Nujira Study Reveals Mobile Network Performance Limited by Handset Transmitters

Nujira has released the results of an operator-focused study carried out by RTT and Caru Ventures on behalf of Nujira to understand the network performance challenges faced by operators. Crucially the study found that LTE network performance is currently limited by handset transmit performance - reducing network coverage by as much as 32%, requiring operators to install 45% more base station sites.

RTT and Caru conducted interviews with specialists in network planning, and those responsible for handsets, to understand the most important factors for operators in developing LTE networks. The results are available for download from Nujira's website (www.nujira.com), and Nujira (Hall 1 Stand 1C62), RTT and Caru ventures will be discussing them at next week's Mobile World Congress in Barcelona.

The study also highlights FCC reports that show how today's LTE handsets and terminals are often incapable of transmitting at full power, falling short by 2 dB or more even in the relatively easy 700 MHz bands. This has a significant negative impact on network performance.

Geoff Varrall, Director at RTT Programmes, commented: "Several operators reported that their HSUPA and LTE network coverage is limited by the handset transmit performance. This has a direct impact on network coverage - our modelling showed that a 3 dB reduction in terminal output power results in a 32% reduction in network coverage, or a requirement to install 45% more base station sites; both scenarios have a significant impact on network economics."

The study by Caru and RTT went on to show how the noise reduction characteristics of Nujira's Envelope Tracking technology in RF power amplifiers can dramatically improve both the consumer's experience on LTE and an operator's returns on investment in network assets. The study demonstrated that Envelope Tracking in handsets can improve coverage by approximately 40% and network throughput can be doubled. Given that LTE coverage is a key challenge for operators, particularly in the first few years of deployment, this represents a real and substantial improvement in the service an operator can offer consumers from this initial investment in network technology.

Tim Haynes, CEO, Nujira, said: "As data rates grow, new networks like LTE are being deployed in higher frequency bands, such as 2.3-2.7 GHz, where signal propagation is particularly challenging. Coupled with the huge increase in mobile data traffic, where the majority of data is consumed indoors, means that 4G terminals are increasingly operating at the limits of their RF performance. Nujira's Envelope Tracking technology, and our patented ISOGAIN(TM) linearization, overcome these

limitations, delivering the full 4G Experience to consumers, and significant economic benefits to operators."

Mike Grant, Founder of Caru Ventures, added: "In addition to network coverage, operators cited poor battery life and excessive heat dissipation in terminals as major factors degrading the customer experience for LTE. Technologies such as Envelope Tracking which can address these issues were of significant interest for many of the major operators we surveyed."

For more information visit www.nujira.com [1]

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