, the original preset's Delete button does not activate. This also happens for a preset becoming the Active Preset where the Delete button does not deactivate.
    - An Exciter/Controller reboot will fix the issue.
- Switching back and forth between 2 presets with less than 5 second intervals can cause AUI instability.
- Repeatedly updating a preset’s frequency can cause AUI instability.
    - Allow at least 5 seconds between saving preset frequency changes.
- Audio Delay units in the AUI's Presets do not match the units in the FPUI's Presets.
- If an Orban Audio Processor is installed, the transmitter may reboot a few times daily.
    - For those who are not using Orban Audio Processor functionality, disable Orban Inside Present in the FPUI to remedy the issue.
- If a new custom Orban preset is created, viewing the Orban Preset list in Presets will not show the new custom Orban preset. This also applies to deleting a custom Orban preset where the Orban Preset list will still show the deleted preset.
    - Refreshing the page will fix the issue.
- Quickly deleting two scheduled rules in their order of creation causes a Connection Lost and the AUI does not reconnect.
    - An Exciter/Controller reboot will fix the issue.
- Unassigned is missing as a Control in Digital Inputs and Digital Outputs.
- The Unassigned channel in Digital Outputs has Active High and Active Low for options instead of Unassigned.
- The increment values for the Low Forward Power and Very Low Forward Power fields in the AUI are 0.5 % when they should be 0.1 % to match the FPUI.
- Switching from DHCP IP addressing to Static IP addressing will not reset IP address to 0.0.0.0.
- Power and frequency changes are not currently logged in Event History.
- Downloading the Event History report with a filter saves all the events.
- Downloading the Meters report with a filter saves all the meters.
- Downloading the Settings report with a filter saves all the settings.
- Sorting by Device in Event History does not sort correctly.
- Local/Remote events in a downloaded report file are not translated.
- SNMP OIDs that are invalid for the transmitter type appear in an SNMP walk.
- Error handling for the VCXO 10 MHz DAC Value field is incorrect.
- The 10 MHz Delta Meter in Exciter VCXO requires a page refresh to update the meter value.

- The VCXO 10 MHz Calibration Start button does not automatically change its state based on the external 10 MHz connection.
    - Refreshing the page will fix the issue.
- If the User logs into a transmitter within a minute of startup, the AUI's time will not appear in the banner or the Time menu.
    - Refreshing the page after a minute will show the time.
- Minute selection maximum in the FPUI's Time menu is 100 instead of 59.
- Clearing the Transmitter Name/Call Sign, saving and rebooting the transmitter causes the Transmitter Name/Call Sign to go back to the previous value.
- Emails sent for Transfer Controller alarms do not include the device or alarm name in the subject.
- Emails sent for various alarms do not include the alarm name in the subject.
- A temporary "SP:" Orban preset is created when a new custom Orban preset is created.
    - It disappears after reloading the page.
    - This does not affect functionality.
- An Orban preset may hold onto an unsaved changed value in its settings instead of showing its saved value.
    - Reactivating the Orban preset will set the settings back to their saved values.
- Setting ST ENC NO LIM as the active Orban preset and reloading the Audio Processing page shows none of the Orban presets as active.
- Depending on the AUI's browser size, the Source for Software Upgrade files may not be shown.
    - Change the AUI's browser size until the Source appears.
- If entering an incorrect value into a field, the error message will appear without attempting to save the value.
- Settings in Network have an "*" next to their names to indicate that the fields require values. Since the page cannot be changed using the AUI, the "*" should not be there.
- Setting a Scheduler Rule Time's To value to 24:00 and saving fails to create the rule.

Installation Considerations:

This software update will take approximately 30 minutes, but you will only be OFF-AIR during the rebooting process for approximately 2 minutes.

VX Series Software 6.3.0

General Remarks:

VX Series Software Version 6.3.0 is a Software update suitable for all Nautel VX Series transmitters.

You can download VX Series Software Version 6.3.0 here.

Software Upgrade procedures can be found in IS23006, *VX Series – Software Upgrade Procedure*. Please be sure to review and understand the complete set of instructions prior to beginning your upgrade.

Added:

- Support for VS-TC and VS-TC-HP Transfer Controllers.
  - To enable support for the VS-TC/VS-TC-HP, enable Transfer Control in the FPUI's (Front Panel User Interface) System settings menu.
  - VS-TC/VS-TC-HP-related settings are now shown in the FPUI when Transfer Control is enabled.
  - VS-TC/VS-TC-HP-related meters are now shown in the FPUI when Transfer Control is enabled.
  - VS-TC/VS-TC-HP-related alarms are now shown in the AUI (Advanced User Interface) and FPUI when Transfer Control is enabled and when the alarms become active.
  - VS-TC/VS-TC-HP-related alarms can now be selected for Notifications.
  - OIDs for the VS-TC/VS-TC-HP-related alarms have been added to the transmitter's MIB.
  - New controller-based Transfer Control Communications alarm when Transfer Control is enabled and the transmitter loses communication with the VS-TC/VS-TC-HP.
- FM Polarity can now be changed using the AUI.
  - FM Polarity is now located in the AUI's Settings menu.
- New Disable Network Alarm option in the FPUI.
  - Found in System settings menu.
  - Enabling the option will keep the Host Network Down alarm from appearing.
- Clear Averaging option has been added to the Spectrum Analyzer's Spectrum Settings menu.

Changed:

- Added scroll bar to Dashboard panels when their information extends past the normal space for each panel.
- Increased IPA Reflected Power meter resolution from 1 W to 0.01 W in the FPUI. (VX3 to VX6)
- If either the ECSIB (Exciter/Controller System Interface Board) or PSIB (Power System Interface Board) lose communication, the communicating device's meters will now display its meters correctly while the non-communicating device's meters will show "N/A". (VX3 to VX6)
- Changed "SCA MPX" to "MPX SCA" in the AUI's presets.

Fixed:

- Resolution Bandwidth can now be changed in the Spectrum Analyzer's Spectrum Settings menu.
- Remote Input/Output Sources can now be changed using the FPUI.
- The Active Preset ID Channel OID now correctly defaults to Integer instead of OctetString for GETs and SETs.
- AUI would stop receiving data if the AUI was opened on another device.
- If a USB storage device was connected to the transmitter, a Host reboot would take approximately 5 additional minutes to complete.
- The front panel's Fault LED would not light up when any SIB (System Interface Board), ECSIB or PSIB alarms would become active.

- The RF Sample Fault alarm would falsely become active when under certain ramp-up conditions and the transmitter was set to a frequency at the end of the frequency band.
- The SWR Foldback alarm would trigger and clear repeatedly at full power with a VSWR of 1.5:1.
- PA Fail alarms would trigger and clear repeatedly at full power with a VSWR of 1.5:1.
- When Pilot 1PPS Sync is enabled, and when various other audio limiters, delays and filters are enabled, the pilot signal's phase would go out of sync.
- Turning RF on while on the Analog Outputs page caused the Meter Values to change erratically between their correct value and 0 W.
- All Orban tabs now show up immediately when an Orban preset is viewed.
- Improved the ability to change options in the Audio Processing settings.
- Timestamps for events in Reports did not correctly match the selected time zone.
- If an error occurred when attempting to save a preset that duplicated another preset's name, the error was untranslated.
    - The message now says: "Preset name already exists".
- Performing a SET request for an OID using an invalid value now correctly results in a fail.
- If multiple presets are created with the same starting sequence of characters in their names, the FPUI will no longer incorrectly display a preset with a longer name when switching between presets with names of different lengths.
- The AUI's banner would say "Connection Lost" and time would freeze when modifying presets, SNMP settings, preset schedules or Orban presets.
- Attempting to change various settings while the transmitter is Local-only used to produce an "Unknown Error" message.
    - The message now says: "Failed to update".
- Opening the Create Rule window in Preset Scheduler would change the calendar to the current month if the calendar was viewing another month.
- Setting the Time Zone to United States / Pacific/Honolulu would display as US minor outlying islands / Pacific/Honolulu after saving, exiting and reentering the Time menu.
- Images on the FPUI would become corrupted.

