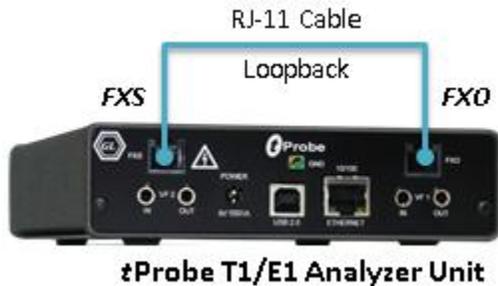


It is assumed that the T1/E1 Analyzer Hardware, Software and License installations are already performed referring to the purchased Hardware Installation Guide.

MAPS™ FXO FXS Application Verification

For functional verification, single instance of MAPS™ FXO FXS application is configured in loopback mode to simulate Fax traffic scenario from FXO to FXS terminal and vice versa.

Cross-connect FXO and FXS ports on the Hardware unit back-to-back with RJ-11 cable.



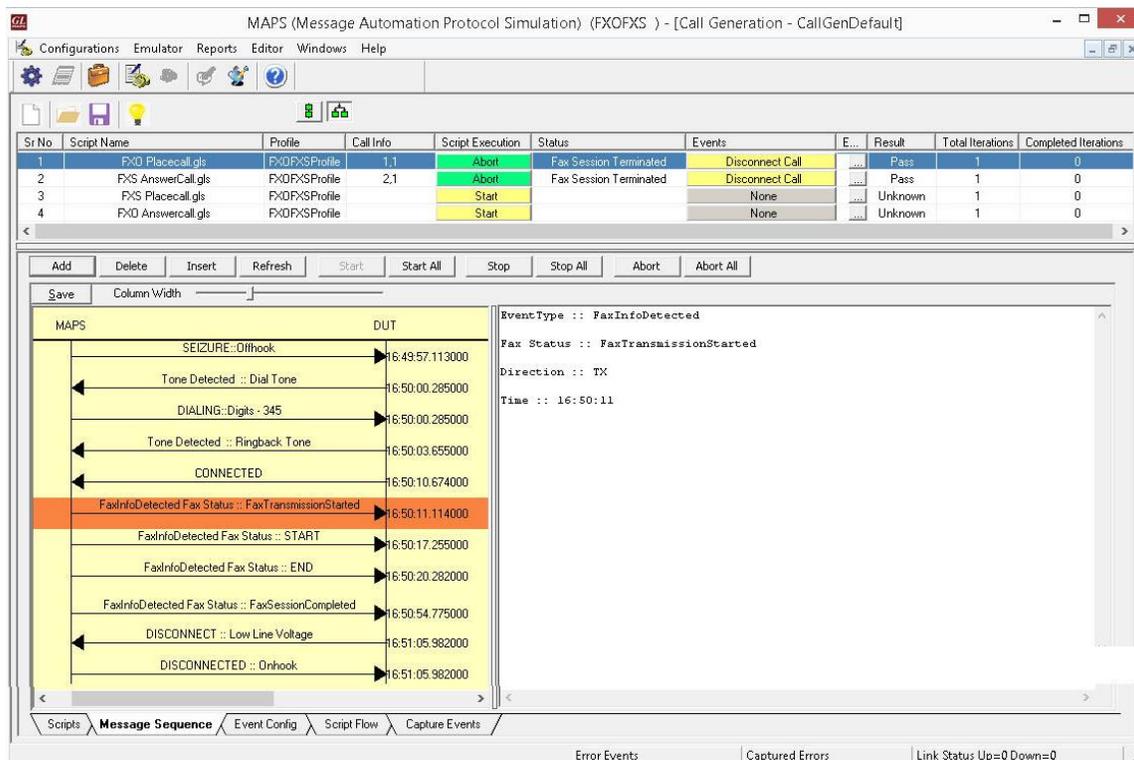
- Click on the **T1/E1 Analyzer** icon created on the desktop (or) from the installation directory, click on **UsbNGT1.exe** and launch T1/E1 Analyzer application.

Note: The application may take some time to get started due to hardware and software initializations.

