

Summary of CVT Release 12.0.1

This release of the CVT incorporates the changes to the CVT-host requested by RadBlue's supporting customers for the CVT and GSA's Certification and Interoperability Committee (CIC).

CVT Installers, the latest Test Case Encyclopedia (containing a description of each test case in the CVT), sample documents, and other interesting information about the CVT is available on the [CVT Development Portal](#) page of the [RadBlue website](#).

Modifications in CVT Release 12.0.1

The following modifications were made to CVT release 12 to arrive at this new release:

- 1) Based on the decisions posted in GSA JIRA issue CVT-28, in order to force a host to send a `setCommsState` command, the CVT will now unexpectedly send a `commsOnLine` command, rather than an unexpected `commsDisabled` command as it was doing in release 12.0.0.

As a result of this change, the following test cases were modified:

- **CM-COR-00063**
 - **CM-COR-00065**
 - **CM-COR-00076**
 - **CM-COR-00078**
- 2) Test Case **CM-COR-00066** will now prompt the Tester to click the **True** button after the `hostId` has been changed on the host under test and the host is ready to resume communications with the CVT.
 - 3) In certain cases, the CVT-host would get into a state where it would not stop when the **Stop** button was pressed. This occurred while waiting for the EGM to become ready to run a test case. The issue is now resolved.

New Features in CVT Release 12

This release of the CVT is the first release of the Practical HOST **Compliance** Tester (CVT Phase 2.0), which can be used by developers, testers, and operators to verify that a HOST has satisfactorily implemented the Core Classes of G2S.

More rigorous testing of an HOST will be available later in the Practical HOST **Certification** Tester release.

CVT Installers, the latest Test Case Encyclopedia (containing a description of each test case in the CVT), sample documents, and other interesting information about the CVT is available on the [CVT Development Portal](#) page of the [RadBlue website](#).

Documents of Note in CVT Release 12

Since this is a first release of the CVT-Host, there is no reason to discuss improvements and enhancements from the prior release since the CVT-Host is a completely separate tool from the CVT-EGM (though both tools are installed using a single installer, and they share the CVT Encyclopedia). Instead, we'll list several documents that are available on the CVT Portal page, which will help a tester come more quickly up to speed with the new tool.

[Getting Started with the CVT-Host](#) – This guide is a quick start to the CVT-Host, and offers tips on how to use it with the RadBlue G2S Scope (RGS – RadBlue's G2S Host Simulator).

[CVT-Host Test Case Implementation Report](#) – This document provides the summary of each the test cases that have been implemented in this release of the CVT-Host. More complete details for each test case can be found in the CVT Encyclopedia.

[CVT-EGM Test Case Implementation Report](#) – This document provides the summary of each of the test cases that have been implemented in this release of the CVT-EGM. More complete details for each test case can be found in the CVT Encyclopedia.

[CVT Coverage Report](#) – This spreadsheet provides a listing of the G2S requirements in each class, and indicates which test case covers that requirement for EGM and Host.

New Features in CVT Release 11

This release of the CVT is the Practical EGM **Compliance** Tester, which can be used by developers, testers, and operators to verify that an EGM has satisfactorily implemented the Core Classes of G2S. CVT Release 11 includes resolutions to all open items discovered by members of GSA's Certification and Interoperability Committee (CIC) during their review of the previous release candidate (CVT release 10). More rigorous testing of an EGM will be available later in the Practical EGM **Certification** Tester release.

CVT Installers, the latest Test Case Encyclopedia (containing a description of each test case in the CVT), sample documents, and other interesting information about the CVT is available on the [CVT Development Portal](#) page of the [RadBlue website](#).

Modifications of Note in CVT Release 11

Test Case #	Modification
CB-COR-00015	Fixed typo in test case when validating locale IDs
CM-COR-00003	This case was incorrectly including WSDL calls to getTransportOptions, but has been modified to skip getTransportOptions WSDL calls.
CM-COR-00008	Incorrectly assuming command IDs were always increasing (not the case when messages are RESENT)
CM-COR-00012	Incorrectly comparing previous dateTimeSent to the dateTime value in the current message. Incorrectly skipping unknown namespace commands from the EGM.
CM-COR-00020	In Step 4, a keepAlive command from a prior setKeepAlive command) MAY be sent by the EGM between the time that the setKeepAlive is sent from the host and the sending of the setKeepAliveAck response. A new step 4 was introduced that sets the keepAlive timer to zero - disabling keepAlives from the EGM, and ensuring that keepAlives are disabled for the new step #5. The EGM will still fail if it does not stop sending keepAlives when instructed.
CM-COR-00027	An unsolicited commHostList from the EGM was causing the config host logic to fail. CVT was modified to only consider commsHostList commands that are responses. [Note: Unsolicited commsHostList commands do not contain the entire host list - they only contain hosts that have been modified.]
CM-COR-00031	Command dateTime reset logic for commsOnLine was missing from CM-COR-00031. The Test Case no longer checks for dateTime errors for commsOnLine commands.
CM-COR-00037	Changed calculation for how long the CVT will stop the web server.
CM-COR-00041	Changed calculation for how long the CVT will stop the web server.
CM-COR-00051	Clear event subscriptions so that communications events to a second host do not invalidate the test.

Test Case #	Modification
EH-COR-00001	Event G2S_APE001 from the event handler device was causing the continuous event checker to throw an exception (programming error - corrected). The continuous event checker will now accept G2S_APEXXX events from <u>all</u> classes.
GP-COR-00011	Get the note acceptor meters before the note is inserted for more accurate delta calculation.
JP-COR-00006	Case was modified to require that the CVT be both the owner and configurator of the event handler device.
Event Checker	The standard event checker will generate a new error E-EH-00058 if an expected meter set is missing in an eventReport.
Event Checker	Modified the G2S_NAE114 Note Stacked delta checker to allow currency meters that are being sent in the G2S_NAE116 Note In Escrow event. Technically, in the protocol, currency meters are not allowed in G2S_NAE116 but they are allowed in the CVT as per the eventHandler rules for the CVT (see CVT-8).
Game State Machine	The CVT's game state machine now handles the case where G2S_GPE103 does not include cabinet meters. This led to the log sequence number not being set properly.

Interesting New Features in CVT Release 10

- 1) This release of the CVT includes extensive improvements over prior versions, which enabled us to add the following test cases (more details are on page 3):
 - a) 8 new cabinet class test cases
 - b) 27 new communication class test cases (plus one deleted test case, which defines how that mechanism will work going forward)
 - c) 17 new handpay class test cases

- 2) CVT Release 10 is the release candidate for the Practical EGM **Compliance** Tester, which will now undergo a formal 30 day review period before it is formally released. The Practical EGM **Compliance** Tester can then be used by developers, testers, and operators to verify that an EGM has satisfactorily implemented the Core Classes of G2S. More rigorous testing will be available later in the Practical EGM **Certification** Tester release.

Modifications of Note in CVT Release 10

Case #	Description
9496	In the Device Mapping table of the CommConfig utility (Manage Comm Config Templates), "N/A" was changed to "No Change" to indicate host identifiers that will not be modified by the CVT. An example of this is the owner host for communication devices – what the EGM has is correct and there is no need to modify the value, so it will not be changed.
9580	A new " Check It " status has been added to the cvt-coverage-report spreadsheet, to indicate requirements that we feel believe do not need to be tested, but we would need verification by GSA.
9593	The last errors table on the Test Session screen now shows the 50 most recent errors reported by the CVT. This caps the CVT memory usage when displaying CVT result errors.
9602	The control that is used to Configure Timeouts was expanded to include a description field for each timeout value, making the values easier to understand.
9625	CM-COR-00006 - we were directed to remove the <i>timeToLive</i> check in this approved test case, so CM-COR-6 was marked as deleted and was superseded by CM-COR-35. CM-COR-35 is identical to CM-COR-6 except that step 4 was removed from CM-COR-6.
9626	GP-COR-00008 was modified to check for win level items (the CIC indicated that winLevel info is required to be part of the gamePlay events when a game results in a win).
9627	MT-COR-00010 - CVT cannot test for a G2S_MTX002 error in MT-COR-00010 (see GSMP-1925 for details), therefore steps #3 and #4 were removed from the MT-COR-00010.

