Napatech Synchronized Traffic Generation for LTE Testing

Napatech recently released advanced features for synchronized traffic generation that can be beneficial for testing of 4th Generation mobile networks, such as Long Term Evolution (LTE).

The Napatech synchronized traffic generation features, available on the latest Napatech intelligent network adapters, allow full load traffic to be generated from multiple systems at multiple geographic locations with nanosecond time precision. In the case of LTE, this functionality can be used to simulate multiple devices accessing the mobile network and supported services at precisely the same time.

“We have all heard the stories of network breakdowns during live voting on TV shows or other popular events when more people than expected have tried to access the same network at the same time,” stated Erik Norup, President and CMO Napatech. “The difficulty in the past has been how to adequately simulate such an event and thus ensure that there will not be a network breakdown. With Synchronized Traffic Generation [1], we now provide the capability to generate traffic with nanosecond timing precision [2] from multiple, geographically dispersed systems. This provides the best possibility of simulating circumstances that can cause problems for mobile networks and services.”

The Napatech Synchronized Traffic Generation functionality is available on the latest Napatech intelligent network adapters [3], which are used by OEM vendors of test and measurement systems [4] to provide affordable traffic generation systems based on off-the-shelf standard servers. The solution takes advantage of Napatech nanosecond precision time-stamping and synchronization and the capability of Napatech network adapters to precisely control traffic generation including configurable time delays and control of Inter-Frame Gaps (IFG). To enable synchronized traffic generation at a given location, the traffic generation system must be time synchronized using either GPS [5], CDMA [6]or IEEE1588v2 PTP [7] time synchronization. There is no limit to the number of traffic generation systems that can be used with this approach.

Napatech will be hosting an advanced traffic generation demonstration at the upcoming Mobile World Congress 2012 in Barcelona from the 27th to the 1st of March. The demonstration can be seen on the Napatech stand 2G28 in hall 2.0.

For more information, please visit www.napatech.com [8].

Posted by Ron M. Seidel, Editorial Intern

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[2] http://www.napatech.com/features/precision_time_stamp.html
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