- From T1/E1 Analyzer main window, invoke the **WCS Server: Special Applications → Windows Client Server (WCS) → WCS Server**.
- Configure WCS as follows -
 - Listen Port = 17090 (for E1 systems); 17080 (for T1 systems)
 - Messaging = Binary
 - Version = 4
 - Click on **Start GL Server** button.
- From T1/E1 Analyzer main window, from **Special Applications menu → select Protocol Emulation → MAPS™ FXOFXS Emulator**
- By default, Testbed Setup widow is displayed. Click  and select 'USA TestBed' and verify the following parameters default values::
 - FXO → Termination = **USA**
 - Start Protocol = **Loop**
 - FXO Multi Tone Detection File = **northamerica.mtd**
 - End User Configuration = **usa.xml**
- From MAPS FXOFXS main window, select “**Editor**” menu → invoke **Profile Editor** window:
 - Click  and select **USA** profile. Verify the following parameter default values:
 - FXO Card Number = 1
 - FXS Card Number = 2
 - Rx Timeslots = 1
 - Tx Timeslots = 5
 - Click  **Save** button.

- In the same Profile Editor window, again click  and select **TrafficProfile**. From the LHS list, select **FXOProfile**. Set **Enable Traffic** to **AutoTraffic-Fax** and **Traffic Direction for AutoTraffic** to **Tx-Rx**. Click  **Save** button.
- Similarly, in the same Profile Editor window, from the LHS list, select **FXSProfile**. Set **Enable Traffic** to **AutoTraffic-Fax** and **Traffic Direction for AutoTraffic** to **Tx-Rx**. Click  **Save** button. Exit from the Profile Editor window.

- **Start** the test bed setup
- From MAPS™ main GUI, click  **Call Generation** icon and invoke the call generation window
- By default, you will observe multiple call instances loaded with **FXOPlacecall.gls**, **FXSAnswerCall.gls** scripts and **FXSPlacecall.gls**, **FXOAnswerCall.gls** scripts with **FXOFXSProfile** profiles.
- Verify that **Parallel Execution**  is enabled in the Call Generation window to execute the scripts simultaneously
- Click yellow **Start** button to initiate the call sessions. **Note:** Initiate the **FXS AnswerCall.gls** script first followed by the **FXO Placecall.gls** script.
- Wait till the calls are completed and terminated, and verify the **Message Sequence** flow for both the call instances in the GUI.
- Select any message in the ladder diagram and observe the respective decode message on the right pane for the respective message.



Sr No	Script Name	Profile	Call Info	Script Execution	Status	Events	Result	Total Iterations	Completed Iterations
1	FXO Placecall.gls	FXO/FXSProfile	1,1	Abort	Fax Session Terminated	Disconnect Call	Pass	1	0
2	FXS AnswerCall.gls	FXO/FXSProfile	2,1	Abort	Fax Session Terminated	Disconnect Call	Pass	1	0
3	FXS Placecall.gls	FXO/FXSProfile		Start		None	Unknown	1	0
4	FXO Answercall.gls	FXO/FXSProfile		Start		None	Unknown	1	0

Message Sequence Diagram:

```

sequenceDiagram
    participant DUT
    DUT->>SEIZURE: SEIZURE:Offhook
    SEIZURE-->>DUT: Tone Detected :: Dial Tone
    DUT->>DIALING: DIALING:Digits - 345
    DIALING-->>DUT: Tone Detected :: Ringback Tone
    DUT->>CONNECTED: CONNECTED
    CONNECTED-->>DUT: FaxInfoDetected Fax Status :: FaxTransmissionStarted
    DUT->>START: FaxInfoDetected Fax Status :: START
    START-->>DUT: FaxInfoDetected Fax Status :: END
    DUT->>DISCONNECTED: FaxInfoDetected Fax Status :: FaxSessionCompleted
    DISCONNECTED-->>DUT: DISCONNECTED :: Low Line Voltage
    DISCONNECTED-->>DUT: DISCONNECTED :: Onhook
    
```

Event Details:

```

Event Type :: FaxInfoDetected
Fax Status :: FaxTransmissionStarted
Direction :: TX
Time :: 16:50:11
    
```

- Also, verify the received FAX (*.tif) file saved in the installation directory.