If this is the first time-use of MAPS™ ED137 Telephone application, then it is recommended to follow all the steps explained in MAPS-ED137-Telephone-Quick-Install-Guide to install MAPS™ ED137 Telephone application before proceeding with the steps below.

Verification

For **self-test** of MAPS™ ED137-Telephone application, you may prepare **a single PC with 2 NIC cards**, one as source and other as destination. Ensure that both NIC cards are within the same subnet, assigned proper free IP addresses available in the subnet, and connected to a switch. If the system is connected to a LAN, contact your system administrator to avoid IP address conflicts before you perform the steps below. If the PC has only one NIC card, then the MAPS™ ED137-Telephone can be tested against any DUT in the network in a similar manner, with destination IP address and port set to that of the DUT's.

Both the NIC cards should be connected to Switch (or) connected Back-to-Back using Ethernet Cable.

For illustration purposes, we assume the IP address for the NIC cards are configured as in the following:

- NIC1 IP address is 192.xx.xx.36, and configured as CWP1
- NIC2 IP address is 192.xx.xx.37, and configured as CWP2

Invoke two instances of **MAPS™ ED137-Telephone** application on the test PC. The configurations below allow first instance of MAPS™ ED137-Telephone to use NIC 1 IP address as CWP1 [Controller Working Position] and the NIC 2 IP address as CWP2 [Controller Working Position] endpoint. Similarly, the second instance of MAPS™ ED137-Telephone to use NIC 2 IP address as source and the NIC 1 IP address as destination endpoint to simulate Telephone calls.

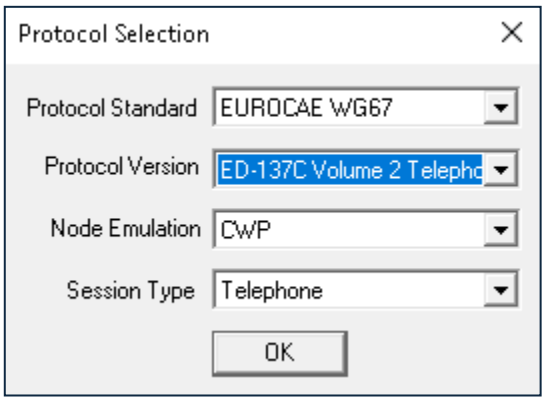
Note:

- ED137 call generator can be any real CWP device supporting ED137 signaling and traffic. In this test scenario, we have used MAPS™ ED137 Telephone (CWP) application to generate and receive calls. Calls can be generated from any of the CWP terminals.

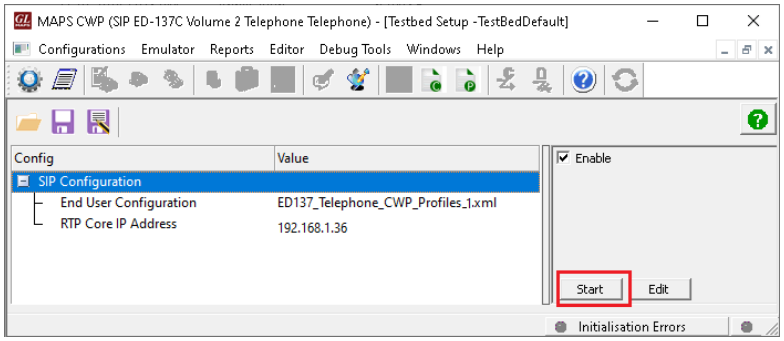
Configuring MAPS-ED137 Telephone (CWP1) instance on NIC1

- Click on **MAPSED137Telephone** shortcut icon created on the desktop and invoke the application. This instance of **MAPS-ED137-Telephone** is configured as CWP1 **(Call Generator).**
- Configure the following in the **Protocol Selection** window.
  - Select **Protocol Standard** as EUROCAE WG67
  - Select **Protocol Version** as ED-137C Volume 2 Telephone