Known Issues:

- Software Upgrades using USB are not functional for high-power VX transmitters. (VX3 to VX6)
- Performing a software update via the AUI may not show the Reboot button when the update is completed.
    - Refreshing the page will fix the issue.
- Transmitter does not inhibit RF correctly during reboot from a software update using the AUI. While the transmitter does inhibit the RF during the reboot, it does not properly inhibit the RF before the reboot.
    - Turn off RF before performing a post-software update reboot using the AUI to mitigate any undesirable behaviour.
- During a reboot, entering the FPUI's Network menu before the AUI is available resets the network settings to DHCP enabled.
    - Wait approximately 2 minutes before accessing the FPUI's Network menu after a reboot.
- Turning RF off and then rebooting/ac cycling the transmitter within 20-30 seconds will cause the RF to turn back on after startup.
    - Wait approximately 2 minutes before rebooting/ac cycling the transmitter after turning RF off.
- If a DNS option is set to 1.1.1.1 while DHCP is off and the transmitter is rebooted or ac cycled, DHCP will change to on.

- If a User is logged in with only RF Control permissions, the User cannot change the RF On/Off state.
- If a User is logged in with the Edit Presets permission disabled, the User cannot view the Active Preset page in Reports.
- If a User is logged in with the Administrator permission disabled, the User cannot download the Event History report.
- The Pilot 1PPS Sync may momentarily go out of sync and the Pilot Unsync alarm will trigger during long-term synchronous operations approximately 1-2 times per day.
    - The transmitter will adjust itself back to the desired pilot phase within seconds and clear the alarm.
- Attempting to save a preset with the frequency less than 87.50 MHz will result in an error.
- RDS Alternative Frequency range is 87.6 to 107.9 MHz when it should be 87.5 to 108.0 MHz.
- RDS ASCII Over Serial is currently not functional.
- RDS UECP Over Serial is currently not functional.
- Changing and saving a preset and then immediately attempting to delete the preset will result in an error and the preset will not be deleted.
    - Changing and saving another preset and attempting to delete the original preset will result in a successful deletion.
    - Making a new preset using cloning and attempting to delete the original preset will result in a successful deletion.
    - An Exciter/Controller reboot will fix the issue.
- If the User configures the active preset to use Internal RDS and has multiple Alternate Frequencies defined, reducing the number of Alternate Frequencies without changing any of the Alternate Frequency values will cause the transmitter to continue broadcasting all the originally set Alternate Frequencies.
- If a preset is set as the Active Preset and is not attached to any scheduled rules, Remote I/O or Mod Loss Timeout and the Active Preset is changed to another preset, the original preset's Delete button does not activate. This also happens for a preset becoming the Active Preset where the Delete button does not deactivate.
    - An Exciter/Controller reboot will fix the issue.
- Switching back and forth between 2 presets with less than 5 second intervals can cause AUI instability.
- Repeatedly updating a preset’s frequency can cause AUI instability.
    - Allow at least 5 seconds between saving preset frequency changes.
- Audio Delay units in the AUI's Presets do not match the units in the FPUI's Presets.
- If a new custom Orban preset is created, viewing the Orban Preset list in Presets will not show the new custom Orban preset. This also applies to deleting a custom Orban preset where the Orban Preset list will still show the deleted preset.
    - Refreshing the page will fix the issue.
- Quickly deleting two scheduled rules in their order of creation causes a Connection Lost and the AUI does not reconnect.
    - An Exciter/Controller reboot will fix the issue.
- Unassigned is missing as a Control in Digital Inputs and Digital Outputs.
- The Unassigned channel in Digital Outputs has Active High and Active Low for options instead of Unassigned.
- The increment values for the Low Forward Power and Very Low Forward Power fields in the AUI are 0.5 % when they should be 0.1 % to match the FPUI.
- Error handling for the VCXO 10 MHz DAC Value field is incorrect.
- The 10 MHz Delta Meter in Exciter VCXO requires a page refresh to update the meter value.

- The VCXO 10 MHz Calibration Start button does not automatically change its state based on the external 10 MHz connection.
    - Refreshing the page will fix the issue.
- Switching from DHCP IP addressing to Static IP addressing will not reset IP address to 0.0.0.0.
- Power and frequency changes are not currently logged in Event History.
- Downloading the Event History report with a filter saves all the events.
- Downloading the Meters report with a filter saves all the meters.
- Downloading the Settings report with a filter saves all the settings.
- Sorting by Device in Event History does not sort correctly.
- Local/Remote events in a downloaded report file are not translated.
- SIB, ECSIB and PSIB alarms are incorrectly timestamped in Event History.
- SNMP OIDs that are invalid for the transmitter type appear in an SNMP walk.
- If the User logs into a transmitter within a minute of startup, the AUI's time will not appear in the banner or the Time menu.
    - Refreshing the page after a minute will show the time.
- Minute selection maximum in the FPUI's Time menu is 100 instead of 59.
- Clearing the Transmitter Name/Call Sign, saving and rebooting the transmitter causes the Transmitter Name/Call Sign to go back to the previous value.
- Emails sent for Transfer Controller alarms do not include the device or alarm name in the subject.
- Emails sent for various alarms do not include the alarm name in the subject.
- A temporary "SP:" Orban preset is created when a new custom Orban preset is created.
    - It disappears after reloading the page.
    - This does not affect functionality.
- An Orban preset may hold onto an unsaved changed value in its settings instead of showing its saved value.
    - Reactivating the Orban preset will set the settings back to their saved values.
- Setting ST ENC NO LIM as the active Orban preset and reloading the Audio Processing page shows none of the Orban presets as active.
- Depending on the AUI's browser size, the Source for Software Upgrade files may not be shown.
    - Change the AUI's browser size until the Source appears.
- If entering an incorrect value into a field, the error message will appear without attempting to save the value.
- Settings in Network have an "*" next to their names to indicate that the fields require values. Since the page cannot be changed using the AUI, the "*" should not be there.
- Setting a Scheduler Rule Time's To value to 24:00 and saving fails to create the rule.

Installation Considerations:

This software update will take approximately 30 minutes, but you will only be OFF-AIR during the rebooting process for approximately 2 minutes.

VX Series Software 6.2.1

General Remarks:

VX Series Software Version 6.2.1 is a Software update suitable for all Nautel VX Series transmitters.

You can download VX Series Software Version 6.2.1 here.

Software Upgrade procedures can be found in IS23006, *VX Series – Software Upgrade Procedure*. Please be sure to review and understand the complete set of instructions prior to beginning your upgrade.

Fixed:

- Resolved an issue where the transmitter would occasionally not ramp up properly which resulted in temporarily reduced forward power.
- Resolved an issue where the transmitter would occasionally trigger a false RF Sample Fault alarm during SWR Shutback conditions that would persist indefinitely.

