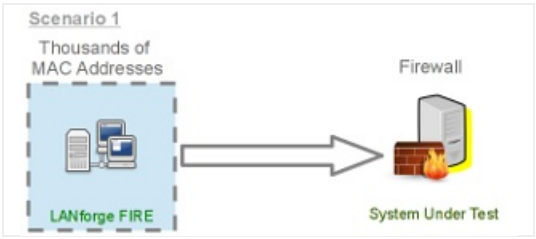
sales@candelatech.com
support@candelatech.com
+1 (360) 380-1618 [PST, GMT -8]

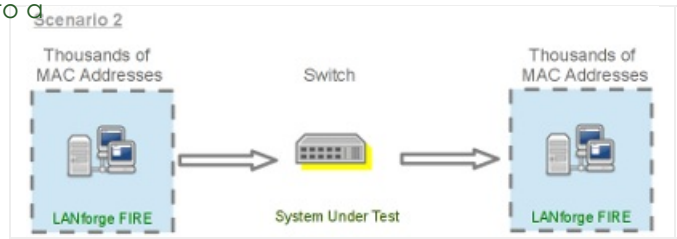
Armageddon UDP Traffic Generation with Random MAC Addresses.

Goal: Generate network traffic to a network device with one or many destination MAC addresses. These scenarios are useful for testing switches and firewalls that have to handle UDP traffic from thousands of source MAC addresses and one or many destination MAC addresses. This cookbook covers two scenarios:

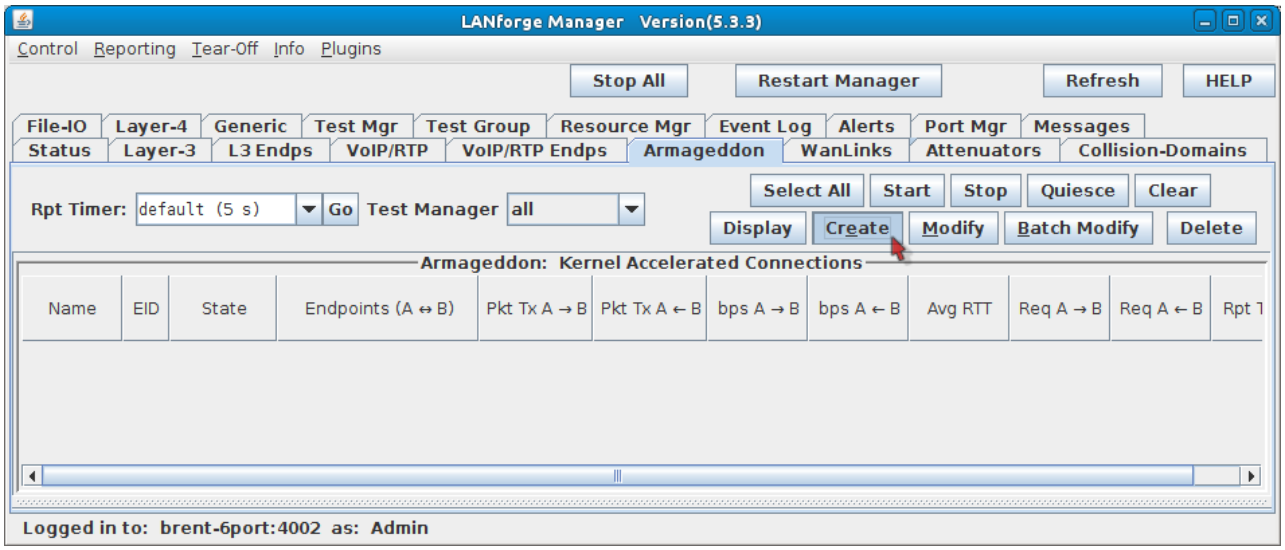
1. A single destination MAC address. (This would exercise a firewall or router.)
2. Thousands of destination MAC addresses. (This would exercise a switch by overflowing the device CAM table.)