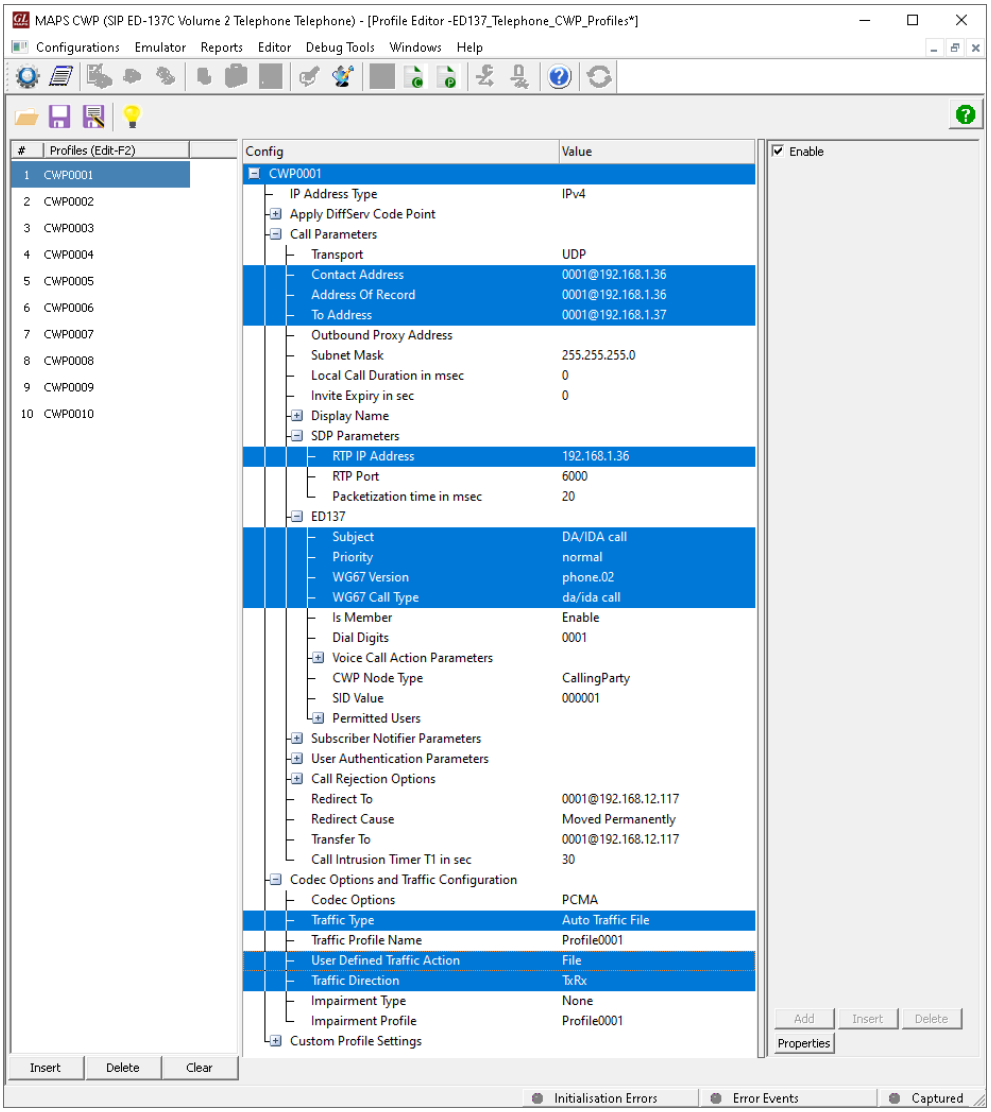
  Note: MAPS™ ED137 Telephone supports both **ED137_2B** and **ED137_2C** versions. Select appropriate version from the drop-down for respective version call simulation.
  - Select **Node Emulation** as CWP
  - Select **Session Type** as Telephone. Click on **OK**



- By default, **TestBed Setup** window loaded with "**TestBedDefault**" configuration file. Verify the following settings:
  - Change **End User Configuration** filename to **ED137_Telephone_CWP_Profiles_1.xml**.
  - Set the **RTP Core IP Address** to NIC1 IP Address (192.xx.xx.36)
  - Click on **Save As** icon and save the changes with **TestBedDefault_1** filename.



