

Release Notes

SentriusTM RG1xx / RG191+LTE

Version 93.9.6.30

This document provides release notes for version **gatwick-laird-93.9.6.30** of the Sentrius RG1xx gateway as well as previously distributed release notes.

Release notes are a summary of new and enhanced features, resolved issues, and known issues that are not resolved in this version. Consult the User's Guide for details on the features of this software release.

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SOFTWARE VERSION 93.9.6.30 (GA6.2)

Released October 2022

Software part number: RGLXLT1-210614

OS: Linux

New or Enhanced Features

The following are new or enhanced features included with this release:

IMPORTANT NOTE: The region setting of the radio cannot be changed. The user must purchase the appropriate model for the desired region of operation and only use the model appropriate for the location in which they will install the gateway. The only exception to this rule is switching between AU915 and AU923 regions for operation within Australia.

- Added AT&T support to the RG191-LTE.
- Added Verizon support to the RG191-LTE.
- Update Semtech Basics Station to version to 2.0.6.

Resolved Issues

The following issue is resolved with this release:

- Resolve an issue preventing Basics Station from connecting to any CUPS or LNS servers due to empty or corrupt configuration files. (21421)
- Resolve an issue caused by the Semtech SX1301 getting into a bad state and never being able to recover without a reset. Causing a failure to initialize Semtech Basics Station. (22523)
- Resolve issues when a user sets custom DNS servers for both LAN and Cellular at the same time. (21418)
- Various minor Web UI fixes on the Cellular and LoRa pages.

- Default DNS1 & 2 field values now being cleared (22862).

Known Issues

The following are known issues with this release:

- On the LoRa radio page, the spectrum display is smaller than intended on Microsoft Internet Explorer. If use is hindered, try using either Google Chrome, Mozilla Firefox, or Microsoft Edge. (11520)
- An internal server error is displayed when Wi-Fi is disabled via the UI if the gateway is associated to a WLAN. The button text is not properly updated to reflect the new state. The operation does succeed, Wi-Fi is disabled. Reloading the page will display the proper Enable Wi-Fi text on the button. (15285)
- If the Wi-Fi radio is disabled, and Wi-Fi Quick Config is subsequently started, even if no client associates, when host mode is exited, the Wi-Fi radio is left enabled. (15286)
- The delete button for the certificates for the LNS, and CUPS servers may need to be pressed twice if connected to a CUPS server. (22615)
- Incompatibility observed between Semtech Basics Station Client and some Chirpstack installations. (22625)
- All non-LTE DNS servers can be removed when a non-LTE interface is in use (22946)
- When using DHCP assignment for LAN (eth0), unless the DHCP server is specifying the use of 8.8.8.8 and 8.8.4.4, the DNS servers displayed in LAN -> IPv4 Configuration will not reflect the actual DNS servers in use. (22969)

SOFTWARE VERSION 93.9.6.14 (GA6.1)

Released December 2021

Software part number: RGLXLT1-210614

OS: Linux

New or Enhanced Features

The following are new or enhanced features included with this release:

IMPORTANT NOTE: The region setting of the radio cannot be changed. The user must purchase the appropriate model for the desired region of operation and only use the model appropriate for the location in which they will install the gateway. The only exception to this rule is switching between AU915 and AU923 regions for operation within Australia.

- The LTE variant of the gateway will set an NV element in the LTE modem to set the UE usage setting to "data centric" to avoid registration issues with the upcoming decommissioning of 3G networks in the US.

IMPORTANT NOTE: This change will cause a reboot of the gateway upon applying the NV update to the LTE modem. No further reboots will happen after the first time.

- When provisioning custom settings, ignore some directories and ensure that the EUI is reset after provisioning back to the EUI based on the ethernet MAC address.

Resolved Issues

The following issue is resolved with this release:

- The TR-069 Wi-Fi node incorrectly parses the Boolean input value (20645).

