



# RadBlue Load Tester

## Version 13

[Released: 06 DEC 2010]

Questions?

Log on to the RadBlue Forum: <http://radblue.mywowbb.com/>

# Release Notes

## Release Summary

For this release, we added a new attribute to the SmartEGM configuration file and made some minor corrections.

For more information on the features and modifications discussed in this document, see the [RLT User Guide](#).

## Functional Modifications

- A new *edm:command-id-reset* attribute has been added to the SmartEGM configuration file. This attribute lets you reset the Command ID sequence to **1** just before the `commsOnline` command is sent.

Set this attribute to **true** to reset the Command ID or set this **false** if you do not want to reset the Command ID. By default, this attribute is set to **false**.

In the following example, the command ID will reset before the `commsOnline` command is sent.

```
<!-- The G2S COMMUNICATIONS Device -->
<edm:communications edm:device-id="1" edm:device-active="true"
edm:configuration-id="0" edm:comms-on-line-ack-timeout="30000"
edm:host-enabled="true" edm:egm-enabled="true" edm:egm-locked="false"
edm:host-locked="false" edm:owner-id="1" edm:config-id="0" edm:vendor-id="Unknown"
edm:product-id="Undefined" edm:release-number="Undefined"
edm:vendor-name="Undefined" edm:product-name="Undefined"
edm:serial-number="Undefined" edm:command-id-reset="true">
</edm:communications>
```

- RLT now accepts HTTPS as a valid download protocol. RLT must have a certificate signed by the same CA as the download server. The certificate can be loaded through the **Configure > Security Options** screen. If you want to use two different certificate authorities (for example, one for G2S communications and one for the download server), contact [RadBlue](#).

## Engine Modifications

- Previously, the maximum length of the *G2S\_acceptNoMix* attribute in the SmartEGM configuration file was set to zero. The configuration should be a string enumeration of *G2S\_acceptAlways*, *G2S\_acceptSameExpiration*, *G2S\_acceptNoMix* or *G2S\_acceptNever* (see table 3.11 of the *G2S Message Protocol v1.0.3*).
- System-issued vouchers were incorrectly reflected in the EGM-issued meters. RLT now correctly updates system-issued meters for system-issued vouchers.



# RadBlue Load Tester Version 12

[Released: 08 NOV 2010]

Questions?

Log on to the RadBlue Forum: <http://radblue.mywowbb.com/>

## Release Notes

### Release Summary

For this release, we created a new method of entering third-party options in the `smartegm-config.xml` file, added `setOptionChange` command error codes and corrected several issues.

For more information on the features and modifications discussed in this document, see the [RLT User Guide](#).

### Engine Modifications

- The SmartEGM configuration file (`smartegm-config.xml`) has a new method of entering third-party options. This change allows more control over how the option list is generated.

The `cabinet` class in the new `smartegm-config` file exemplifies the new method. However, you can modify any other class, as needed, to take advantage of this new functionality. Go to the `cabinet` class section of the `smartegm-config.xml` (**RST installation directory** > **smart-conf** > **smart-egm**) to see the changes.

Note that the RST now automatically saves `smartegm-config.xml` files with old-style option configs to the new option config method when the `-updated.xml` file is created.

- RST now supports `setOptionChange` error code `G2S_OCX15` (Non-Modifiable Parameter Change Requested by Host), which occurs if the host tries to initiate a change to a parameter when the `canModRemote` attribute is set to **false**.
- If an `setEventState` command is sent that disables the `eventHandler`, the SmartEGM no longer continues to send `eventReport` commands.
- An issue in which a `G2S_CBE205` (EGM Enabled and Playable) cabinet event was sent erroneously has been corrected.
- Previously, when the `setMeterSub` request was sent during the startup sequence, it used wildcards to subscribe to all meters, but the `meterSubList` response that was returned contained wildcards instead of an actual list of meters. Now, a the `meterSubList` contains a list of all meters to which the host has subscribed.
- Wager meters now include meter definitions, if requested.