Known Issues:

- Software Upgrades using USB are not functional for high-power VX transmitters.
- During a reboot, entering the FPUI's Network menu before the AUI is available resets the network settings to DHCP enabled.
- Turning RF off and then rebooting/ac cycling the transmitter within 20-30 seconds will cause the RF to turn back on after startup.
- If a User is logged in with only RF Control permissions, the User cannot change the RF On/Off state.
- Attempting to save a preset with the frequency less than 87.50 MHz will result in an error.
- RDS ASCII Over Serial is currently not functional.
- RDS UECP Over Serial is currently not functional.
- If the User configures the active preset to use Internal RDS and has multiple Alternate Frequencies defined, reducing the number of Alternate Frequencies without changing any of the Alternate Frequency values will cause the transmitter to continue broadcasting all the originally set Alternate Frequencies.
- If a preset is set as the Active Preset and is not attached to any scheduled rules, Remote I/O or Mod Loss Timeout and the Active Preset is changed to another preset, the original preset's Delete button does not activate. This also happens for a preset becoming the Active Preset where the Delete button does not deactivate.
    - An Exciter/Controller reboot will fix the issue.
- Switching back and forth between 2 presets with less than 5 second intervals can cause AUI instability.
- Repeatedly updating a preset's frequency can cause AUI instability.
    - Allow at least 5 seconds between saving preset frequency changes.
- Audio Delay units in the AUI's Presets do not match the units in the FPUI's Presets.
- If an error occurs when attempting to save a preset that duplicates another preset's name, the error message is untranslated.
- If a new custom Orban preset create is created, viewing the Orban Preset list in Presets will not show the new custom Orban preset. This also applies to deleting a custom Orban preset where the Orban Preset list will still show the deleted preset.
    - Refreshing the page will fix the issue.
- Quickly deleting two scheduled rules in their order of creation causes a Connection Lost and the AUI does not reconnect.

  - An Exciter/Controller reboot will fix the issue.
- Remote Input and Remote Output Sources in the FPUI cannot be changed.
  - The Sources can be changed via the AUI using the Digital Inputs/Digital Outputs' Channels.
- Unassigned is missing as a Control in Digital Inputs and Digital Outputs.
- The Unassigned channel in Digital Outputs has Active High and Active Low for options instead of Unassigned.
- Turning RF on while on the Analog Outputs page will cause the Meter Values to change erratically between their correct value and 0 W.

  Refreshing the page will fix the issue.
- The increment values for the Low Forward Power and Very Low Forward Power fields in the AUI are 0.5 % when they should be 0.1 % to match the FPUI.
- Error handling for the VCXO 10 MHz DAC Value field is incorrect.
- The 10 MHz Delta Meter in Exciter VCXO requires a page refresh to update the meter value.
- The VCXO 10 MHz Calibration Start button does not automatically change its state based on the external 10 MHz connection.
  - Refreshing the page will fix the issue.
- Setting the Power Set Point OID to a value outside of the transmitter's maximum total power output does not provide an error.
- SNMP Active Preset ID Channel defaults to OctetString instead of Integer for GETs and SETs.
  - To change the Active Preset ID Channel, change Data Type to Integer.
- Switching from DHCP IP addressing to Static IP addressing will not reset IP address to 0.0.0.0.
- Power and frequency changes are not currently logged in Event History.
- If the User logs into a transmitter within a minute of startup, the AUI's time will not appear in the banner or the Time menu.
  - Refreshing the page after a minute will show the time.
- Minute selection maximum in the FPUI's Time menu is 100 instead of 59.
- Clear Averaging is not available in the Spectrum Settings for the Spectrum Analyzer panel.
  - Changing Averages to 1 and saving will provide a similar function.
- Clearing the Transmitter Name/Call Sign, saving and rebooting the transmitter causes the Transmitter Name/Call Sign to go back to the previous value.
- Downloading the Event History report with a filter saves all the events.
- Sorting by Device in Event History does not sort correctly.
- Local/Remote events in a downloaded report file are not translated.
- If a USB storage device is connected to the transmitter, a Host reboot will take approximately 5 additional minutes to complete.
- Setting Time Zone to United States / Pacific/Honolulu will display as US minor outlying islands / Pacific/Honolulu after saving, exiting and reentering the Time menu.
- A temporary "SP:" Orban preset is created when a new custom Orban preset is created.
  - It disappears after reloading the page.
  - This does not affect functionality.
- Changing options in the Audio Processing settings may fail to save.
  - Retry after a few seconds.
- An Orban preset may hold onto an unsaved changed value in its settings instead of showing its saved value.
  - Reactivating the Orban preset will set the settings back to their saved values.

- Setting ST ENC NO LIM as the active Orban preset and reloading the Audio Processing page shows none of the Orban presets as active.
- It takes approximately 1 minute for all required Orban tabs to show up when viewing an Orban preset in Audio Processing.
- Depending on the AUI's browser size, the Source for Software Upgrade files may not be shown.
    - Change the AUI's browser size until the Source appears.
- If entering an incorrect value into a field, the error message will appear without attempting to save the value.
- Attempting to change various settings while the transmitter is Local-only produces an "Unknown Error" message.
- Settings in Network have an "*" next to their names to indicate that the fields require values. Since the page cannot be changed using the AUI, the "*" should not be there.
- Setting a Scheduler Rule Time's To value to 24:00 and saving fails to create the rule.

Installation Considerations:

This software update will take approximately 30 minutes, but you will only be OFF-AIR during the rebooting process for approximately 2 minutes.

VX Series Software 6.2.0

General Remarks:

VX Series Software Version 6.2.0 is a Software update suitable for all Nautel VX Series transmitters.

You can download VX Series Software Version 6.2.0 here.

Software Upgrade procedures can be found in IS23006, *VX Series – Software Upgrade Procedure*. Please be sure to review and understand the complete set of instructions prior to beginning your upgrade.

Added:

- Added support for the following VX transmitters:
  - VX3
  - VX3.5
  - VX4
  - VX5
  - VX6
- Units for meters are now included in the SNMP MIB.
- Added the Active Exciter indicator to the Dashboard's Modulation panel.
- Added the Preset ID field to the Preset's General page.

Changed:

- The Advanced User Interface (AUI) now takes less time to open.
- The Front Panel User Interface (FPUI) turns on faster during startup.
- Presets now take less time to open.
- SNMP functionality has been improved.
  - There is now one SNMP MIB for VX transmitters instead of one MIB per VX transmitter model.
  - The SNMP MIB is incompatible with all prior VX software releases.
- AUI Meters has been split into various devices with their specific meters. The following devices are now:
  - Controller
  - Analog Audio PWB
  - System Interface PWB (VX150 to VX2)
  - Exciter/Controller System Interface PWB (VX3 to VX6)
  - Power Supply Interface PWB (VX3 to VX6)
- Options for Filter By Meter Collection under Meters in Reports have been changed to match the transmitter's devices. The following options are now:
  - No Filter
  - Controller
  - Analog Audio PWB
  - System Interface PWB (VX150 to VX2)
  - Exciter/Controller System Interface PWB (VX3 to VX6)
  - Power Supply Interface PWB (VX3 to VX6)
- Changed how Presets are named when cloned.
  - Preset Name character limit is 31 characters.
  - If a preset is cloned, "_copy#" is added to the end of the cloned preset name.
  - Cloning a previously cloned preset (if it still has the original preset name), the # in "_copy#" will be incremented.

