

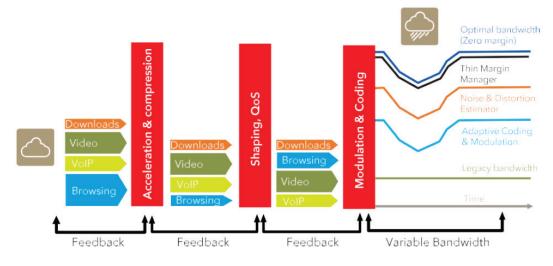
CROSS LAYER OPTIMIZATION

AUTOMATED END-TO-END OPTIMIZATION TECHNOLOGY BETWEEN THE RF AND IP LAYERS

In Cross-Layer-Optimization two-way interactions between the RF, physical layer and the network/IP components are exploited to tailor available resources to match demand more closely. It is part of a wider traffic shaping process that ensures QoS and prioritization of applications and users, assuring maximum availability and usage of the network.

In an environment of variable satellite IP bandwidth, Cross-Layer-Optimization continuously fills the available satellite capacity, while following QoS rules, and avoids packet drops by controlling the rate at which end-user applications send data in real time.

Cross-Layer-Optimization allows operators to fully use the available satellite capacity while still offering flexible SLAs depending on the different customer requirements. The shortened response times and reduced file transfer durations also maximize the end-user QoE.



Benefits

- Full use of available satellite capacity
- Controlled rate of transmission of end-user applications, such as web browsing for maximized QoE
- · Real-time feedback to the shaping and QoS function on the available variable bandwidth
- Applications include any satellite IP communication is applicable.