Case #	Description										
9628	MT-COR-00014 - The CIC stated that there is no clear guidance on EGM behavior when the host sends redundant or contradictory getMeterInfo commands – the EGM may send anything back to the host. MT-COR-14, step 7 was modified to only require the EGM to return a valid response to the request.										
9644	EH-COR-00019 , GP-AGD-00001 and GP-COR-00004 were modified to use the definition of optionConfig parameter behavior that is defined in GSMPCERT-66, shown below:										
	<table border="1"> <thead> <tr> <th>State</th> <th>Test</th> </tr> </thead> <tbody> <tr> <td>Required</td> <td><i>canModLocal</i> or <i>canModRemote</i> MUST be true</td> </tr> <tr> <td>Prohibited</td> <td><i>canModRemote</i> MUST be false. <i>canModLocal</i> is not checked</td> </tr> <tr> <td>Conditional</td> <td>If the CVT can determine that the feature is present, then treat it as Required. If the CVT can determine that the feature is NOT present, then treat it as Prohibited.</td> </tr> <tr> <td>Optional</td> <td>CVT will not examine optional parameters</td> </tr> </tbody> </table>	State	Test	Required	<i>canModLocal</i> or <i>canModRemote</i> MUST be true	Prohibited	<i>canModRemote</i> MUST be false. <i>canModLocal</i> is not checked	Conditional	If the CVT can determine that the feature is present, then treat it as Required . If the CVT can determine that the feature is NOT present, then treat it as Prohibited .	Optional	CVT will not examine optional parameters
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Conditional	If the CVT can determine that the feature is present, then treat it as Required . If the CVT can determine that the feature is NOT present, then treat it as Prohibited .										
Optional	CVT will not examine optional parameters										
9665	<code>meters.meterInfo</code> – Several improvements made to the transcript command view for the <code>meterInfo</code> command.										
9821	CM-COR-00052 – Note: the EGM MUST have a <i>noResponseTimer</i> of zero for the CVT to execute this test case.										
9822	CM-COR-00053 – Note: the CVT’s communication device MUST be required for play for this test to execute.										
9823	CM-COR-00054 – Note: the communications device MUST be required for play for this test case to execute. Also, the enter/exit operator menu DUT screens WILL NOT auto-advance since the events are disabled when the action is taken.										
9824	MT-COR-00012 - GSATB-110 added a new G2S requirement by requiring that the <i>periodicBase</i> MUST not exceed the <i>periodicInterval</i> value. We had to modify steps #1 and #6 of MT-COR-00012, as these steps were trying to set a subscription in the future or the past, which resulted in the <i>periodicBase</i> values being greater than the <i>periodicInterval</i> .										
9901	When a test case is excluded in the Test Session Universe by the CVT, you can hover over the excluded device to see the reason why it was excluded by the CVT engine. In this release, the hover text has been improved.										
9903	GP-COR-00004 – this test case no longer checks the <i>useDefaultConfig</i> parameter for gamePlay devices (that parameter has been deprecated).										

Summary of New Test Cases

Please see the [Test Case Encyclopedia](#) for more details on each Test Case.

New Cabinet Test Cases

Test Case	Overview
CB-COR-00012	This case tests that the EGM generates the proper event when the cash-out button is pressed.
CB-COR-00013	This case tests that standard configuration options are available in <code>optionConfig</code> , and that they are consistent with the <code>cabinetProfile</code> .
CB-COR-00014	This case tests that standard configuration options in G2S 2.1 are available in <code>optionConfig</code> , and that they are consistent with the <code>cabinetProfile</code> .
CB-COR-00015	This case verifies the cabinet device configuration.
CB-COR-00016	This case verifies that <code>cabinetStatus.localeId</code> is properly formed [G2S 2.1].
CB-MRS-00001	This case tests that standard configuration option in the Master Reset Support (Extension GtkMR) functional group is available in <code>optionConfig</code> , and that it is consistent with the <code>cabinetProfile</code> .
CB-OCC-00001	This case tests that standard configuration option in the Occupancy Meter Support (Extension g2sOC) functional group is available in <code>optionConfig</code> , and that it is consistent with the <code>cabinetProfile</code> .
CB-TZO-00001	This case tests that standard configuration option in the Time Zone Offset Support functional group is available in <code>optionConfig</code> , and that they are consistent with the <code>cabinetProfile</code> .

New Communication Test Cases

Test Case	Overview
CM-COR-00006	TEST CASE DELETED – replaced by test case CM-COR-00035.
CM-COR-00012	This case continuously tests that commands IDs are correct per section 2.2 of G2S 2.1.
CM-COR-00013	This case continuously tests that <code>commsStatus.g2sProtocol</code> is set to true.
CM-COR-00014	This case continuously tests that that the EGM initiated commands are only sent to the owner host.
CM-COR-00016	This case continuously tests that the device ownership, configurator and guest permissions are preserved unless the <code>deviceChanged</code> value is true.
CM-COR-00019	This test case verifies that only qualified devices are included in descriptor lists.
CM-COR-00021	This test case verifies that EGM does not change the device structure across EGM power-cycles.
CM-COR-00023	This test case verifies that the disabling the communications device is handled properly.

Test Case	Overview
CM-COR-00035	This case continuously tests that class-level elements are correct.
CM-COR-00036	This case verifies that the EGM transitions to closing state when it receives a G2S_MSX003 error while in the sync state.
CM-COR-00037	This case verifies that EGM transitions to closing state when the host is unreachable while the EGM is in the sync state.
CM-COR-00038	This case continuously tests that the EGM does not send EGM-originated requests unless allowed by the current communications state.
CM-COR-00039	This test case verifies that the EGM transitions to the closing state when a configuration change is made while in the sync state.
CM-COR-00040	This case verifies that EGM transitions to closing state when it receives a G2S_MSX003 error while in the online state.
CM-COR-00041	This case verifies that EGM transitions to closing state when the host is unreachable while in the online state.
CM-COR-00042	This test case verifies that closing the communications device is handled properly.
CM-COR-00043	This case verifies that EGM transitions to the closed state when it receives a G2S_MSX003 error while in the closing state.
CM-COR-00044	This case verifies that EGM generates a G2S_CME120 event when the host is unreachable while in the closing state.
CM-COR-00045	This test case verifies that the opening of the communications device is handled properly.
CM-COR-00046	This test case verifies that the EGM transitions to the closing state when a configuration change is made while in the opening state.
CM-COR-00047	This case verifies that the EGM does not process invalid XML.
CM-COR-00048	This case verifies that the EGM handles unknown error codes.
CM-COR-00049	This test case verifies that the EGM handles command ID out of order error conditions.
CM-COR-00050	This test case verifies that the EGM generates G2S_APE003 or responds with the application level error G2S_APX014 when it receives an unknown namespace in a response or notification.
CM-COR-00051	This test verifies that the EGM uses the no-response timer to determine the transport state of the communications device.
CM-COR-00052	This test case verifies that when the <i>noResponseTimer</i> is set to zero that the EGM does not transition to the closing state when the host stops responding.
CM-COR-00053	This test case verifies that the EGM is disabled when a <i>requiredForPlay</i> communications device is disabled.
CM-COR-00054	This test case verifies that the EGM transitions the <i>egmState</i> properly for a communications device that is required for play.

New Handpay Test Cases

Test Case	Overview
JP-COR-00001	This case verifies that the EGM does not accept any command from non-guest hosts.
JP-COR-00002	This case verifies that the EGM does not accept control commands from a guest host.
JP-COR-00003	This case verifies that the EGM rejects unknown commands.
JP-COR-00004	This case verifies that standard configuration options are available in <code>optionConfig</code> , and they are consistent with the <code>handpayProfile</code> command.
JP-COR-00005	This case verifies that the EGM returns a G2S_APX003 Invalid Device Identifier error when device ID zero (0) is used.
JP-COR-00006	This case verifies that forced event subscriptions are treated as if they are set by the host.
JP-COR-00007	This case verifies that the EGM does not process invalid XML.
JP-COR-00008	This case verifies handpay log processing.
JP-COR-00009	This case verifies that disabled text is shown properly on the EGM.
JP-COR-00010	This case verifies handpay device configuration.
JP-COR-00011	This test case verifies that the messages, events and meters associated with a cancel-credit handpay are correct.
JP-COR-00012	This test case verifies that the messages, events and meters associated with cancelling a cancel-credit handpay are correct.
JP-COR-00013	This test case verifies that the messages, events and meters associated with a game win handpay keyed off to the credit meter are correct.
JP-COR-00014	This test case verifies that the EGM correctly processes handpays when the handpay device is disabled.
JP-COR-00015	This test case verifies that the EGM correctly processes handpays when the handpay device is disabled and is not required for play.
JP-COR-00016	This test case verifies that the messages, events and meters associated with a cancel-credit handpay are correct when owner host authorizes a local handpay.
JP-COR-00017	This test case verifies that the messages, events and meters associated with a cancel-credit handpay are correct when owner host remotely keys off the handpay.

Cool New Features in CVT Version 9

- 1) This release of the CVT includes 15 new gameplay test cases, 14 in the Core Functionality Group, and 1 in the Configure Accessible Games and Denominations group (more on these later).
- 2) Operator Entry screens now auto-advance when the expected event is received (so you don't have to press "True" after you've performed an action at the EGM. We really like this new feature as it makes running the tool much simpler.
 - a. Note: CB-COR-00010, which was shipped in CVT Release 8 has been modified in this release to auto-advance the DUT screen when the appropriate event was received.
- 3) A new commConfig utility is now available so the tester can reconfigure a selected EGM via the EGM(s) section of the Home screen. The CVT will tell the EGM to enterCommConfig mode, will then do the selected changes (based on a custom commConfig template), and then will instruct the EGM to exit config mode. Information on using this new functionality is in a separate document (commConfig_in_the_CVT.pdf)
- 4) Option configuration parameters (such as forced subscriptions, time to Live settings, etc.) are now automatically changed by the CVT using setOptionChange. The CVT will now automatically configure the eventHandler timeToLive to 5 seconds (speeds up event retries) and cabinet idleTimer to 5 seconds to expedite gamePlay status and denomination changes. In future releases, we will continue to employ this technique where possible to speed up the testing process.