  - If you clone a preset multiple times, it does not matter if you clone the original or a clone, the number will increment one above the highest copy #.
  - A preset with a name length, that when cloned, will result in it exceeding the 31-character limit, will have the last few characters (1-6) removed to add "_copy#".
  - A preset name that already contains "_copy#" at the end and when cloned will exceed the 31-character limit, will result in an error and the preset will not be cloned. The User will need to update the preset name before cloning.
- Changed how Cloning a User with the same Username functions.
  - If the User clones a User, does not change the Username and saves, an error occurs indicated that the AUI failed to clone the User and a clone is not created.
- The Mod Loss Threshold increment value in Presets has changed from 1 % to 0.1 %.
- The Hard Limit Value increment value in Presets has changed from 1 % to 0.1 %.
- The AGC Limit increment value in Presets has changed from 1 % to 0.1 %.
- The Software menu options list has been reordered so that Upgrades is the first and default screen.
- VCXO 10 MHz Calibration can now be started with External 10 MHz enabled via the AUI and FPUI.
- VCXO 10 MHz Calibration can now be started when RF is on.
- "Logs" and "Logs Reset" has been changed to "Event History" and "Delete All Events", respectively, in the FPUI to match with the AUI.
- "Remote Input 1" and "Remote Output 1" has been changed to "Digital Input 1" and "Digital Output 1", respectively, in the AUI to be consistent with the rest of Remote I/O. Remote Input 2-7 and Remote Output 2-6 have also been changed.
- The Exciter/Controller Inlet Temp meter now shows "N/A" when the temperature sensor is disconnected.
- The PS A/B/C: Input Voltage meters now show "N/A" when their respective power supplies are disconnected.
- Various alarm name changes.
- Various meter name changes.

Fixed:

- The AUI was not accessible if the transmitter was set up with port forwarding.
- Orban Inside Present was disabled after performing a Factory Reset.
- Changing the Active Orban Preset using Presets did not change the Active Orban Preset in the Audio Processing menu.
- 10 MHz Delta meter was missing from the Meters page.
- RDS Alternate Frequencies could not be enabled.
- Some alarms listed under Available Alarms in Notifications were not necessary for the transmitter's type.
- Sending an SNMP SET command to turn RF on while RF was already on caused the AUI's RF On/Off toggle button to not be selectable. This also happens when sending an RF off command while RF was already off.
- Sending an SNMP SET command to enable the Scheduler while the Scheduler was already enabled caused the AUI's Scheduler Enable/Disable toggle button to not be selectable. This also happens when sending a Scheduler Disable command while the Scheduler was already disabled.
- Sample Full Scale values in the AUI's Analog Outputs could not be saved with a tenths value.
- Setting two or more Digital Inputs as Inc/Dev RF Power caused stability issues.
- Changing Remote I/O settings and performing a reboot changed the settings back to their original values.
- The listed options for the SCA1 Pre-emphasis and SCA2 Pre-emphasis fields in the AUI's Presets were not translated.
- The Span range for the Spectrum Analyzer did not correctly reflect the selected Measurement Option.

    - The Span range for Internal FM is now:
        - 10 kHz to 1400 kHz
    - The Span range for MPX is now:
        - 10 kHz to 180 kHz
- Exciter Fault alarm was not able to be triggered correctly.
- The External 10 MHz OID returned an error when read.
- Spectrum Analyzer cursor selection did not accurately respond to clicks.
- The clickable area of the Delete and Clone buttons in Presets are now within the icon of the buttons.
- Some FPUI inputs had decimals in the range's values while the input value's format did not have a decimal.
- Presets were not loading properly after a software update that required firmware updates.
- Pilot Output signal was present when the preset's Audio Mode was set to a Mono option.
- Forward Power meter would change erratically in certain situations.
- The PA Power Dissipation Foldback alarm triggered and cleared frequently when the dissipation value was near the threshold for the alarm.
- Audio Delay in Presets could not be edited properly after being set to certain values.
- Mod Loss Timeout Seconds' maximum range was incorrectly shown.
- The AUI did not prevent entering 0 as the PI Code value.
- Temperature units in Meters under Reports did not update to °F if the Temperature Units Display was set to Fahrenheit.
- Attempting to change the Active Preset using SNMP resulted in an error.
- When creating a new Notification, the Available Alarms lists were empty until the screen was reopened.
- RF was not inhibited during an Exciter/Controller reboot.
- Autobias routine failure resulted in a blank pop-up shown on FPUI.
- Setting the Carrier Frequency to an out-of-range value using SNMP would result in a successful SET command.
- Transmitter would not shutdown on high VSWR is the reflected power was greater than the forward power.
- Settings' Types in Reports were displayed incorrectly as "softwareVersions.title" and are now correctly shown as "Software Versions".
- The AUI showed 0.01 W for Reflected Power in the top banner when the transmitter was RF off.
- The Exciter Communication Failure alarm unnecessarily triggered during startup after power was applied.
- The SWR Shutback alarm unnecessarily triggered during startup after power was applied.
- The RF_STATE_CHANGE event was formatted incorrectly in a downloaded report file.
- Various typographical fixes.
- Various graphical fixes.

Known Issues:

- Software Upgrades using USB are not functional for high-power VX transmitters.
- During a reboot, entering the FPUI's Network menu before the AUI is available resets the network settings to DHCP enabled.
- Turning RF off and then rebooting/ac cycling the transmitter within 20-30 seconds will cause the RF to turn back on after startup.
- If a User is logged in with only RF Control permissions, the User cannot change the RF On/Off state.
- Attempting to save a preset with the frequency less than 87.50 MHz will result in an error.
- RDS ASCII Over Serial is currently not functional.
- RDS UECP Over Serial is currently not functional.

- If the User configures the active preset to use Internal RDS and has multiple Alternate Frequencies defined, reducing the number of Alternate Frequencies without changing any of the Alternate Frequency values will cause the transmitter to continue broadcasting all the originally set Alternate Frequencies.
- If a preset is set as the Active Preset and is not attached to any scheduled rules, Remote I/O or Mod Loss Timeout and the Active Preset is changed to another preset, the original preset's Delete button does not activate. This also happens for a preset becoming the Active Preset where the Delete button does not deactivate.
    - An Exciter/Controller reboot will fix the issue.
- Switching back and forth between 2 presets with less than 5 second intervals can cause AUI instability.
- Repeatedly updating a preset's frequency can cause AUI instability.
    - Allow at least 5 seconds between saving preset frequency changes.
- Audio Delay units in the AUI's Presets do not match the units in the FPUI's Presets.
- If an error occurs when attempting to save a preset that duplicates another preset's name, the error message is untranslated.
- If a new custom Orban preset create is created, viewing the Orban Preset list in Presets will not show the new custom Orban preset. This also applies to deleting a custom Orban preset where the Orban Preset list will still show the deleted preset.
    - Refreshing the page will fix the issue.
- Quickly deleting two scheduled rules in their order of creation causes a Connection Lost and the AUI does not reconnect.
    - An Exciter/Controller reboot will fix the issue.
- Remote Input and Remote Output Sources in the FPUI cannot be changed.
    - The Sources can be changed via the AUI using the Digital Inputs/Digital Outputs' Channels.
- Unassigned is missing as a Control in Digital Inputs and Digital Outputs.
- The Unassigned channel in Digital Outputs has Active High and Active Low for options instead of Unassigned.
- Turning RF on while on the Analog Outputs page will cause the Meter Values to change erratically between their correct value and 0 W.

