

Getting Started with the CVT-EGM

This document is designed to help you get started with the CVT for the EGM (CVT).

CVT-EGM Introduction

The goal of the CVT-EGM product is to provide an automated tool that provides a consistent set of test cases, which are approved by GSA for testing the G2S functionality in a G2S EGM. A tester configures the tests to be run, and then tells the CVT-EGM to initiate a G2S conversation with the EGM under test and automatically run through the selected test cases. If a manual action by the tester is required by a test case, the program pauses and instructions are displayed to the tester. At the conclusion of each test session, a set of reports can be created, which provide complete details of the results of the test session.

The following concepts are important to understand when using the CVT-EGM:

Test Session Template – The Test Session Template is used to define the specific set of classes, functional groups, and test cases to include in a test. This template is then applied against the EGM Survey to remove any undesired G2S Classes, Functional Groups, or test cases.

As an example, a test session template would be useful when doing repeated tests of the Core functionality of the Communications class, when you don't want to revoke the EGM's certificate on every test run. In this case, the Test Session Template would include all test cases in the Core Communications class, except for CM-COR-00089.

Installing the CVT

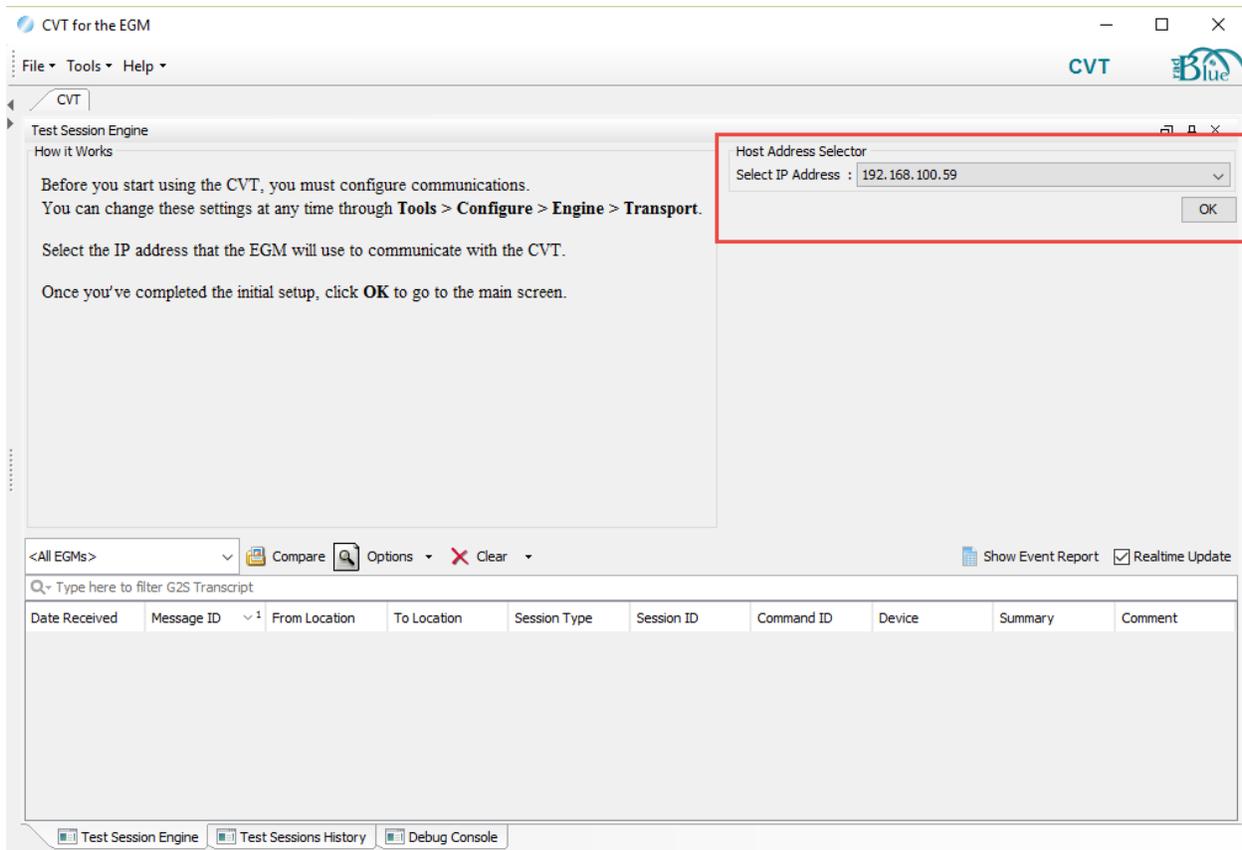
The CVT installer, documentation, and all other supplemental materials can be found on the [CVT Development Portal](#) on the RadBlue web-site. The CVT installer requires a 64-bit Windows operating system and a current CVT license.