Important Notes on Using this Version of the CVT

- 1) There is a lot of new code in this release for the gameplay core test cases - most especially in GP-COR-11 where the CVT is comparing and verifying hundreds of device and class meters to be sure they are incrementing properly. These are not candidates for voting, as we need to get feedback from everyone as you run these new test cases against your EGMs.
- 2) In this release, the CVT will be changing the state of gamePlay devices, changing active denominations, etc. using the standards methods documented in the protocol. In our early testing, we have found that there are a number of undocumented rules that EGMs are using for these operations, which will cause Test Cases to fail. We plan to open several CVT JIRAs to initiate discussion on this topic.
- 3) We're transitioning to a new development process for the CVT. Unfortunately, we discovered a bit too late that there's an old version of the CVT Encyclopedia in the Help System. For this release, please use the [CVT Encyclopedia](#) that can be downloaded from the [CVT Development Portal](#).

Summary of New Test Cases

Please see the [Test Case Encyclopedia](#) for more details on each Test Case.

Test Case	Overview
GP-AGD-00001	This case verifies that accessible game and denomination standard configuration options are available in optionConfig, and that they are consistent with the gamePlayProfile and denomList.
GP-COR-00001	This case verifies that the EGM does not accept commands from non-guest hosts.
GP-COR-00002	This case verifies that the EGM does not accept control commands from a guest host, but properly supports non-control commands.
GP-COR-00003	This case verifies that the EGM rejects unknown commands.
GP-COR-00004	This case verifies that standard configuration options are available in optionConfig, and that they are consistent with the gamePlayProfile command.
GP-COR-00005	This case verifies that the EGM returns a G2S_APX003 Invalid Device Identifier error when device ID zero (0) is used as a class-level attribute..
GP-COR-00006	This case verifies that forced event subscriptions are treated as if they are set by the host.
GP-COR-00007	This case verifies that the EGM does not process invalid XML.
GP-COR-00008	This test verifies gamePlay log processing to ensure it is being performed properly.
GP-COR-00009	This test case verifies that the EGM supports protocol specified error codes.
GP-COR-00010	This test case verifies gamePlay device configuration.
GP-COR-00011	This test case verifies the events and meters associated with a game play cycle, and that all data model updates are done properly.
GP-COR-00012	This case verifies that the EGM supports game play being disabled.
GP-COR-00013	This case verifies that the EGM supports setting of game denoms via G2S.
GP-COR-00014	This case verifies that the EGM supports setting of game denoms from the operator menu.

Other Modifications of Note

The following listing is for RadBlue cases of possible interest that were implemented in this release of the CVT.

Case #	Description
9085	Device Filters are now persisted across EGM surveys. The filter selection will always be reset when the tool is restarted.
9525	Device Selection Mode is now also persisted across EGM Surveys and, like Device Filters, will reset when the tool is restarted.

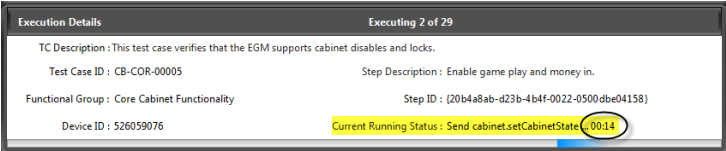
Case #	Description
9394	The summary WORD doc, certification document and the excel spreadsheet were modified to add a new column called "Configurator ID" to show the configurator of each device. The "Permissions" column was also modified to match the encyclopedia.
9488	[CIC] Moved the requirement 1.21.2 from MT-COR-3 to MT-COR-2 at the request of the CIC. This has no impact on either test case execution. NOTE: This change will be in the next version of the encyclopedia.
9495	[CIC] For setOptionChange, the CVT should use disableCondition=G2S_none instead of G2S_immediate, when applyCondition=G2S_immediate.
9501	[CIC] APX010/APX012 - New logic requested by the CIC on 3/24/2014: Modify the error codes for APX010 and/or APX012. The rules are: <ul style="list-style-type: none"> · GUEST : set commands G2S_APX010 · NON-GUEST: set commands G2S_APX010 or G2S_APX012 · NON-GUEST: get commands G2S_APX012 Affects CB-COR-1, CB-COR-2, EH-COR-3, EH-COR-4, GP-COR-1, GP-COR-2, GP-GOS-1, MT-COR-3, MT-COR-4
9502	[CIC] EH-COR-13 was modified to accept either an empty list or APX003/APX007 error codes as appropriate when an invalid deviceClass or deviceId is included in a getSupportEvents command.
9522	The CVT was switched to use Java 1.7.0_51.
9532	The OptionListParser that is used by the test cases no longer verifies the canModLocal setting against the EGM Certification Checklist requirements (to comply with GSMPCERT-66). NOTE: EH-COR-19, GP-COR-4, and GP-AGD-1 were modified.
9500	[CIC] After an EGM is selected, the Tester is prompted to configure game play devices before test session begins.
9555	the CVT will ignore any G2S gamePlay devices where hostEnabled, egmEnabled, or deviceActive is "false" during the initial EGM Survey. For all other devices, they are ignored if deviceActive is "false" during the initial EGM Survey.
9554	CVT Will not hostEnable any gamePlay devices during startup, so the test engineer can disable devices that are to be excluded from testing.
9576	EH-COR-21 was requesting a descriptorList from the guest comms device, giving unexpected results. The CVT now requests the descriptorList from its comms devices - providing better information.
9586	CB-COR-10 DUT does not auto advance when the expected event is received.
9581	The CVT coverage report has been update to show "deferred" for test cases that are deferred to other classes. A comment is included if one was entered.

Important Notes on Using this Version of the CVT

1. Pay no attention to the Network Services status icons. (Home Screen)
In future versions, they will be handy indicators of whether the CVT is connecting to an EGM. In this release, they are unreliable and should be disregarded.

For interim CVT releases, CVT modifications will be presented in table form, each with an associated case number that you can use as reference.

Modification Type	Case #	Description
Configuration	9307	A new Meter Subscription Timeout option has been added to the Runtime Options screen (Home > Manage CVT Settings > Runtime). This parameter controls how long the CVT waits for a <code>meters.meterInfo</code> command (request or notification) before it times out. The default is two minutes .
Engine	8957	Previously, when the CVT used an unknown EGM ID in a message to the EGM, there would be a 30 second delay while waiting for the <code>communications.keepAlive</code> command to timeout as the unknown EGM ID in the response was not recognized. Now, if the EGM sends the CVT a <code>G2SACK</code> with an EGM ID of <code>CVT_Testing</code> , the CVT will move on immediately.
Engine	9228	The event checker has been updated with the following event checks: G2S_CBE303 <ul style="list-style-type: none"> • (Status) <code>logicDoorOpen</code> is true. • (Status) <code>egmEnabled</code> is false. • (Status) <code>logicDoorDateTime</code> is current date/time. • (Meters) <code>G2S_logicDoorOpenCnt</code> is incremented by one. G2S_CBE307 <ul style="list-style-type: none"> • (Status) <code>cabinetDoorOpen</code> is true. • (Status) <code>egmEnabled</code> is false. • (Status) <code>cabinetDoorDateTime</code> is current date/time. • (Meters) <code>G2S_logicDoorOpenCnt</code> is incremented by one. G2S_CBE308 <ul style="list-style-type: none"> • (Status) <code>cabinetDoorOpen</code> is true. • (Status) <code>egmEnabled</code> is true. • (Meters) <code>G2S_gameSinceDoorClosedCnt</code> is zero. G2S_CBE309 <ul style="list-style-type: none"> • (Status) <code>egmEnabled</code> is false. • (Status) <code>generalFault</code> is true or <code>reelTilt</code> is true with <code>reelsTilted</code> not empty (G2S 2.1 only). G2S_EHE005 <ul style="list-style-type: none"> • (Status) <code>configurationId</code> is the expected value for the test case.