    Refreshing the page will fix the issue.
- The increment values for the Low Forward Power and Very Low Forward Power fields in the AUI are 0.5 % when they should be 0.1 % to match the FPUI.
- Error handling for the VCXO 10 MHz DAC Value field is incorrect.
- The 10 MHz Delta Meter in Exciter VCXO requires a page refresh to update the meter value.
- The VCXO 10 MHz Calibration Start button does not automatically change its state based on the external 10 MHz connection.
    - Refreshing the page will fix the issue.
- Setting the Power Set Point OID to a value outside of the transmitter's maximum total power output does not provide an error.
- SNMP Active Preset ID Channel defaults to OctetString instead of Integer for GETs and SETs.
    - To change the Active Preset ID Channel, change Data Type to Integer.
- Switching from DHCP IP addressing to Static IP addressing will not reset IP address to 0.0.0.0.
- Power and frequency changes are not currently logged in Event History.
- If the User logs into a transmitter within a minute of startup, the AUI's time will not appear in the banner or the Time menu.
    - Refreshing the page after a minute will show the time.
- Minute selection maximum in the FPUI's Time menu is 100 instead of 59.

- Clear Averaging is not available in the Spectrum Settings for the Spectrum Analyzer panel.
    - Changing Averages to 1 and saving will provide a similar function.
- Clearing the Transmitter Name/Call Sign, saving and rebooting the transmitter causes the Transmitter Name/Call Sign to go back to the previous value.
- Downloading the Event History report with a filter saves all the events.
- Sorting by Device in Event History does not sort correctly.
- Local/Remote events in a downloaded report file are not translated.
- If a USB storage device is connected to the transmitter, a Host reboot will take approximately 5 additional minutes to complete.
- Setting Time Zone to United States / Pacific/Honolulu will display as US minor outlying islands / Pacific/Honolulu after saving, exiting and reentering the Time menu.
- A temporary "SP:" Orban preset is created when a new custom Orban preset is created.
    - It disappears after reloading the page.
    - This does not affect functionality.
- Changing options in the Audio Processing settings may fail to save.
    - Retry after a few seconds.
- An Orban preset may hold onto an unsaved changed value in its settings instead of showing its saved value.
    - Reactivating the Orban preset will set the settings back to their saved values.
- Setting ST ENC NO LIM as the active Orban preset and reloading the Audio Processing page shows none of the Orban presets as active.
- It takes approximately 1 minute for all required Orban tabs to show up when viewing an Orban preset in Audio Processing.
- Depending on the AUI's browser size, the Source for Software Upgrade files may not be shown.
    - Change the AUI's browser size until the Source appears.
- If entering an incorrect value into a field, the error message will appear without attempting to save the value.
- Attempting to change various settings while the transmitter is Local-only produces an "Unknown Error" message.
- Settings in Network have an "*" next to their names to indicate that the fields require values. Since the page cannot be changed using the AUI, the "*" should not be there.
- Setting a Scheduler Rule Time's To value to 24:00 and saving fails to create the rule.

Installation Considerations:

This software update will take approximately 30 minutes, but you will only be OFF-AIR during the rebooting process for approximately 2 minutes.

VX Series Software 6.1.1

General Remarks:

VX Series Software Version 6.1.1 is a Software update suitable for all Nautel VX Series transmitters.

You can download VX Series Software Version 6.1.1 here.

Software Upgrade procedures can be found in IS23006, *VX Series – Software Upgrade Procedure*. Please be sure to review and understand the complete set of instructions prior to beginning your upgrade.

Added:

- Added compatibility for updated transmitter PWBs.

Changed:

- Improved RF RMS Detector to mitigate RF output power fluctuations.

Fixed:

- The effective audio delay now matches the User-specified Audio Delay value.

Known Issues:

- The AUI (Advanced User Interface) is not accessible if the transmitter is set up with port forwarding.
- Orban Inside Present may be disabled upon receiving an Orban-configured transmitter from Nautel.
    - To enable via the FPUI (Front Panel User Interface), access Settings from the main menu, select System and Orban Inside Present will be shown. Set Orban Inside Present to enabled and reboot the transmitter using Reboot Exciter/Controller in Software.
- Switching back and forth between 2 presets with less than 5 second intervals can cause AUI instability.
- During a reboot, entering the FPUI's Network menu before the AUI is available resets the network settings to DHCP enabled.
- Changing the Active Preset using SNMP is not functional.
- The Pilot's PPS Synchronized Phase may fail to lock onto the desired phase set point.
- Repeatedly updating a preset's frequency can cause AUI instability.
    - Allow at least 5 seconds between saving preset frequency changes.
- Unassigned is missing as a Control in Digital Inputs and Digital Outputs.
- RDS Alternate Frequencies cannot be enabled.
- RDS ASCII Over Serial is currently not functional.
- RDS UECP Over Serial is currently not functional.
- Spectrum Analyzer cursor selection does not accurately respond to clicks.
- 10 MHz Delta meter is missing from the Meters page.
- The External 10 MHz OID returns an error when read.
- Setting the Power Set Point OID to a value outside of the transmitter's maximum total power output does not provide an error.
- Switching from DHCP IP addressing to Static IP addressing will not reset IP address to 0.0.0.0.
- The RF_STATE_CHANGE event is formatted incorrectly in a downloaded report file.
- Power and frequency changes are not currently logged in Event History.
- Sample Full Scale values in the AUI's Analog Outputs cannot be saved with a tenths value.
    - The Sample Full Scale values can be saved with a tenths value in the FPUI but will not show the tenths value in the AUI.

- Cloning a preset with 26 characters in the preset name will cause a preset error and the new preset will not be created.
- Minute selection maximum in the FPUI's Time menu is 100 instead of 59.
- Clear Averaging is not available in the Spectrum Settings for the Spectrum Analyzer panel.
    - Changing Averages to 1 and saving will provide a similar function.
- Clearing the Transmitter Name/Call Sign, saving and rebooting the transmitter causes the Transmitter Name/Call Sign to go back to the previous value.
- Downloading the Event History report with a filter saves all the events (AUI).
- Sorting by Device in Event History does not sort correctly (AUI).
- Settings' Types in Reports are displayed incorrectly as "softwareVersions.title" (AUI).
- Local/Remote events in a downloaded report file are not translated.
- If a USB storage device is connected to the transmitter, a Host reboot will take approximately 5 additional minutes to complete.
- Setting Time Zone to United States / Pacific/Honolulu will display as US minor outlying islands / Pacific/Honolulu after saving, exiting and reentering the Time menu.
- A temporary "SP:" Orban preset is created when a new custom Orban preset is created.
    - It disappears after reloading the page.
    - This does not affect functionality.
- Changing options in the Audio Processing settings may fail to save.
    - Retry after a few seconds.
- An Orban preset may hold onto an unsaved changed value in its settings instead of showing its saved value.
    - Reactivating the Orban preset will set the settings back to their saved values.
- Setting ST ENC NO LIM as the active Orban preset and reloading the Audio Processing page shows none of the Orban presets as active.
- Depending on the AUI's browser size, the Source for Software Upgrade files may not be shown.
    - Change the AUI's browser size until the Source appears.
- Attempting to enable Preset Scheduler while the transmitter is Local-only fails as expected but does not provide an error message.
- Attempting to change Spectrum Mask settings while the transmitter is Local-only produces an "Unknown Error" message.
- Attempting to change System Preferences' settings while the transmitter is Local-only produces "Unknown Error" message.
- Attempting to change Thresholds' settings while the transmitter is Local-only produces "Unknown Error" messages.
- Settings in Network have an "*" next to their names to indicate that the fields require values. Since the page cannot be changed using the AUI, the "*" should not be there.
- Setting a Scheduler Rule Time's To value to 24:00 and saving fails to create the rule.
- Some alarms listed under Available Alarms in Notifications are not currently implemented into the transmitter.