- The following error codes are now supported for the `setOptionChange` command:

**Table 1** Supported `setOptionChange` error codes.

Error Code	Description
G2S_OCX001	Invalid Device Class/Device Identifier
G2S_OCX007	Invalid Apply Condition
G2S_OCX008	Invalid Disable Condition
G2S_OCX009	Disable Condition Not Specified
G2S_OCX011	Invalid Option Group for Device
G2S_OCX012	Invalid Option for Option Group
G2S_OCX013	Invalid Value Selected for Option
G2S_OCX014	Invalid paramId for Option
G2S_OCX015	Non-Modifiable Parameter Change Requested by Host
G2S_OCX017	Invalid Change Request

## Functional Modifications

- The EGM comms state is now set to “lost” when the engine abruptly stops due to a system crash or shutdown.
- RLT now verifies that the EGM ID entered during add and edit procedures meets the G2S specification. Valid EGM IDs must conform to the following pattern (`uniqueIdentifier32`):
  - ◆ **Type** - string
  - ◆ **Pattern** - `[A-Z0-9]{3}_[!&quot;#%&#x27;()*+,-./0-9;:&#x26;?@AZ[\[\]\^_`a-z{\|\}~]{1,28}`
- A communication error that occurred when an RLT engine was stopped has been corrected.

## Transcript Modifications

Previously, the amount values in the `handpay.handpayRequest` command view did not match the content in the actual message. The values in the `handpay.handpayRequest` command view now correctly reflect the message content.



# RadBlue Load Tester Version 11

[Released: 02 AUG 2010]

Questions?

Log on to the RadBlue Forum: <http://radblue.mywowbb.com/>

## Release Notes

### Release Summary

There were no changes to RLT for this release.



# RadBlue Load Tester Version 10

[Released: 21 JUN 2010]

Questions?

Log on to the RadBlue Forum: <http://radblue.mywowbb.com/>

## Release Notes

### Release Summary

For this release, we added new functionality to let you customize EGM parameters, improved Debug Log usage, added sample configuration files and Tiger scripts, and added the ability to use SSL in RLT.

For more information on the features and modifications discussed in this document, see the [RLT User Guide](#).

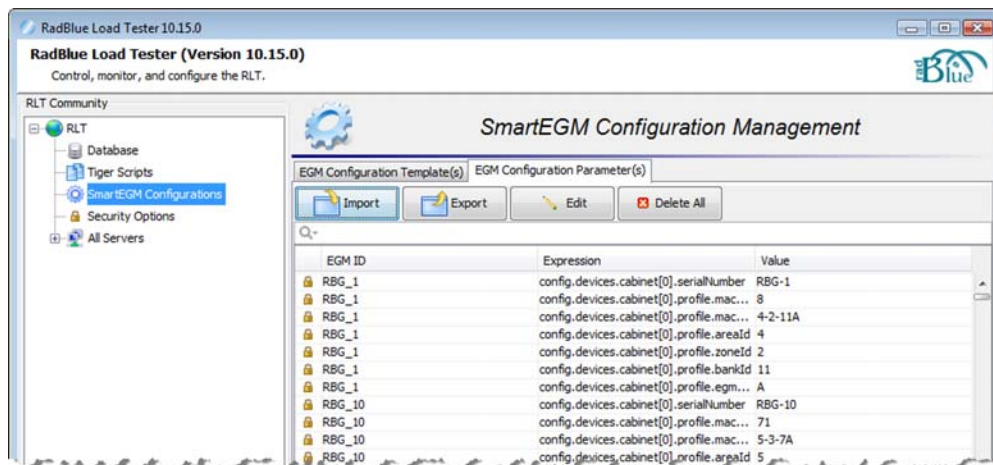
### Installation Modifications

- Sample **SmartEGM configuration files** and sample **Tiger scripts** are now installed with RLT.

### Functional Modifications

- A new **EGM Configuration Parameter(s)** tab has been added to **SmartEGM Configurations**.

From the EGM Configuration Parameter(s) tab, you can modify the serial number, machine number, machine location, area ID, bank ID and EGM position for each EGM.



Default EGM IDs and their parameter values are pre-loaded into RLT during installation. *If you do not need custom EGM identifiers and/or parameter configurations, use the default data.*

If you need to customize the EGM identifiers and/or parameters for your test environment, you can make individual changes through the Edit option, *or* use the Export option to save all data to an XML file that can then be edited and imported back into RLT.

