



Infrastructure improvements key for carrier survival

Demand for more bandwidth-intensive services mean carriers must develop their infrastructure to compete and differentiate in an increasingly commoditised telecoms marketplace, argues Nokia Siemens Networks.

By Chris Green in Faro, 25 Sep 2008 at 10:13



Telecoms companies, [broadband providers](#) and enterprise network operators need to drastically rethink their approach to infrastructure investment and network planning in order to cope with the next major jump in bandwidth demand.

This stark warning emerged from the [NetEvents technology conference in Faro](#), where Bernd Schumacher, the head of IP transport for [Nokia Siemens Networks](#) outlined an industry view of commoditised networking and bandwidth, along with a need for carriers to cut operating costs in order to fund major capital expenditure projects, as well as differentiate services from one another.

“There will be five billion connected users worldwide by 2015, all of whom will be looking to consume a range of high-bandwidth applications and services across both consumer and business environments,” said Schumacher.

This rapid growth in internet-connected users is spread across wired and wireless platforms. The number of wired users in business and residential environments is on the rise, thanks to growing broadband coverage and falling costs as prices are driven down by competition. More recently, this has been spurred on by the use of broadband infrastructure as a loss leader for other more lucrative services such as hosted applications, IP telephony and television. Also, the use of smartphones and cellular data modems is growing rapidly thanks to all-inclusive cellular data price plans.

In order to sustain this growth in use and subscriptions, network operators need to expand coverage, increase last-mile bandwidth and core network bandwidth. In most cases, this still involves major capital expenditure projects, such as digging up roads to lay fibre to the kerb or to the street cabinet, or deploying metro Ethernet services.

“Taking cost out of the network is key,” said Schumacher. “Operators need new ways of architecting networks quickly in order to outmanoeuvre rivals, while all the time ensuring that high availability and resiliency are maintained, and god bandwidth is delivered consistently.”

Schumacher argued that bandwidth is largely commoditised, meaning that carriers and service providers need to differentiate on aspects other than access.

“The revenue in this market doesn’t grow accordingly with network connections. Bandwidth is a commodity already and will become more so, so carriers need to strip more cost from their networking operations through better use of infrastructure.”

Network development and expansion will ultimately be funded through services, rather than selling access.

“All the services that are being discussed and purchased by users share a common element – broadband. Whether that’s video, VoIP or TV, they will all consume more broadband bandwidth,” Schumacher said.

“There is demand for new services that people will pay for, and with that comes the money to fund the infrastructure.”

Despite these pressures on carriers, Schumacher argued that it’s too hard to speculate on consolidation in the industry.

“I can’t say that there will be specific consolidation among carriers, but you have to overlay more effective technology to improve service and provide more effective interconnects between those network operators.”

With the number of active internet-connected users continuing to rise at an impressive rate, fuelled by emerging economies such as China, India and parts of Africa, pressure on infrastructure is showing no signs of easing. Major investment is needed to transform telephony and broadband networks to deliver higher speed throughput and improved bandwidth, and that investment, Schumacher explained, will need to come from the private sector in most countries rather than from government funding.