Installation Considerations:

This software update will take approximately 30 minutes, but you will only be OFF-AIR during the rebooting process for approximately 2 minutes.

VX Series Software 6.1.0

General Remarks:

VX Series Software Version 6.1.0 is a Software update suitable for all Nautel VX Series transmitters.

You can download VX Series Software Version 6.1.0 here.

Software Upgrade procedures can be found in IS23006, *VX Series – Software Upgrade Procedure*. Please be sure to review and understand the complete set of instructions prior to beginning your upgrade.

Added:

- The Orban Audio Processor is now a supported feature.

Changed:

- Various alarm and meter names changed to be more consistent across transmitter types.

Fixed:

- Removing AC power after a Software Upgrade caused boot failures on the next system startup.
- Software Upgrades caused the OS password to reset.
- Software Upgrades caused the Time settings to reset.
- Presets could not be deleted using the AUI (Advanced User Interface).
- Enabling and disabling NTP failed.
- Entering an invalid URL in the NTP Server disabled NTP and occasionally cleared the Date and Time.
- Preset changes in the FPUI (Front Panel User Interface) required the AUI to be refreshed to view the changes.
- Pressing the Delete All Events button deleted all events when confirmation was required.
- Pressing the Download Report button in Reports did not download the report file when using Firefox.
- Event History and Active Preset pages did not display when the transmitter was Local-only.
- Events were not logged with the correct AUI time if UTC was enabled or the Time Zone was set to anything other than local time.
- Audio Processing page in the AUI was still accessible when Orban Inside was disabled in the FPUI.
- Audio Delay Value caused the AUI and FPUI Modulation meters to show incorrect values.

Removed:

- Google's Pluggable Authentication Module (PAM) has been removed while Nautel reevaluates its implementation. Transmitters running this software will not be able to have Two-Factor Authentication. Security has also been improved through the disabling of root login using SSH.

Features Currently Unavailable:

- Audio Player
- ASCII over Serial (RDS)
- UECP over Serial (RDS)

Known Issues:

- The AUI is not accessible if the transmitter is set up with port forwarding.
- Orban Inside Present may be disabled upon receiving an Orban-configured transmitter from Nautel.

  - To enable via the FPUI, access Settings from the main menu, select System and Orban Inside Present will be shown. Set Orban Inside Present to enabled and reboot the transmitter using Reboot Exciter/Controller in Software.
- Switching back and forth between 2 presets with less than 5 second intervals can cause AUI instability.
- During a reboot, entering the FPUI's Network menu before the AUI is available resets the network settings to DHCP enabled.
- Changing the Active Preset using SNMP is not functional.
- The Pilot's PPS Synchronized Phase may fail to lock onto the desired phase set point.
- Repeatedly updating a preset's frequency can cause AUI instability.
  - Allow at least 5 seconds between saving preset frequency changes.
- Unassigned is missing as a Control in Digital Inputs and Digital Outputs.
- RDS Alternate Frequencies cannot be enabled.
- Spectrum Analyzer cursor selection does not accurately respond to clicks.
- 10 MHz Delta meter is missing from the Meters page.
- The External 10 MHz OID returns an error when read.
- Setting the Power Set Point OID to a value outside of the transmitter's maximum total power output does not provide an error.
- Switching from DHCP IP addressing to Static IP addressing will not reset IP address to 0.0.0.0.
- The RF_STATE_CHANGE event is formatted incorrectly in a downloaded report file.
- Power and frequency changes are not currently logged in Event History.
- Sample Full Scale values in the AUI's Analog Outputs cannot be saved with a tenths value.
  - The Sample Full Scale values can be saved with a tenths value in the FPUI but will not show the tenths value in the AUI.
- Cloning a preset with 26 characters in the preset name will cause a preset error and the new preset will not be created.
- Minute selection maximum in the FPUI's Time menu is 100 instead of 59.
- Clear Averaging is not available in the Spectrum Settings for the Spectrum Analyzer panel.
  - Changing Averages to 1 and saving will provide a similar function.
- Clearing the Transmitter Name/Call Sign, saving and rebooting the transmitter causes the Transmitter Name/Call Sign to go back to the previous value.
- Downloading the Event History report with a filter saves all the events (AUI).
- Sorting by Device in Event History does not sort correctly (AUI).
- Settings' Types in Reports are displayed incorrectly as "softwareVersions.title" (AUI).
- Local/Remote events in a downloaded report file are not translated.
- If a USB storage device is connected to the transmitter, a Host reboot will take approximately 5 additional minutes to complete.
- Setting Time Zone to United States / Pacific/Honolulu will display as US minor outlying islands / Pacific/Honolulu after saving, exiting and reentering the Time menu.
- A temporary "SP:" Orban preset is created when a new custom Orban preset is created.
  - It disappears after reloading the page.
  - This does not affect functionality.
- Changing options in the Audio Processing settings may fail to save.
  - Retry after a few seconds.
- An Orban preset may hold onto an unsaved changed value in its settings instead of showing its saved value.

    - Reactivating the Orban preset will set the settings back to their saved values.
- Setting ST ENC NO LIM as the active Orban preset and reloading the Audio Processing page shows none of the Orban presets as active.
- Depending on the AUI's browser size, the Source for Software Upgrade files may not be shown.
    - Change the AUI's browser size until the Source appears.
- Attempting to enable Preset Scheduler while the transmitter is Local-only fails as expected but does not provide an error message.
- Attempting to change Spectrum Mask settings while the transmitter is Local-only produces an "Unknown Error" message.
- Attempting to change System Preferences' settings while the transmitter is Local-only produces "Unknown Error" message.
- Attempting to change Thresholds' settings while the transmitter is Local-only produces "Unknown Error" messages.
- Settings in Network have an "*" next to their names to indicate that the fields require values. Since the page cannot be changed using the AUI, the "*" should not be there.
- Setting a Scheduler Rule Time's To value to 24:00 and saving fails to create the rule.
- Some alarms listed under Available Alarms in Notifications are not currently implemented into the transmitter.

Installation Considerations:

This software update will take approximately 30 minutes, but you will only be OFF-AIR during the rebooting process for approximately 2 minutes.

VX Series Software 6.0.3

General Remarks:

VX Series Software Version 6.0.3 is a Software update suitable for all Nautel VX Series transmitters.

You can download VX Series Software Version 6.0.3 here.

Software Upgrade procedures can be found in IS23006, *VX Series – Software Upgrade Procedure*. Please be sure to review and understand the complete set of instructions prior to beginning your upgrade.

NOTE: Due to the fixes in this release, Nautel finds it necessary to upgrade your transmitter to VX SW 6.0.3 as soon as possible to avoid any RF output issues.

WARNING: Performing a Software upgrade for VX Software version 6.0.3 and below will reset the system password. Ensure that the transmitter is behind a firewall and the system password is changes as soon as the software upgrade is complete. Refer to the "Changing the OS Password" section in this document to change the OS password.

Changed:

- Reduced sensitivity for RF ON/OFF and REMOTE buttons on the FPUI (Front Panel User Interface) to prevent accidental state changes.

Fixed:

- Transmitter exhibited up to 6% fluctuation of output power at frequencies between and including 89.1 MHz and 89.5 MHz.