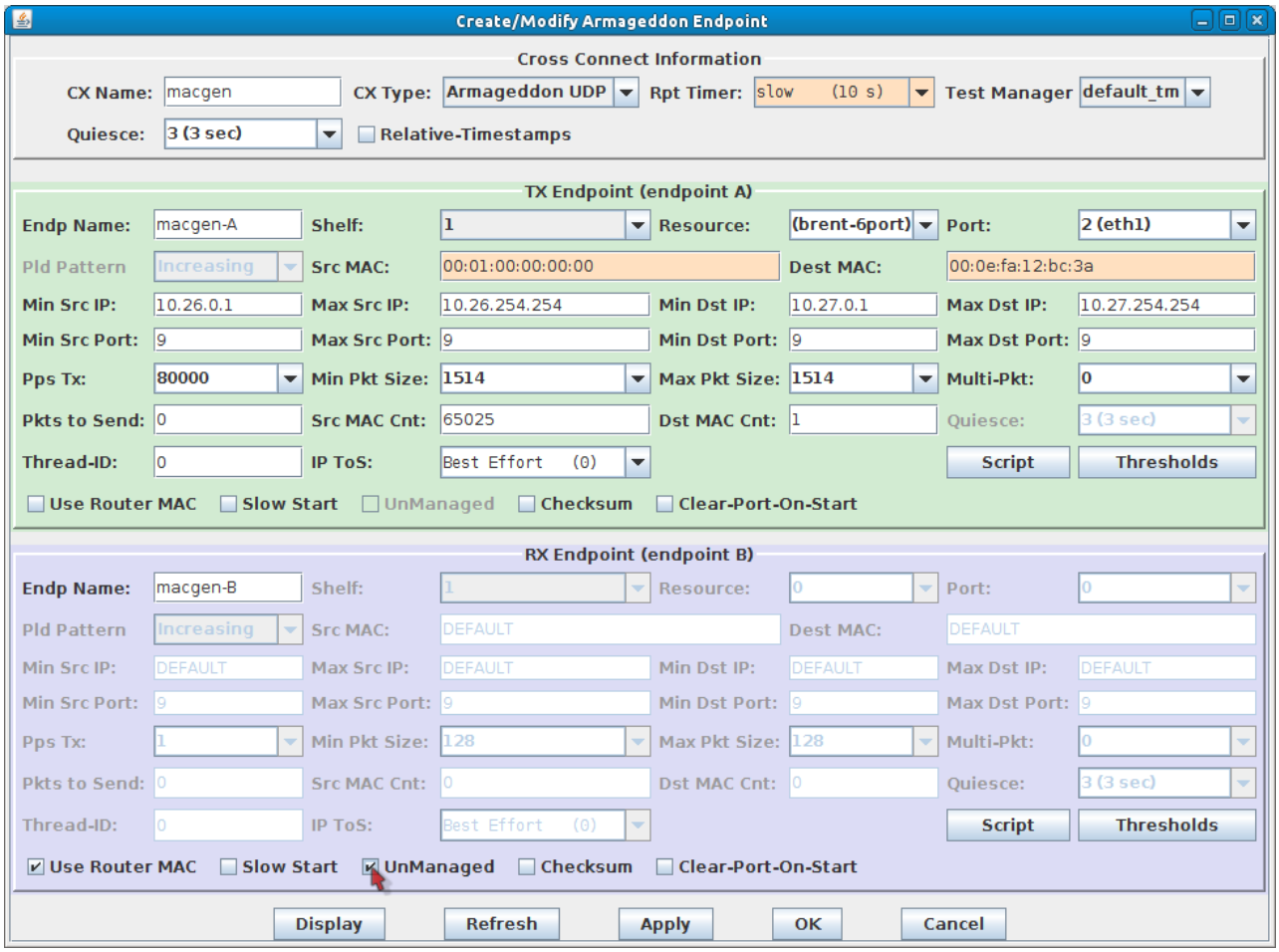
A one-sided traffic stream is used to send packets to a network device under test when round-trip reporting is not required.



1. On the **Armageddon** tab, click **Create**.



2. **Firewall Scenario:** Configure the Armageddon connection with the following values:

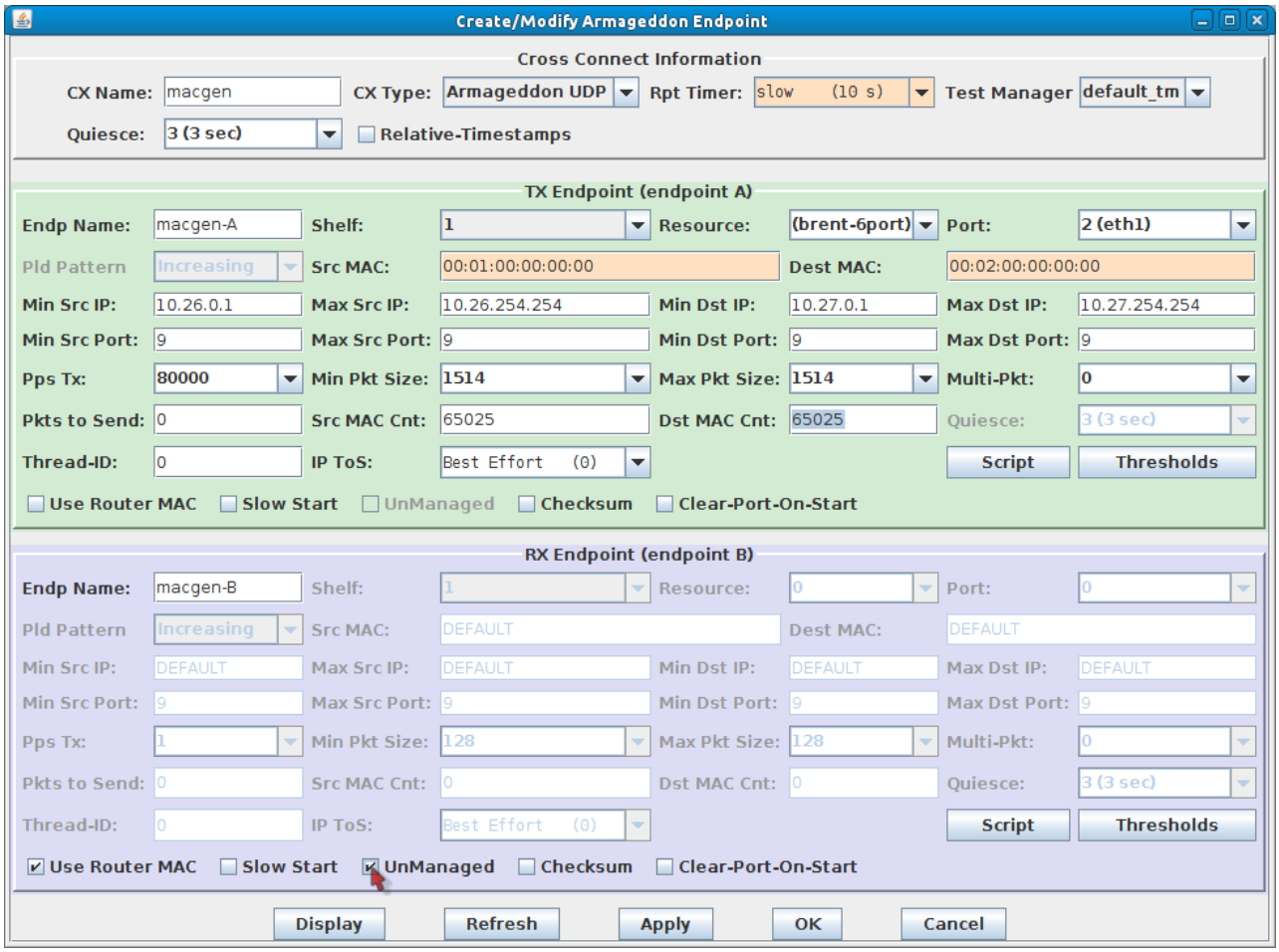


A. In the TX Endpoint (green box):
   A. The connection name for this example is `macgen`.
   B. Src MAC: `00:01:00:00:00:00`. This is the starting point for emulated remote MAC addresses.
   C. Dest MAC: `00:0e:fa:12:bc:3a`. Use the destination MAC address of your *system under test*.
   D. Min Src IP: `10.26.0.1`.
   E. Max Src IP: `10.26.254.254`. This emulates about 65,000 remote hosts.
   F. Min Dst IP: `10.27.0.1`.
   G. Max Dst IP: `10.27.254.254`. This emulates about 65,000 destination addresses.
   H. Pps Tx: `80,000`. This is a 1Gbps packet rate.
   I. Min Pkt Size: `1514`.
   J. Max Pkt Size: `1514`.
   K. Src MAC Cnt: `65,025`. This emulates 65,025 remote devices.
   L. Dst MAC Cnt: `1`.
   M. **Deselect** `Use Router MAC`.

