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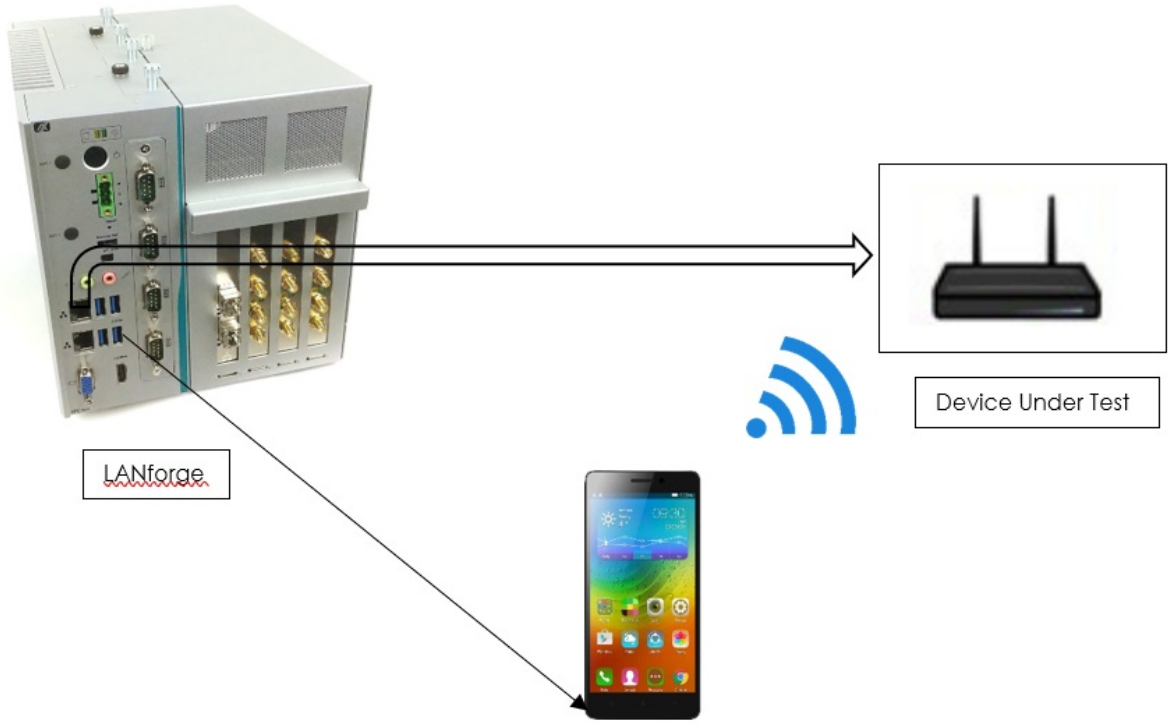
Real-Browser Test on Android

Goal: In LANforge, Layer 4-7 Traffic is used to emulate Web-Browsing. Web-browsing can be offline or online. This cookbook demonstrates how to emulate web-browsing with the real client Android phone.

This cookbook requires LANforge GUI version 5.4.6 and above.