Features Currently Unavailable:

- Orban Audio Processor
- Audio Player
- ASCII over Serial (RDS)
- UECP over Serial (RDS)

Known Issues:

- Performing a Software upgrade will reset the system password.
- If a USB storage device is connected to the transmitter during a post-software upgrade reboot and the transmitter's ac input is interrupted within 10 minutes of the reboot, the transmitter will become non-responsive.
    - To avoid this, remove the USB storage device **before** performing the post-software upgrade reboot.
    - In addition, avoid any ac input interruptions during a software upgrade.
- Presets cannot be deleted using the AUI (Advanced User Interface).
    - The presets can only be deleted using the FPUI.
- Repeatedly updating a preset's frequency can cause AUI instability.
    - Allow at least 5 seconds between saving preset frequency changes.
- During a reboot, entering the FPUI's Network menu before the AUI is available resets the network settings to DHCP enabled.
- 10 MHz Delta meter is missing from the Meters page (AUI).
- Switching from DHCP IP addressing to Static IP addressing will not reset IP address to 0.0.0.0 (FPUI).
- Power and frequency changes are not currently logged in Event History.

- Using Firefox, pressing the Delete All Events button immediately deletes all events when they should be deleted after confirming the action.
- Sample Full Scale values in the AUI's Analog Outputs cannot be saved with a tenths value.
    - The Sample Full Scale values can be saved with a tenths value in the FPUI but will not show the tenths value in the AUI.
- Cloning a preset with 26 or more characters in the preset name will cause a preset error and the new preset will not be created.
- Using Firefox to download a report in Reports does not download a .csv file (AUI).
- Minute selection maximum in the FPUI's Time menu is 100 instead of 59.
- Events are not logged with the correct AUI time if UTC is enabled or the Time Zone is set to anything other than local time.
- Clear Averaging is not available in the Spectrum Settings for the Spectrum Analyzer panel.
    - Changing Averages to 1 and saving will provide a similar function.
- Clearing the Transmitter Name/Call Sign, saving and rebooting the transmitter causes the Transmitter Name/Call Sign to go back to the previous value.
- Downloading the Event History report with a filter saves all the events (AUI).
- Sorting by Device in Event History does not sort correctly (AUI).
- Settings' Types in Reports are displayed incorrectly as "softwareVersions.title" (AUI).
- If a USB storage device is connected to the transmitter, a Host reboot will take approximately 5 additional minutes to complete.
- Setting Time Zone to United States / Pacific/Honolulu will display as US minor outlying islands / Pacific/Honolulu after saving, exiting and reentering the Time menu.

Changing the OS Password:

The OS password must be changed for security purposes. To do this, you will need an RJ45-to-Serial adapter. Connect the RJ45 end of the RJ45-to-Serial adapter to the RDS/SYS CTRL port on the back of the VX transmitter, then connect the serial end of the RJ45-to-Serial adapter to the USB-to-Serial adapter connected to the PC.

PuTTY is a common utility for Windows users that can be used for this process (available at http://www3.nautel.com/pub/Utilities/puTTy/putty.exe).

Change the password as follows:

1. Connect to the transmitter's COM port using your selected Serial client.
2. Login with "root" as the username and "nautel" as the password.
3. At the prompt, type the command "passwd" This is the Linux command to change your password.
4. Enter and confirm your new password.
    a. Consider using the last OS password as supplied by Nautel, provided with the original documentation for the transmitter or with a replacement SD card, for consistency. If not, and you choose a new password, record it in a secure location for safe keeping.
5. Remove the RJ45-to-Serial adapter from the transmitter.

Installation Considerations:

This software update will take approximately 30 minutes, but you will only be OFF-AIR during the rebooting process for approximately 2 minutes.

VX Series Software 6.0.2

General Remarks:

VX Series Software Version 6.0.2 is a Software update suitable for all Nautel VX Series transmitters.

You can download VX Series Software Version 6.0.2 here.

Software Upgrade procedures can be found in "Upgrading Software" in the transmitter's Operations and Maintenance Manual. Please be sure to review and understand the complete set of instructions prior to beginning your upgrade.

NOTE: Due to fixes in this release, Nautel finds it necessary to upgrade your transmitter to VX SW 6.0.2 as soon as possible to avoid any RF output issues.

Changed:

- Renamed various Remote Input Trigger names in the FPUI (Front Panel User Interface) to match with the AUI (Advanced User Interface):
  - Level -> Active High, Turn On. Active Low, Turn Off
  - Inverted Level -> Active High, Turn Off. Active Low, Turn On
- Changed Remote Input Triggers in the FPUI:
  - RF On/Off
    - Removed:
      - Active High, Activate
      - Active Low, Activate
      - Active High, Deactivate
      - Active Low, Deactivate
  - RF Power Adjust
    - Rising Edge, Activate -> Rising Edge, Increase
    - Falling Edge, Activate -> Falling Edge, Increase
    - Rising Edge, Deactivate -> Rising Edge, Decrease
    - Falling Edge, Deactivate -> Falling Edge, Decrease
    - Active High, Activate -> Active High, Increase
    - Active Low, Activate -> Active Low, Increase
    - Active High, Deactivate -> Active High, Decrease
    - Active Low, Deactivate -> Active Low, Decrease
  - Alarm Reset
    - Removed:
      - Active High, Activate
      - Active Low, Activate
  - Preset # Active
    - Rising Edge, Activate -> Rising Edge, Set
    - Falling Edge, Activate -> Falling Edge, Set
    - Removed:
      - Level
      - Inverted Level
- Changed default FPUI Sleep Timer to 300 seconds.

Fixed:

- Audio distortion in the transmitter's output.
- The Temperature Display Units could not be set to Fahrenheit.
- Changing the NTP server did not immediately make the AUI use it after saving.
- Preset 3, 4, etc. were shown as "remoteIoActions.channelIdNotFound" under Channel in the AUI's Digital Inputs/Outputs.
- If Remote Input 7 is set to Unassigned, the Trigger and State fields did not disappear in the FPUI.
- If Remote Output 6 is set to Unassigned, the Trigger and State fields did not disappear in the FPUI.
- Performing a VCXO 10 MHz Calibration takes too long and eventually says that it has failed.
- Various typographical errors.

Features Currently Unavailable:

- Orban Audio Processor
- Audio Player
- ASCII over Serial (RDS)
- UECP over Serial (RDS)

Known Issues:

- Transmitter exhibits up to 6% fluctuation of output power at frequencies between and including 89.1 MHz and 89.5 MHz.
- Presets cannot be deleted using the AUI.
    - The presets can only be deleted using the FPUI.
- Repeatedly updating a preset's frequency can cause AUI instability.
    - Allow at least 5 seconds between saving preset frequency changes.
- During a reboot, entering the FPUI's Network menu before the AUI is available resets the network settings to DHCP enabled.
- 10 MHz Delta meter is missing from the Meters page (AUI).
- Switching from DHCP IP addressing to Static IP addressing will not reset IP address to 0.0.0.0 (FPUI).
- Power and frequency changes are not currently logged in Event History.
- Using Firefox, pressing the Delete All Events button immediately deletes all events when they should be deleted after confirming the action.
- Sample Full Scale values in the AUI's Analog Outputs cannot be saved with a tenths value.
    - The Sample Full Scale values can be saved with a tenths value in the FPUI but will not show the tenths value in the AUI.
- Cloning a preset with 26 or more characters in the preset name will cause a preset error and the new preset will not be created.
- Using Firefox to download a report in Reports does not download a .csv file (AUI).
- Minute selection maximum in the FPUI's Time menu is 100 instead of 59.
- Events are not logged with the correct AUI time if UTC is enabled or the Time Zone is set to anything other than local time.
- Clear Averaging is not available in the Spectrum Settings for the Spectrum Analyzer panel.
    - Changing Averages to 1 and saving will provide a similar function.
- Clearing the Transmitter Name/Call Sign, saving and rebooting the transmitter causes the Transmitter Name/Call Sign to go back to the previous value.
- Downloading the Event History report with a filter saves all the events (AUI).