Known Issues

The following are known issues with this release:

- On the LoRa radio page, the spectrum display is smaller than intended on Microsoft Internet Explorer. If use is hindered, try using either Google Chrome, Mozilla Firefox, or Microsoft Edge. (11520)
- An internal server error is displayed when Wi-Fi is disabled via the UI if the gateway is associated to a WLAN. The button text is not properly updated to reflect the new state. The operation does succeed, Wi-Fi is disabled. Reloading the page will display the proper Enable Wi-Fi text on the button. (15285)
- If the Wi-Fi radio is disabled, and Wi-Fi Quick Config is subsequently started, even if no client associates, when host mode is exited, the Wi-Fi radio is left enabled. (15286)

SOFTWARE VERSION 93.9.6.12 (GA6)

Released June 2021

Software part number: RGLXLT1-210614

OS: Linux

New or Enhanced Features

The following are new or enhanced features included with this release:

IMPORTANT NOTE: The region setting of the radio cannot be changed. The user must purchase the appropriate model for the desired region of operation and only use the model appropriate for the location in which they will install the gateway. The only exception to this rule is switching between AU915 and AU923 regions for operation within Australia.

- Merged LTE and non-LTE software into one release.
Note: The LTE features only works with the RG191-LTE model which contains the necessary hardware for LTE connectivity.
- Updated the TR-069 data model to include the Cellular node for configuring the LTE modem
Note: Applies only to the RG191-LTE model.
- All gateway settings can now be backed up and restored via TR-069 backup and restore tasks rather than just a subset of settings.
- The password for the 'sentrius' user can be updated via a TR-069 parameter.
- New Senet forwarder version integrated (2.15.26).

Resolved Issues

The following issue is resolved with this release:

- Fixed an issue with the UDP packet forwarder for a gateway without GPS, causing a large SX1301 clock drift to occur.
- Fixed an issue with Basics Station causing time syncs to fail for long periods of time in some rare cases.

Known Issues

The following are known issues with this release:

- On the LoRa radio page, the spectrum display is smaller than intended on Microsoft Internet Explorer. If use is hindered, try using either Google Chrome, Mozilla Firefox, or Microsoft Edge (11520).
- An internal server error is displayed when Wi-Fi is disabled via the UI if the gateway is associated to a WLAN. The button text is not properly updated to reflect the new state. The operation does succeed, Wi-Fi is disabled. Reloading the page will display the proper Enable Wi-Fi text on the button (15285).

- If the Wi-Fi radio is disabled, and Wi-Fi Quick Config is subsequently started, even if no client associates, when host mode is exited, the Wi-Fi radio is left enabled (15286).

SOFTWARE VERSION 93.8.5.25 (GA5.2) – ENGINEERING RELEASE

Released January 2021

Software part number: RGLXLT1-210104

OS: Linux

New or Enhanced Features

The following are new or enhanced features included with this release:

IMPORTANT NOTE: The region setting of the radio cannot be changed. The user must purchase the appropriate model for the desired region of operation and only use the model appropriate for the location in which they will install the gateway. The only exception to this rule is switching between AU915 and AU923 regions for operation within Australia.

- Semtech Basics Station v2.0.5 has been integrated into the RG1xx gateway code

Resolved Issues

The following issue is resolved with this release:

- None

Known Issues

The following are known issues with this release:

- A couple of packet forwarders are no longer supported in this release. If a unit on a previous release that has an unsupported active packet forwarder and is upgraded to this release, the LoRa section of the UI is non-functional.

Workaround: Before upgrading the firmware, factory reset the device or set the packet forwarder to the Semtech legacy UDP packet forwarder through the web interface. Factory resetting reverts the gateway to use the legacy Semtech packet forwarder by default which re-enables the disabled LoRa section of the UI (15198).

