

This release:

- Converted to Log4j2
- Added G2S 2.1 schema for backward testing
- Fixed web socket issues when upgrading RGS

If you have any ideas for improvement, questions, or issues let us know at support@radblue.com.

<i>Case</i>	<i>Description</i>
18839	Fixed a null pointer exception when processing web socket error messages.
18841	Fixed an issue when upgrading RGS that caused a non-dictionary assigned error.
18867	Replaced log4j1.x with log4j2 version 2.17.2. In light of security issues associated with CVE-2021-45046, we decided to review log4j1.x usage and replace it with the latest version of log4j2.
19063	Added G2S 2.1 schema to allow customers to perform backward testing.
19144	Fixed an issue with G2S 3.1 startup scripts not loading with the addition of G2S 2.1 schemas.

This release:

- Fixed an issue where the RGS was sending g2sAcks for unacknowledged message transports.
- Added the ability to send multiple command elements in custom messages.

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Case	Description
17566	RGS was sending g2sAck messages with Web Socket transport. The g2sAck was not appropriate since Web Socket is an unacknowledged message transport.
17569	Ability to send custom message with multiple command elements.

[Sending custom message with multiple command elements.](#)

In this example, the RGS will send a commConfig command followed by an optionConfig command. Please note, that the command IDs and session IDs are not present which informs RGS to fill them in with the current values. If you want to send specific command IDs and session IDs, you may do so, but the RGS will not change them.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<g2s:g2sMessage
xmlns:g2s="http://www.gamingstandards.com/g2s/schemas/v1.0.3">
  <g2s:g2sBody g2s:egmId="RBG_000000000003" g2s:hostId="1">
    <g2s:commConfig g2s:deviceId="1">
      <g2s:enterCommConfigMode g2s:enable="false"/>
    </g2s:commConfig>
    <g2s:optionConfig g2s:deviceId="1">
      <g2s:enterOptionConfigMode g2s:disableText="OPTION CONFIG IN
PROGRESS"/>
    </g2s:optionConfig>
  </g2s:g2sBody>
</g2s:g2sMessage>
```

This release:

- Experimental implementation of WebSocket transport
- Updated Java to 1.8.0_275
- Ability to send multiple commands using Send Custom Message.

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Case	Description
17128	Experimental: Implement WebSocket transport in RGS
17157	Update Java to 1.8.0_275.
17158	Update JIDE to 3.7.12-pre.
17311	Fixed a bug that prevented saving configuration options.
17358	Added the ability to send multiple commands in one G2S message using Send Custom Message in the G2S toolkit.
17438	Fixed the advanced analyzer in the transcript.

User Interface Changes

Case 17128: Implement Web Socket transport in RGS.

Added a Web Socket transport to Transport options panel. You can specify if you want to run Web Sockets on the specified SSL and non-SSL ports. This implementation is experimental and subject to change as we implement the RST/RLT version. However, if you have an EGM with Web Socket support please give it a try and let us know what you find.

G2S Scope Configuration

Desktop Options

