

Celtro DynaMate™

Squeezing More from Your Cellular Backhaul

More revenue-generating services

More field-proven experience

More capacity, efficiency & cost-performance

celtro

Demands on Cellular Network Evolution

With the introduction of new broadband mobile services, cellular networks are stretched to their limits. Providers are constantly seeking additional network capacity to enable delivery of bandwidth-intensive data services. At the same time, they strive to make sure that today's investments can be leveraged with tomorrow's technology.

Nowhere are these challenges felt more acutely than in the backhaul network.

Burdens on the Backhaul

3G providers have heavy demands from their backhaul networks, such as:

- Increased capacity to deliver new 3G and HSPA services
- QoS support to enable mobile TV, video and VoIP and to guarantee customer quality of experience (QoE)
- The flexibility to handle traffic demand variations and burstiness of new broadband mobile services
- Smooth migration from ATM to IP/MPLS for any L1 infrastructure and architecture - hybrid or converged
- Protection of investment in existing infrastructure while migrating to all-IP RAN.

Celtro Meets Backhaul Challenges

Celtro's DynaMate™ carrier-grade backhaul solutions empower cellular operators to introduce advanced services, while keeping infrastructure costs in check.

Designed exclusively for the cellular backhaul network, DynaMate solutions are field-proven, easily installed, and highly reliable. Commercially deployed by mobile operators worldwide, DynaMate solutions accommodate expanding networks and service delivery needs, and enable:

- Multi-service multi-protocol TDM/ATM/IP switching with interworking over ATM and pseudowire technologies
- Support for all radio technologies from 2G, 2.5G, 3G, HSPA and beyond
- Application layer switching for efficient and flexible backhaul performance
- Dynamic bandwidth allocation for 2G, 3G and HSPA traffic
- Support of QoS for 2G and 3G at the voice, data and signaling level
- Convergence or hybrid backhaul networking over ATM and IP/MPLS.

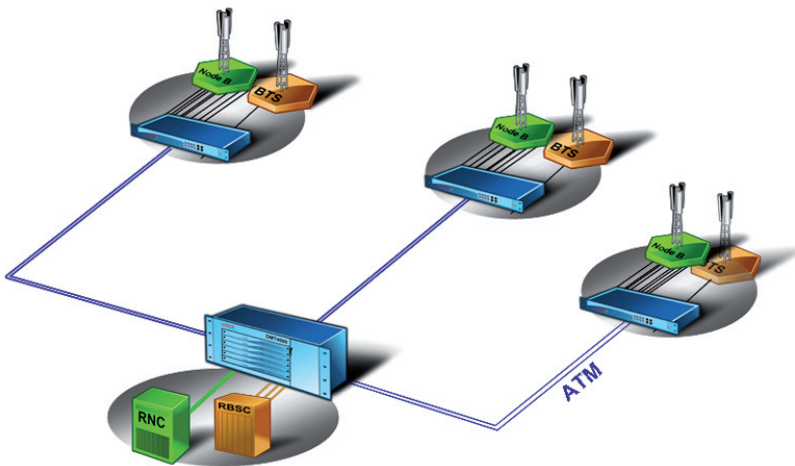
Celtro Advantages

- Field-proven solution with largest installed base in the market
- Pumped up backhaul performance for more capacity and service delivery over existing infrastructure
- Minimization network OpEx and CapEx
- Transparency to traffic demand fluctuations
- Smooth, one-box software-based, adaptive migration from ATM, through HSDPA offload, to all-IP RAN
- Future-proof for new radio and backhaul technologies

Celtro DynaMate Features

- Dedicated switches designed especially for rigors of the mobile backhaul network
- Multi-service, multi-protocol TDM/ATM/IP switches with interworking over ATM and pseudowire technologies
- Traffic optimization and statistical multiplexing of 2G, 3G and HSPA traffic
- Dynamic bandwidth allocation for 2G, 3G and HSPA traffic
- Converged 2G/3G traffic onto a unified ATM/IP network
- Hybrid solution for separating HSPA traffic from delay sensitive 2G and 3G R99 over ATM and IP
- Application-aware QoS
- Carrier-grade solutions - modular, scalable, and fully-redundant

DynaMate Migration from ATM to All-IP RAN

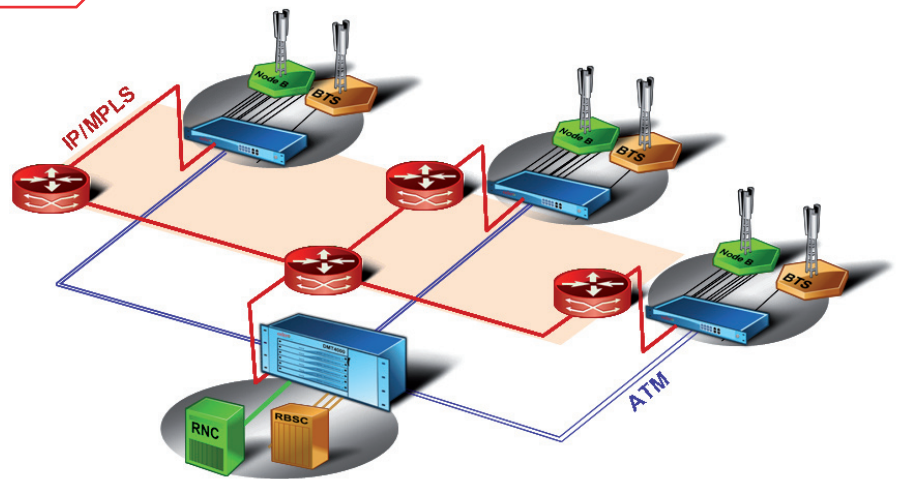


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2G, 3G and HSPA Convergence over ATM

