

Napatech Confirms Frost & Sullivan's Predictions on Strong Gigabit Ethernet Network Growth

Commenting on Frost & Sullivan's recent analysis on the Global Gigabit Ethernet Test Equipment Market that predicts significant growth in mobile backhaul will drive demand for Gigabit Ethernet testing systems, Napatech says that, with 4G services now launching across the globe, demand for high-speed mobile communications and test systems can only get stronger.

According to the network analysis and acceleration technology specialist - as mobile carriers were busy demonstrating at the Mobile World Congress event in Barcelona last week - mobile speeds measured well into the hundreds of megabits per second are easily achievable with LTE (Long Term Evolution) cellular, also known as 4G.

"And with LTE-Advanced providing wireless speeds of 1 Gbps-plus in the real world, it's not difficult to see why the cellcos are going to need their networks to handle data bandwidth an order of magnitude higher than at present," said Dan-Joe Barry, Napatech's vice president.

"As Frost & Sullivan's (F&S) test and measurement research report states, the key trends driving the global gigabit Ethernet test equipment market is the need for extra bandwidth caused by a flood of video applications on smartphones that offer anywhere and anytime access," he added.

This trend, says F&S, is motivating carriers to change from traditional telecom protocols such as SONET/SDH and ATM to Ethernet and is particularly visible in the mobile backhaul segment.

Against this backdrop, Barry says it comes as no surprise - again as the F&S report states - that the market for Gigabit test equipment over the five year period to 2015 will see steady annual growth approaching 10 per cent per year - despite the economic downturn and relatively static cellular revenues.

"For 2G networks, the focus was on voice. For 3G networks, data was a driving influence, but the applications were limited, so the focus was still on voice. 4G is the first network rollout where the focus is on high-speed data supporting multiple applications, some of which are real-time, such as streaming video. Therefore, testing to ensure that 4G networks are up to the task and can handle the huge amounts of data that are expected to be generated is essential", Barry continues.

Napatech has recently released synchronized traffic generation features in its intelligent network adapters that can help test equipment vendors in addressing this challenge.

"One of the challenges of pre-deployment testing is ensuring that the network is

dimensioned to withstand the onslaught of application hungry, smartphone users. Simulating multiple users at multiple locations trying to access the same mobile service is challenging. The synchronized traffic generation features of the latest Napatech network adapters allow test and equipment vendors to position multiple traffic load generation systems at multiple geographic locations where each system is time synchronized with nanosecond precision using GPS, CDMA or IEEE1588v2/PTP.

This allows a simulated traffic load to be placed on the mobile network from multiple geographic locations at precisely the same time with nanosecond precision. Using this tool, cellcos can ensure that the network is ready for primetime, "Barry stated.

But, this is just the beginning. "Once a service is in operation, it must be monitored to ensure that customers are receiving the Quality of Experience they expect", Barry continued. "Monitoring and analysing network and service usage is becoming a key part of mobile networks allowing carriers to get a real-time picture of their business and assuring that any issues are caught as they occur. When combined with policy enforcement, the captured information on network and service usage can be used to not only manage service usage, but also improve service delivery as well as even optimizing service billing schemes to fit customer needs. The key is ensuring that all the information that is needed to make these decisions can be captured in real-time even at speeds up to 40 Gbps, which again is an area where Napatech intelligent adapters excel."

In the light of increased mobile broadband demand, service assurance is set to become a hot topic for cellcos and cellco equipment vendors, so watch out for plenty of innovation on this front powered by products technology like those provided by Napatech.

For more on Napatech: <http://www.napatech.com> [1].

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