- On the LoRa radio page, the spectrum display is smaller than intended on Microsoft Internet Explorer. If use is hindered, try using either Google Chrome, Mozilla Firefox, or Microsoft Edge (11520).
- An internal server error is displayed when Wi-Fi is disabled via the UI if the gateway is associated to a WLAN. The button text is not properly updated to reflect the new state. The operation does succeed, Wi-Fi is disabled. Reloading the page will display the proper Enable Wi-Fi text on the button (15285).
- If the Wi-Fi radio is disabled, and Wi-Fi Quick Config is subsequently started, even if no client associates, when host mode is exited, the Wi-Fi radio is left enabled (15286).

SOFTWARE VERSION 93.8.5.21 (GA5.1)

Released April 2020

Software part number: RGLXLT1-200410

OS: Linux

New or Enhanced Features

The following are new or enhanced features included with this release:

IMPORTANT NOTE: The region setting of the radio cannot be changed. The user must purchase the appropriate model for the desired region of operation and only use the model appropriate for the location in which they will install the gateway. The only exception to this rule is switching between AU915 and AU923 regions for operation within Australia.

- The user is now able to toggle between the AU915 and AU923 regions from the web UI. This change also now prompts the user to reboot the device after switching.

Resolved Issues

The following issue is resolved with this release:

- Users were unable to toggle between the AU915 and AU923 regions from the web UI. This is no longer an issue (16146).

Known Issues

The following are known issues with this release:

- A couple of packet forwarders are no longer supported in this release. If a unit on a previous release that has an unsupported active packet forwarder and is upgraded to this release, the LoRa section of the UI is non-functional.

Workaround: Before upgrading the firmware, factory reset the device or set the packet forwarder to the Semtech legacy UDP packet forwarder through the web interface. Factory resetting reverts the gateway to use the legacy Semtech packet forwarder by default which re-enables the disabled LoRa section of the UI (15198).

- On the LoRa radio page, the spectrum display is smaller than intended on Microsoft Internet Explorer. If use is hindered, try using either Google Chrome, Mozilla Firefox, or Microsoft Edge (11520).
- An internal server error is displayed when Wi-Fi is disabled via the UI if the gateway is associated to a WLAN. The button text is not properly updated to reflect the new state. The operation does succeed, Wi-Fi is disabled. Reloading the page will display the proper Enable Wi-Fi text on the button (15285).
- If the Wi-Fi radio is disabled, and Wi-Fi Quick Config is subsequently started, even if no client associates, when host mode is exited, the Wi-Fi radio is left enabled (15286).

SOFTWARE VERSION 93.8.5.18 (GA5)

Released March 2020

Software part number: RGLXLT1-200304

OS: Linux

New or Enhanced Features

The following are new or enhanced features included with this release:

IMPORTANT NOTE: The region setting of the radio cannot be changed. The user must purchase the appropriate model for the desired region of operation and only use the model appropriate for the location in which they will install the gateway. The only exception to this rule is switching between AU915 and AU923 regions for operation within Australia.

- Added support for operating in Malaysia and Singapore on the RG-191.
- Added Semtech Basic Station as a forwarder option.
- Removed TTN as a forwarder option. TTN is discontinuing support for this forwarder.
- Removed MQTT as a forwarder option.
- Updated the Senet packet forwarder to a more recent version which also includes the Senet RAN mode of operation.

- Updated the TR-069 parameters to reflect the updated packet forwarder options.

Resolved Issues

The following issues are resolved with this release:

- The remote management daemon sometimes fails to reconnect after a network outage (14649).
- Some pages in the web interface do not display correctly on mobile devices. The workaround is to use Google Chrome, Mozilla Firefox, or Microsoft Edge on a desktop/laptop (15290).

