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

MAPS™ SS7 Application Verification

For functional verification, 2 instances of **MAPS™ SS7** application can be configured on a single PC as source and destination **SSP (Signaling Switching Point)** nodes.

Cross-connect T1/E1 Port #1 and Port #2 of the Hardware unit back-to-back using RJ48c loopback cable.

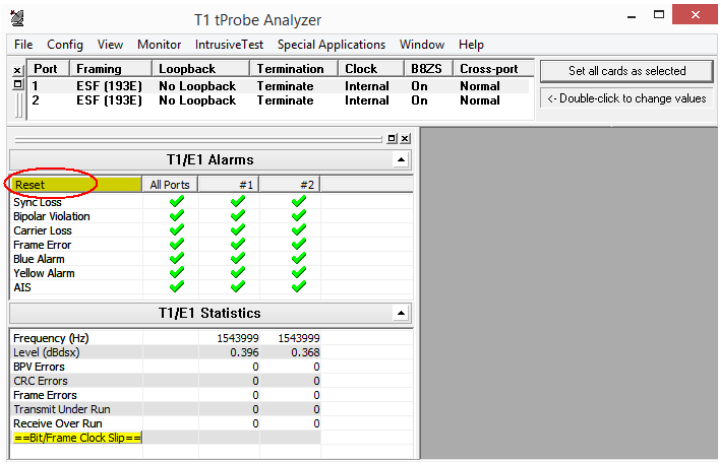
RJ48c Loopback Cable

- 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.

- Verify the following **Interface** settings in the T1/E1 main GUI
  - For **T1 Analyzer**, configure Port #1 and Port #2 with the following
    Framing = ESF, Loopback = No Loopback, Termination = Terminate, Clock = Internal, Cross Port = Normal

  - For **E1 Analyzer**, configure Port #1 and Port #2 with the following
    Framing = CCS, Loopback = No Loopback, Termination = Terminate, Clock = Internal, Cross Port = Normal



- Verify the **Sync and Alarm Status** between the ports are indicated in **Green** ✔ in **T1/E1 Alarms** pane. Click **Yellow Reset** button to reset the alarms.

- From T1/E1 Analyzer main window, invoke the **WCS Server: Special Applications > Windows Client Server (WCS) > WCS Server.** Configure WCS as follows -
  - Listen Port = 17080 (for T1 systems); 17090 (for E1 systems)
  - Messaging = Binary
  - Version = 4
- Click on **Start GL Server** button. Minimize the window.

MAPS™ SS7 (GUI) on Card2

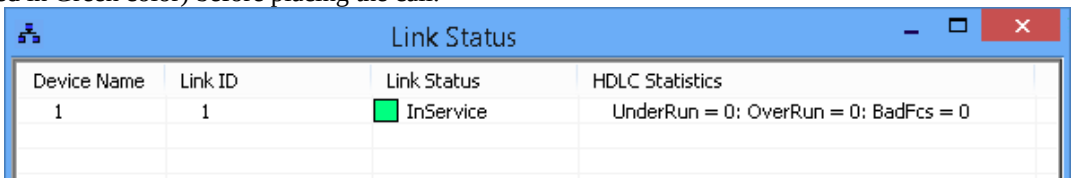
- This instance of MAPS™ is configured for **Call Reception**
- From T1/E1 Analyzer main window, from **Special Applications** menu > select **Protocol Emulation > MAPS™ SS7**
- While invoking this instance of MAPS™ SS7, choose the following in the **Protocol Selection** window -
  - **Protocol Standard = ISUP**
  - **Protocol Version = ITU**
  - **Node = SSP.** Click **Ok**
- By default, **Testbed Setup** window is displayed. Click and select **Sig-Card2_B-Port_2.** Verify the default parameter values as listed below:
  - **Exchange Type** = Non Control
  - **CIC to Circuit Mapping** = Timeslot Based
  - **SSP Point Code =** 2.2.2
  - **Adjacent Destination Point Code =** 1.1.1
  - **Signaling Port** = 2
  - **Signaling Timeslot =** 31 (for E1); 23 (for T1)
  - **Destination Point Code =** 1.1.1
  - **Circuit Group 1 - Port Number** = 2
  - **Routing Destination Point Code =** 1.1.1
- From MAPS™ SS7 main window, select **Configuration >** invoke **Incoming Call Handler Configuration** window
  - Verify that the **Isup_Call.gls** script is loaded against the **Initial Address** message. Exit from the window
- From MAPS™ SS7 main window, select **"Editor"** menu -> invoke **Profile Editor** window and verify the following default parameter values:
  - Click and load **"ISUP_Profiles"** file. Scroll down the left pane, and select, **Card2TS01** profile from the left pane. Set **Card number = 2, Timeslot = 1, OPC = 2.2.2, DPC = 1.1.1** parameter values. Click **Save** button.
  - In the same Profile Editor window, click and select **"TrafficProfile"** file. Scroll down the left pane, and select **Card2TS01** profile. Set **Traffic Type** to **AutoTraffic-File** and **Traffic Direction for AutoTraffic** to **Tx-Rx**. Click **Save** button.

MAPS™ SS7 (GUI) on Card1

- This instance of MAPS™ SS7 is configured for **Call Generation**
- From T1/E1 Analyzer main window, from **Special Applications** menu > select **Protocol Emulation > MAPS™ SS7**
- While invoking MAPS™ SS7, choose the following in the Protocol Selection window -
  - **Protocol Standard = ISUP**
  - **Protocol Version = ITU**
  - **Node = SSP**
  - Click **Ok**
- By default, Testbed Setup window is displayed, click and select **Sig-Card1_B-Port_1** and check for the configuration settings as below:
  - **Exchange Type** = Control
  - **CIC to Circuit Mapping** = Timeslot Based
  - **SSP Point Code =** 1.1.1
  - **Adjacent Destination Point Code =** 2.2.2
  - **Signaling Port** = 1
  - **Signaling Timeslot =** 31 (for E1); 23 (for T1)
  - **Destination Point Code =** 2.2.2

- **Circuit Group 1 - Port Number** = 1
- **Routing Destination Point Code** = 2.2.2

- From MAPS™ SS7 main window, select **"Editor"** menu -> invoke **Profile Editor** window and verify the following default parameter values:
  - Click and load **"ISUP_Profiles"** file. Scroll down the left pane, and select, **Card1TS01** profile from the left pane. Verify **Card number = 1, Timeslot = 1, OPC = 1.1.1, DPC = 2.2.2** parameter default values. Click **Save** button.
  - In the same Profile Editor window, click and select **"TrafficProfile"** file. Scroll down the left pane, and select **Card1TS01** profile. Set **Traffic Type** to **AutoTraffic-File** and **Traffic Direction for AutoTraffic** to **Tx-Rx**. Click **Save** button.
- **Start** the testbed on both the MAPS™ instances
- From MAPS™ SS7 main window, select **Reports** menu > invoke **Link Status** window. Verify that the **Link Status** is **UP** (indicated in Green color) before placing the call.



- On the same MAPS™ SS7 instance (Card1), select **Emulator** menu **> Call Generation** window
  - By default, multiple call instances loaded with **Isup_Call.gls** script and **Card1TS**** profiles respectively are displayed. Select the instance loaded with Card1TS01 profile and click on the yellow Start button.
- Return to first instance of MAPS™ SS7 (Card2), click icon and open **Call Reception** window**.** Observe that the calls are automatically received at the **Call Reception (SSP)** window.
- Wait for the call to terminate, and verify the **Message Sequence** flow 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.