Modification Type	Case #	Description
		<ul style="list-style-type: none"> (Status) <code>configDateTime</code> is current date/time (G2S 2.1 only). (Status) <code>configComplete</code> is the expected value for the test case. G2S_EHE006 <ul style="list-style-type: none"> (Status) <code>configurationId</code> is zero. (Status) <code>configDateTime</code> is current date/time (G2S 2.1 only).
Engine	9279	Previously, several events were being incorrectly reported as unknown event exceptions by the CVT. A complete audit of the known G2S events for 1.1 and 2.1 was conducted, and the CVT reference files were updated to resolve the deficiencies.
Engine	9328	The <code>egmState</code> attribute in the <code>cabinet.cabinetStatus</code> command is now only tested after an event reports that the attribute has been updated to a value (for example, G2S_CBE211 requires that the attribute be set to G2S_hostLocked). This change affects CB-COR-00004 and CB-COR-00005 .
User Interface	8721	<p>A countdown timer has been added to the Current Running Status, which displays in the Execution Details (Test Session screen) when a test is running. While waiting for events and commands, this countdown timer lets the tester know what is happening.</p>  <p>The screenshot shows the 'Execution Details' window with the following information:</p> <ul style="list-style-type: none"> TC Description: This test case verifies that the EGM supports cabinet disables and locks. Test Case ID: CB-COR-00005 Step Description: Enable game play and money in. Functional Group: Core Cabinet Functionality Step ID: {20b4a8ab-d23b-4b4f-0022-0500d8e04158} Device ID: 526059076 Current Running Status: Send cabinet.setCabinetState (00:14)
User Interface	8868	If a device is excluded from a test because of a condition applied by the test session template (for example, if a device is excluded because of permissions), a red icon now displays next to the device in the Current Test(s) > Test Session Universe tree on the Test Session screen. You can view the reason that the device was excluded by either hovering over the device or by viewing the device properties (right-click and select Device Properties).
User Interface	8901	Previously, the CVT would always bind to 0.0.0.0 IP address. Now, the CVT binds to the address you select by clicking the gear icon next to Host IP Address on the Home screen.
User Interface	9094	A formatting issue on the Test Case Details screen has been corrected.
User Interface	9194	You can no longer make changes to the EGM(s) table on the Home screen while a test is running. All options except Show URLs are now disabled.
User Interface	9277	The EGM(s) table on the Home screen is now sorted by Status (connected, then not connected), and then by EGM ID. This way, the currently connected EGMs always appear at the top of the table.
User Interface	9303	The label on reports and the user interface that previously referred to Meters[-1] to reference all <code>meters</code> devices, now uses the friendlier form of Meters[all] .
User Interface	9330	On the initial setup screen, the IP Address now defaults to a non-localhost address, if one is available.

Modification Type	Case #	Description
User Interface	9414	If the EGM provides an EGM location in the <code>communications.commsOnline</code> command that is not accessible to the EGM, a yellow flag is displayed in the Status column of the EGM(s) table(Home screen), and the URL from the latest <code>communications.commsOnline</code> command is displayed in a new EGM Location column.
User Interface	9418	When you click the <code>CE-02 Functional Groups Present But Not Tested</code> CVT exception , on the Test Session Results screen under CVT Exceptions, the exceptions are now presented with the functional group name (for example, <code>BN-COR: Core Bonus Functionality</code>) and sorted alphabetically.
Test Cases	9178	Test Case MT-COR-00002 has been added to the CVT to test that the EGM returns a <code>G2S_APX003 Invalid Device Identifier</code> error when device ID zero (0) is used.
Test Cases	9179	Test Case MT-COR-00003 has been added to the CVT to test that the EGM does not accept commands from non-guest hosts.
Test Cases	9180	Test Case MT-COR-00004 has been added to the CVT to test that the EGM does not accept control commands from a guest host.
Test Cases	9181	Test Case MT-COR-00008 has been added to the CVT to test that the EGM does not process invalid XML.
Test Cases	9185	Test Case MT-COR-00007 has been added to the CVT to test that the EGM rejects unknown commands.
Test Cases	9186	Test Case MT-COR-00011 has been added to the CVT to test meter device identifiers and ownership.
Test Cases	9201	Test Case MT-COR-00010 has been added to the CVT to test that the EGM supports the protocol-specified error codes.
Test Cases	9210	Test Case MT-COR-00005 has been added to the CVT to test the events associated with meter subscriptions.
Test Cases	9212	Test Case MT-COR-00001 has been added to the CVT to continuously test that <code>meter</code> commands are correct.
Test Cases	9234	Test Case MT-COR-00009 has been added to the CVT to test that the EGM handles <code>meters.meterInfo</code> command retries.
Test Cases	9247	Test Case MT-COR-00006 has been added to the CVT to test that forced meter event subscriptions are treated as if they are set by the host.
Test Cases	9249	Test Case CB-COR-00011 has been added to the CVT to verify that the disable text is properly displayed when the <code>cabinet</code> device is locked.
Test Cases	9266	The performance of continuous tests has been improved significantly.
Test Cases	9280	An issue in which, in step 13 of test case EH-COR-00005 , the error message reported an incorrect log sequence number has been corrected.
Test Cases	9293	Test Case MT-COR-00014 has been added to the CVT to test <code>meters.meterInfo</code> responses to <code>meters.getMeterInfo</code> requests.

Modification Type	Case #	Description																										
Test Cases	9316	An issue in which CVT executed MT-COR-00006 on an <code>eventHandler</code> device when the CVT is not a configurator has been corrected.																										
Test Cases	9329	An issue in step 7 of the EH-COR-00007 test case, in which the <code>sendDeviceStatus</code> attribute was being set to false instead of true , has been corrected. The attribute is now set to true .																										
Test Cases	9337	If one or more of a set of events are required for a step in a test case, the CVT now verifies that at least one of the required events was sent by the EGM.																										
Test Cases	9376	Test Case MT-COR-00012 has been added to the CVT to test that the EGM handles periodic meter subscriptions.																										
Test Cases	9407	Test Case CB-COR-00009 has been added to the CVT to test that <code>cabinet</code> events associated with opening and closing the EGM doors are correct.																										
Test Cases	9419	Test Case CB-COR-00010 has been added to the CVT to test that the disable text is displayed when the cabinet is disabled.																										
Reports	9188	<p>The CVT EGM Detail Report, CVT EGM Detail Error Report and CVT Excel Report now displays results for the CE-03 Excluded Test Cases exception in table with the test case and corresponding reason.</p> <p>CE-03: Excluded Test Cases</p> <table border="1"> <thead> <tr> <th>Test Case</th> <th>Reason</th> </tr> </thead> <tbody> <tr> <td>CB-COR-00001</td> <td>The EGM device G2S_cabinet does not have the required non-guest permission(s)</td> </tr> <tr> <td>CB-COR-00003</td> <td>The EGM device G2S_cabinet does not have the required owner permission(s)</td> </tr> <tr> <td>CB-COR-00005</td> <td>The EGM device G2S_cabinet does not have the required owner permission(s)</td> </tr> <tr> <td>CB-COR-00007</td> <td>The EGM device G2S_cabinet does not have the required owner permission(s)</td> </tr> <tr> <td>CB-COR-09000</td> <td>The EGM device G2S_cabinet does not have the required owner permission(s)</td> </tr> <tr> <td>EH-COR-00003</td> <td>The EGM device G2S_eventHandler does not have the required non-guest permission(s)</td> </tr> <tr> <td>EH-COR-00004</td> <td>The EGM device G2S_eventHandler does not have the required guest permission(s)</td> </tr> <tr> <td>EH-COR-09000</td> <td>Option deviceUnderTest.profile.requiredForPlay has value 'false' but the Test Case needs it to be 'true'.</td> </tr> <tr> <td>GP-COR-00001</td> <td>The EGM device G2S_gamePlay does not have the required non-guest permission(s)</td> </tr> <tr> <td>GP-COR-00002</td> <td>The EGM device G2S_gamePlay does not have the required guest permission(s)</td> </tr> <tr> <td>MT-COR-00003</td> <td>The EGM device G2S_meters does not have the required non-guest permission(s)</td> </tr> <tr> <td>MT-COR-00004</td> <td>The EGM device G2S_meters does not have the required guest permission(s)</td> </tr> </tbody> </table>	Test Case	Reason	CB-COR-00001	The EGM device G2S_cabinet does not have the required non-guest permission(s)	CB-COR-00003	The EGM device G2S_cabinet does not have the required owner permission(s)	CB-COR-00005	The EGM device G2S_cabinet does not have the required owner permission(s)	CB-COR-00007	The EGM device G2S_cabinet does not have the required owner permission(s)	CB-COR-09000	The EGM device G2S_cabinet does not have the required owner permission(s)	EH-COR-00003	The EGM device G2S_eventHandler does not have the required non-guest permission(s)	EH-COR-00004	The EGM device G2S_eventHandler does not have the required guest permission(s)	EH-COR-09000	Option deviceUnderTest.profile.requiredForPlay has value 'false' but the Test Case needs it to be 'true'.	GP-COR-00001	The EGM device G2S_gamePlay does not have the required non-guest permission(s)	GP-COR-00002	The EGM device G2S_gamePlay does not have the required guest permission(s)	MT-COR-00003	The EGM device G2S_meters does not have the required non-guest permission(s)	MT-COR-00004	The EGM device G2S_meters does not have the required guest permission(s)
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Reports	9226	<p>The CVT Coverage report has been updated as follows:</p> <ul style="list-style-type: none"> Now identifies requirements that are tested by the Event Checker, which is denoted as eventChecker in the Status column. Now identifies requirements that are redundant. When the status is Redundant, the preferred version(s) of the requirement is listed in the Comment column. 																										
Reports	9230	The CVT Coverage Report is now available through the Help system.																										
Encyclopedia	9382	The <code>eventHandler.clearEventSub</code> , <code>eventHandler.setEventSub</code> and <code>optionConfig.setOptionChange</code> commands are now displayed in the <i>CVT Test Case Encyclopedia</i> where required.																										
Encyclopedia	9448	<p>The following errors have been added to the Event Checking Errors section of the "Error Codes" chapter:</p> <ul style="list-style-type: none"> E-EH-00032 - One of <code>eventList</code> was expected, but it was not received. 																										

CVT Release Notes

Modification Type	Case #	Description
		<ul style="list-style-type: none"><li data-bbox="618 306 1430 369">• E-EH-00038 - Event <code>\${eventCode}</code> was supposed to be retried, but it was not received.<li data-bbox="618 373 1430 436">• E-EH-00056 - One of <code>\${eventList}</code> was supposed to be retried, but it was not received.