- You now have the ability to easily configure **Secure Socket Layer (SSL)** encryption information for RLT through the new **Security Options** screen, which you can access through the **RLT Community**.

**Security Options Management**

**Enable SSL security control**

Certificate Options

Approve all certificates

OCSP Options

Enable OSCP

OCSP Server Location :

Re-Authenticate Certificate Every (gsaOR) :  Minutes

OCSP Server Considered Offline After (gsaOO) :  Minutes

Accept Previously Good Certificate for (gsaOA) :  Minutes

SCEP Options

Enable SCEP

SCEP Server Location :

Pre-Shared Secret Enabled? :

Pre-Shared Secret :

User Name Enabled? :

User Name In CN? :

Use User Name as Common Name :

CA Identity Enabled? :

CA Identity :

Entity Type :

Key Size :

SCEP Server Polling Interval :

Request SCEP Server Capabilities :

Automate SCEP Certificate Process :

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To use SSL security, you must select **Enable SSL security control**. You then have the option to select **Approve All Certificates** if you want to use SSL encryption, but are not concerned with the validity of the certificate authority.

If the Approve All Certificates option is cleared, the RLT performs validity checking when communications are initiated. The validity check includes:

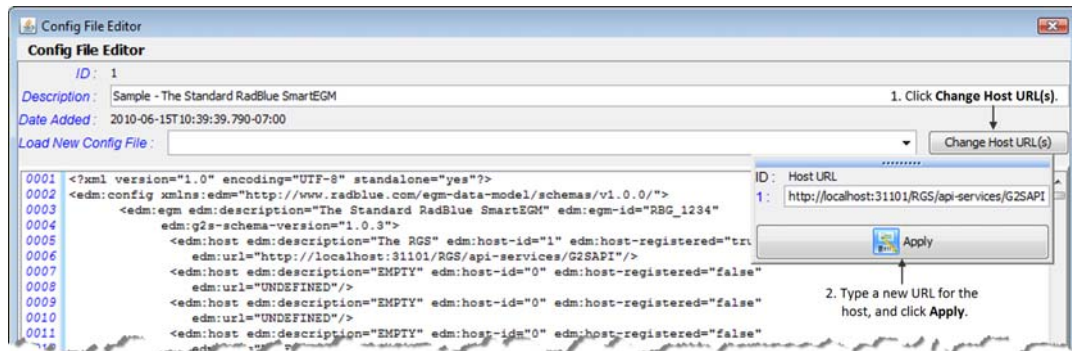
- Signed by trusted certificate authority?
- Is current time/date within the period of validity (effective and expired date)?
- Is issuer signature correct?

You can request a signed SSL certificate using the Simple Certificate Enrollment Protocol (SCEP). When you request a signed SSL certificate, RLT creates and sends a certificate request for each service manager. When there are multiple service managers, after the first request is sent, each subsequent request is not created and sent until the certificate for the previous request is issued by the SCEP server.

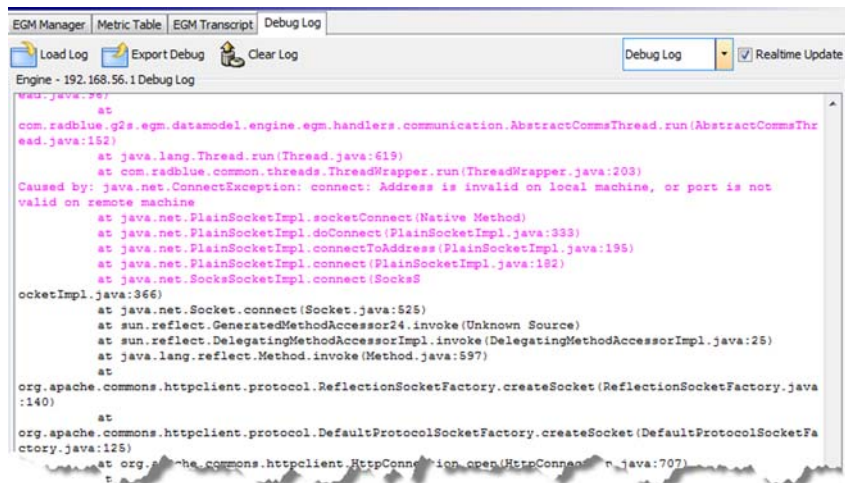
In the **OCSP Options** section, you can configure the Online Certificate Status Protocol (OCSP) options. OCSP verifies whether or not the current certificate has been revoked.