Engine Options

Security Options

License Manager

Memory Options

Transport Options

Engine Options

General **Transport** Message Multicast Filters Database

Transport Options

Transports

Enabled	Transport	Non-SSL Port	SSL Port
<input checked="" type="checkbox"/>	SOAP	31101	31202
<input type="checkbox"/>	Web Socket	31801	31701

Encodings

Enabled	Encoding	Description
<input checked="" type="checkbox"/>	xml	XML encoded.
<input type="checkbox"/>	xml-gzip	XML encoded and then GZIP compressed.
<input type="checkbox"/>	xml-gzip-payload	XML encoded and then GZIP compressed in the payload.
<input type="checkbox"/>	exi	EXI encoded.

Remote Control Port
 ?

Web Help Port
 ?

HTTP Receive Timeout
 [mm:ss] ?

Default G2S Timeout
 [mm:ss] ?

This release:

- Implemented GSA Transport Negotiation v2.0.
- Added smartHost.hostMsg to custom scripting.
- Updated Apache CXF to 3.2.13

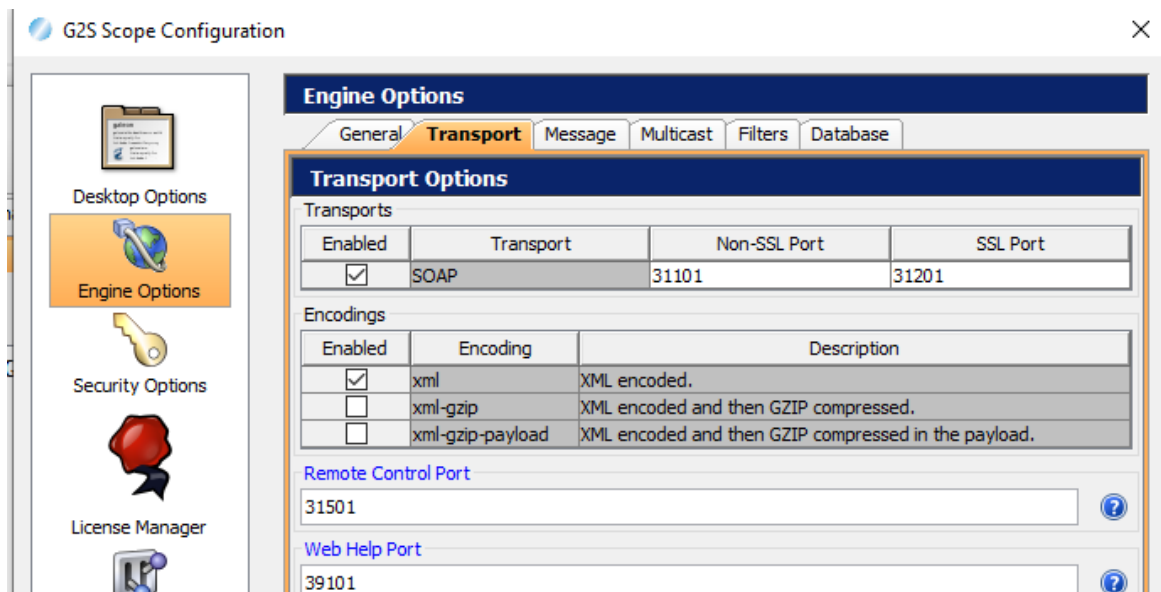
If you have any ideas for improvement, questions, or issues let us know at support@radblue.com.

Case	Description
16707	Updated Apache CXF to 3.2.13.
16755	Starting a web server to handle help files to work around a limitation in FireFox.
16929	Added the ability to create custom scripts that sends smartHost.hostMsg commands.
17133	Implement GSA Transport Negotiation. In preparation for WebSockets in RGS, we implement the required GSA Transport Negotiation. The RGS is listening on /gsaTransportOptions endpoint (for example, http://127.0.0.1:31101/RGS/api-services/G2SAPI/gsaTransportOptions). In the next release WebSockets will be supported and more information will be available.
17135	Reorganized RGS's URLs page.

User Interface Changes

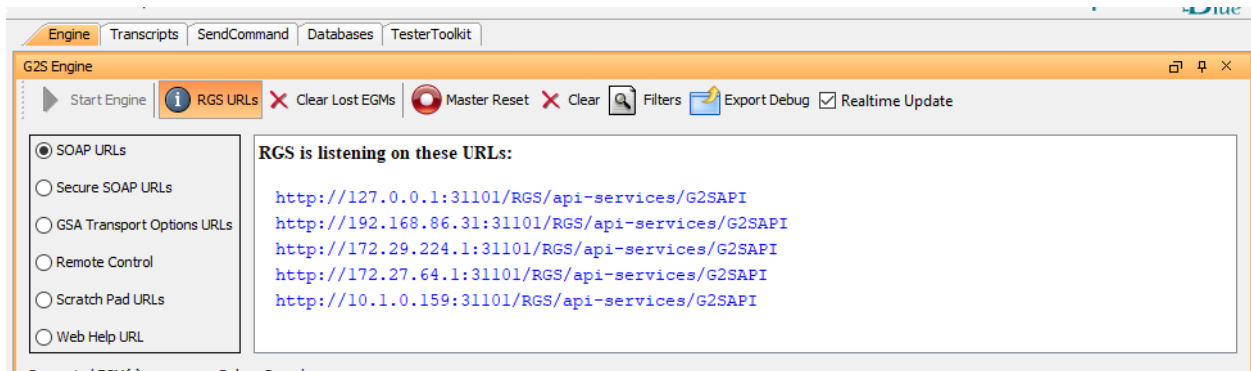
Case 17133: Implement GSA Transport Negotiation.

The port number and encoding have reformatted to better support WebSockets. By selecting different enabled transports and encodings, the user directly impacts both traditional G2S negotiation and the new GSA transport negotiation.



Case 17135: Reorganized URL page.

The user can display the URLs that the RGS is listening on by selecting the type of service.



This release:

- Updated Java to OpenJDK 1.8.0_242.
- Fixed a bug in MediaDisplay where the wrong transaction ID was being used in commands.

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Case	Description
16392	Updated Java to OpenJDK 1.8.0_242.
16394	Moved the G2S WSDL to allow student licenses to work.
16395	Fixed a bug where transport was stuck in a loop when SSL connections fail.
16540	Fixed a bug where the wrong transaction ID was being sent for multiple mediaDisplay devices.

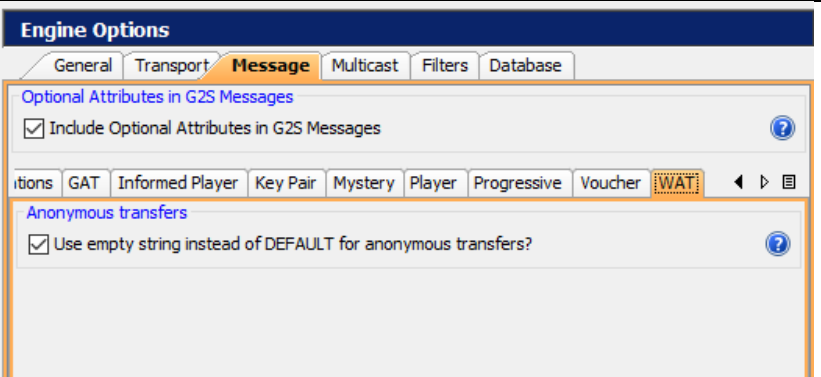
This release:

- Upgraded to G2S Schema 3.1
- Fixed bugs in custom scripting.
- Added the ability to use an empty string for default WAT account transfers.

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Case	Description
15603	Modified the spcProfile command to display level profiles.
15674	Fixed a validation error bug in the calendar editor that would prevent download.setScript command to be set in custom scripts.