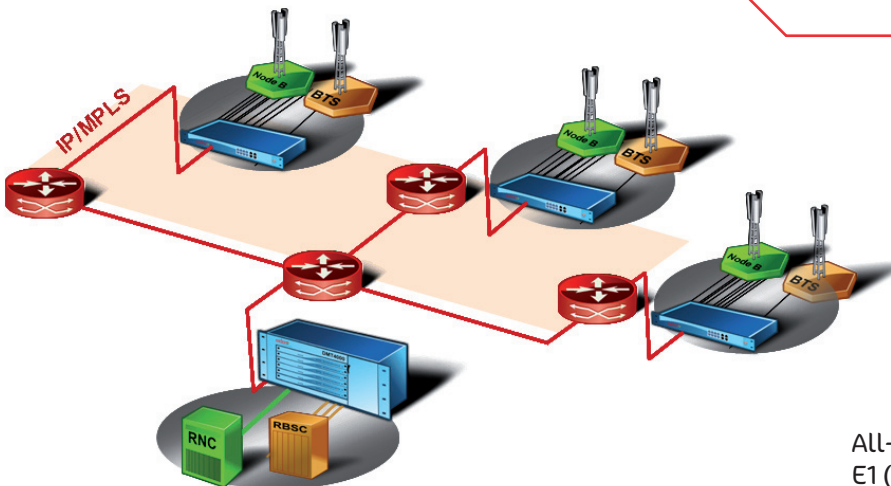
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HSPA Offload - HSDPA over IP and 2G/3G-R99 over ATM



3

All-IP RAN over infrastructure of Ethernet, E1 (ML-PPP) or STM1 (POS)



Built for the Backhaul

DynaMate switches fit anywhere in the backhaul network - from the end base station, through remote hub sites and up to BSC/RNC and MSC sites. DynaMate products support 2G Abis and Ater interfaces and the 3G Iub interface, and optimally converge 2G and 3G backhaul traffic on standard ATM or IP networks. Suitable for any mobile backhaul infrastructure - leased lines or microwave - DynaMate is an end-to-end solution for aggregating and optimizing cellular backhaul traffic flow to deliver superior network performance.

Adaptive Migration to all-IP RAN

When introducing HSPA, DynaMate enables optimal convergence of all 2G and 3G R99 and HSPA traffic for better network efficiency and flexibility - facilitating the rapid introduction of new services over the existing backhaul infrastructure. Alternately, DynaMate offers a hybrid network solution in which "best effort" HSPA traffic is offloaded and delivered over a cost-effective Ethernet backhaul network using pseudowire over IP/MPLS technology - while delay-sensitive R99 and 2G traffic flows are carried by the existing backhaul infrastructure.

With the impending introduction of IMS and network R.6 and R.7, backhaul networks will migrate to all-IP RAN. Here, too, DynaMate enables optimal convergence of all 2G, 3G R99 and HSPA traffic on one unified and dynamically shared IP/MPLS network - guaranteeing end-to-end QoS and providing network synchronization to the cell sites.

Excellent Solutions, Excellent Support

Celtro understands that nothing is more important than the quality of your service and the satisfaction of your subscribers. We know that an effective solution needs to be backed up by superior service.

That's why Celtro provides unparalleled 24/7/365 support for problems complex or simple, offering the fastest responses from our highly-trained team of experts. We also offer cost-effective and rapid implementation services - ensuring that rollout of DynaMate products is smooth, painless, and fast.

Other Celtro support services include:

- Expert dedicated account managers
- On-site training
- Direct access to field engineers who communicate directly with Celtro support teams for a fast problem resolution
- Accessible, professional Celtro R&D support group

About Celtro

Celtro provides innovative cellular backhaul switching solutions for mobile operators worldwide that improve service delivery and increase network efficiency. Celtro's solutions help providers increase revenues and improve customer satisfaction, while lowering capital and operational expenses.

Focusing solely on the cellular backhaul, Celtro is the fastest growing provider of cellular aggregation solutions. The company's patented DynaMate technology enables creation of converged 2G/3G networks that accommodate HSPA rollout and allow for smooth migration to future technologies.

Celtro has commercially deployed its cellular backhaul switching products with leading mobile operators, currently servicing more than 250 million subscribers in Europe, Africa and Latin America.



Getting More from Your Cellular Backhaul

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