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

Verification

Functional verification of MAPS-Diameter application for Rx interface requires a system with 2 NIC cards for loopback testing. MAPS-Diameter is configured as **PCRF** (Policy and Changing Rules Function) on one NIC and as **AF** (Application Function) on the other.

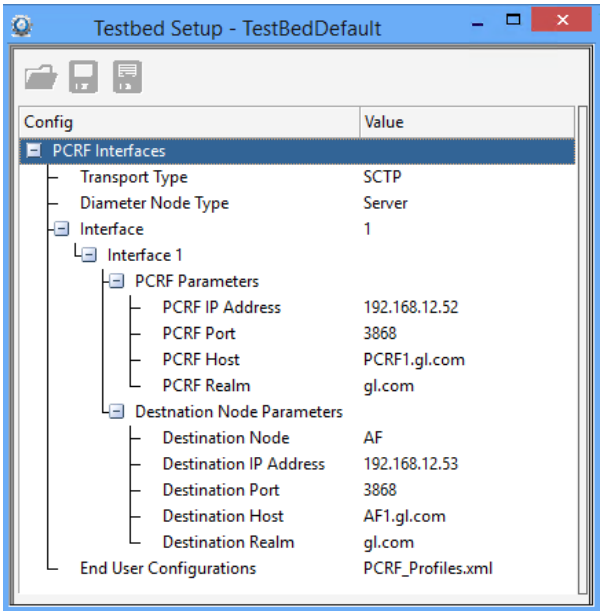
Note down the IP addresses of NIC1 and NIC2on the test PC, and in this example the IP addresses used and configured are:

- **NIC #1** IP address is 192.xx.xx.52, and configured as PCRF
- **NIC #2** IP address is 192.xx.xx.53, and configured as AF

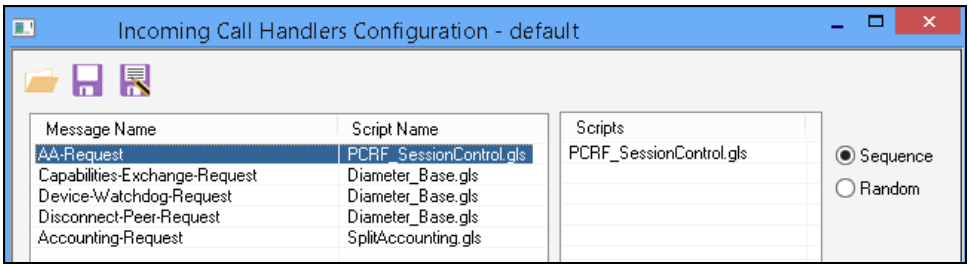
Note: In this test scenario, we have configured MAPS™ Diameter as **AF** generating calls and **PCRF** to receive calls. It is assumed that both NIC cards on the test PC is connected to a switch or back-to-back using Ethernet cable.

First MAPS™ Diameter (GUI) – (PCRF)

- Right-click on the **MAPS-Diameter** shortcut icon created on the desktop and select 'Run as Administrator'. This instance of MAPS™ is configured for ***Call Reception***
- While invoking the first MAPS™ Diameter instance, verify the following in the Protocol Selection window -
  - **Protocol Standard** is set to **Diameter**
  - **Protocol Version** is set to **Rx**
  - Select **Node** as **PCRF.** Click **Ok**
- By default, **Testbed Setup** window is displayed. Click and select **TestBedDefault** configuration and check for the parameter default values as listed below:
  - Set the **Transport Type** as **SCTP**
  - Set the **Diameter Node Type** as **Server**
  - Set **PCRF IP Address** to **Source PC IP address (NIC #1)**
  - Set **PCRF Port** to **3868**
  - Set **Destination Node** to **AF**
  - Set **Destination IP Address** to **Destination PC IP address (NIC #2)**
  - Set **Destination Port** to **3868**
  - Click on the **Save** button



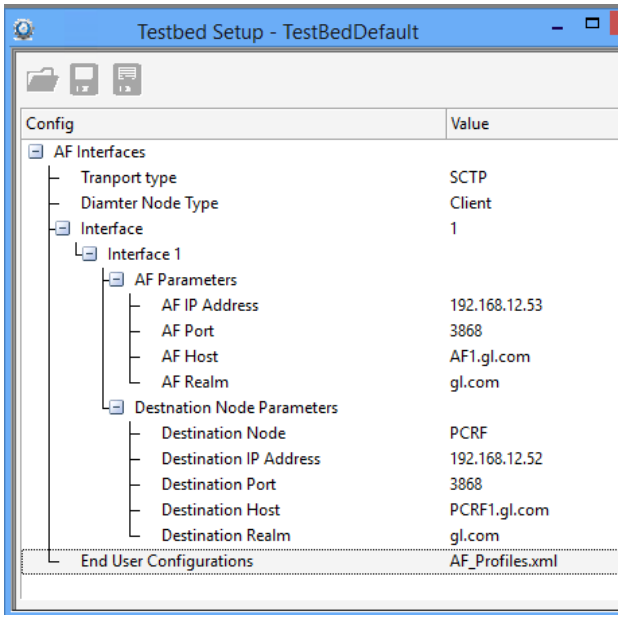
- From MAPS™ Diameter (PCRF) main window, select **Configuration > Incoming Call Handler Configuration**. Verify that the **PCRF_SessionControl.gls** script is loaded against the **AA-Request** message. Also, verify other loaded scripts in the window as shown in the figure below. Exit from the window.