15679	Added the ability to use the empty string instead of standard DEFAULT account ID for anonymous transfers. When Include Optional Attribute is set to false then wat.authorizeTransfer will not include the accountId when sending the XML.
15692	Fixed bugs associated with gat processing in custom scripting.
15820	Upgrade G2S schema to 3.1.
15834	Removed optionConfig.getOptionsChangeStatus from the send panel.
15929	Fixed a bug in the device manager to handle the case where an EGM reconnects with significantly different devices.
16041	Fixed a bug where icons were not being found from the installed version.

User Interface Change

<p>Added the ability to use the empty string instead of standard DEFAULT account ID for anonymous transfers.</p>	 <p>The screenshot shows the 'Engine Options' dialog box with the 'Message' tab selected. Under the 'Optional Attributes in G2S Messages' section, the checkbox 'Include Optional Attributes in G2S Messages' is checked. Below this, there are several tabs: 'Conditions', 'GAT', 'Informed Player', 'Key Pair', 'Mystery', 'Player', 'Progressive', 'Voucher', and 'WAT'. The 'WAT' tab is currently selected. Under the 'Anonymous transfers' section, the checkbox 'Use empty string instead of DEFAULT for anonymous transfers?' is checked.</p>
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This release:

- Fixed bug while sending `setPlayerMessage` from custom scripting.
- Fixed bug where the time to live value was not being set for `SendMyCommand` commands.

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<i>Case</i>	<i>Description</i>
15297	Custom scripting does not process <code>setPlayerMessage</code> properly.
15453	When sending <code>SendMyCommand</code> commands from custom scripting, the time to live values was not being set properly. Additionally, we removed the time to live value from <code>SendMyRawCommand</code> since it was not being used.

This is the last release of the Windows and Linux 32-bit installers. Oracle is no longer supporting 32-bit Java installations.

This release:

- Fixed bugs and added functionality to the masterReset command from the send panel.
- Added the ability to call a JavaScript to calculate the XML to send to the EGM for requests and notifications.

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Case	Description
12681	Added log warning if the device status's configuration ID does not match the device profile's configuration ID.
14216	Fixed a bug when displaying the masterResetStatus command in the transcript.
14233	Added a feature to set the request ID in cabinet.authorizeMasterReset and cabinet.cancelMasterReset to the same value as the last cabinet.masterReset command.
14270	Fixed a bug where the selected script is not what the user selected when re-sorting custom scripts.
14286	Fixed a bug where the MasterReset Marlie verb was not honoring the ignore permission flag. This was preventing a cabinet.masterReset to a cabinet device that the RGS did not own.
14301	Fixed a bug where the masterReset request ID was NULL when the RGS is run for the first.
14308	Added the ability to set the device ID to -1 in the raw XML for commConfig.setCommChange that would apply to all device of that type.