## User Interface Modifications

- An option has been added to the **Config File Editor (SmartEGM Configurations > EGM Configuration Template(s) > Edit)** that lets you quickly modify the URL of the host to which RLT communicates.



- The **Debug Log** has been updated with a new user-friendly viewing option, an option to view data as it is received and an option to export Debug Log data.



The **Realtime Update** option lets you see data as it is received. When Realtime Update is selected, you can view either the **Debug Log** or the **User Log**. The Debug Log contains extended debug information, while User Log messages are more user-friendly.

The **Export Debug** option lets you save a .zip file of all RLT logs to your computer desktop. The .zip file can then be sent to RadBlue to help expedite the troubleshooting process.





# RadBlue Load Tester Version 9

[Released: 07 APR 2010]

Questions?

Log on to the RadBlue Forum: <http://radblue.mywowbb.com/>

## Release Notes

### Release Summary

For version 9, we've added a new Tiger verb for use with SmartEGM configuration files and added extra meters to several events.

For more information on the features and modifications discussed in this document, see the [RLT User Guide](#).

### Engine Modifications

- The G2S\_gamesSinceDoorClosedCnt and G2S\_gamesSincePowerResetCnt meters have been added to the GPE112 event

### User Interface Modifications

- A new verb, `tiger:sendMyCommand`, has been added to the Tiger script. The `sendMyCommand` verb lets you send a custom command that is wrapped with the G2S class and G2S message elements before sending. The G2S information completed automatically by RLT includes command ID, session ID and date/time values. You can also add attributes and elements in custom namespaces, if required. This option is useful when you want to send a custom command to a device exposed through the descriptor list

For more information, see the [Tiger Scripting Reference](#).

- Currency, gameDenom and wager meters have been added to several events.

**Table 1** gamePlay Class

Event Code	Meter Set	Action
GPE103 Primary Game Start	gameDenom	<b>wageredAmt</b> increases by the initialWager value. <b>avgPaybackPct</b> is updated to reflect wager. <b>theoPaybackAmt</b> is incremented by wager times the payback percent for the wager category played.
	wager category	<b>wageredAmt</b> increases by the initialWager value.
GPE104 Wager Changed	gameDenom	<b>wageredAmt</b> increases by the wager change value. <b>avgPaybackPct</b> is updated to reflect wager change. <b>theoPaybackAmt</b> is incremented by wager times the payback percent for the wager category played.
	wager category	<b>wageredAmt</b> increases by the wager change value.



**Table 1** gamePlay Class

Event Code	Meter Set	Action
GPE105 Primary Game End		Alternately, the updates for GPE103 and GPE104 (above) can be done at Primary Game End (but not in both places). If done here, use the <b>finalWager</b> value.
GPE112 Game Ended	gameDenom	<b>playedCnt</b> increments by 1.
	wager category	<b>playedCnt</b> increments by 1.

Note

**gameDenom** is the device and class. The **wager category** affects device meters *only*.

**gameDenom** meters are referenced by the **gameDenom** of the gamePlay device being played.

**wagerMeters** are referenced by the **wagerCategory** being played.

**Table 2** coinAcceptor Class

Event Code	Meter Set	Action
CAE105 Inappropriate Coin In	currency [device + class ]	Same updates as device meters, but to the currency meters (denomId+currencyId+currencyType).  <b>currencyInAmt</b> and ( <b>currencyToDropAmt</b> or <b>currencyToDispenserAmt</b> ) increment by baseCashableAmt of accepted currency.  <b>currencyInCnt</b> and ( <b>currencyToDropCnt</b> or <b>currencyToDispenserCnt</b> ) increment by number of coins accepted.
CAE109 Coin(s) Accepted		

**Table 3** noteAcceptor Class

Event Code	Meter Set	Action
NAE114 Note Stacked	currency [device + class ]	Same updates as device meters, but to the currency meters (denomId+currencyId+currencyType).  <b>currencyInAmt</b> and ( <b>currencyToDropAmt</b> or <b>currencyToDispenserAmt</b> ) increment by baseCashableAmt of accepted currency.  <b>currencyInCnt</b> and ( <b>currencyToDropCnt</b> or <b>currencyToDispenserCnt</b> ) increment by 1.

