

Flatten your network, fatten your profits

Nokia Siemens
Networks



The mobile broadband future is flat. Flat-fee pricing for data first appeared about a decade ago with the roll out of fixed line xDSL technologies.

Now, these, 'all-you-can-eat' tariffs are moving into the mobile world.

Early results are spectacular. Communications Service Providers (CSP) that have combined the capability of High Speed Packet Access (HSPA) networks with flat-fee tariffs have enjoyed rising data revenues. However, data traffic has grown at a far greater rate of up to 900% over the same period.

Such a rapid rise in data traffic is unsustainable in conventional networks. Mobile networks will quickly reach full capacity or require massive investment to keep pace, severely hitting CSP profitability.

A new way forward is needed. Flat network architecture solutions must be introduced.

A European operator introduced flat rates and saw traffic rise by 880 %. Highly efficient networks are vital to cope with this level of increase.



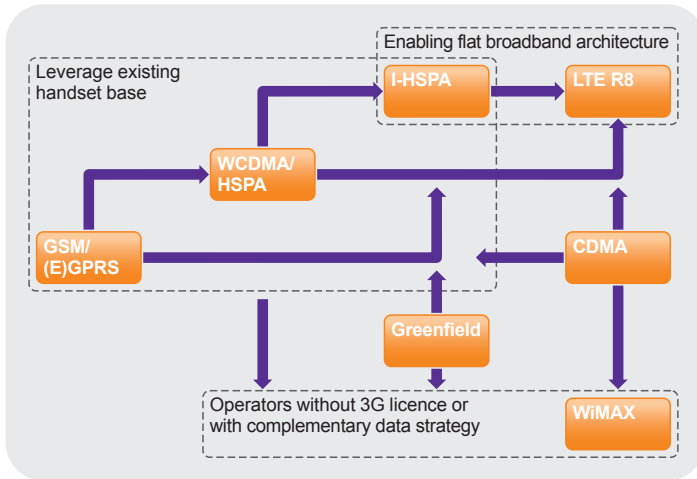


Figure 1. Flat architecture, smooth network evolution with investment protection.

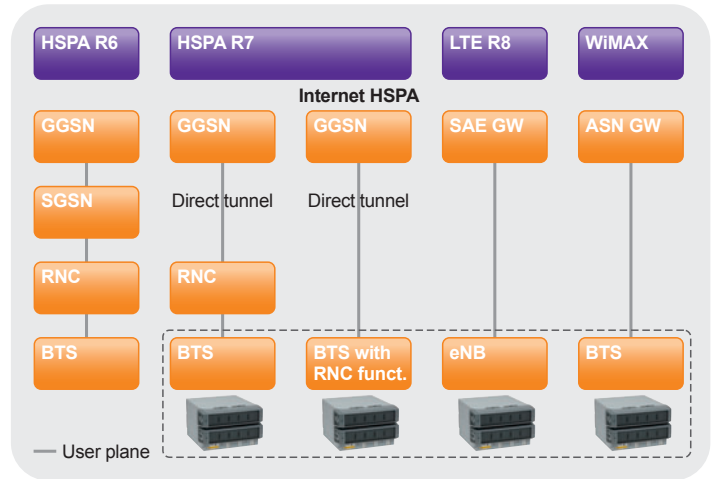


Figure 2. Flat network for flat-rate broadband business.

Break the bottlenecks

Flat network architecture simplifies traditional network hierarchies by eliminating the SGSN and RNC between the base station and the Internet. Breaking these bottlenecks in the flow of data traffic enables capacity to be scaled up flexibly and cost-effectively.

Flat network architecture underpins the major network technologies, from WiMAX to the forthcoming Long Term Evolution (LTE). Yet CSPs anticipating the arrival of LTE can gain the benefits of flat architecture today with the Nokia Siemens Networks I-HSPA (Internet-HSPA) solution.

This first 3GPP-standardized commercial implementation of flat architecture implements Direct Tunnel functionality to unload the SGSN of data traffic. The solution also integrates RNC functionality into the base station. Removing these two bottlenecks enables I-HSPA to achieve ten times greater simultaneous throughput than WCDMA alone.

A better end-user experience

With I-HSPA, not only do end users get the service they want, when they want, but they enjoy better performance. The streamlined data path means that I-HSPA delivers much shorter Round Trip Times (RTT), approaching fixed line network performance. This makes a huge difference to many applications, such as synchronizing emails with lots of small files.

Smoothing the evolutionary path

I-HSPA is standardized by 3GPP Rel 7, while LTE is standardized by 3GPP Rel 8. Both technologies share the same flat architecture as WiMAX, giving CSPs a wide range of options to upgrade to the benefits of flat networks, no matter what their business situation.

Nokia Siemens Networks offers common gateway, server and multi-radio base station platforms. For many CSPs, upgrading to a flat architecture network will involve just a straightforward software upgrade.

Furthermore, when it comes to the backhaul, flat network technologies support IP / Carrier Ethernet for cost-effective and scalable transport networks.

Flat network architecture is the future. Be among the first to make the transition.

TerreStar Networks chooses Internet-HSPA. Nokia Siemens Networks is providing its Flexi WCDMA Base Station as an integrated part of an I-HSPA flat architecture solution, as well as a full suite of engineering, design, and optimization services for the TerreStar North American network deployment.