CVT Version 7 Release Notes

Release Date: 13 FEB 2014

Important Notes on Using this Version of the CVT

1. Pay no attention to the Network Services or Host Address status icons. (Home Screen)
In future versions, they will be handy indicators of whether the CVT is connecting to an EGM. In this release, they are unreliable and should be disregarded.
2. The Network Services options screen, accessed by clicking the gear icon to the right of the Network Services header on the Home screen, is under construction.
3. If the CVT is communicating to an EGM, that EGM is displayed in the EGM(s) table on the Home screen with a green check mark icon in the Status column.

For interim CVT releases, CVT modifications will be presented in table form, each with an associated case number that you can use as reference.

Modification Type	Case #	Description
Installation	9166	For Trial licenses, the CVT now runs up to five test cases for the first device <i>only</i> in each class, for core functional groups only .
Engine	9006	An issue in which connecting multiple EGMs to the CVT was causing errors has been corrected.
Engine	9018	An issue in which the CVT did not consistently update the Last Test Session ID value has been corrected.
Engine	9190	CVT message validation now ignores any unknown attributes in the <code>g2s1</code> namespace when running in G2S 1.1 mode.
User Interface	8973	The Execution Details section on the Test Session screen has been modified to improve the presentation.
User Interface	8991	The correct license features are now indicated on the License Management screen (Home > Manage CVT Settings > License) when you click Show Features .
User Interface	9004	Test Session Results are now sorted by Test Session ID.
User Interface	9081	An issue in which the File Explorer window that pops up when you select Export Debug would get stuck behind the main CVT screen, making it appear as if the CVT interface had frozen, has been corrected.
User Interface	9082	The descriptive text for the CVT exception codes has been improved: CE-05 Unknown Attribute, CE-06 Unknown Child Elements and CE-09 Unknown Meters in an Expected Meter Set.
User Interface	9083	An issue has been corrected in which selecting the Interactive Test Cases value from the Test Mode drop-down on the Test Session screen would filter out continuous tests. Continuous tests are now included when Interactive Test Cases is selected.

Modification Type	Case #	Description
User Interface	9084	A typo in the screen help text on the Test Session > Device Filters > ID Reader tab has been corrected.
User Interface	9096	All known instances of "TCD" have been changed to "test case." Additional instances will be logged and changed as they are reported.
User Interface	9110	Additional device properties are now displayed, including device permissions, when you go to Test Session > Current Test(s) > Test Session Universe , drill down to a device, right-click the device, and select Device Properties .
User Interface	9165	Previously, if you deleted an EGM from the EGM(s) table on the Home screen, the CVT would ignore the EGM until it sends a <code>communications.commsOnLine</code> command. In addition, once a test session completes, the EGM(s) table is now updated with the latest Last Test Session ID and Last Tested On information.
User Interface	9196	Each test case in the Test Session Universe tree (Test Session > Current Test(s)) can now be in one of three states (All, Partial and Excluded). If the state of a test case is either Partial or Excluded, the applicable word displays in parenthesis in the tree, next to the test case. If the state is All , meaning all devices will be tested, no additional notation is displayed. Excluded indicates that no devices meet the requirements for the test case. Partial indicates that some devices will be tested. You can view the reason for a Partial or Excluded state either by hovering over the device, or by right-clicking the device and selecting Device Properties .
CVT Exceptions	9016	The CE-15 Java Exception Stops Test Session Execution exception has been added to the CVT. This exception occurs when the CVT has a runtime software failure.
CVT Exceptions	9022	The CE-16 Java Runtime Exception exception has been added to the CVT. This exception occurs when the CVT engine has a runtime problem, which is an error related to the Java code.
Test Cases	8971	Test Case EH-COR-00003 has been added to the CVT to verify that the EGM does not accept commands from non-guest hosts.
Test Cases	8976	Test Case EH-COR-00004 has been added to the CVT to verify that the EGM does not accept control commands from a guest host.
Test Cases	8978	Test Case EH-COR-00007 has been added to the CVT to verify that event subscriptions associated with disabling the <code>eventHandler</code> device are correct.
Test Cases	8998	Test Case EH-COR-00016 has been added to the CVT to test that the EGM supports the required <code>deviceClass</code> attribute in the <code>eventHandler.getSupportedEvents</code> command.
Test Cases	9008	Test Case CB-COR-00008 has been added to the CVT to verify that the cabinet device sends the correct error for unknown commands.
Test Cases	9010	Test Case EH-COR-00017 has been added to the CVT to test that the EGM rejects unknown commands.

Modification Type	Case #	Description
Test Cases	9012	Test Case EH-COR-00018 has been added to the CVT to verify the <code>eventHandler</code> device identifiers and ownership.
Test Cases	9039	Test Case EH-COR-00014 has been added to the CVT to continuously test that meter info definitions are not included in event reports, and that wild cards are not in <code>eventHandler.eventSubList</code> responses.
Test Cases	9057	Test Case EH-COR-00019 has been added to the CVT to verify the <code>eventHandler</code> option list and device profile.
Test Cases	9068	Test Case EH-COR-00020 has been added to the CVT to test that <code>eventReport</code> commands are retried at <code>eventProfile.timeToLive</code> frequency.
Test Cases	9103	Test Case EH-COR-00005 has been added to the CVT to verify log processing for the <code>eventHandler</code> device.
Test Cases	9127	Test Case EH-COR-00013 has been added to the CVT to verify that the EGM handles supported events properly.
Test Cases	9136	Test Case EH-COR-00021 has been added to the CVT to verify that the EGM returns a <code>G2S_EHX001</code> error when the event subscription contains an error.
Test Cases	9144	Test Case EH-COR-00022 has been added to the CVT to verify that the EGM supports the <code>eventHandler.clearEventSub</code> command.
Test Cases	9145	Test Case EH-COR-00015 has been added to the CVT to verify that the EGM properly manages event subscriptions.
Transcript	8959	You can now left-click and drag to reorder Message Transcript columns. You can also hide and show columns by clicking the plus (+) symbol to the right of the column headings, and selecting or clearing the columns as needed. Once you have finished your changes, the new layout is automatically saved until you change it.
Transcript	8960	Messages with errors are now highlighted in the Message Transcript when you double-click an exception on the Test Session Results screen.
Reports	8392	A new Archive Set option has been added to the Create CVT Reports screen (view Test Session Results , and then click Create Reports). The Archive Set option creates a ZIP file with the following items: <ul style="list-style-type: none"> • cvt-pft.xml - Public Facing Transcript • cvt_certification_[release number].docx - GSA Product Certification Report • cvt_detail_[release number].docx - CVT Detail Report • cvt_summary_[release number].docx - CVT Summary Report • cvt_to_excel_[release number].xlsx - CVT Excel Report • metadata.xml - Contains test session information, such as CVT version, test session ID, license number, selected test session templates, EGM ID and test session start and end date/time.
Reports	9091	An Owner ID column has been added to the Device Ownership table in the

Modification Type	Case #	Description
		CVT EGM Detail Report, CVT EGM Detail Error Report, CVT Product Certification Report and CVT Excel Report.
Reports	9092	A Registered Hosts table, which notes identifier and location of each host, has been added to the CVT EGM Detail Report , CVT EGM Detail Error Report, CVT Product Certification Report and CVT Excel Report. Note that, to see the Registered Hosts table, the Device Ownership option must be selected when you generate the Detail, Detail Error and Product Certification reports.
Encyclopedia	8885	Generic error codes that are used repeatedly in test cases are now consolidated in the "Error Codes" chapter of the <i>CVT Test Case Encyclopedia</i> .
Error Codes	9037	Two new Event Checking Errors have been added to the CVT : <ul style="list-style-type: none"> • E-EH-00041 - Event \${eventCode} transaction ID MUST be zero (0). • E-EH-00042 - Event \${eventCode} transaction ID must not be zero (0) for events associated with transactions.
Test Session Templates	9005	The last Test Session Template used in a Test Session is now saved when an EGM re-connects to the CVT or an EGM Survey is completed.
Test Session Templates	9071	Default CVT test session templates now use the G2S 1.1 schema.
Test Session Templates	9072	A new test session template, New Test Cases in CVT-<i>n</i> (where <i>n</i> is the CVT version number), contains all of the test cases added to the CVT since the last release. This template can be selected from the Test Session Template drop-down field on the Test Session screen.

Important Notes on Using this Version of the CVT

1. Pay no attention to the Network Services or Host Address status icons. (Home Screen)
In future versions, they will be handy indicators of whether the CVT is connecting to an EGM. In this release, they are unreliable and should be disregarded.
2. The Network Services options screen, accessed by clicking the gear icon to the right of the Network Services header on the Home screen, is under construction.
3. If the CVT is communicating to an EGM, that EGM is displayed in the EGM(s) table on the Home screen with a green check mark icon in the Status column.

For interim CVT releases, CVT modifications will be presented in table form, each with an associated case number that you can use as reference.