Once you've downloaded the installer, just run the installer program, providing a license when prompted. The installer program will install both CVT programs – one for testing the EGM, and a second for testing the Host, the former being the focus of this getting started guide.

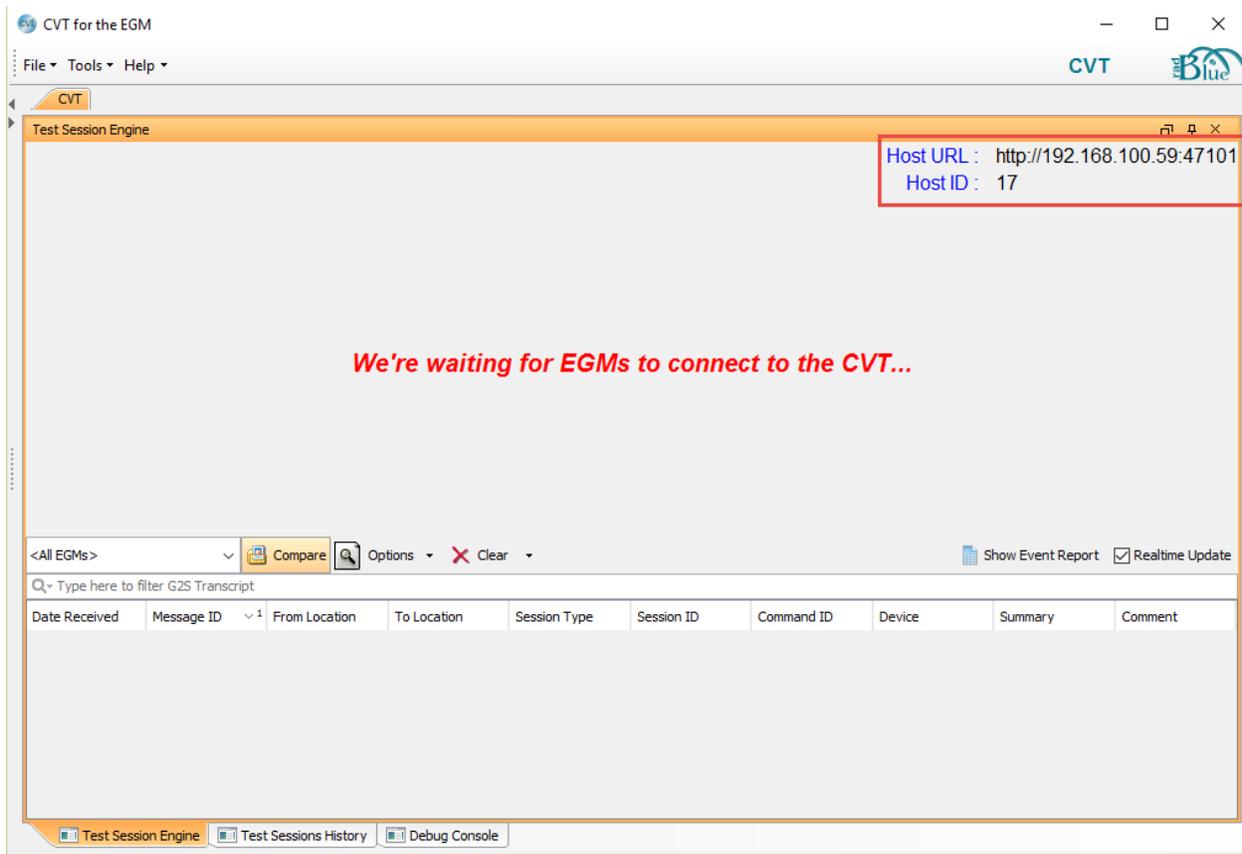
If you have any questions or issues, just let us know via support@radblue.com.