Known Issues

The following are known issues with this release:

- Users are unable to toggle between the AU915 and AU923 regions from the web UI (16146).
- A couple of packet forwarders are no longer supported in this release. If a unit on a previous release, with any forwarder set as the active packet forwarder that is no longer supported, and is upgraded to this release, the LoRa section of the UI is non-functional. The workaround is to factory reset the device or set the packet forwarder to the Semtech legacy UDP packet forwarder through the web interface, before upgrading the firmware. Factory resetting reverts the gateway to use the legacy Semtech packet forwarder by default, which re-enables the disabled LoRa section of the UI (15198).
- On the LoRa radio page, the spectrum display is smaller than intended on Microsoft Internet Explorer. If use is hindered, please try using either Google Chrome, Mozilla Firefox, or Microsoft Edge (11520).
- An internal server error is displayed when Wi-Fi is disabled via the UI if the gateway is associated to a WLAN. The button text is not properly updated to reflect the new state. The operation does succeed, Wi-Fi is disabled. Reloading the page will display the proper Enable Wi-Fi text on the button (15285).
- If the Wi-Fi radio is disabled, and Wi-Fi Quick Config is subsequently started, even if no client associates, when host mode is exited, the Wi-Fi radio is left enabled (15286).

SOFTWARE VERSION 93.8.4.37 (GA4.1)

Released April 2020

Software part number: RGLXLT1-200414

OS: Linux

New or Enhanced Features

The following are new or enhanced features with this release:

IMPORTANT NOTE: The region setting of the radio cannot be changed. The user must purchase the appropriate model for the desired region of operation and only use the model appropriate for the location in which they will install the gateway. The only exception to this rule is switching between AU915 and AU923 regions for operation within Australia.

- The user is now able to toggle between the AU915 and AU923 regions from the web UI. This change also now prompts the user to reboot the device after switching.

Resolved Issues

The following issues are resolved with this release:

- Users were unable to toggle between the AU915 and AU923 regions from the web UI. This is no longer an issue (16146).

Known Issues

The following are known issues with this release:

- The Lorient packet forwarder is no longer supported in this release. If a unit on a previous release, with the Lorient forwarder set as the active packet forwarder, is upgraded to this release, the LoRa section of the UI is non-functional. The workaround is to factory default the device or set the packet forwarder to something else through the web interface before upgrading the firmware. Factory defaulting reverts the gateway to use the legacy Semtech packet forwarder by default, which re-enables the disabled LoRa section of the UI (15198).
- On the LoRa radio page, the spectrum display is smaller than intended on Microsoft Internet Explorer. If use is hindered, please try using either Google Chrome, Mozilla Firefox, or Microsoft Edge (11520).
- An internal server error is displayed when Wi-Fi is disabled via the UI if the gateway is associated to a WLAN. The button text is not properly updated to reflect the new state. The operation does succeed, Wi-Fi is disabled. Reloading the page will display the proper Enable Wi-Fi text on the button (15285).
- If the Wi-Fi radio is disabled, and Wi-Fi Quick Config is subsequently started, even if no client associates, when host mode is exited, the Wi-Fi radio is left enabled (15286).
- Some pages in the web interface do not display correctly on mobile devices. The workaround is to use Google Chrome, Mozilla Firefox, or Microsoft Edge on a desktop/laptop (15290).
- The remote management daemon sometimes fails to reconnect after a network outage (14649).

SOFTWARE VERSION 93.8.4.28 (GA4)

Released October 2019

Software part number: RGLXLT1-191018

OS: Linux

New or Enhanced Features

The following are new or enhanced features with this release:

IMPORTANT NOTE: The region setting of the radio cannot be changed. The user must purchase the appropriate model for the desired region of operation and only use the model appropriate for the location in which they will install the gateway. The only exception to this rule is switching between AU915 and AU923 regions for operation within Australia.