14461	Added the ability to call a JavaScript when a request is received. The Javascript creates the XML response that is sent to the EGM.
14462	Added the ability to call a JavaScript when a notification is received. The Javascript creates the XML notification that is sent to the EGM.

This release:

- Implemented the Sign class.
- Added directory support for startup algorithms and custom scripting.

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Case	Description
12841	Fixed a bug where the waiting for events verb would prematurely stop waiting based on a previous event.
13518	Updated SCEP code to use Apache CXF 3.2.1.
13616	Added the ability to store the last transcript location when opening G2S transcript files.
13625	Added code to update the data model for <code>download.getSupportedProtocols</code> .
13626	Added the ability to configure the <code>g2sAck</code> behavior via the REST interface.
13627	Modified the Send Raw Command Verb to accept ANY text and not just valid XML.
13628	Modified the RGS to allow script authors to organize startup algorithms and custom scripts to have a directory structure. Previously the RGS had a single flat directory structure.
13632	Fixed a bug where component names with dots were causing improper node creation in the data model.
13715	Fixed a bug where <code>wat.cancelRequest</code> and <code>dft.dftCancelRequest</code> could not be sent from the RGS.
13729	Added <code>optionConfig.setOptionChange</code> to the list of commands that can be sent during the startup algorithm.
13734	Fixed a bug in the <code>setCommChange</code> editor when editing an existing host. The RGS was not updating the device IDs for host oriented devices.
13857	Fixed a bug that would prevent the uninstaller from running.
13858	Fixed a bug that would prevent RGS's database from starting.
13899	Implement the Sign class.
14018	Fixed a transcript bug that miscalculated the command summary when a comment was placed before the document's root element.

This release:

- Added the ability to infer reasonable max/min values or length for option config parameters when the EGM does not send max/min values or lengths in the option config parameter details.
- Implemented GSATB-144 by changing the namespace associated with the mystery class.
- Upgraded Java to 1.8.0_152.
- Added missing commands to the Tester Toolkit's startup and custom scripting.
- Fixed issues in GAT management control.

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<i>Case</i>	<i>Description</i>
12689	<p>Added the ability to limit option config parameters when the EGM does not send the optional minIncl, maxIncl, minLen, or maxLen in the option config parameter details. There is no requirement that an EGM send these optional values when the host requests the parameter details. Without the optional minIncl, maxIncl, minLen, or maxLen the RGS uses the default values from the schema (for example, maxIncl value is $2^{63}-1$). However, some EGM manufactures are assuming the G2S host knows the range of all option config parameters when an optional value is not sent from the EGM. This fix will limit the range to the underlying parameter type.</p> <p>NOTE: RadBlue recommends that EGMs send the max/min values for all option config details. The only time not to send the optional minIncl/maxIncl/minLen/maxLen is when the value matches the default value in the schema file.</p>