- Select **Editor → Profile Editor** to invoke the profile editor window. By default, "ED137_Telephone_CWP_Profiles" profile is loaded. Select **CWP0001** profile from the left pane and edit the parameters as per the test requirements.
  - Edit **Contact Address →** 0001@192.xx.xx.36 (Enter the NIC1 SIP URI here) (Unique IP Addresses set for CWP00** profiles automatically creates Virtual IP Addresses on the system for the NIC interface)
  - Edit **Address of Record →** 0001@192.xx.xx.36 (Enter the NIC 1 SIP URI here)
  - Edit **To Address →** 0001@192.xx.xx.37 (Enter the destination NIC 2 or DUT SIP URI here)
  - Edit **RTP IP Address →** 192.xx.xx.36 (Enter the NIC 1 IP Address here)
  - Set **Subject →** DA/IDA Call
  - Set **Priority →** normal
  - Set **WG67→** phone.02
  - Set **WG67 Call Type →** da/ida Call
  - Set **Traffic Type →** Auto Traffic File
  - Set **User Defined Traffic Action →** File
  - Set **Traffic Direction →** TxRx
  - Click on **Save As** icon and save the changes with **"ED137_Telephone_CWP_Profiles_1"** filename. Exit from the profile editor window.

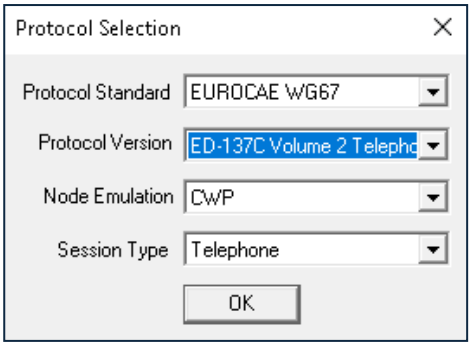


Refer to MAPS™ ED137-Telephone Reference User's Manual for step-by-step procedure to configure multiple CWPs.

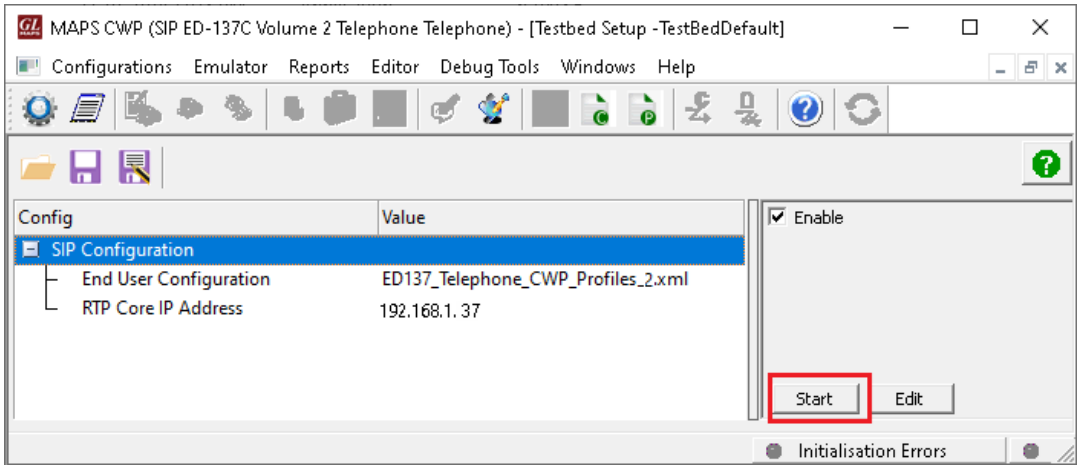
Configuring MAPS-ED137-Telephone (CWP2) instance on NIC2

