

Automating the telecoms business

In 1998, Caspian American Telecommunications, LLC (CATEL) constructed a mesh network combining fixed-line technology with a first generation CDMA cellular network based on Qualcomm infrastructure. By the end of 2002, the operator had upgraded the wireless portion of its network using CDMA2000 1x infrastructure supplied by Huawei Technologies. In 2003, CATEL then launched 3G cellular services in Baku, Sumgait, and the entire Absheron Peninsula under a phased rollout that commenced early that year.

Now, with more than 13 000 customers, CATEL is anticipating a further 20 000 CDMA 3G customers by the end of the year, and plans to continue expanding its infrastructure and provide

service for the rest of the population in other geographic locations. Indeed, the company's president, Derya Yavalar, confirms that feasibility studies are already underway to this end.

The latest development on the CATEL network is the installation of a *Convergent Billing Operation Support System (CBOSS)*, mediation device (*CBOSSmd*), automatic customer care (*CBOSSacc*) and traffic engineering (*CBOSSTe*) from CBOSS which will be completed by June.

According to Yavalar, the new convergent billing system offers a number of benefits in terms of speed and efficiency, as well as the new features it will support. For

example, it will enable the operator to continue offering billing services in Azeri and English, but with the added capability of providing them also in Russian. The system supports itemising and metering of calls and incorporates customised IT features for automation of a number, customer billing and operations functions.

The CBOSS system, part of the company's *Teletopia* product suite, is configured for 50 000 subscribers and is being deployed on a Sun Microsystems and Hewlett-Packard hardware platform.

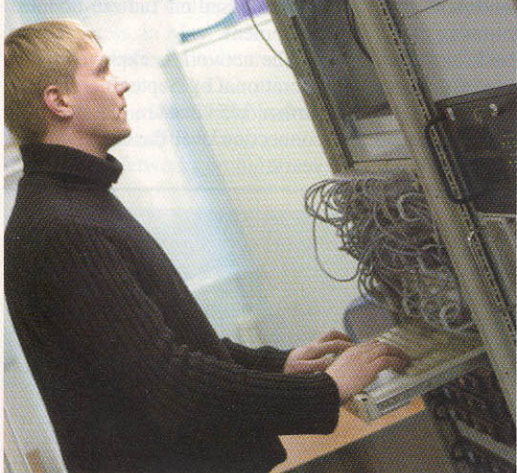
The solution supports: flexible tariff models; complete customer

care cycle; billing and 'Hot' call rating; automated settlements with subscribers and financial control; inventory procedures and sales automation; partnership management (dealers, service providers and roaming partners); reporting system – providing aggregate and itemised information on all the branches of telecoms activities; and real-time mediation.

As part of the contract, CATEL specialists have attended a training course at CBOSS' facilities in Moscow covering the functionalities and capabilities of the solutions being installed.

This is CBOSS' second contract in Azerbaijan, having deployed its *CBOSSms* short messaging solution for Azercell Telecom in 2001. ■

A CBOSS specialist performs a server observation.



Save on frequency fees

A microwave-based transmission system designed to enable operators to reduce occupied frequency spectrum by half while doubling capacity is being deployed by Vodafone Hungary to increase the capacity of its existing nationwide network.

Under a rolling contract lasting several years, Nokia is delivering its latest *FlexiHopper Plus* solution – which offers a 16-state modulation option and 32 TCM (Trellis Coded Modulation). This allows the use of 14MHz channels for 16x2Mbps capacity – half of the channel width (28MHz) provided by the original *FlexiHopper* system, which uses 4-state modulation.

According to Nokia, the main benefit of its new solution is that operators can expand transmission capacity on sites where there is limited frequency spectrum available. An operator may upgrade transmission capacity from 8x2Mbps to 16x2Mbps while maintaining the 14MHz channel width. In certain countries, operators can make substantial savings by using 16-state modulation claims the vendor.

Vodafone commenced its operations in Hungary in 1999 as the third mobile service operator, and now serves almost 1.5 million subscribers. ■

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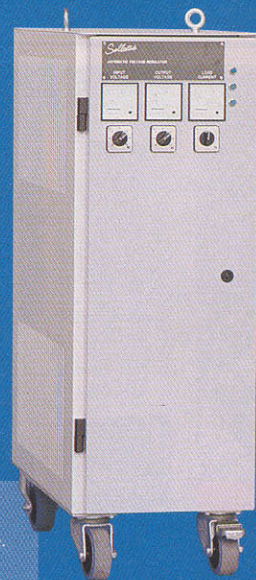
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Sollatek (UK) Ltd. Unit 10, Newlands Drive,
Horton Road, Poyle, Slough, Berkshire SL3 0DX,
UNITED KINGDOM