Starting the CVT

When you installed the CVT, a **RadBlue CVT for the EGM** Icon was created on the desktop. Double-click that Icon to start the tool. When the tool starts for the first time, and you are presented with the following display. You will need to select the appropriate IP address for your test network.



Once the host IP address has been configured the CVT will display the list of EGMs that are connected to the CVT in the opening display. Until the first EGM connects the display will be as follows:



Configuring your EGM

You will need to configure your EGM to have a host that is specified in the Host URL and Host ID as displayed on the opening screen.

Selecting your EGM

Once you have configured your EGM and it is connected to the CVT you will see the EGM in the list of known EGMs. By double-clicking the EGM you will be selecting the EGM for CVT testing.

The screenshot shows the 'CVT for the EGM' application window. The main area is titled 'Test Session Engine' and contains a table with the following data:

Status	EGM ID	Last Test Session ID	Last Tested On	EGM Location
✓	RBG_12345678	12	2016-01-07T12:37:34.351-08:00	http://127.0.0.1:38102/RST/api-services/G2SAPI

Below the table, there is a search bar with the text '<All EGMs>' and a 'Compare' button. To the right, there are 'Options' and 'Clear' buttons, along with 'Show Event Report' and 'Realtime Update' checkboxes.

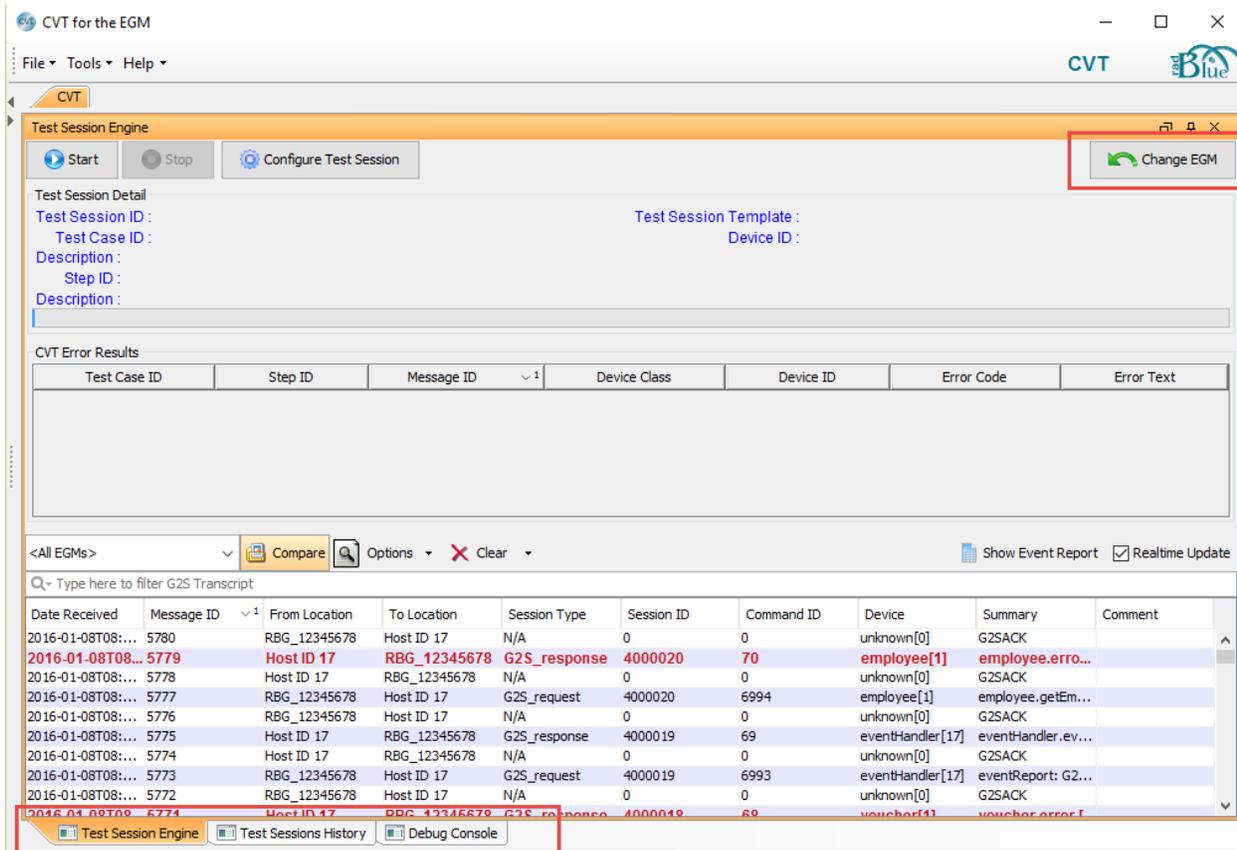
The 'G2S Transcript' table below shows the following data:

Date Received	Message ID	From Location	To Location	Session Type	Session ID	Command ID	Device	Summary	Comment
2016-01-08T08:...	5508	RBG_12345678	Host ID 17	N/A	0	0	unknown[0]	G2SACK	
2016-01-08T08:...	5507	Host ID 17	RBG_12345678	G2S_response	4000002	2	communications[...]	communications...	
2016-01-08T08:...	5506	Host ID 17	RBG_12345678	N/A	0	0	unknown[0]	G2SACK	
2016-01-08T08:...	5505	RBG_12345678	Host ID 17	G2S_request	4000002	6926	communications[...]	communications...	
2016-01-08T08:...	5504	RBG_12345678	Host ID 17	N/A	0	0	unknown[0]	G2SACK	
2016-01-08T08:...	5503	Host ID 17	RBG_12345678	G2S_response	4000001	1	communications[...]	communications...	
2016-01-08T08:...	5501	RBG_12345678	Host ID 17	G2S_response	0	1	communications[...]	communications...	
2016-01-08T08:...	5499	Host ID 17	RBG_12345678	G2S_request	0	1	communications[...]	communications...	
2016-01-08T08:...	5498	Host ID 17	RBG_12345678	N/A	0	0	unknown[0]	G2SACK	
2016-01-08T08:...	5497	RBG_12345678	Host ID 17	G2S_request	4000001	6925	communications[...]	communications...	

At the bottom of the window, there are three tabs: 'Test Session Engine', 'Test Sessions History', and 'Debug Console'.

Starting a CVT Test Session

When starting a CVT test session, you are presented with the following display:



You'll see that there are three distinct panels on the Test Session Engine tab of the CVT desktop:

Test Session Management – This panel contains controls that allow you to start, stop and configure the Test Session. An active display shows the details of the active test case in a running test session, and a View Results Icon appears on the right side of this panel when the test session concludes.

Test Session Errors – This panel reports test case errors as they occur. When the tester has to initiate an action on the G2S Host, this panel switches to an instruction panel where that directive is displayed.

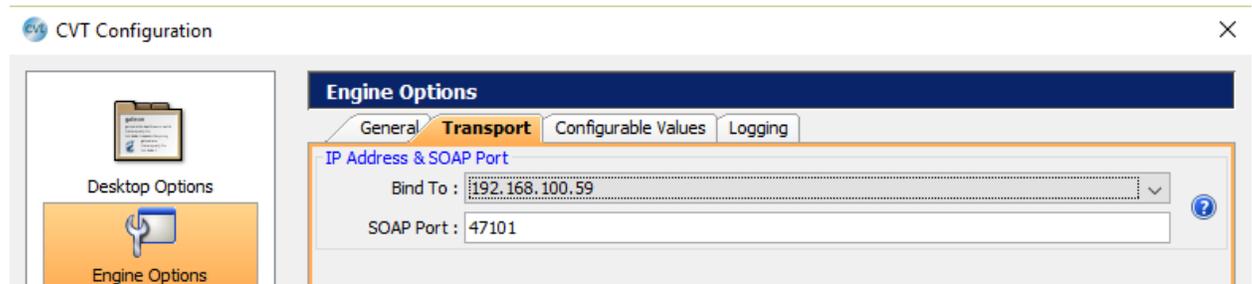
G2S Transcript – The standard G2S transcript used in all RadBlue tools to show the details of the G2S traffic occurring during the session. Resizing the tool window automatically adjusts the size of this panel.