Test Setup

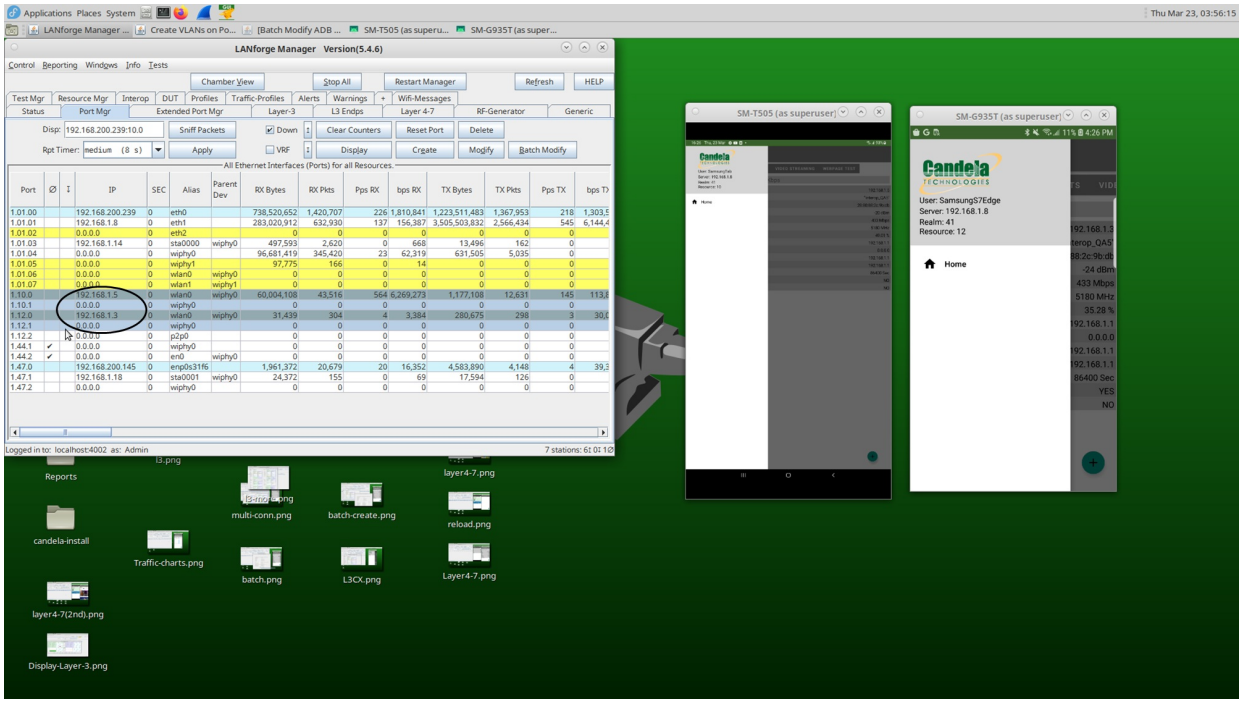


Online Real-Browsing Test

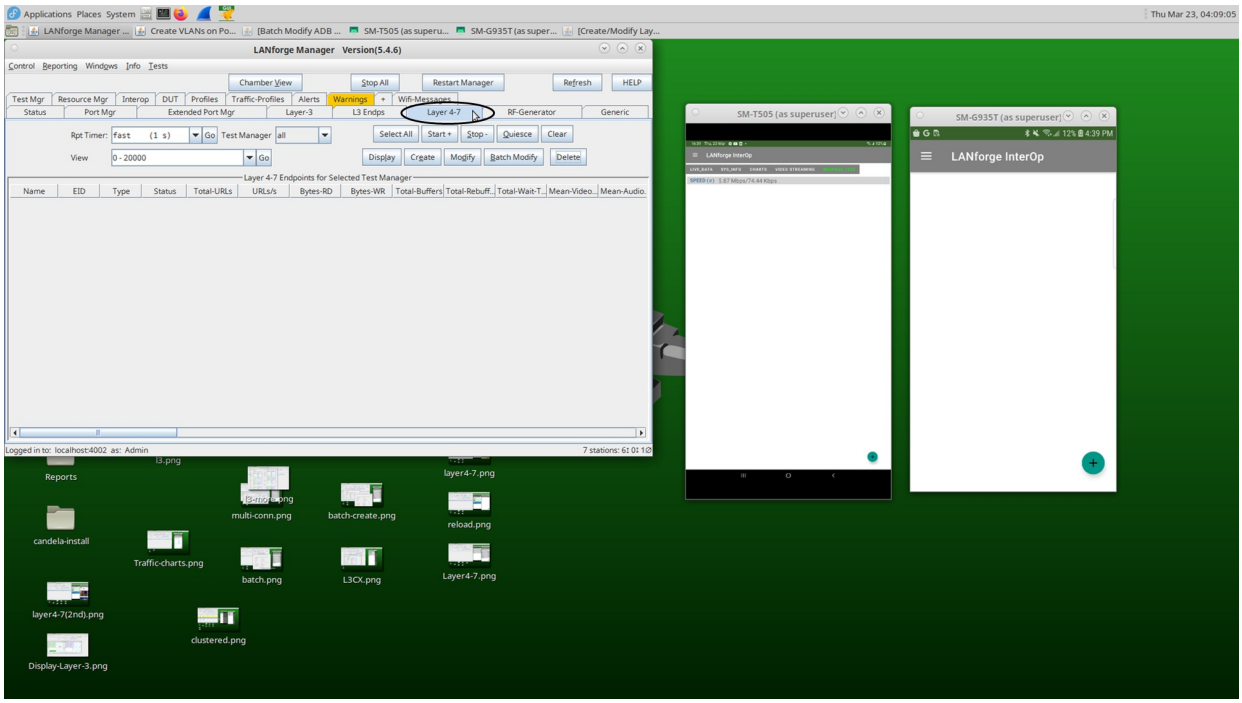
1. Make sure that the DUT is connected to the internet. Initial Android interop setup can be done using the following link.