**Table 4** hopper Class

Event Code	Meter Set	Action
HPE109 (Extra) Coins Paid	currency [device + class ]	Same updates as device meters, but to the currency meters (denomId+currencyId+currencyType).  <b>currencyOutAmt</b> increments by baseCashableAmt of (extra) coins dispensed.  <b>currencyOutCnt</b> increments by number of (extra) coins dispensed.
HPE113 Coins Dispensed		



# RadBlue Load Tester Version 8

[Released: 08 MAR 2010]

Questions?

Log on to the RadBlue Forum: <http://radblue.mywowbb.com/>

## Release Notes

### Release Summary

In this release, we added a debug log message, made a change to the installation script and corrected minor issues.

### Installation Modifications

- RLT now uses **Java 1.6.0\_18** for both Windows and Linux versions. This version of Java *must* be installed on your computer to complete RGS installation. If the installer does not detect this version of Java on your computer, you are prompted to download it
  - ◆ Click **Download** to download and install the new Java version before continuing with the installation.
  - ◆ Click **Locate** to browse to the **java.exe** file for version 1.6.0\_18.
  - ◆ Click **Cancel** to exit the installation.

### Functional Modifications

- An entry is now posted to the debug log when a host rejects the `wat.initiateTransfer` command.

### Engine Modifications

- Previously, RLT did not properly handle `optionConfig` parameter values that were split across multiple lines in the SmartEGM configuration file. This issue has been corrected.
- An issue has been corrected in which RLT was incorrectly interpreting the seed value in the `gat.doVerification` command. This value is now interpreted correctly.
- In previous versions, RLT attempted to validate the seed value for all `gat.doVerification` request. RLT now validates the seed value for CRC16 and CRC32 validation requests *only*.

### User Interface Modifications

There were no user interface modifications.



# RadBlue Load Tester

## Version 7

[Released: 03 FEB 2010]

Questions?

Log on to the RadBlue Forum: <http://radblue.mywowbb.com/>

# Release Notes

## Release Summary

In this release, we updated the GSA version of RLT to G2S protocol version 1.0.3r5 and made several corrections.

### Important Notes!

You must have a 2010 license to use RLT versions released in 2010. This includes RLT 7. No license? Give us a call at +1.775.329.0990, or send an e-mail to [support@radblue.com](mailto:support@radblue.com).

Version 1.0.3r5 is *not* backwards compatible with any previous 1.0.3 versions. In the GSA version of RLT, we moved to the G2S 1.0.3r5 schema (the latest published version). In that schema, there is a new *expireDays* attribute in the voucher class that will cause validation errors in your G2S host if you are validating messages against a prior version of the G2S schema.

## Improvements

- RLT has been updated to G2S protocol version 1.0.3r5.

## Corrections

- RLT now sends a `joinMcastAck` response during the rejoin (double join) of the device. If the *multicastLocation* is different during the rejoin, RLT sends a CMX005 (Not Unique MulticastId) error code.
- When a door is closed in an RLT EGM, the door open date/time attribute now continues to reflect the date and time of the door opening. Previously, the attribute value was set to "null".
- Previously, the RLT executed download commands even if the download device was disabled. Now, RLT rejects download commands if the download device is disabled.
- The **G2S\_CME110 (Join Multicast Group)** event is sent only when a *new* device joins a multicast group, not during the rejoin.
- An issue in which an error would display in the debug log if an EGM ID contained a colon (:) has been corrected.
- If a seed is not supplied for an algorithm that requires it (CRC algorithms), a G2S\_GAX013 error is generated.
- The *verifyResult* attribute returned by the SmartEGM is now 0-9 and A-F. Previously, the RLT used 0-9 and a-f.
- Previously, if the `issueVoucherAck` response was not received from the host, the SmartEGM would leave the meters in an inconsistent state. Now, the meters are rolled back to the correct values if the `issueVoucherAck` does not arrive.

- The functionality that allows you to send multiple eventReports in a single message now works correctly.