At the bottom of the desktop are three **Navigation Tabs** that allow you to quickly switch between the Test Session Engine, the Test Session History (a history of saved test sessions), and the Debug Console.

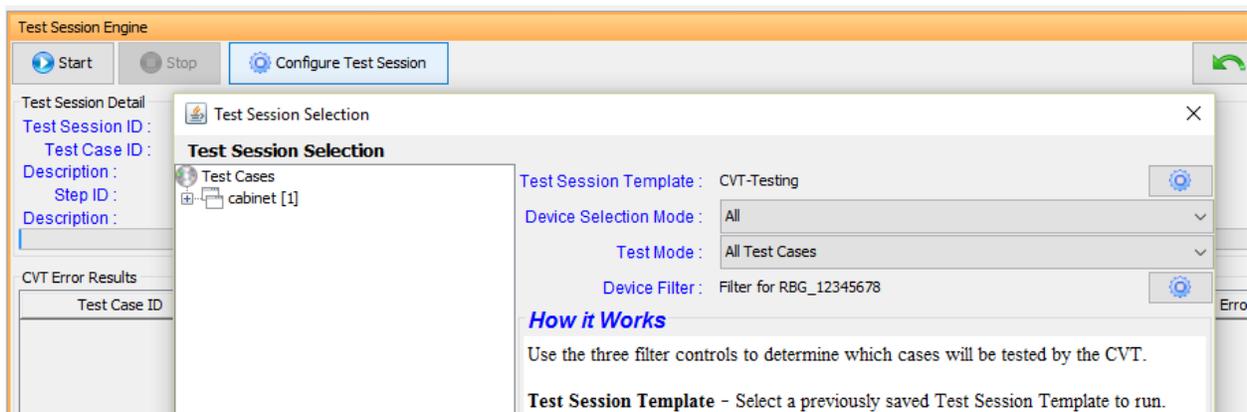
Configuring the CVT

CVT Transport Configuration – The first time you run the CVT, you need to tell it which IP address it should listen on. This IP address must be routable to your host. To configure the IP address used by the tool, simply open the Transport tab in the configuration screen, and select the appropriate address from the drop down list of **Bind To**: addresses (the port numbers should remain unchanged):

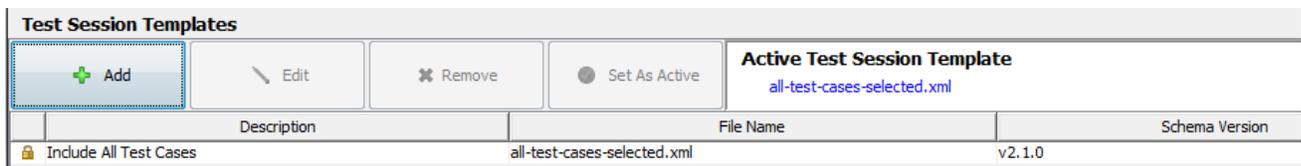
Tools > Configure > Engine Options > Transport > Bind To