2. The below picture is an example of two android phones (resource IDs 10 and 12) clustered to the LANforge in the Port Mgr tab. This is both the radios and mgr port of the phones.

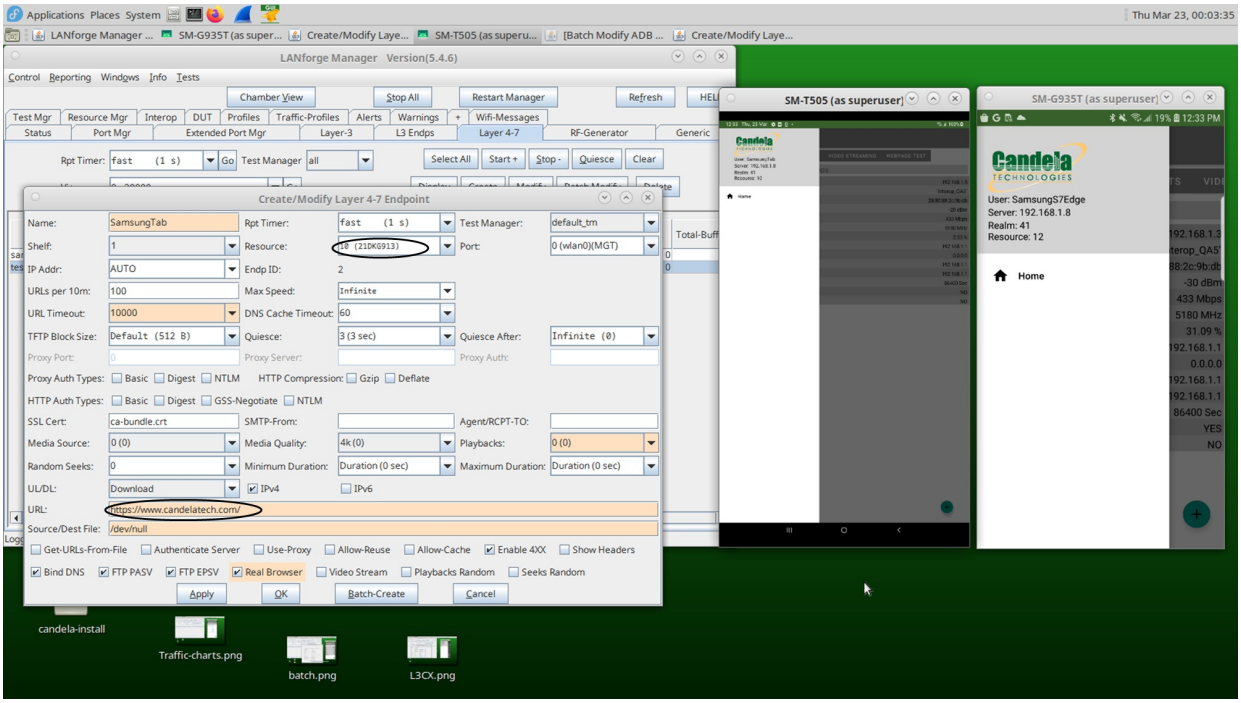
Make sure that the mobile phone devices appear in the Port Mgr tab after intial Android InterOp setup.