Modification Type	Case #	Description
Installation	8782	Security settings are now saved between installs.
Configuration	8812	A new Event Time Out option has been added to the CVT Engine Configuration screen (Home > Manage CVT Settings > Runtime > Runtime Ports). Use this option to configure the amount of time that the CVT waits for EGM-generated event. The default is 30000 milliseconds .
Engine	8797	When a test is run, the CVT now uses the G2S schema (1.1 or 2.1) specified in the Test Session template.
Engine	8810	We continued to refine and improve the event checker engine.
Security & Transport	8025	The CVT now supports non-SSL communications.
Security & Transport	8393	A new Security Options panel has been added to the CVT Engine Configuration screen (Home > Manage CVT Settings). From this panel, you can manage certificates and key store files.
Security & Transport	8488	SSL support has been added to the CVT. The CVT now works with EGMs that require SSL connections.
Security & Transport	8622	When a new certificate is created through the Certificates tab on the Security Options panel, it is automatically set as the default.
Security & Transport	8625	After you create a certificate through the Certificates tab on the Security Options panel, you must restart the CVT.
User Interface	8116	Better test case progress information is now displayed on the Execution Details panel, on the Test Sessions screen, when a test is running.
User Interface	8175	If an EGM tries to connect to the CVT without a valid host ID, a Connection error(s) detected link displays in the bottom left corner of the EGM(s) table on the Home

Modification Type	Case #	Description
		screen. Click this link to view error information.
User Interface	8754	You can now view a list of CVT error codes by clicking Error Codes in the upper-right corner of the Message Transcript Viewer (view Test Session Results , select a device, and double-click a test case ID). Error codes are also listed in the "Error Codes" chapter of the <i>CVT Test Case Encyclopedia</i> document
User Interface	8824	Unnecessary commas have been moved from the Runtime Ports values (Home > Manage CVT Settings > Runtime > Runtime Options).
User Interface	8839	The Status column heading on the Test Session Results panel, located on the Home screen, has been renamed Errors . This column indicates whether a test has errors (red icon) or no errors (green icon).
User Interface	8845	The EGM(s) table on the Home screen is now limited to 8 EGMs.
User Interface	8847	The Pause and Stop buttons on the Test Session screen have been grayed out. You cannot currently pause or stop a test once it has started.
User Interface	8848	Changes to the loaded test session template made through the Test Session templates screen (Home > Manage Test Session Templates) are now applied immediately. This means that you can load a test session template, modify the template through the Manage Test Session Templates option, return to the Test Session screen and run the test with the new template changes.
User Interface	8884	The CVT now re-runs the EGM survey each time you click the connected EGM in the EGM(s) table on the Home screen.
User Interface	8894	When the CVT is prompting for a tester action during a test run, there are now three choices: True (did it), False (did not or could not do the requested action) and Skip Test Case (skip the processing of the rest of this test case).
User Interface	9110	
CVT Exceptions	8377	The CE-09 Unknown Meters in an Expected Meter Set exception has been added to the CVT. This exception occurs when, for each <code>eventHandler.eventReport</code> and <code>meter.meterInfo</code> command, the CVT verifies that the meter name exists in the associated device's meter set. There is one exception for each unknown meter, for each message. The message ID associated with the exception is from the original message.
Test Cases	8796	Test Case CB-COR-00004 has been added to the CVT to verify that cabinet event subscriptions associated with disabling the cabinet are correct.
Test Cases	8802	Test Case CB-COR-00005 has been added to the CVT to verify that the EGM supports cabinet disables and locks.
Test Cases	8803	Test Case CB-COR-00006 has been added to the CVT to test that the EGM generates the proper events when the service lamp is activated and deactivated.
Test Cases	8804	Test Case CB-COR-00007 has been added to the CVT to test that the EGM sends a <code>G2S_CBE315 Date/Time Changed</code> event when the cabinet time is changed by more than 5 seconds.

Modification Type	Case #	Description
Transcript	8867	You can now right-click any row in the Message Transcript, and select Set Comment , to delete or modify the Comment text. Do delete a comment, delete all text, and click Apply .
Transcript	8959	You can now left-click and drag to reorder Message Transcript columns. You can also hide and show columns by clicking the plus (+) symbol to the right of the column headings, and selecting or clearing the columns as needed. Once you have finished your changes, the new layout is automatically saved until you change it.
Transcript	8960	Messages with errors are now highlighted in the Message Transcript when you double-click an exception on the Test Session Results screen.
Encyclopedia	8885	Generic error codes that are used repeatedly in test cases are now consolidated in the "Error Codes" chapter of the <i>CVT Test Case Encyclopedia</i> .

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For interim CVT releases, CVT modifications will be presented in table form, each with an associated case number that you can use as reference.

Modification Type	Case #	Description
Installation	7792	The following data is now saved between installations of the CVT: <ul style="list-style-type: none"> • selected IP address • last test session ID number • host URL information • port information
Configuration	7543	The default port numbers for the CVT <i>as EGM</i> have been changed to: <ul style="list-style-type: none"> • Database - 47301 • User Interface - 47401 • Help - 47501 The default port numbers for the CVT <i>as Host</i> have been changed to: <ul style="list-style-type: none"> • Database - 48301 • User Interface- 48401 • Help - 48501
Configuration	8592	The Enable Public Facing Transcript (PFT) option on the Runtime screen has been removed because it is no longer needed.
Configuration	8604	You can now configure the Database Port , User Interface Port and Help Port from the Runtime Options screen. This screen is accessed through the Manage CVT Settings option on the Home screen.
Configuration	8715	The following timeout options have been added the Runtime Options panel on the CVT Engine Configuration screen (Home > Manage CVT Settings): <ul style="list-style-type: none"> • Event Time Out (default: 30000 milliseconds) • Reboot Time Out (default: 30000 milliseconds) • OCSP Retry Time Out (default: 30000 milliseconds) • Response Time Out (default: 30000 milliseconds)

Modification Type	Case #	Description
Engine	8593	An Event Checker engine has been added to the CVT. This engine is used as the core component for event handler test cases. Test case EH-COR-00001 has been added to test the new engine.
User Interface	8584	An issue in which the Export Test Cases to Transcript Zip right-click option did not work when exporting CVT exceptions from the Test Results screen has been corrected. You can now export the transcript messages for CVT exceptions by right-clicking the exception. Note: Some CVT exceptions (for example, CE-02 Functional Groups Present But Not Tested) are not related to message traffic. In this case, no records are included in the export.
User Interface	8647	The Error Type column title, displayed when you select CVT Exceptions on the Test Results screen, has been changed to Exception .
User Interface	8648	The Error Type column title, displayed when you select an exception from the CVT Exceptions list on the Test Results screen, has been changed to Exception .
User Interface	8774	The title of the Transcript Message Viewer screen, accessed by double-clicking a test case on the Test Results screen, has been changed to Message Transcript Viewer .
CVT Exceptions	8412	The CE-10 Meters for Unknown Device exception has been added to the CVT. This exception occurs when an <code>eventReport</code> command contains one or more additional unknown meter sets (for example, when an <code>eventReport</code> command contains meters for a device in an unknown class).
CVT Exceptions	8370	The CE-03 Excluded Test Cases exception has been added to the CVT. This exception occurs when a test case is disabled by the Master Test Case filter or either of the following user scenarios: <ul style="list-style-type: none"> The user selects non-interactive tests only. The user modified the test session template to disable specific test cases.
CVT Exceptions	8472	The CE-02 Functional Groups Present But Not Tested exception has been added to the CVT. The exceptions engine is now catching functional groups that are present in the EGM, but were not tested. A functional group is "tested" if one or more test cases were executed for that group.
CVT Exceptions	8485	The CE-12 Unknown Status or Log Elements exception has been added to the CVT. This exception is reported if a status or log element for an unknown device is found in an <code>eventReport</code> from the EGM.
CVT Exceptions	8486	The CE-04 Device Classes in Template but Not Tested exception is now reported when there are classes in the Test Session template that do not have test cases in the Test Session Universe (what is available to be tested in this EGM).
Test Cases	8425	Test Case EH-COR-00001 has been added to the CVT.
Test Cases	8602	Test Case CB-COR-00001 has been added to the CVT to test that non-guest permissions are properly handled by the EGM.
Test Cases	8605	Test Case CB-COR-00002 has been added to the CVT to verify that the EGM does

Modification Type	Case #	Description
		not accept control commands from a guest host.
Test Cases	8658	Test Case CB-COR-00003 has been added to the CVT.
Test Cases	8755	The namespace schema name was changed from "cvtTesting:" to "cvttesting:" in test case CM-COR-00010.
Test Cases	8756	Test Case CB-RRS-00001 has been added to the CVT to verify that the EGM does not accept the <code>remoteReset</code> command from non-owner hosts.
Transcript	8534	When you select a device with errors on the Test Session Results screen, the Message Transcript Viewer displays all messages associated with that device. When the Message Transcript Viewer is opened, the CVT now automatically scrolls to the message containing the error. If there are multiple errors associated with a device, the CVT scrolls to the first message in the list with an error.
Transcript	8559	If there is a comment associated with a message in the Message Transcript Viewer, that comment now displays, in yellow text, at the top of the detail view screen. You can access the detail view by double-clicking the message in the Message Transcript Viewer.
Transcript	8562	The following transcript markers have been added for continuous tests: <ul style="list-style-type: none"> • Start Test Case • Result • End Test Case
Transcript	8606	Attributes that have been deprecated in G2S 2.1 now display in a strike-through font in the Message Transcript Viewer's detail screen's Command view. The details screen can be accessed by double-clicking any message in the Message Transcript Viewer, accessed by selecting any device or exception on the Test Results screen.
Transcript	8703	Text in the Comments column on the Transcript Message Viewer now wraps to fit the column width.
Transcript	8728	Text in the Summary column on the Transcript Message Viewer now wraps to fit the column width.
Reports	8649	The CVT Exceptions section of the Detail Report has been modified to include the exception number in the title (for example, CE-03: Excluded Test Cases) and the addition of a more concise bulleted list of supporting information (for example, test case numbers or device classes).
Reports	8650	The following column titles on the Exceptions tab of the Excel Report have been change: <ul style="list-style-type: none"> • The Type column title has been changed to Exception. • The Description column title has been changed to Exception Detail.
Reports	8655	The functional group abbreviation has been added to each reported functional group on the GSA Product Certification Record . For example, Core Cabinet Functionality now reads: CB-COR Core Cabinet Functionality.
Encyclopedia	8766	An "Error Codes" chapter has been added to the <i>CVT Test Case Encyclopedia</i> document that lists test error codes.