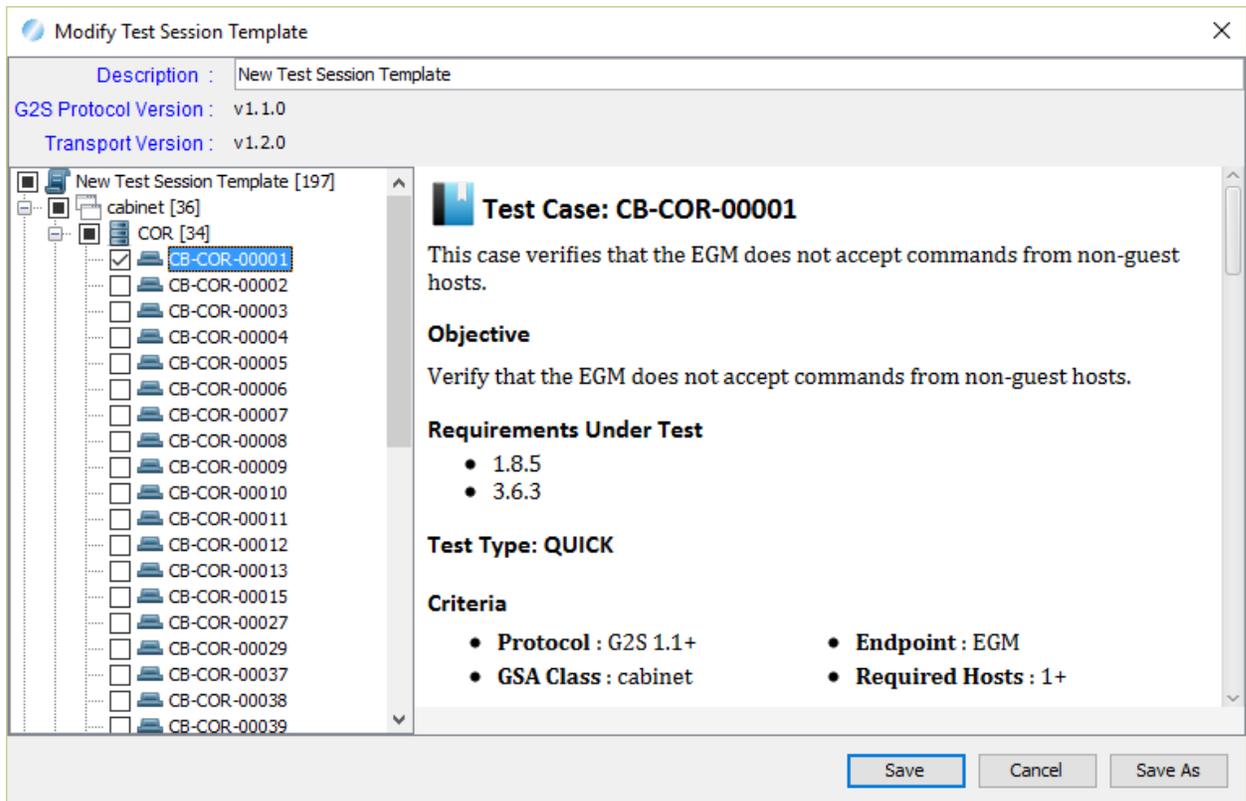
Configure Test Session – Launch the Test Session Configuration screen by pressing the **Configure Test Session** button in the **Test Session Management** section of the desktop:



- 1) **Test Session Template**: Later, if you decide to exclude specific test cases from a test run, you can create your own Test Session Template. To launch the **Test Session Templates** table, simply click the **Gear** button next to the **Test Session Template**: field to get the following screen:



- a) When you **Add** a new Test Session Template file, you are prompted for the description and G2S schema to use, and then the **Modify Test Session Template** screen launches. Selecting **Edit**, or double-clicking a Test Session Template row will also launch this screen (see next page):



b) The **Modify Test Session Template** screen allows you to view / change the **Description** of the test session template.

c) A Test Case tree control that you can expand, allows access to any level (Class, Functional Group, or individual Test Case).

i) Selecting or deselecting a node affects all nodes beneath the node.

ii) Selecting the Test Case ID in the tree causes the Test Case Encyclopedia entry to appear in the right side panel, replacing the default help text.

When all changes have been made, press the **Save** or **Cancel** button to save or reject the changes.

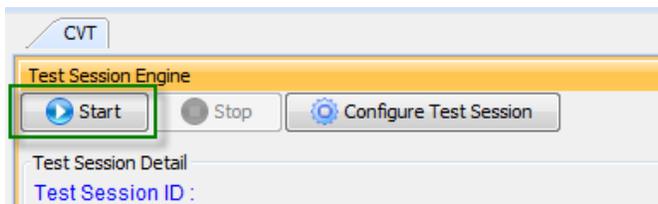
d) If you've added or made changes to a file, you can change the **Active Test Session Template** file by selecting the desired file in the list, and then pressing the **Set As Active** button.