12901	Added Response Delay by X milliseconds to the response manager.
12904	Updated Java to 1.8.0_152.
13043	Added missing GSA error codes from G2S 3.0 to the Advanced Transcript Analysis tool.
13120	Implemented GSATB-144 by changing the namespace associated with the mystery class to http://www.gamingstandards.com/g2s/schemas/v1.0.3/ExtMP along with other minor schema changes from GSA.
13150	Fixed an issue where the Edit Media Display Load Content panel was updating the access token when the URL for the media content is updated.

<i>Case</i>	<i>Description</i>
13237	Added the ability to enable auto-incrementing of the Content ID and/or the Access Token in the Media Load Content components panel.
13258	Added masterReset, authorizeMasterReset, and cancelMasterReset to custom scripting.
13300	<p>Added the following custom scripting commands:</p> <ul style="list-style-type: none"> • mediaDisplay.setMediaDisplayLockOut • smartCard.setSmartCardLockOut • dft.setDftLockOut • mystery.setMysteryLockOut <p>Added the following startup algorithm commands:</p> <ul style="list-style-type: none"> • cabinet.setCabinetLockOut • progressive.setProgressiveLockOut • bonus.setBonusLockOut • voucher.setVoucherLockOut • mediaDisplay.setMediaDisplayLockOut • smartCard.setSmartCardLockOut • dft.setDftLockOut • mystery.setMysteryLockOut
13303	Added loadContent, setActiveContent, and releaseContent startup commands.
13304	Added setWatCashOut to startup commands.
13305	Added the ability to enable auto-incrementing of the Content ID and/or the Access Token from the send panel.
13341	Fixed an issue where the RGS was ignoring the device permissions when sending commands in the startup algorithm. The RGS will now only send owner commands to devices it owns and guest commands to devices when it is an owner or guest of the device from custom startup algorithms.
13350	Fixed an issue where the RGS could not find the g2s-option-config-defintions.xsd file.
13354	<p>Fixed an issue where port numbers were not saved between installations of RGS.</p> <p>NOTE: the port numbers before Release 64 are not saved when the uninstaller runs. You will only notice this fix when upgrading Release 64.</p>

<i>Case</i>	<i>Description</i>
13356	Fixed an issue where the debug.zip files included executable files. This causes e-mail servers to reject the files.
13357	Fixed an issue where the installer was not creating a transcripts directory for the Public Facing Transcripts.
13360	Fixed an issue where RGS's GAT Management Control log panel was not being updated with the current status of the GAT operations.
13361	Fixed an issue where RGS's GAT Management Control was not processing a second component. The tool would set the verify state of the first component to G2S_passed and leave all the other components as G2S_queued.
13369	Fixed a minor issue where the initial G2S schema was set to 2.1. However, since G2S 3.0 is backward compatible with G2S 2.1 the tool upgrades the schema almost immediately to G2S 3.0.