Notes on a specialist in cellular backhaul optimisation, and in enabling mobile operators to gain rapid return on investment

Optimising the core

to serve key players in African cellular markets

YVES HUPÉ HAS seen it all. The Memotec president has nearly two decades of experience in the telecommunications industry, at executive level, developing personal and corporate core strengths in service provision. As marketing and product management VP, and now as president, Hupé has managed growth at Memotec, and a strategic focus on cellular backhaul, tripling sales revenues in the process. In interview with Communications Africa/Afrique, Yves spoke of the key drivers affecting growth in Africa's comms markets, and of his own company's contribution to terrestrial and satellite cellular backhaul optimisation.

Historically, mobile operators have bought T1/E1 leased lines to backhaul voice traffic, and bought new lines to generate more capacity. But Memotec's president argues, "With the continuing proliferation of premium 3G mobile services such as mobile TV, video and high speed Internet, more and more pressure has been added on the transport network infrastructure, particularly the Radio Access Network (RAN). You cannot 'simply' add more E1s to accommodate the traffic growth," he continued.

"One of the solutions to alleviate these issues consists in shrinking the information that flows through, creating more space for extra subscribers and for new services. This process of 'shrinking' is based on compression and optimisation technologies that have become crucial to the cellular backhaul."

This is where Memotec steps in. Optimisation and compression solutions prevent the operator waiting too long for ROI, and incurring revenue loss meanwhile. These situations describe the African landscape very well, from North to South and East to West.

Taking capacity a step further

According to the President of Memotec, the secret lies in taking capacity planning one step further to include bandwidth optimisation - planning that takes into account not only the types of services running on the network, but also how the bandwidth of every asset is managed to support immediate, short, medium and even long term requirements for each service. This will ensure capital expenditure is controlled and network investments are protected.

Another aspect is the utilisation of satellite backhaul for mobile telecommunication, which is a key requirement for Africa's connectivity issues. With satellite infrastructure, mobile operators can factor in diverse geographies, with small populations, high capital expenditures and relatively low revenues.

Better compression techniques and improved traffic management tools can definitely lead to increased satellite revenues for Africa's telecommunications enterprises. Memotec's ability to optimise and compress is a must to satellite telecommunications in Africa's remote regions, where satellite-to-mobile service provision is the only way to connect people and businesses. According to Yves Hupé, one of the keys to cost-effective connectivity in such scenarios is a radical reduction in the size of information transferred from earth to sky, and back. Aside from helping to alleviate any capacity issues, such an approach to traffic management brings forward the time to ROI.

Solutions for emerging operations

ABI Research indicates that, as T1/E1s reach capacity, network performance can degrade by more than 40 per cent. Yves Hupé affirms that rising mobile data traffic can effectively affect network performance, significantly and immediately - and the common experience of long provisioning times for leased lines does not help matters. Furthermore, backhaul can be an expensive business, especially with respect to satellite connectivity. Operators must find backhaul solutions that meet the performance needs whilst reducing CAPEX and OPEX. An optimisation solution could reduce the operator's cost significantly contributing in reducing CAPEX and OPEX.

Undeserved communities are, most of the time, fairly remote. They can be reached by satellite, or very specialised long distance microwave network, but the number of potential subscribers might not justify the investment, or the cost of the bandwidth can be so expensive that it makes the business case just not viable. That is an example where Memotec can contribute in strongly reducing operator's cost. Memotec's portfolio is strongly geared towards next generation service provision. It is focussed, also, on profitable connectivity.

Yves Hupé, President of Memotec

"We can make the business case for underserved community viable by reducing the cost of deployment by 50 per cent!" says Hupé.

"How? the cost of transmission for serving underserved communities represents approximately 70 per cent of the total cost of deployment. The difference would be management and power. Memotec's equipment can divide this transmission investment by three, just by reorganising the traffic to maximising bandwidth usage. An overall saving of 50 per cent saving can be achieved on the overall project." ●

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