



Backhaul Packs 'Em In

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LONDON -- Backhaul Strategies for Mobile Operators: Europe -- Mobile operators are planning major overhauls of their backhaul networks, which will provide a mini-boom for vendors that can meet their migration and packet network plans.

That's the major message the 150 attendees at today's backhaul conference in London took away, having heard presentations from [T-Mobile \(UK\)](#), [Orange UK](#) (London: [OGE](#) - [message board](#)), and French carrier [SFR](#). Representatives from all three carriers outlined how the deployment of HSPA mobile access technology will have a dramatic impact on the network capacity needed to connect the network core to the base stations at the edge.

HSPA (high-speed packet access) is the latest commercially available iteration of 3G, and is already deployed by a number of major mobile operators. (See [Indosat Deploys HSPA](#), [T-Mobile Awards 3G Deals](#), [Vodafone's 3G Broadband Service](#), and [SFR Uses Siemens](#).)

Each carrier has a different starting point in terms of its standing infrastructure and its backhaul strategies: T-Mobile has many of its cell sites connected with fiber, while Orange and SFR, though also dependent in many cases on E1 leased lines, have a far greater reliance on microwave wireless links in their backhaul networks. But the end goal and the drivers are the same: Operating costs need to be cut, while an end-to-end packet network architecture is the end-game architecture -- and that's a radical shift from the TDM-based networks of today.

The operating costs problem as it stands is that a mobile carrier's opex rises as its backhaul capacity requirements grow. That's largely due to the reliance on expensive E1/T1 lines. The aim, noted Martin Kingston, Orange's senior designer for transport, is to "decouple cost from capacity so that opex doesn't rise as capacity requirements rise... Opex could cripple" carriers' 3G business plans, he added.

The alternative? Introduce new network elements that enable carriers to migrate away from TDM to packet backhaul infrastructures that are more scaleable and have a much lower cost-per-bit structure.

Kingston told the audience that [Multiprotocol Label Switching \(MPLS\)](#) and pseudowire will be key technologies for carrier transport networks as they migrate from the current TDM-based networks to the end-to-end packet networks of the future. (See [Wireless May Boost Pseudowire](#) and [MPLS in Access Networks](#).)

That's music to the ears of equipment vendors that have the [Ethernet](#), optical, multiservice, and access gear that could be deployed, as there are 670 live GSM networks and more than 100 UMTS 3G networks currently live, with more GSM networks still to go live and many hundreds more 3G networks to be switched on. (See [Alcatel-Lucent Wins](#), [Sonofon Uses Nortel Backhaul](#), [NMS Bolsters Backhaul](#), [Kentrox Enhances Backhaul](#), [Axerra](#), [Narad Go Wireless](#), and [RAD Targets Backhaul](#).)

One of those vendors is [Celtro Inc.](#), which announced a breakthrough deal with South African operator [Vodacom Pty. Ltd.](#) here today at the conference. (See [Vodacom Picks Celtro](#).)

Celtro, which has focused on developing a multiservice backhaul switch specifically for the backhaul portion of GSM/UMTS, is being deployed by the operator in more than 1,000 locations in a deal that's valued in the high single-digit millions, says Celtro CEO Ron Zor.

That's the company's single biggest deal (it has 25 in total), and will help it double its revenues in 2007 from the expected \$15-20 million mark this year, he adds.

The company -- which regards [Cisco Systems Inc.](#) (Nasdaq: [CSCO](#) - [message board](#)) as its main competitor, along with the market's multitude of MSPP and backhaul specialist vendors -- engineered its Dynamate switch to handle TDM, ATM, and IP traffic, and developed traffic management and packet conversion capabilities that make best use of the available bandwidth and reduce the number of leased lines required.

The firm's VP of marketing, Shahar Gorodeisky, says the level of backhaul activity is "huge. All the Tier 1 carriers have RFPs out, and we're involved with all of them in one way or another," some directly and others

through partners. Gorodeisky declined to name any companies that are pitching Celtro's technology into those RFPs, but he said the company is in talks with major vendors about potential partnerships.

— Ray Le Maistre, International News Editor, *Light Reading*

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