3. Click on the Layer 4-7 tab in LANforge and Webpage Test tab in the InterOp app on the phone.

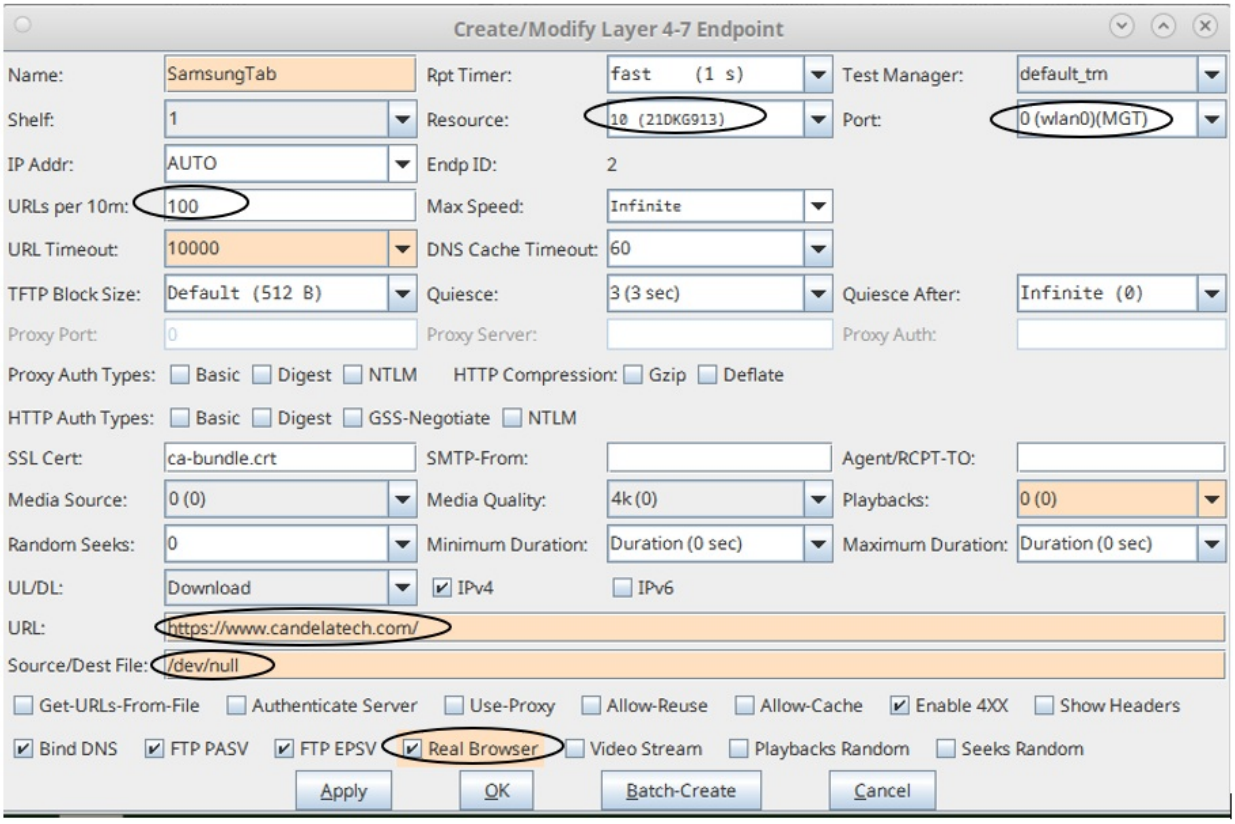


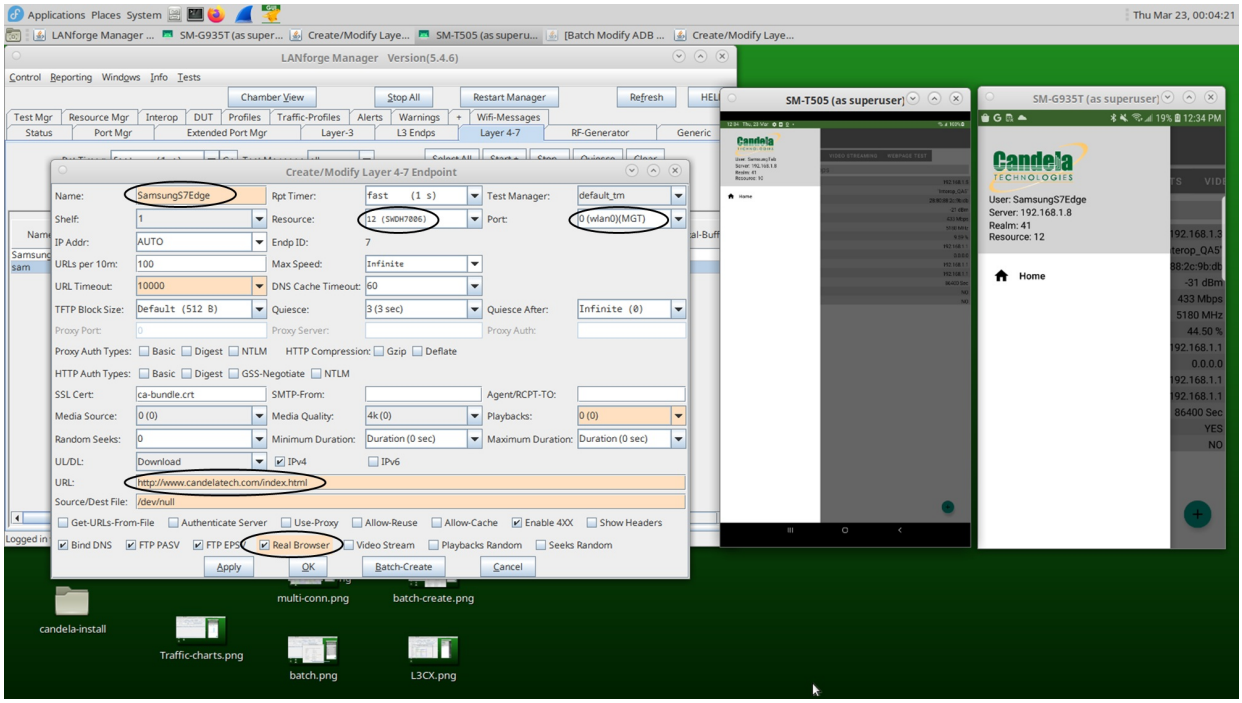
4. Create a Layer4-7 cross-connect in the LANforge Layer 4-7 tab using your phone (and resource ID). Add the details below.