NOTE: To return to a configuration where all test cases are available in the tool, simply select the **Template - All** template file, and make it the active test session template.

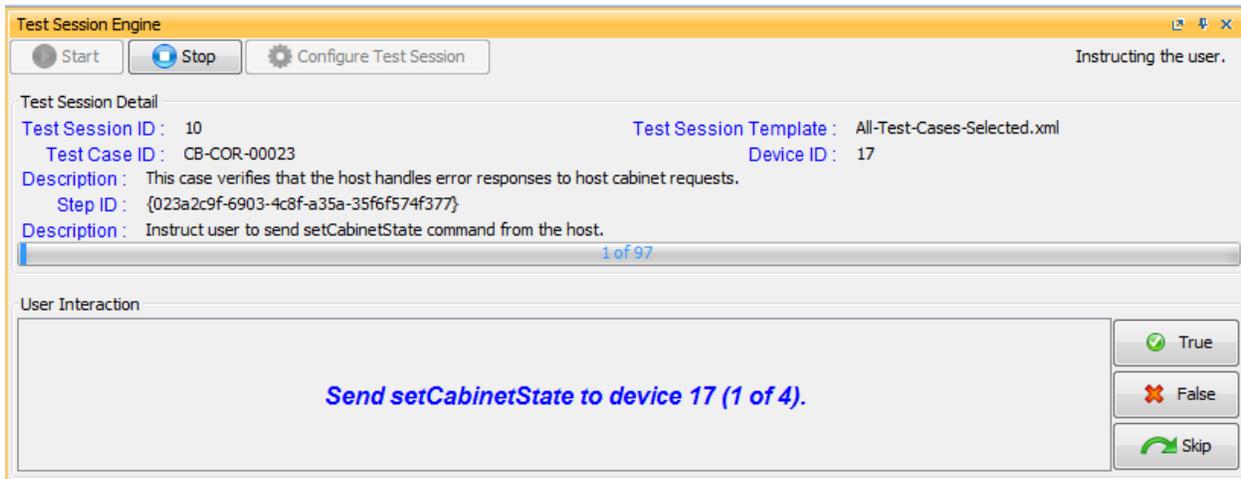
2) **Save the Test Session Configuration** – When all configuration changes are complete, press the **Save** button to save the changes and close the Test Session Configuration screen.

Starting a Test Session

To start a CVT-EGM test session using the current configuration, simply press the **Start** button in the Test Session Management section of the Test Session Engine panel:

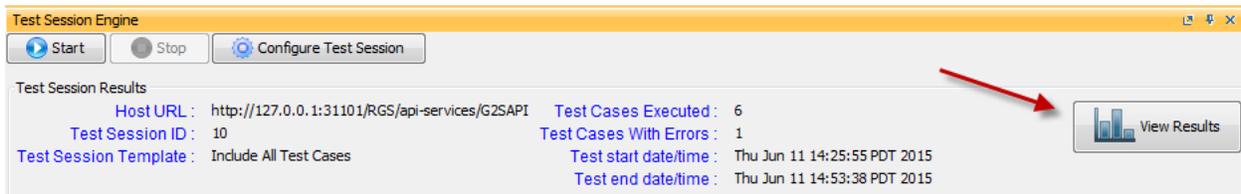


At this point, the CVT-Host session takes over and executes all appropriate test cases for the Test Session. If a test case needs some help, the program will pause, and a prompt will indicate what action needs to be initiated on the EGM. If the CVT is waiting for a command to be sent, it will automatically advance when the command is received. Alternately, **True**, **False**, and **Skip** buttons are provided to indicate that the action has been done, has not been done, or can't be done on the EGM under test.