- Click on **MAPSED137Telephone** shortcut icon created on the desktop and invoke the application. This instance of **MAPS-ED137-Telephone** configured as CWP2 **(Call Receiver).**
- While invoking the first MAPSED137Telephone instance, verify the following in the Protocol Selection window -
  - Select **Protocol Standard** as EUROCAE WG67
  - Select **Protocol Version** as ED-137B Volume 2 Telephone

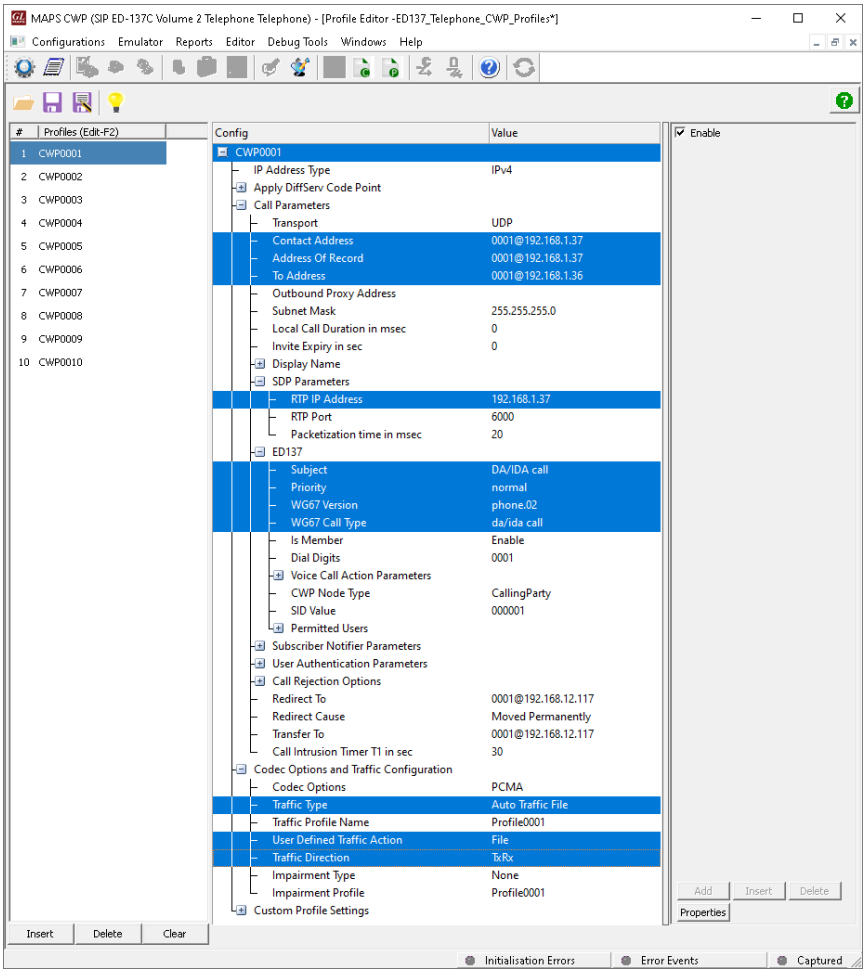
  Note: MAPS™ ED137 Telephone supports both **ED137_2B** and **ED137_2C** versions. Select appropriate version from the drop-down for respective version call simulation.
  - Select **Node Emulation** as CWP
  - Select **Session Type** as Telephone. Click on **OK**



- By default, **Testbed Setup** window loaded with "**TestBedDefault**" configuration file. Verify the following settings:
  - Change **End User Configuration** filename to **ED137_Telephone_CWP_Profiles_2.xml**
  - Set the **RTP Core IP Address** to NIC2 IP Address (192.xx.xx.37)
  - Click on **Save As** icon and save the changes with **TestBedDefault_2** filename