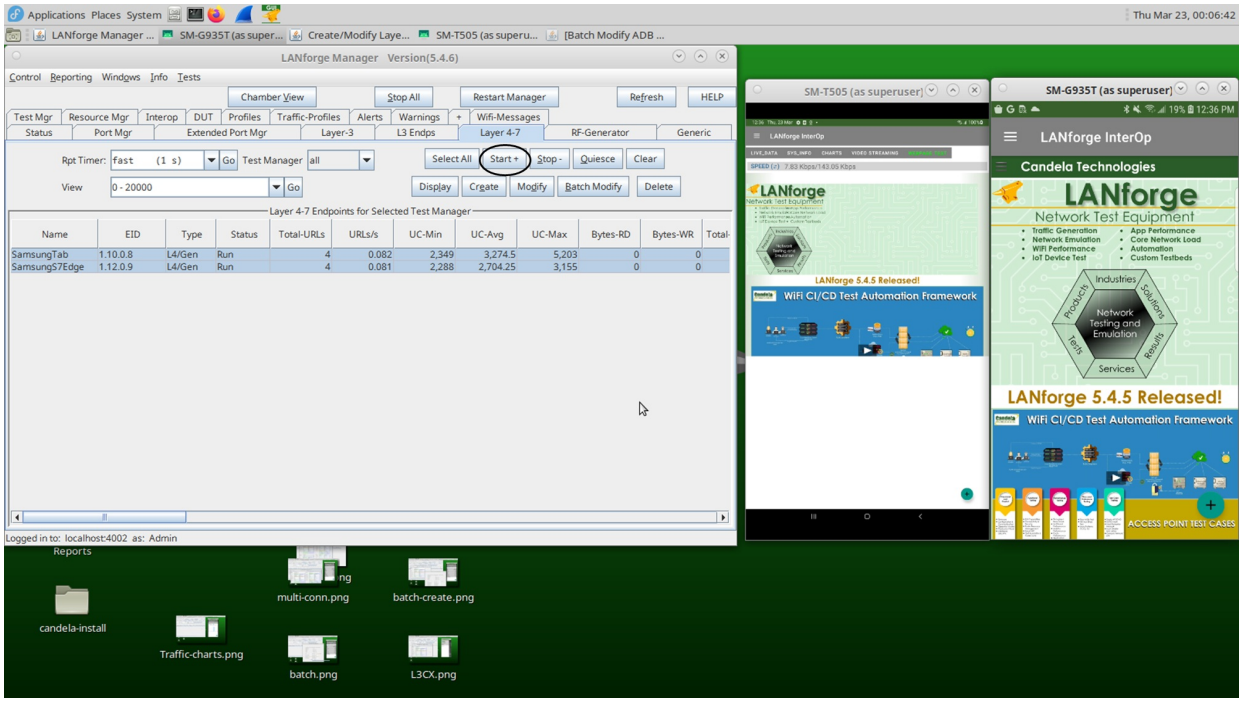
Enter URL to be browsed, source/dest file, select the resource-ID of the phone, and enable the Real Browser option, mention URLs per 10minutes.

Below are examples of creating cross-connects using resource IDs 10 and 12.