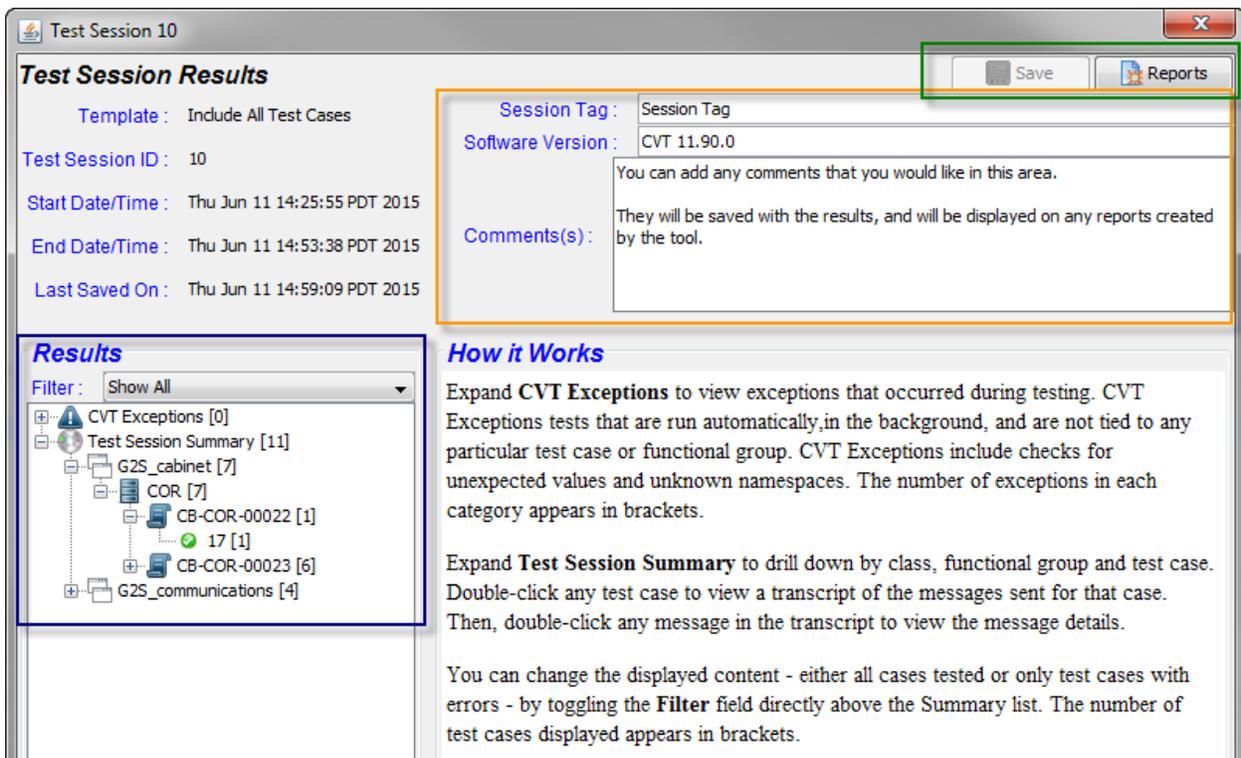


Viewing the Test Session Results

When the test session has completed, a **View Results** button appears on the right side of the Test Session Management panel:



Clicking the **View Results** button causes the **Test Session Results** Screen to display



- 1) In the top right (green box) are two buttons that allow you to **Save** any changes you make on this screen, or create any of the **Reports** that are available in the tool.
- 2) In the three fields in the orange box, you can enter the following information (which is stored with the session results and once saved will display on the Detail, Summary, and Excel reports):
 - a) Session Tag (your id for this run),
 - b) Software Version (the version of Host Software being tested)
 - c) Comments about this test run that should be stored with the results
- 3) The **Results Tree** (blue box) can be expanded to see CVT Exceptions (anomalies detected during the run) and the Test Session Results. If desired, the Filter selector can be toggled between **Show All** results or **Errors Only** (typically the more useful choice). When a node in the tree is selected, the "How It Works" panel transforms into a Results Table that shows details of each of the items.

Double click on a row in the test session results table to launch a transcript of relevant messages.

Creating a Debug.zip File

If you run into any issues, or have any questions...

The Export Debug option lets you create a ZIP file containing all the files that the RadBlue support team needs to troubleshoot product issues or to perform more detailed analysis in the [RadBlue Analysis Suite \(RAS\)](#). The ZIP file includes data from the time the tool was started to the time you select the Export Debug option.

File > Export Debug ...

A save dialog will prompt you for the location where you would like the debug file created. Click **Save**.

Attach the ZIP file to an email and send it to support@radblue.com.