Release Summary

In this release, we've added CVT Exceptions, six new test cases, fixed several minor issues and made improvements to the user interface.

Please note that this is an *interim* release of the CVT. Going forward, we will have a new interim release of the CVT every four to six weeks. This will allow you to evaluate our progress and provide feedback that will greatly improve the final version. Each interim version will include an updated CVT Test Case Encyclopedia and release notes. Updated user documentation will follow as closely as possible, but may not be up-to-date for each interim release.

Important Notes on Using this Version of the CVT

- 1. Pay no attention to the Network Services or Host Address status icons.** (Home Screen)
In future versions, they will be handy indicators of whether the CVT is connecting to an EGM. In this release, they are unreliable and should be disregarded.
The Network Services options screen, accessed by clicking the gear icon to the right of the Network Services header on the Home screen, is also under construction.

If the CVT is communicating to an EGM, that EGM is displayed in the EGM(s) table on the Home screen with a green check mark icon in the Status column.
- 2. You can only run tests to the end.** (Test Session Screen)
In a future version, the option to pause the test script at each error will be added.
- 3. Not all CVT Exceptions have been implemented in the licensed versions.** (Test Results Screen)
In this release, the following CVT Exceptions have been implemented in the licensed versions:
 - CE-01 Unknown Devices
 - CE-05 Unknown Attribute
 - CE-06 Unknown Child Elements
 - CE-07 Unknown Class Element
 - CE-08 Unknown Command Element
 - CE-11 Unknown Namespaces
 - CE-13 Identify Unknown Events in `supportedEvents` Command
 - CE-14 Unknown Event

If you would like to see a more complete list of CVT Exceptions tested, install and view test results in the CVT Demo version.

9. We've added minimum requirements for computers running the CVT:
 - **Processor** - x64 architecture-based computer with Intel processor that supports Intel 64 architecture (*formerly known as* Intel EM64T); AMD processor that supports the AMD64 platform; Four cores.
 - **Memory** - 8 GB minimum.
 - **Disk Space** - At least 500 MB of free space to install the Java and CVT. Additional disk space needed depending on number of test sessions. We recommend 500 GB.
 - **Screen Resolution** - 1366 x 768 pixels or higher.
 - **Operating System** - Windows 7 64-bit *or* Linux 64-bit.

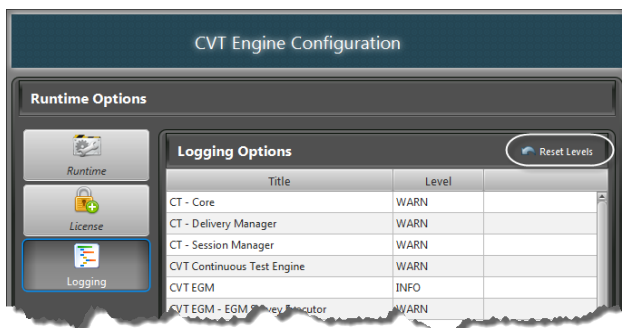
Test Cases Modifications

- Previously, CM-COR-00010 sent a `communications.keepAlive` command with an invalid namespace. This issue has been corrected.
- The following test cases have been added to the CVT since the last release.
 - CM-COR-00006
 - CM-COR-00007
 - CM-COR-00008
 - CM-COR-00017
 - CM-COR-00027
 - CM-COR-00034

For more information on each test case, see the *CVT Test Case Encyclopedia*, which you can download from the [CVT Development Portal](#) or **CVT Help**.

Configuration Modifications

- You can now customize the severity level (Debug, Warn, Info, Error or Fatal) for CVT error categories. Use this option at the direction of RadBlue to assist in troubleshooting the CVT. Severity level changes take effect immediately. You can reset the debug log configuration levels by clicking **Reset Levels**. **We recommend that you do not change these settings.**



To access this option, go to the **Home** screen, and select:

Manage CVT Settings > Logging

Double-click any error type to change its severity level.

Engine Modifications

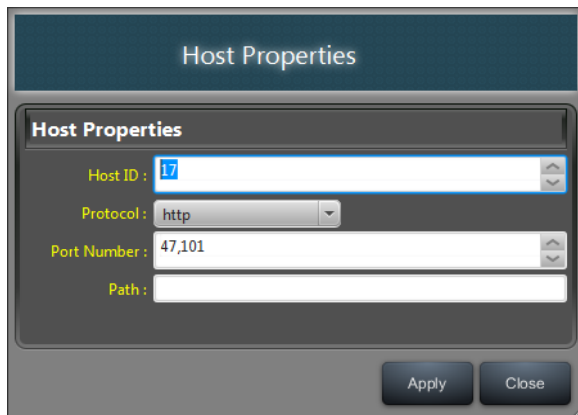
- An issue in which the EGM Survey did not accept devices for which it was not the owner or guest on has been corrected.
- An issue in which the `communications.transportError` command was being treated like a real G2S command even though it was automatically generated by the transcript engine has been corrected.
- G2S_MSX005 (Invalid Data Type Encountered) is now accepted in response to a message in which the `hostId` is an empty string rather than an integer value (for example, CM-COR-00018).
- The E-CM-000026 (Endpoint MUST validate egmId and hostId) error now indicates whether the error occurred in the `g2sMessage` or in the WSDL. For example:
E-CM-000026 - Endpoint MUST validate egmId and hostId in g2sMessage

Report Modifications

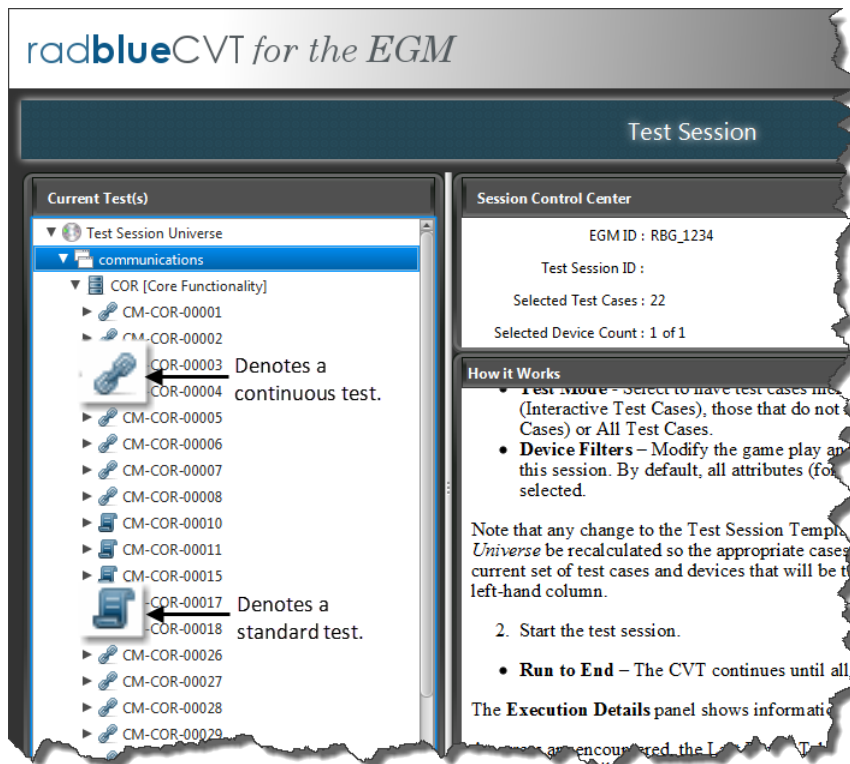
- On the **GSA Product Certification Record**, each possible functional group is marked as Compliant, Not Compliant or Not Tested. The "Not Tested" category now includes functional groups that were excluded during the EGM Survey.

User Interface Modifications

- You can now edit the host properties through the **Show URLs** option on th Home screen. Under the EGM(s) section, click **Show URLs**, and then click **Edit Host**.