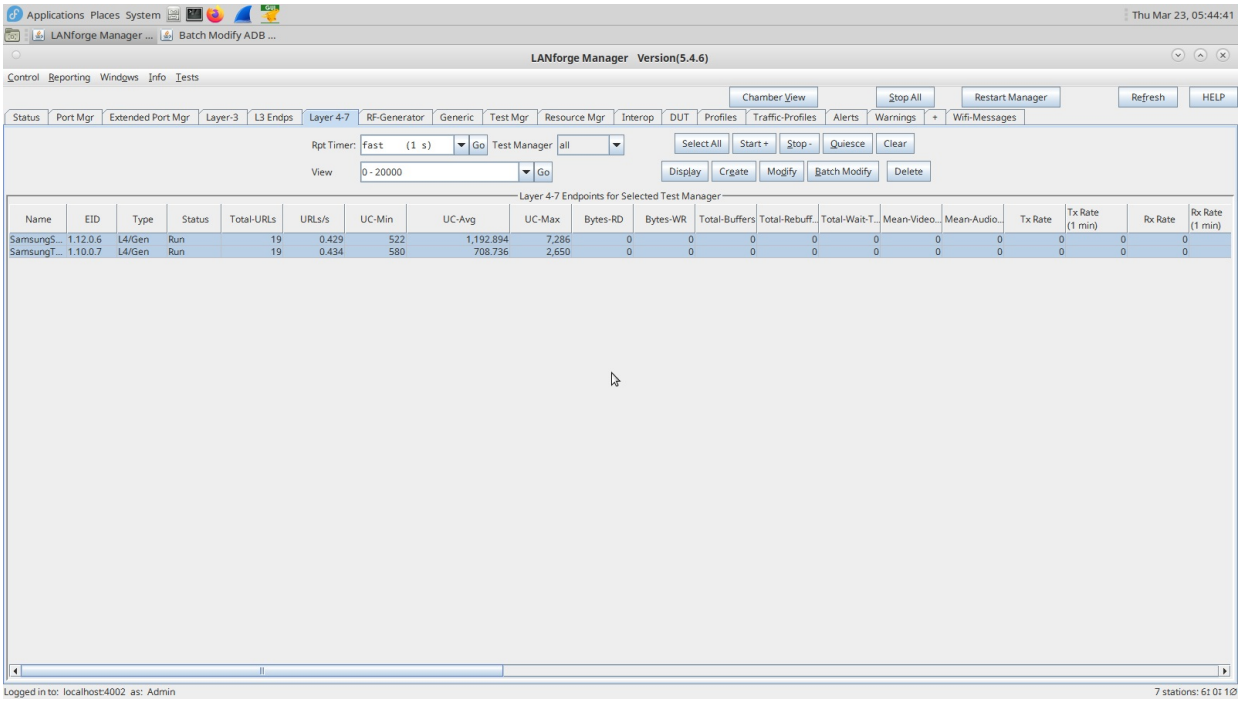




5. Select both the cross-connects and click Start. Then, in the Android Webpage Test tab, the Candela Technologies website should load in both the phone. The statistics should of the Layer 4-7 cross-connect should also start being report in the GUI Layer 4-7 tab.



Stats include Total-URLs, URLs/s, UC-Min, UC-Avg, UC-Max and Total ERR.



Total-URLs: URLs processed and in process. This includes passed and failed URLs.

URLs/s: URLs processed per second over the last minute.

