TRAFFIC OPTIMIZATION ACCELERATION &

COMPRESSION TECHNOLOGIES
ACCELERATION & COMPRESSION TECHNOLOGIES TO SPEED UP UNDERLYING COMMUNICATION PROTOCOLS

Improve the user experience of Internet, data or enterprise applications while increasing satellite bandwidth efficiency at the same time by compressing the data sent over satellite

Thanks to satellite communications, people all over the world can access the Internet. However, due to the Internet's most common communication protocols (TCP and HTTP) being designed for terrestrial networks, without the right technology, the user experiences the influence on service level when used over satellite networks.

In order to avoid poor performance over satellite networks, for example slow download speed and web surfing, ST Engineering iDirect has developed a combined set of traffic enhancement technologies for Acceleration and Compression that speed up underlying communication protocols (TCP and HTTP). The user will have a better Quality of Experience (QoE) when using Internet or enterprise applications.

TCP/IP Optimization

The TCP/IP optimization protocol stack (Enhanced TCP) enables full usage of the available satellite capacity instantly and at any time, even if the effective bandwidth changes dynamically as a result of Cross-Layer-Optimization. At the same time, the download speeds increase up to the maximum throughput possible according to the user's SLA. The HTTP acceleration speeds up end-users' web application experience by up to 60%. This is achieved by combining interception, caching, scheduling and prefetching techniques at the same time. Even if several IP services – be it a file download or web browsing – share the same virtual circuit, the web surfing is fast and the download uses the remaining capacity.
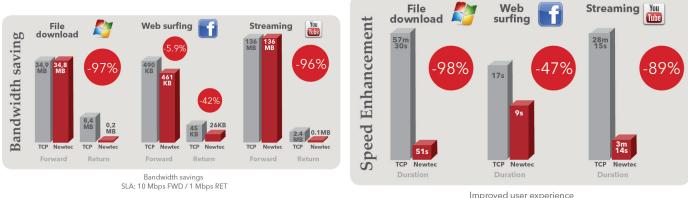
DIALOG

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Acceleration/ Compression Tab

An additional set of acceleration is offered is needed for Cellular Backhaul traffic. ST Engineering iDirect is offering SatHaul-XE™ as a software enabled optimization solution for cell backhaul for 2G/3G and 4G/LTE cellular traffic over satellite, improving the subscribers experience and reducing the satellite capacity cost. With an Advanced Cellular Compression (ACC) set of capabilities and IPSEC to address the cellular backhaul (CBH) market requirements it optimizes the link. As an interactive optimization application, it is present on both ends of the satellite link, the hub gateway and the terminal.

Benefits

- Bandwidth savings of up to 20% on the forward and up to 90% on the return link
- Applications include trunking, Internet access and broadband VSAT
- Works on Dialog, Evolution, and Velocity

Bandwidth savings
SLA: 10 Mbps FWD / 1 Mbps RET

Improved user experience
SLA: 10 Mbps FWD / 1 Mbps RET