- Added support for operating in Hong Kong, Taiwan, Australia, and New Zealand on the RG-191
- Added regulatory limits for all supported regions
- In most cases, updating firmware should no longer require a factory reset
- Added remote management via TR-069 (an externally hosted ACS server is required to use this feature)
- Updated the loraserver.io bridge to version 3.0.1 (supports the v3 server)
- Updated the Senet packet forwarder to a more recent version
- Removed the Lorient packet forwarder

Resolved Issues

The following issues are resolved with this release:

- LoRa debug log entries have the same timestamp, the logs are still chronological and valid. (11073)
- It is possible that, on creation of a Wi-Fi profile requiring certificates, the upload and addition of the certificates to the profile fails. In this case, close the Add Profile window, then proceed to edit the profile and re-attempt to upload the certificates (11359).

Known Issues

The following are known issues with this release:

- Users are unable to toggle between the AU915 and AU923 regions from the web UI (16146).
- The Lorient packet forwarder is no longer supported in this release. If a unit on a previous release, with the Lorient forwarder set as the active packet forwarder, is upgraded to this release, the LoRa section of the UI is non-functional. The workaround is to factory default the device or set the packet forwarder to something else through the web interface before upgrading the firmware. Factory defaulting reverts the gateway to use the legacy Semtech packet forwarder by default, which re-enables the disabled LoRa section of the UI (15198).
- On the LoRa radio page, the spectrum display is smaller than intended on Microsoft Internet Explorer. If use is hindered, please try using either Google Chrome, Mozilla Firefox, or Microsoft Edge (11520).
- An internal server error is displayed when Wi-Fi is disabled via the UI if the gateway is associated to a WLAN. The button text is not properly updated to reflect the new state. The operation does succeed, Wi-Fi is disabled. Reloading the page will display the proper Enable Wi-Fi text on the button (15285).
- If the Wi-Fi radio is disabled, and Wi-Fi Quick Config is subsequently started, even if no client associates, when host mode is exited, the Wi-Fi radio is left enabled (15286).
- Some pages in the web interface do not display correctly on mobile devices. The workaround is to use Google Chrome, Mozilla Firefox, or Microsoft Edge on a desktop/laptop (15290).
- The remote management daemon sometimes fails to reconnect after a network outage (14649).

SOFTWARE VERSION 93.7.3.4 (GA3)

Released May 2018

Software part number: RGLXLT1-180525

OS: Linux

New or Enhanced Features

The following are new or enhanced features with this release:

- Senet forwarder support built in.
- User adjustable web session timeout.

Resolved Issues

The following issues are resolved with this release:

- Time field populated for TTN forwarder (12590).
- Stream US preset fixed to point at correct port (12245).

Known Issues

The following are known issues with this release:

- LoRa debug log entries have the same timestamp, the logs are still chronological and valid (11073).
- It is possible that, on creation of a Wi-Fi profile requiring certificates, the upload and addition of the certificates to the profile fails. In this case, close the Add Profile window, then proceed to edit the profile and re-attempt to upload the certificates (11359).
- On the LoRa radio page, the spectrum display is smaller than intended on IE. If use is hindered, please try using either Chrome or Firefox (11520).

SOFTWARE VERSION 93.7.2.10 (GA2.1)

Released March 2018

Software part number: RGLXLT1-180303

OS: Linux

Resolved Issues

The following issue is resolved with this release:

WARNING: When updating to this firmware version, the gateway is set to factory default settings.

- Firmware upgrades halt upon error, avoiding partial upgrade situations (12555)

Known Issues

The following are known issues with this release:

- LoRa debug log entries have the same timestamp, the logs are still chronological and valid. (11073)
- It is possible that, on creation of a Wi-Fi profile requiring certificates, the upload and addition of the certificates to the profile fails. In this case, close the Add Profile window, then proceed to edit the profile and re-attempt to upload the certificates. (11359)
- On the LoRa radio page, the spectrum display is smaller than intended on IE. If use is hindered, please try using either Chrome or Firefox. (11520)
- When using the Lorient packet forwarder, the LoRa connection status will always be true or connected even if there are problems connecting to the server. (12066)

SOFTWARE VERSION 93.7.2.9 (GA2)

Released December 2017

Software part number: RGLXLT1-171212

OS: Linux

New or Enhanced Features

The following are new or enhanced features with this release:

WARNING: When updating to this firmware version, the gateway is set to factory default settings.