- Sorting by Device in Event History does not sort correctly (AUI).
- Settings' Types in Reports are untranslated as "softwareVersions.title" (AUI).
- If a USB storage device is connected to the transmitter, a Host reboot will take approximately 5 additional minutes to complete.
- Setting Time Zone to United States / Pacific/Honolulu will display as US minor outlying islands / Pacific/Honolulu after saving, exiting and reentering the Time menu.

Installation Considerations:

This software update will take approximately 30 minutes, but you will only be OFF-AIR during the rebooting process for approximately 2 minutes.

VX Series Software 6.0.1

General Remarks:

VX Series Software Version 6.0.1 is a bugfix release for VX Series Transmitters.

Nautel considers this a **CRITICAL** release and recommends you upgrade at your earliest convenience. Please refer to the Issues Resolved in this Release section below for further details.

You can download VX Series Software Version 6.0.1 here.

Software upgrade procedure can be found on page 2.4.3 of the Operations & Maintenance Manual (NHB-VX150-VX2-OPS).

Issues Resolved in this Release:

- Reset Latched Alarms button in Alarms are now able to be reset in the Advanced User Interface (AUI).

Features Currently Unavailable:

- Orban Audio Processor
- Audio Player
- ASCII over Serial (RDS)
- UECP over Serial (RDS)

Known Issues:

- Presets cannot be deleted using the AUI.
  - The presets can only be deleted using the Front Panel User Interface (FPUI).
- Repeatedly updating a preset's frequency can cause AUI instability.
  - Allow at least 5 seconds between saving preset frequency changes.
- During a reboot, entering the FPUI's Network menu before the AUI is available resets the network settings to DHCP enabled.
- 10 MHz Delta meter is missing from the Meters page (AUI).
- Temperature Units Display cannot be changed to Fahrenheit (AUI).
- Switching from DHCP IP addressing to Static IP addressing will not reset IP address to 0.0.0.0 (FPUI).
- Power and frequency changes are not currently logged in Event History.
- Pressing the Delete All Events button immediately deletes all events when they should be deleted after confirming the action.
- Performing a VCXO 10 MHz Calibration takes too long and eventually says that it has failed.
  - However, the calibration is successful in calibrating the VCXO 10 MHz.
- Sample Full Scale values in the AUI's Analog Outputs cannot be saved with a tenths value.
  - The Sample Full Scale values can be saved with a tenths value in the FPUI but will not show the tenths value in the AUI.
- Cloning a preset with 26 or more characters in the preset name will cause a preset error and the new preset will not be created.
- Using Firefox to download a report in Reports does not download a .csv file (AUI).
- Minute selection maximum in the FPUI's Time menu is 100 instead of 59.
- Changing the NTP server does not immediately make the AUI use it after saving.
  - Rebooting the transmitter will allow the AUI to use the new NTP server.

- Events are not logged with the correct AUI time if UTC is enabled or the Time Zone is set to anything other than local time.
- Clear Averaging is not available in the Spectrum Settings for the Spectrum Analyzer panel.
    - Changing Averages to 1 and saving will provide a similar function.
- Clearing the Transmitter Name/Call Sign, saving and rebooting the transmitter causes the Transmitter Name/Call Sign to go back to the previous value.
- Downloading the Event History report with a filter saves all the events (AUI).
- Sorting by Device in Event History does not sort correctly (AUI).
- Settings' Types in Reports are untranslated as "softwareVersions.title" (AUI).
- If a USB storage device is connected to the transmitter, a Host reboot will take approximately 5 additional minutes to complete.
- If Remote Input 7 is set to Unassigned, the Trigger and State fields do not disappear in the FPUI.
- If Remote Output 6 is set to Unassigned, the Trigger and State fields do not disappear in the FPUI.
- Setting Time Zone to United States / Pacific/Honolulu will display as US minor outlying islands / Pacific/Honolulu after saving, exiting and reentering the Time menu.

Installation Considerations:

This software update will take approximately 30 minutes, but you will only be OFF-AIR during the rebooting process.

VX Series Software 6.0.0

General Remarks:

VX Series Software Version 6.0.0 is the first general release for all Nautel VX Series transmitters.

You can download VX Series Software Version 6.0.0 here.

Software installation procedure can be found in IS23001*, *Imaging the SD Card for VX Series Transmitters*. Please be sure to review and understand the complete set of instructions prior to beginning your software installation.

Features Currently Unavailable:

- Orban Audio Processor
- Audio Player
- ASCII over Serial (RDS)
- UECP over Serial (RDS)

Known Issues:

- Presets cannot be deleted using the AUI.
  - The presets can only be deleted using the Front Panel User Interface (FPUI).
- Reset Latched Alarms button in Alarms does not work in the AUI.
  - Latched alarms can only be reset in the FPUI.
- Repeatedly updating a preset's frequency can cause AUI instability.
  - Allow at least 5 seconds between saving preset frequency changes.
- During a reboot, entering the FPUI's Network menu before the AUI is available resets the network settings to DHCP enabled.
- 10 MHz Delta meter is missing from the Meters page (AUI).
- Temperature Units Display cannot be changed to Fahrenheit (AUI).
- Switching from DHCP IP addressing to Static IP addressing will not reset IP address to 0.0.0.0 (FPUI).
- Power and frequency changes are not currently logged in Event History.
- Pressing the Delete All Events button immediately deletes all events when they should be deleted after confirming the action.
- Performing a VCXO 10 MHz Calibration takes too long and eventually says that it has failed.
  - However, the calibration is successful in calibrating the VCXO 10 MHz.
- Sample Full Scale values in the AUI's Analog Outputs cannot be saved with a tenths value.
  - The Sample Full Scale values can be saved with a tenths value in the FPUI but will not show the tenths value in the AUI.
- Cloning a preset with 26 or more characters in the preset name will cause a preset error and the new preset will not be created.
- Using Firefox to download a report in Reports does not download a .csv file (AUI).
- Minute selection maximum in the FPUI's Time menu is 100 instead of 59.
- Changing the NTP server does not immediately make the AUI use it after saving.
  - Rebooting the transmitter will allow the AUI to use the new NTP server.
- Events are not logged with the correct AUI time if UTC is enabled or the Time Zone is set to anything other than local time.
- Clear Averaging is not available in the Spectrum Settings for the Spectrum Analyzer panel.
  - Changing Averages to 1 and saving will provide a similar function.

- Clearing the Transmitter Name/Call Sign, saving and rebooting the transmitter causes the Transmitter Name/Call Sign to go back to the previous value.
- Downloading the Event History report with a filter saves all the events (AUI).
- Sorting by Device in Event History does not sort correctly (AUI).
- Settings' Types in Reports are untranslated as "softwareVersions.title" (AUI).
- If a USB storage device is connected to the transmitter, a Host reboot will take approximately 5 additional minutes to complete.
- If Remote Input 7 is set to Unassigned, the Trigger and State fields do not disappear in the FPUI.
- If Remote Output 6 is set to Unassigned, the Trigger and State fields do not disappear in the FPUI.
- Setting Time Zone to United States / Pacific/Honolulu will display as US minor outlying islands / Pacific/Honolulu after saving, exiting and reentering the Time menu.

Installation Considerations:

This software update will take approximately 30 minutes, but you will only be OFF-AIR during the rebooting process.