Enea claims 15% increase in RAN capacity through machine learning

Covid-19 pandemic renewing operator focuses on extracting maximum capacity from 4G networks and machine learning, seen as providing a significant boost to capacity and cost-effectiveness

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With capacity a crucial operating parameter for telecoms operators with not just next-generation but current comms infrastructures, telecommunications and cyber security software provider Enea Openwave has revealed what it says is a technology breakthrough regarding capacity for radio access networks.

Enea Openwave notes that in the wake of Covid-19 many operators globally have slowed down the pace of their 5G network roll-out. This, it says, has forced a reassessment of how they can extract maximum value from their 4G network assets in the medium-term.

Also, based on figures from Enea Openwave deployments worldwide, during lockdowns, some operators faced a surge of over 90% in peak throughput. In addition, the company notes that while 5G can support up to 100 times more data traffic than 4G in the long term, for the short to medium term, operators need to prolong 4G's lifespan.

"Video streaming continues to experience high year-on-year growth, and that has been exacerbated by the pandemic and resulting lockdowns", said Gorkem Yigit, principal analyst at research firm Analysys Mason.

"Yes, 5G grabs the spotlight, but 4G is carrying the brunt of this traffic. While investment in 5G infrastructure continues, operators need intelligent ways to maximise and extend existing 4G network capabilities in the short to medium term – keeping their CAPEX to a minimum."

To address the issue, the company has announced that its RAN Congestion Manager (RCM) incorporating machine learning capabilities is increasing mobile operators' 4G RAN capacity by 15% in congested locations.

The machine learning capabilities dynamically predict and identify congestion in the RAN, enabling operators to take immediate remedial action. Such capability is said to have enabled Enea Openwave customers to cope with the double threat of increased data usage and a slowing down of 5G roll-outs, brought on by the Covid-19 pandemic and resulting lockdowns globally. This, said Enea Openwave, has given operators' 4G networks a new lease of life without any additional hardware investment.

Enea Openwave added that four-fifths of the world's largest operator groups have now deployed traffic management technology, with a number of them upgrading to incorporate its machine learning capabilities, to enable optimal bandwidth utilisation and improve 4G quality of experience.

"We have [taken machine learning out of the lab and into commercial deployment](#)," said Openwave president John Giere. "Conventional mobile data management requires manual configuration and network investment – it is no longer fit for purpose.

Machine learning has given existing 4G networks the shot in the arm they needed," he said. "It can work dynamically without external probes or changes to the RAN, delivering additional capacity at a time when operators need it most."