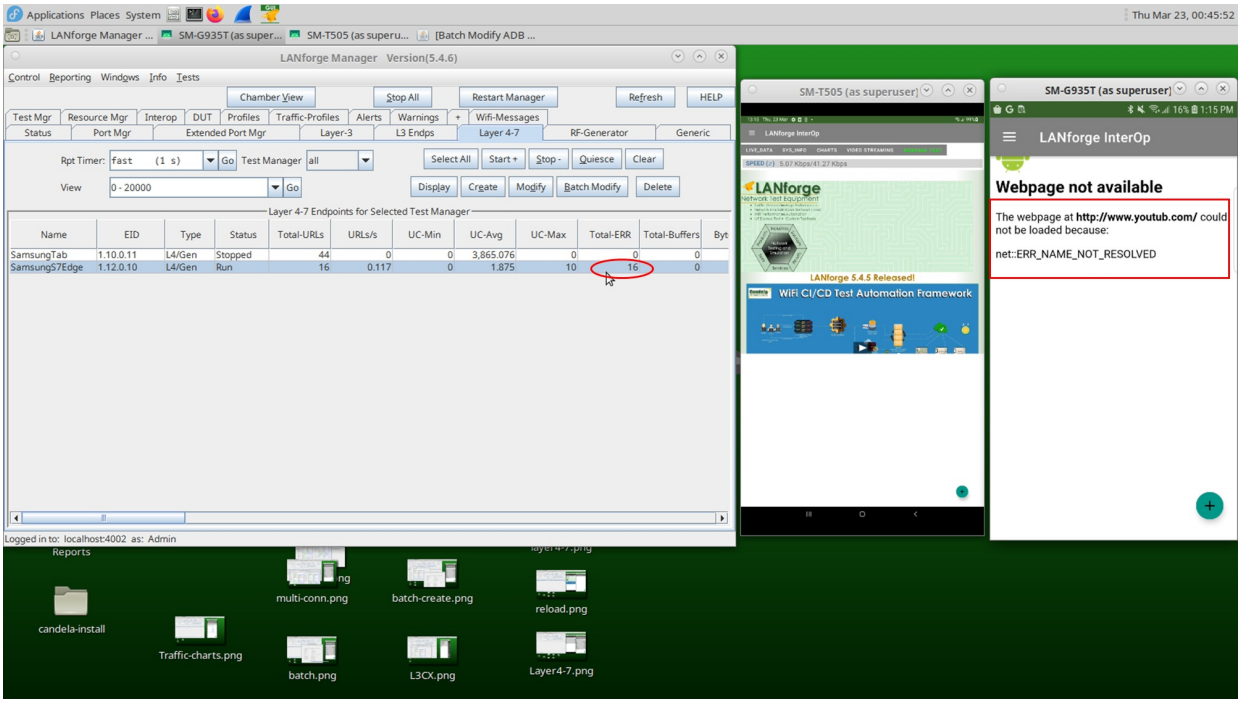
UC-Min: Minimum time in milliseconds to complete processing of the URL for requests made in the last 30 seconds.

UC-Avg: Average time in milliseconds to complete processing of the URL for the last 100 requests.

UC-Max: Maximum time in milliseconds to complete processing of the URL for requests made in the last 30 seconds.

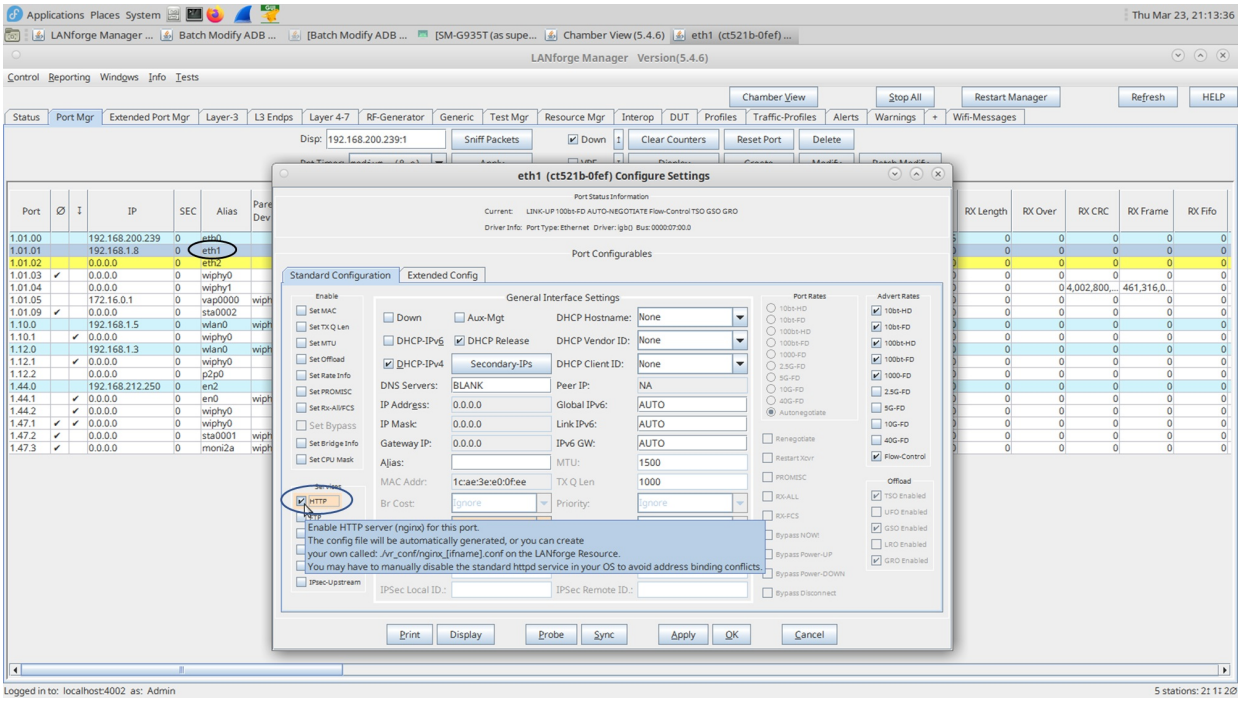
Total ERR: Total failed URLs.