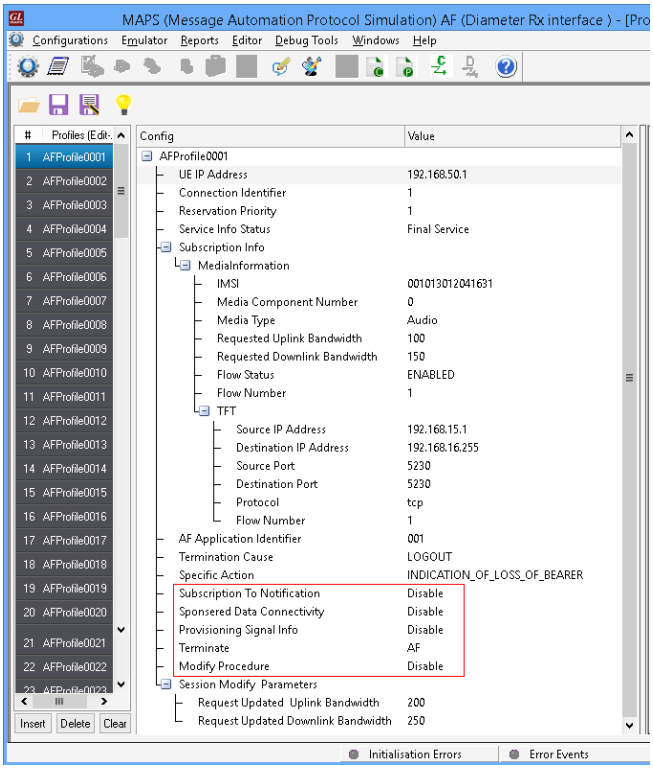
Second MAPS™ Diameter (GUI) – (AF)

- Right-click on the **MAPS-Diameter** application using shortcut icon created on the desktop and select 'Run as Administrator'. This instance of MAPS™ is configured for ***Call Generation.***
- While invoking the second MAPS™ Diameter instance, verify the following in the Protocol Selection window -
  - **Protocol Standard** is set to **Diameter**
  - **Protocol Version** is set to **Rx**
  - Select **Node** as **AF.** Click **Ok**

- By default, **Testbed Setup** window is displayed. Click and select **TestBedDefault** configuration and check for the parameter default values as listed below:
  - Set the **Transport type** as **SCTP**
  - Set the **Diameter Node Type** as **Client**
  - Set **AF IP Address** to **Source PC IP address (NIC#2)**
  - Set **AF Port** to **3868**
  - Set **Destination Node** to **PCRF**
  - Set **Destination IP Address** to **Destination PC IP address (NIC#1)**
  - Set **Destination Port** to **3868**
  - Click **Save** button.

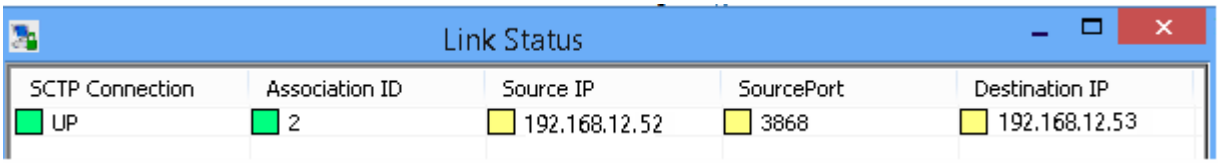


- Select **Editor → Profile Editor,** click and select **AF_Profiles**. and set the following parameters to support Rx interface procedures:
  - Set **ModifyProcedure** parameter to Enable.
  - Set the **Terminate** parameter to **AF**.
  - Set **SubscriptionToNotification** to Enable
  - Set **ProvisioningSignallingInfo** to Enable.
- Click on Save and Exit.



- **Start** the testbed on both the MAPS (AF and PCRF) instances.

- From the MAPS instances main window, from ***Reports*** menu > select ***Link Status*** option to verify the link status. Verify that the ***SCTP Link*** Status is ***UP*** (indicated in Green color) before placing the call.



- On both instances of MAPS-Diameter (AF and PCRF) main window, click ***Call Reception*** icon and observe that the ***Check_Link_Status.gls*** script is activated.
- In the second MAPS-Diameter (AF) instance, click the ***Call Generation*** icon on main window, and invoke the ***Call Generation*** window.
- By default, you will observe that multiple call instance is loaded with **AF_SessionControl.gls** script and **AFProfile00**** profiles.
- Select the first call instance in the Call Generation window, and click Start button to initiate the call generation.
- Return to first instance of MAPS-Diameter (**PCRF**), in the **Call Reception** window, observe that the calls are automatically received running the Rx script**.**
- Wait for the calls to terminate, and verify the call flow under the **Message Sequence** tab 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.