

commConfig in the CVT

The G2S communications configuration (commConfig) class is used to manage the registered hosts in an EGM, and also to configure which hosts are the owner (command and control), configurator (change the option parameter values), and guests of each G2S device exposed by the EGM. To facilitate changes that a test engineer may need to do in this area to prepare an EGM for a testing session, the CVT now includes a commConfig utility which can be used to configure any connected EGM.

In the CVT, you'll first create a commConfig template, which is actually a set of rules that are applied the target EGM. This template has two sections:

1. The Host Mapping section of the template will update the list of registered hosts in the EGM to be what is needed for the test session.
2. The Device Mapping section provides a list of host permissions for specific devices, followed by a general device permission statement that is applied to all other devices in the EGM.

Once completed, a template can be saved or saved as (to make a new copy), and then can be applied to an EGM. Specific procedures follow...

Manage Comm Config Templates

Select "Manage Comm Config Options" in the **Additional Options** section of the CVT **Home** screen to access the **Host and Device Mapping Template** screen (which follows):

Manage Comm Config - Host and Device Mapping Template

Selected Template: Template - New New Save Save As Delete Import Export

Host Mapping Add Edit Remove

Host ID	Description	Host URL
EGM [0]	The EGM	localhost
CVT [17]	The owner host	http://127.0.0.1:47101

...

Device Mapping Add Edit Remove Select All

Device Class	Device ID	Owner Host	Configure Host	Guest Hosts
G2S_communications	-1	N/A	CVT [17]	CVT [17]
G2S_eventHandler	-1	N/A	CVT [17]	CVT [17]
G2S_gat	-1	N/A	CVT [17]	CVT [17]
G2S_meters	-1	N/A	CVT [17]	CVT [17]
G2S_optionConfig	-1	N/A	CVT [17]	CVT [17]
G2S_all	-1	CVT [17]	CVT [17]	CVT [17]

The first time you use this option, the template control will launch with no template loaded, prompting you to create a new template, which can be edited and then a copy can be saved (so you'll always have this basic template to return to). The template control is divided into three main sections:

1. **File Controls** – select the template to work with, and then do any of several file operations on that template
2. **Host Mapping** – In the Host Mapping section, you can add a new host, or modify the displayed information (hostId, Description, and Host URL) for an existing host. This host list is then used in the device mapping table in the lower portion of the template control, and is also used to configure the registered host list in an EGM.

NOTE: For the CVT to successfully add a host to the EGM, there must be one or more empty rows in the Registered Host table.

3. **Device Mapping** – In the Device Mapping section you can add, modify, or remove device mapping entries that will later be applied to an EGM. The table provides a list of specific device permission assignments, followed by a G2S_all catchall that is applied to all other devices that are present in the EGM.

In the default Device Map (see the preceding screenshot), all instances (device id = -1) of the host oriented devices (communications, eventHandler, gat, meters, and optionConfig) are *owned* by their respective host, will be *configured* by the CVT, and the CVT will be a *guest* of each device. All other devices are owned and configured by the CVT, and the CVT is a guest of all of the devices.

Example - If you wanted to change the owner of the voucher device to another system (such as the RGS) because the CVT does not yet process vouchers, you would do the following:

- 1) Add a new host entry to the Host Mapping table (e.g., hostId=1, Description="The RGS", and URL = <http://localhost:31101/RGS/api-services/G2SAPI>), so the template knows about the additional host.
- 2) Add a new device entry to the Device Mapping table, selecting
 - a. deviceClass="G2S_voucher" from the drop down list,
 - b. deviceId=-1 (since we don't know the deviceId of the voucher device in future EGMs)
 - c. Owner Host = 1 (hostId=1 is the RGS)
 - d. Configure Host can be the CVT or the RGS, and the CVT can be added as a guest host, as well.
 - e. Then press "Add Device" to add the device entry to the table.
- 3) Save the new template using "Save As" and provide the name of your choosing. The CVT can store many different commConfig templates that you can apply to a connected EGM.

Configuring an EGM

In comm configuring a connected EGM, the CVT will

- 1) Instruct the EGM to enterCommConfigMode so it is locked in preparation for the commConfig operation.
- 2) Send the setCommChange command (using the selected mapping template),
- 3) Respond to one or more commChangeStatus commands from the EGM, until a terminal state is reached, at which time it will
- 4) Send an enterCommConfigMode command so that the EGM exits the lock state.

The process to do this is pretty straight-forward:

- 1) Select an EGM in the EGM(s) table on the CVT's Home screen
- 2) Select the **Set Comm Change** option at the top of the table
- 3) Select the appropriate Host and Device Mapping Template
- 4) **Strict Adherence**
 - a. **Selected** – The CVT does exactly what is described in the template. If a Host Permission issue exists (such as `canModRemote="false"`) for an owner, configurator, or guest host assignment, the script will fail.
 - b. **Not Selected** – The CVT makes a best effort, but if a Host Permission issue occurs, the CVT becomes the owner or configurator. If there's a permission issue for a guest host assignment, then the guest assignment is skipped.
- 5) Finally, press **Set Comm Change** to tell the CVT to proceed with the operation.