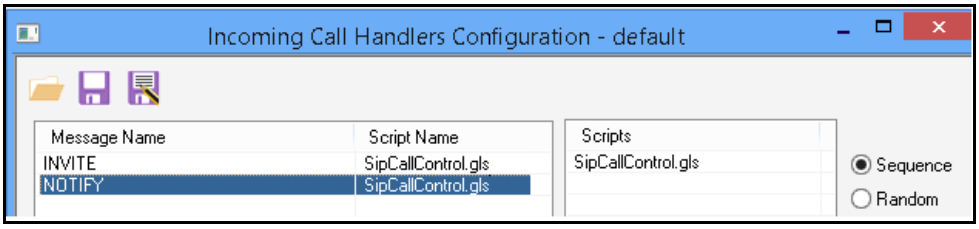


- From **MAPSED137Telephone** (CWP2) main window, select **Editor → Profile Editor** to invoke the profile editor window. By default, **"ED137_Telephone_CWP_Profiles"** profile is loaded. Select **CWP0001** from the left pane and edit the parameters as per the test requirements.

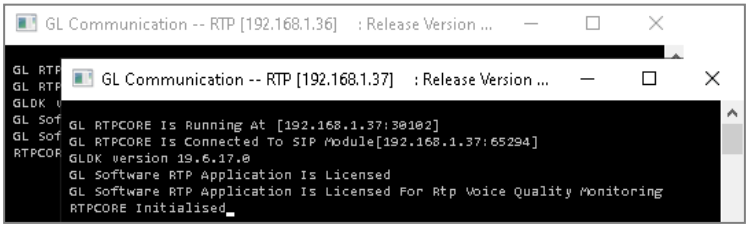


  - Edit **Contact Address →** 0001@192.xx.xx.37 (Enter the NIC2 SIP URI here) (Unique IP Addresses set for CWP00** profiles automatically creates Virtual IP Addresses on the system for the NIC interface)
  - Edit **Address of Record →** 0001@192.xx.xx.37 (Enter the NIC2 SIP URI here)
  - Edit **To Address →** 0001@192.xx.xx.36 (Enter the destination NIC1 or DUT SIP URI here)
  - Edit **RTP IP Address →** 192.xx.xx.37 (Enter the NIC2 IP Address here)
  - Set **Subject → DA/IDA Call**
  - Set **Priority → normal**
  - Set **WG67→ phone.02**
  - Set **WG67 Call Type →** da/ida call
  - Set **Traffic Type →** Auto Traffic File
  - Set **User Defined Traffic Action →** File
  - Set **Traffic Direction →** TxRx
  - Click on **Save As** icon and save the changes with **"ED137_Telephone_CWP_Profiles_2"** filename. Exit from the profile editor window.

- On the same **MAPSED137Telephone** (CWP2) main window, select **Configuration → Incoming Call Handler Configuration** window. Verify that **SipCallControl.gls** script is loaded against the **INVITE** message. Close the window.



- **Start** both the MAPS™ Testbed setup and wait for RTP-Core console window to appear in the taskbar. If the SIP/RTP Core console does not invoke with the MAPS™ TestBed start-up, refer to Troubleshoot section in the MAPS-ED137-Telephone-Quick-Install-Guide.