B. In the RX Endpoint (blue box):
   A. **Select** `UnManaged`. This allows us to *fire and forget* the packets.

C. Click **OK** to commit the configuration.

3. **Switch Scenario:** Configure the Armageddon connection with the following values:

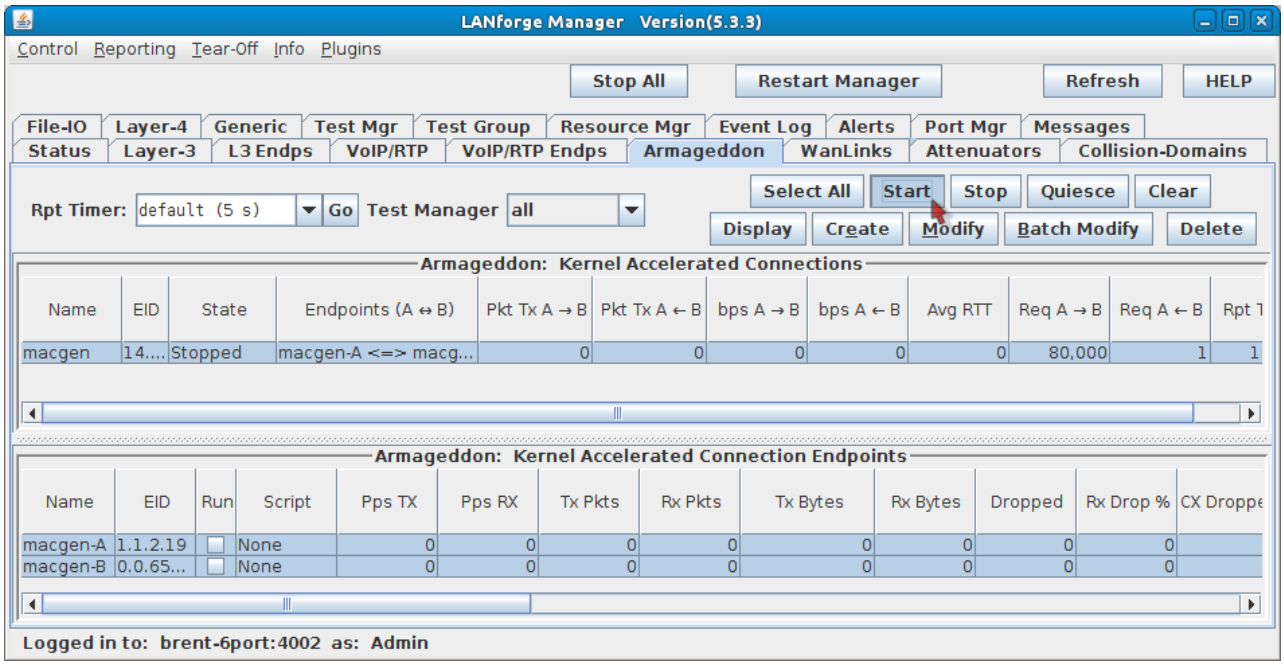


A. In the TX Endpoint (green box):
   A. The connection name for this example is `macgen`.
   B. Src MAC: `00:01:00:00:00:00`. This is the starting point for emulated source MAC addresses.
   C. Dest MAC: `00:02:00:00:00:00`. This is the starting point for emulated destination MAC addresses. This address is 4.2 billion addresses after the starting source MAC address.
   D. Min Src IP: `10.26.0.1`.
   E. Max Src IP: `10.26.254.254`. This emulates about 65,000 remote hosts.
   F. Min Dst IP: `10.27.0.1`.
   G. Max Dst IP: `10.27.254.254`. This emulates about 65,000 destination addresses.
   H. Pps Tx: `80,000`. This is a 1Gbps packet rate.
   I. Min Pkt Size: `1514`.
   J. Max Pkt Size: `1514`.
   K. Src MAC Cnt: `65,025`. This emulates 65,025 source devices.
   L. Dst MAC Cnt: `65,025`. This emulates 65,025 destination devices.
   M. **Deselect** `Use Router MAC`.

B. In the RX Endpoint (blue box):
   A. **Select** `UnManaged`. This allows us to *fire and forget* the packets.

C. Click **OK** to commit the configuration.

4. Start traffic generation:



A. In the **Armageddon** tab, click the **Start** button. Traffic will begin.