- Wi-Fi Quick configuration for use in configuring the Gateway where no Ethernet is present.
- The Things Network packet forwarder support built in.
- MQTT forwarder support built in.
- LoRa packet forwarder presets for Senet.
- LoRa traffic decoding page.

Resolved Issues

The following issues are resolved with this release:

- Applied KRACK fixes for WPA2 vulnerability. (12101)
- Wi-Fi & Ethernet LEDs now reflect link state correctly and displays traffic whilst connected. (10983)
- Manual setting of LoRa STD and FSK channels with a negative offset now works as expected. (11485)
- In the event of a Wi-Fi scanning failure the system will continue to scan without intervention. (11439)

Known Issues

The following are known issues with this release:

- LoRa debug log entries have the same timestamp, the logs are still chronological and valid. (11073)
- It is possible that, on creation of a Wi-Fi profile requiring certificates, the upload and addition of the certificates to the profile fails. In this case, close the Add Profile window, then proceed to edit the profile and re-attempt to upload the certificates. (11359)
- On the LoRa radio page, the spectrum display is smaller than intended on IE. If use is hindered, please try using either Chrome or Firefox. (11520)
- When using the Lorient packet forwarder, the LoRa connection status will always be true or connected even if there are problems connecting to the server. (12066)

SOFTWARE VERSION 93.7.1.14 (GA1)

Released March 2018

Software part number: RGLXLT1-180302
OS: Linux

Resolved Issues

The following issue is resolved with this release:

- Firmware upgrades will halt upon error, avoiding partial upgrade situations (12555)

Known Issues

The following are known issues with this release:

- If Wi-Fi is configured and auto-connects to an access point on power-up, the Wi-Fi LED may not indicate the correct status remaining extinguished. (10983)
- LoRa debug log entries have the same timestamp, the logs are still chronological and valid. (11073)
- It is possible that, on creation of a Wi-Fi profile requiring certificates, the upload and addition of the certificates to the profile fails. In this case, close the Add Profile window, then proceed to edit the profile and re-attempt to upload the certificates. (11359)
- During Wi-Fi scanning, the system may return an error SDCERROR_FAIL. On receipt of this error, the scan automatically stops; in the event that the desired access point is not listed, re-enable scanning. (11439)
- Manual setting of LoRa STD and FSK channels with a negative offset cannot be entered into the edit box directly. The arrows can be used instead to adjust the channel. (11485)
- On the LoRa radio page, the spectrum display is smaller than intended on IE. If use is hindered, please try using either Chrome or Firefox. (11520)

SOFTWARE VERSION 93.7.1.13

Released June 2017

Software part number: RGLXLT1-170630
OS: Linux

New or Enhanced Features

The following are new or enhanced features with this release:

- Initial RG1xx release

Known Issues

The following are known issues with this release:

- If Wi-Fi is configured and auto-connects to an access point on power-up, the Wi-Fi LED may not indicate the correct status remaining extinguished. (10983)
- LoRa debug log entries have the same timestamp, the logs are still chronological and valid. (11073)
- It is possible that, on creation of a Wi-Fi profile requiring certificates, the upload and addition of the certificates to the profile fails. In this case, close the Add Profile window, then proceed to edit the profile and re-attempt to upload the certificates. (11359)
- During Wi-Fi scanning, the system may return an error SDCERROR_FAIL. On receipt of this error, the scan automatically stops; in the event that the desired access point is not listed, re-enable scanning. (11439)
- Manual setting of LoRa STD and FSK channels with a negative offset cannot be entered into the edit box directly. The arrows can be used instead to adjust the channel. (11485)
- On the LoRa radio page, the spectrum display is smaller than intended on IE. If use is hindered, please try using either Chrome or Firefox. (11520)