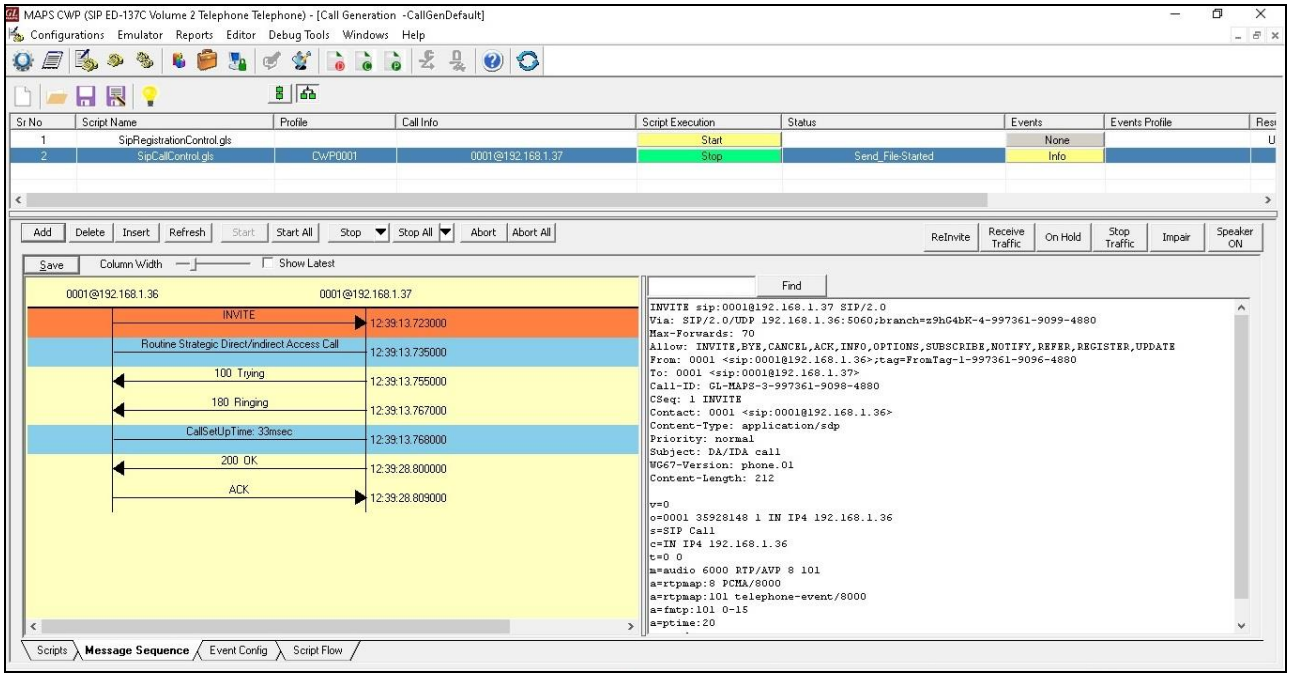


- On **MAPSED137Telephone** [CWP1] main window, click on **Call Generation** icon  to invoke the **Call Generation** window.
- By default, user can observe two entries in this window. First one is loaded with **SipRegistrationControl.gls** script for **CWP0001**, this will register **CWP0001** if **Registrar Address** is configured in profile. Second entry is loaded with **SipCallControl.gls** script that places call to another end using **CWP0001** and click 

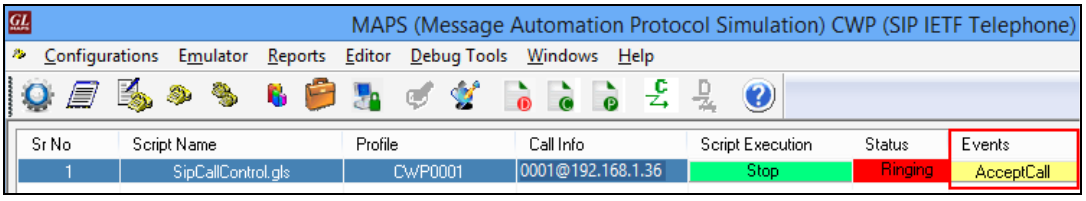
button to execute the script.

