If this is your First-Time-Use of MAPS™ Megaco application, then we recommend you to follow all the steps explained in MAPS-Megaco-Quick-Install-Guide to install MAPS™ Megaco application before proceeding with the steps below.

**Verification**

For functional verification of MAPS™ MEGACO user needs to have 3 PCs with single NIC or a single PC with 3 NIC ports. If you are using multiple PCs, MAPS™ MEGACO software and licenses must be installed on all PCs (perform this only if you have purchased multiple MAPS™ MEGACO products).

MAPS™ Megaco can be configured to simulate Trunking Gateway (TGW) or Residential Gateway (RGW). While simulating TGW the call is initiated from the MAPS™ MGC towards MAPS™ MG1 and MAPS™ MG2 controlling the MGs. And while simulating RGW, the call is initiated from MAPS™ MG1 (RGW1) towards MAPS™ MG2 (RGW2) via MAPS™ MGC.

The configuration explained below allows MAPS™ MEGACO application to act as MGC (Media Gateway Controller) as well as MG (Media Gateway) nodes.

**MAPS™ MEGACO configured as MGC**

- Right-click on MAPS-MEGACO application shortcut icon created on the desktop and select ‘Run as Administrator’.

- While invoking the second MAPS-MEGACO instance, verify the following in the Protocol Selection window
  - Protocol Standard as MEGACO
  - Protocol Version as IETF
  - Select Node as Media Gateway Controller
  - Click OK

- From MAPS™ Megaco main GUI, select Configurations ➔ Load Master Configurations. Click ➔ and select the respective configuration files required for the test scenario.

<table>
<thead>
<tr>
<th>Type</th>
<th>Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trunking Gateway</td>
<td>MGC-TGW-MasterConfig</td>
</tr>
<tr>
<td>Residential Gateway</td>
<td>MGC-RGW-MasterConfig</td>
</tr>
</tbody>
</table>

- By default, Testbed Setup window is displayed. Verify and validate the following parameter settings as listed below:
  - Set Transport Type as **SCTP**, it can be UDP* , TCP, or SCTP
    - *Note:* If the Transport Type selected as UDP, ensure that proper UDP port numbers are specified.
  - Set **SCTP or TCP Node Type** to Server
  - Set MGC IP to Source IP address of NIC #1 (for example, 192.168.12.75)
  - Set **Media Gateway Type** to Trunking Gateway [or Residential Gateway as per the test scenario]
  - Set MG1 IP address to Source IP address of NIC #2 (for example, 192.168.12.180)
➢ Set MG Port to 2944
➢ Set MGC Port to 2944
➢ Set MG Name as “MG1”
➢ Set MG2 IP address to Source IP address of NIC #3 (for example, 192.168.12.133)
➢ Set MG Port to 2945 [for RGW test, port is 2944]
➢ Set MGC Port to 2945 [for RGW test, port is 2944]
➢ Set MG Name as “MG2”
➢ Click on the Save button.

- Start the testbed setup on MGC instance.

MAPS™ MEGACO configured as MG #1

- Right-click on MAPS-MEGACO application shortcut icon created on the desktop and select ‘Run as Administrator’.
- While invoking the first MAPS-MEGACO instance, verify the following in the Protocol Selection window -
  ➢ Protocol Standard as MEGACO
  ➢ Protocol Version as IETF
  ➢ Select Node as Media Gateway
  ➢ Click OK
- From MAPS™ Megaco (MG1) main GUI, select Configurations → Load Master Configurations. Click and select the respective configuration files required for the test scenario.

<table>
<thead>
<tr>
<th>Trunking Gateway</th>
<th>MG1-MasterConfig_TGW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Gateway</td>
<td>MG1-MasterConfig_RGW</td>
</tr>
</tbody>
</table>

- By default, Testbed Setup window is displayed. Verify and validate the following parameter settings as listed below:
  ➢ Set Enable RTP Simulation = True
  ➢ Set RTP Hardware Interface Type = PC NIC
  ➢ Set Media IP Address to Source IP address of NIC #2 (for example, 192.168.12.180)
  ➢ Set Transport Type as SCTP, it can be UDP*, TCP, or SCTP

*Note: If the Transport Type selected as UDP, ensure that proper UDP port numbers are specified.
➢ Set SCTP or TCP Node Type to Client
➢ Set MG IP to Source IP address of NIC #2 (for example, 192.168.12.180)
➢ Set MG Port to 2944
➢ Set MGC IP to Source IP address of NIC #1 (for example, 192.168.12.75)
➢ Set MGC Port to 2944
➢ Set Physical Termination Type to TGW [or RGW as per the test scenario]
➢ Click on the Save button.