- New icons on the Test Session and Test Results screens denote standard tests and continuous tests.



Transcript Modifications

- A new sample version of the **Public Facing Transcript (PFT)** file has been posted to the [CVT Development Portal](#). This new version is a more complete example of PFT content, including data and Transcript markers.

Release Summary

The purpose of this interim release is to let you test out the CVT with your EGM(s) to see how they work together. If you find an issue, [please contact us](#), so we can work with you to resolve it. This will help us solidify the CVT and make it a better test tool for the industry.

Important Notes on Using this Version of the CVT

- 1. Pay no attention to the Network Services or Host Address status icons.** (Home Screen)
In future versions, they will be handy indicators of whether the CVT is connecting to an EGM. In this release, they are unreliable and should be disregarded. If the CVT is communicating to an EGM, that EGM is displayed in the EGM(s) table on the Home screen with a green check mark icon in the Status column.
- 2. You can only run tests to the end.** (Test Session Screen)
In a future version, the option to pause the test script at each error will be added.
- 3. Not all CVT Exceptions have been implemented in the licensed versions.** (Test Results Screen)
In this release, the following CVT Exceptions have been implemented in the licensed versions:
 - Unknown Namespaces
 - Unknown Device in Descriptor List
 - Unknown Event in Supported Event ListIf you would like to see a more complete list of CVT Exceptions tested, install and view test results in the CVT Demo version.
- 4. We've added minimum requirements for computers running the CVT:**
 - **Processor** - x64 architecture-based computer with Intel processor that supports Intel 64 architecture (*formerly known as* Intel EM64T); AMD processor that supports the AMD64 platform; Four cores.
 - **Memory** - 8 GB minimum.
 - **Disk Space** - At least 500 MB of free space to install the Java and CVT. Additional disk space needed depending on number of test sessions. We recommend 500 GB.
 - **Screen Resolution** - 1366 x 768 pixels or higher.
 - **Operating System** - Windows 7 64-bit *or* Linux 64-bit.

Installation Modifications

There are now three ways to run the CVT - in Demo mode, with a trial license or with a production license.

To request a CVT license, send an email to license@radblue.com. For licensing questions or assistance with the installation process, contact [RadBlue Support](#).

- **Demo Mode** - See how the CVT works without having to connect to a real EGM. All CVT functionality is available for you to explore and try, but we supply simulated EGM information. There is no configuration necessary - just install the product and get started.

Demo Mode does not require a license. When you install the CVT, click **Run CVT in Demonstration Mode** on the Select CVT License screen in the installer.

- **Trial License** - The CVT connects to your EGM(s) and will perform all of the major CVT functions with the following limitations:
 - The CVT does not runs any "continuous" tests, the results of which are normally displayed under the CVT Exceptions tree on the Test Session Results screen.
 - The CVT runs up to five test cases for the *first* device in each class.
- **Production License** - The CVT connects to your EGM(s) and you have complete access to all CVT functionality, without limitations.

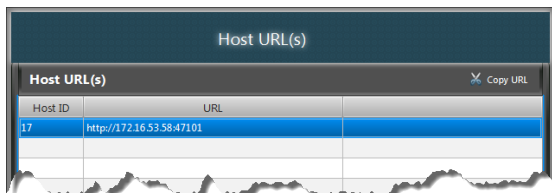
To move from a Demo version to a license version, uninstall the CVT and reinstall the latest version using your license. Once you have a licensed version installed, you can update your license and view license information from the new **License** option (**Home > Manage CVT Settings**).

New Test Cases

- An updated version of the [CVT Test Case Encyclopedia](#) is included in the CVT. This guide identifies all test cases that are executed in this version of the CVT.

Home Screen Modifications

- A new **Show URLs** button in the EGM(s) section displays the Host ID and URL for each host used by the CVT. For this release only **Host 17, Port 47101**, is used. To copy a URL, highlight the entry and click **Copy URL**.



Report Modifications

- You now have the option to include device ownership information when generating the GSA Product Certification Record. If the **Include Device Ownership** option is selected, a Device Ownership section is added to the end of the report that includes the device name (class), device identifier and permissions for the device.

GSA Product Certification Record

Device Ownership

Device Name	Device ID	Permissions
Audit Meters	1	owner
Bonus	1	owner guest
Cabinet	526059076	owner guest
Coin Acceptor	1	owner guest
Communication Config	1	owner
Communications	17	owner
Download	1	owner guest
Event Handler	17	owner guest
GAT	17	owner
Game Play	1	owner guest
Game Play	2	owner guest
Game Play	3	owner guest
Game Play	4	owner guest
Game Play	5	owner guest
Game Play	6	owner guest
Handpay	1	owner guest
Hardware	1	egm-owned guest
Hopper	1	owner guest
ID Reader	1	owner guest

- You can now choose to include only errors (**Export Errors Only**) and device ownership (**Include Device Ownership**) information for the test session in the Detail Report.

Release Summary

Based on your feedback, we have made several changes to the CVT that we hope will make it easier for you to use. We've highlighted the big stuff here. Be sure to take a look at the Help files for more information.

Home Screen Modifications (Home > Additional Options)

Master Test Case Filter

From the Master Test Case Filter you can remove classes, functional groups or individual test cases from the CVT. If the check box is cleared, the class, functional group or test case will not be included in the EGM Survey and will be excluded from the Test Session Universe.

Manage Test Session Templates

The Test Case Profiles option has been renamed *Test Session Templates*. The Test Session Template lets you define the classes, functional groups and test cases to include in a test. You can create as many templates as needed, and have them available for use in the Test Session.

When launched from the Home screen, the Test Session Template screen allows you to create a new template, edit an existing template, delete a template, and import or export a template.

Review Exported Transcript File

You can review the transcript from selected test cases by importing a ZIP file into CVT. Navigate to the selected file, and click **Open**. The transcript records display in the Transcript Message Viewer. From this screen, you can filter the records as well as view details by double-clicking the record row.

Manage CVT Settings

Manage CVT Settings is the place to go to change global tool settings. A new option, **Enable Public Facing Transcript (PFT)**, lets you choose whether to generate the PFT or not. The PFT is a program designed to generate a file of Message Transcript data that can be imported into the program of your choice for further analysis.

If this option is selected, a `public-facing-transcript.pft` file is created in the logs directory during testing. If you clear this option, the PFT is not created and the resources that would be allocated to creating the PFT are available for CVT use.

Test Session Result Modifications

(Test Session > [Run Test] > View Results *or* Home > Test Session Results)

Continuous Test Errors

A listing of errors that were encountered by the tool when doing its continuous tests on the message stream. These errors are outside of specific test cases, so they are grouped by error type.

Test Session Summary Tree

- i. Can now display all test cases or only those that ended in error.
- ii. You can now select a node and all test cases under that node are displayed, as long as the count does not exceed the maximum for the table (currently, 50 rows).
- iii. A right-click menu is available in the tree that adjusts what is displayed under the node.
 - For test cases, right-click also leads to the Test Case Details.
 - For devices, right-click also leads to the Device Details.

Test Case Results Table

- i. Select a row in the table and see the transcript (all G2S messages and transcript marker records) for that test case.
- ii. Select one or more rows in the table, and right-click to export the transcript for those test cases (which you can then view through the **Review Exported Transcript File** option on the Home screen).

Enhanced User-Supplied Fields

User-supplied session information now includes the Session Tag, Software Version and Comments. Information for these fields is stored with the test results and will appear on created reports.

Create Reports

- i. A sample **Certification Report (GSA Product Certification Record)** can now be created.
- ii. **CVT Detail Report**
 - Now includes Session Tag, Software Version and Comments.
 - Continuous Test Errors are included at the end of the report.
- iii. **CVT Summary Report**
 - Now includes Session Tag, Software Version and Comments.
- iv. **CVT Excel Export**
 - The Summary tab now contains summary information about the test session run.
 - The Results tab contains the details of all test cases that were run during the Test Session.
 - The Exceptions tab lists all Continuous Test Errors.

New Terminology

Term	Definition
EGM Survey	CVT determination of EGM or host capabilities, including which classes and functional groups are supported, and which devices are present.
Reconciled Universe	Test Case Universe minus cases removed through the Master Test Case Filter and cases removed through the EGM Survey.
Runtime Filters	Test Session filters that allow you to fine-tune a test. These filters include Device Selection Mode, Test Mode and Device Filters.
Test Case	Tests one or more requirement of the G2S protocol document. Each test case is documented in the <i>CVT Test Case Encyclopedia</i> .
Test Case Universe	All the test cases available in the <i>CVT Test Case Encyclopedia</i> , minus deleted test cases.
Test Session	Runs one or more test cases against the EGM or host under test.
Test Session Template	Defines the classes, functional groups and test cases to include in a test. You can create as many templates as needed, and have them available for use in the Test Session.
Test Session Universe	Reconciled Universe plus Test Session Template and Runtime Filters.

Installation Modifications

- All RadBlue products now require **Java SE 7u17** or higher. If the installer cannot find this version on your computer, you are prompted to download and run the Java installer, *or* navigate to the correct Java version. This update should have minimal effect on your environment, but keeps our products on modern versions of the underlying technology.
- The installer has been optimized, and now completes the installation process in seconds rather than minutes.