6. Next, enter a wrong URL and start the cross-connect to observe Total-ERR (Total number of failed URLs). Observed below are 16 failed URLs.



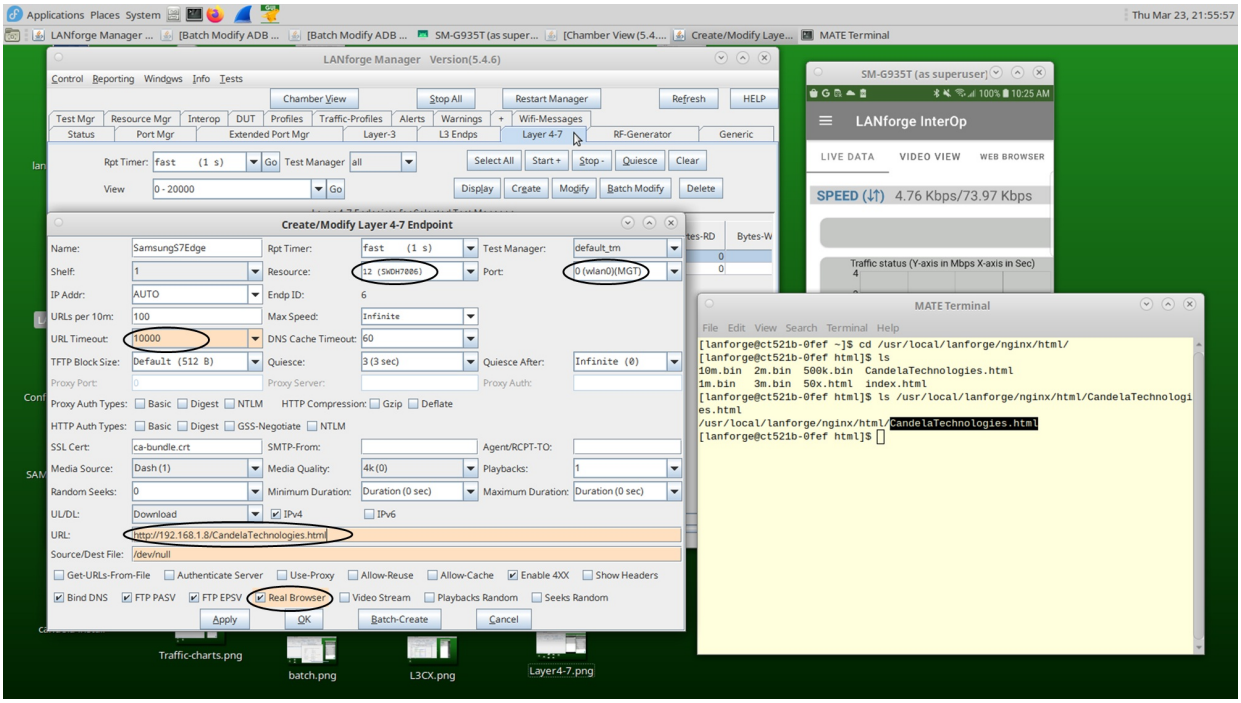
Offline Real-Browser Test

1. In the offline browsing test, there is no need have internet enabled on the DUT. First, run nginx on eth1. Double click on the port, click the HTTP check-box on the left hand side, and Apply the settings.



2. Download any HTML page and place the .html page in the html directory: **/usr/local/lanforge/nginx/html/** .
3. As you can see from the image below, CandelaTechnologies.html was placed in the **/usr/local/lanforge/nginx/html/** path.

Next, create a Layer4-7 cross-connect and fill out the boxes with the information given below.



4. Start the cross-connect and view the Web Browser tab in the app see the web page load. Statistics will also start to populate in the Layer 4-7 tab after the cross-connect has started.