



Look Inside.™

DOCSIS 3.1– Making Gigabit Cable Networks a Reality



Intel® Puma™ Chipset Family Helps Service Providers Deliver Bandwidth Demanded by Today's Consumers

Consumers are demanding more and more bandwidth-intensive apps and services, and streaming more content to their computers, tablets, phones, and Smart TVs. Service providers are challenged to meet current demands while also planning for next-gen services in order to stay competitive with emerging fiber installations.

The new DOCSIS 3.1 standard will help enable a new generation of cable services and help operators continue to meet demand for high-speed connections and sophisticated applications, positioning them to be the providers of choice in their markets. A joint development by CableLabs and industry partners, including Intel, will help DOCSIS 3.1 deliver up to 50% better throughput on channels and assist service providers to meet bandwidth growth for many years to come.

A leap in speed and capabilities

The first generation of DOCSIS 3.1 will let cable providers deliver up to 5 Gigabits per second (Gbps) of downstream bandwidth, paving the way for true IPTV services. In addition, the platform has the capacity to handle up to 10 Gbps in downstream bandwidth and 2 Gbps in upstream, allowing for an ultimate transition to all IP services.

With forward error correction code, DOCSIS 3.1 allows service providers to deliver more throughput on the same channels, help overcome noise, operate across larger bands of spectrum, and adopt orthogonal frequency division multiplexing (OFDM) modulation in both the upstream and downstream. The result is a significant reduction in the cost per bit.

Intel innovation in action

Intel— along with cable industry partners – played an integral role in developing DOCSIS 3.1. Future Intel® Puma™ SoCs will support DOCSIS 3.1. The Intel Puma chipset family system architecture provides equipment manufacturers with flexibility to easily customize their products to fit a wide range of cable operator-required and optional features such as high data rates, wireless communications, power down modes, and telephone support.

For more information about DOCSIS 3.1 and Intel® system architecture to help you take advantage of today's and tomorrow's cable capabilities, see your Intel sales representative.

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