Note:

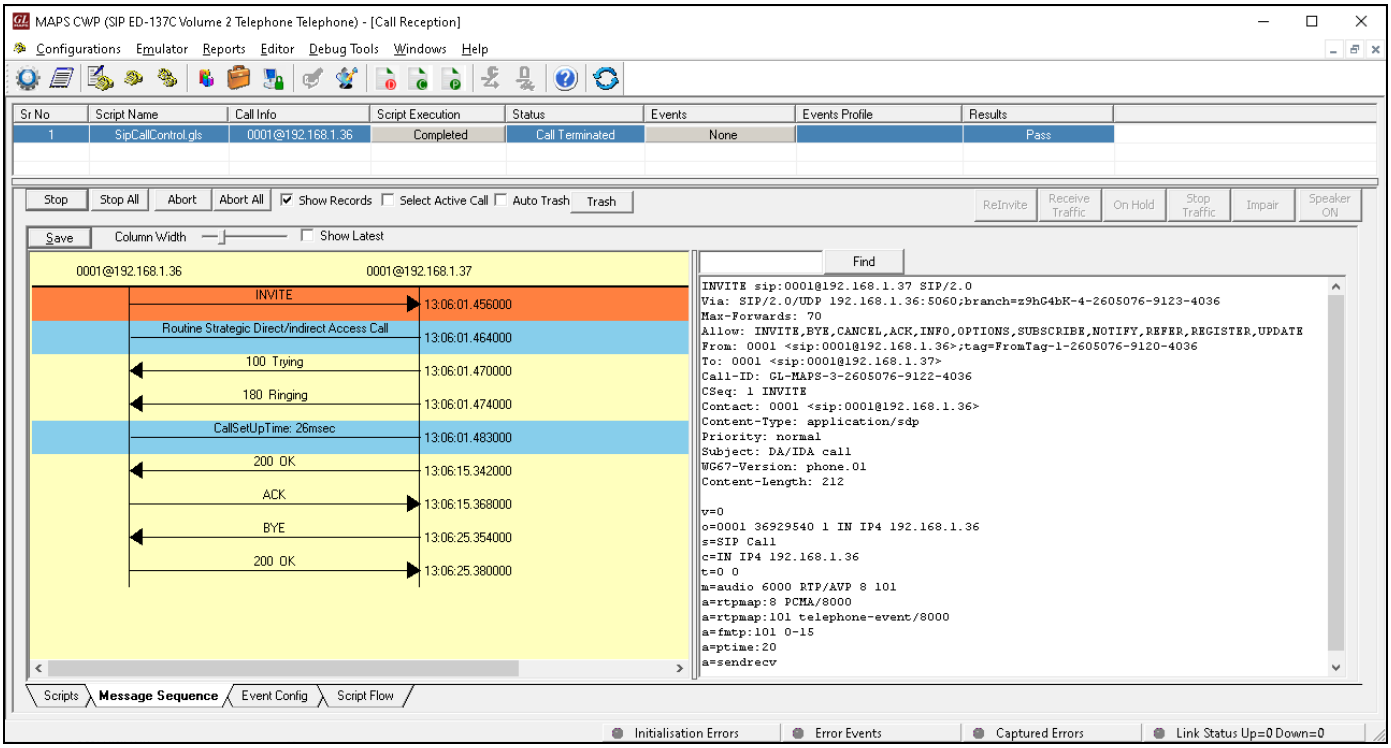
- By default, if the profiles are not selected in the **Profile** column, then double-click the profile column and select the configured profile CWP0001 from the drop-down list.



- Return to **MAPSED137Telephone** [CWP2] instance, click on **Call Reception** icon  and click on **Accept Call** to receive the call, observe that the calls status is **Ringing**.



- Click on **Stop** to terminate the call and verify the **Message Sequence Flow** by selecting the call objects at both generation and reception end.
- Select any message in the ladder diagram and observe the respective decode message on the right pane for the respective message.



- This completes the functional verification of **MAPS™ ED137 Telephone** application.
- For any queries, contact **GL Communications Inc**.