

If this is the first time-use of MAPSTM 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 MAPSTM 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 MAPSTM 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:

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

Invoke two instances of MAPSTM 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 MAPSTM 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

Protocol Selection	×
Protocol Standard	EUROCAE WG67
Protocol Version	ED-137C Volume 2 Telephe 💌
Node Emulation	CWP 💌
Session Type	Telephone 💌
	OK

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- 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.



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

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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

<u>Note</u>: 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

Protocol Selection	×
Protocol Standard	EUROCAE WG67
Protocol Version	ED-137C Volume 2 Telephe
Node Emulation	CWP 💌
Session Type	Telephone
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- 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)

MAPS CWP (SIP ED-137C Volume 2 Tele	phone Telephone) - [Testbed Setup -TestBed	Default] — 🗆 🗙
Configurations Emulator Reports	Editor Debug Tools Windows Help	_ 8 ×
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- MAPS CWP (SIP ED-137C Volume 2 Telephone Telephone) [Profile Editor -ED137_Telephone_CWP_Profiles*] × From MAPSED137Telephone (CWP2) main 📧 Configurations Emulator Reports Editor Debug Tools Windows Help σ× window, select Editor -> Profile Editor to 🕼 🖉 🎼 🗣 🕲 🖬 📰 🖉 🔮 🔚 🔓 😤 🖳 🕑 📿 invoke the profile editor window. By default, 0 Enable # Profiles (Edit-F2) "ED137 Telephone CWP Profiles" profile is Value Config loaded. Select CWP0001 from the left pane and IP Address Type IPv4 2 CWP0002 Apply DiffServ Code Point 3 CWP0003 edit the parameters as per the test requirements. - Call Parameters CWP0004 Transport UDP ➢ Edit Contact Address → 5 CWP0005 ddress Of Recor 6 CWP0006 0001@192.xx.xx.37 (Enter the NIC2 SIP 001@192.168.1 Outbound Proxy Address CWP0007 URI here) (Unique IP Addresses set for 255,255,255,0 Subnet Mask 8 CWP0008 Local Call Duration in msee CWP00** profiles automatically creates 9 CWP0009 Invite Expiry in sec 0 10 CWP0010 Display Name Virtual IP Addresses on the system for the SDP Parameter NIC interface) RTP Port 6000 Packetization time in msee 20 ➢ Edit Address of Record → ED137 0001@192.xx.xx.37 (Enter the NIC2 SIP URI here) WG67 Call Typ da/ida ca \blacktriangleright Edit **To Address** \rightarrow 0001@192.xx.xx.36 ls Membe Enable Dial Digits 0001 (Enter the destination NIC1 or DUT SIP URI Voice Call Action Parameters CWP Node Type CallingParty here) SID Value 000001 Permitted User \geq Edit **RTP IP Address** \rightarrow 192.xx.xx.37 Subscriber Notifier Parameters (Enter the NIC2 IP Address here) User Authentication Parameters Call Rejection Options Set Subject \rightarrow DA/IDA Call \geq Redirect To 0001@192.168.12.117 Redirect Cause Moved Permanently \geq Set Priority \rightarrow normal Transfer To 0001@192.168.12.117 Call Intrusion Timer T1 in sec 30 Set WG67→ phone.02 \triangleright Codec Options and Traffic Configuration РСМА Codec Options \geq Set WG67 Call Type \rightarrow da/ida call Traffic Profile Name Profile0001 Set **Traffic Type** → Auto Traffic File \triangleright Impairment Type \triangleright Set User Defined Traffic Action → File None Impairment Profile Profile0001 Custom Profile Setting Set **Traffic Direction** → TxRx \triangleright Properties Insert Delete Clear Initialisation Errors Error Events Captured Click on **Save As** icon **Save** 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.

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Message Name	Script Name	Scripts	
INVITE	SipCallControl.gls	SipCallControl.gls	Sequence
NOTIFY	SipCallControl.gls		◯ Random

• 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.

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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 Start 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.

MAPS CWP (SIP ED-137C Volume 2 Telephone Telephone) - [Call Generat	ion -CallGenDefault]				-	ð X
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Scripts A Message Sequence Event Config Script Flow						

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**.

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- 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.

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