MAPS™ MEGACO configured as MG #2

- Right-click on MAPS-MEGACO application shortcut icon created on the desktop and select ‘Run as Administrator’.
- While invoking the first MAPS-MEGACO instance, verify the following in the Protocol Selection window -
  ➢ Protocol Standard as MEGACO
  ➢ Protocol Version as IETF
  ➢ Select Node as Media Gateway
  ➢ Click OK

- From MAPS™ Megaco (MG2) main GUI, select Configurations → Load Master Configurations. Click and select the respective configuration files required for the test scenario.

  | Trunking Gateway | MG2-MasterConfig_TGW |
  | Residential Gateway | MG2-MasterConfig_RGW |
By default, **Testbed Setup** window is displayed. Verify and validate the following parameter settings as listed below:

- Set **Enable RTP Simulation** = True
- Set **RTP Hardware Interface Type** = PC NIC
- Set **Media IP Address** to Source IP address of NIC #3 (for example, 192.168.12.133)
- Set **Transport Type** as **SCTP**, it can be UDP*, TCP, or SCTP

*Note: If the Transport Type selected as UDP, ensure that proper UDP port numbers are specified.

- Set **SCTP or TCP Node Type** to **Client**
- Set **MG IP** to Source IP address of NIC #3 (for example, 192.168.12.133)
- Set **MG Port** to 2945
- Set **MG IP** to Source IP address of NIC #1 (for example, 192.168.12.75)
- Set **MGC Port** to 2945
- Set **Physical Termination Type** to **TGW** [or **RGW** as per the test scenario]
- Click on the **Save** button.

Now, start Testbed Setup on both **MG1** and **MG2**. Once all the instances are started, on **MGC main window (first instance)** go to Link Status under Report menu and observe that Link Status is “UP” in all 3 instances.

- Upon starting **MG1** and **MG2**, **Service Change** message will be sent from both MG1 and MG2 to MGC. Similarly, **Service Change** reply will be sent from MGC to both the MG.
- Click on **Call Reception** icon in **MG1** and **MG2** and observe the **Service Change** messages by selecting **InitiateServiceHandler.gls**. Refer to the below figure. Similarly, user can observe Service Change messages on **MGC**.
Trunking Gateway (TGW) - Call Simulation from MGC to TGW1 and TGW2

- From the MAPS-MEGACO (MGC) main window, click the Call Generation icon and invoke the Call Generation window.

- By default, you will observe call instances loaded with MGController.gls script and TGW profile displayed in the Call Generation window. Select the call instance and click the Start button to execute the script.

MGC Call Generation

- On the MAPS-MEGACO MG1 and MG2 main window, click Call Reception icon and observe that the calls are being received running the ContextHandler.gls answer scripts.

- Once call gets terminated, verify the Message Sequence Flow by selecting the call objects at both generation and reception end.

MG Call Reception
Residential Gateway (RGW) - Call Simulation from RGW1 to RGW2 via MGC

- From the MAPS-MEGACO (RGW1) main window, click the Call Generation icon and invoke the Call Generation window.

- You will observe call instance(s) loaded with ContextHandler_RGW.gls script and RGW001, RGW002, etc., profiles. Select the call instance and click [Start] button to execute the script.

  ![RGW1 Call Generation](image)

---

- On the MAPS-MEGACO (MGC) GUI, observe that the calls are received in the Call Reception running the MGCCController_RGW.gls answer scripts.

- Once call gets terminated, verify the Message Sequence Flow by selecting the call objects at both generation and reception end.
MGC Call Reception

- Similarly, on the MAPS-MEGACO (RGW2) GUI, observe that the calls are received in the Call Reception running the ContextHandler_RGW.gls answer scripts.