

# **Cable networks on the NGN road: IPCablecom & PacketCable™ Technologies and Development Status**

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## **Abstract**

With the introduction of digital transmission technology, cable television systems in many countries are also provisioning very high-speed bi-directional data facilities to support IP based services. These facilities can also be used to supply advanced multimedia services exploiting the broadband capacity provided by hybrid fiber/coaxial (HFC) digital cable television systems, and interconnecting local, geographically distinct digital cable television systems through direct connections or managed backbones.

Initiated by Cable Television Laboratories (CableLabs), the PacketCable project aims at the definition of an open architecture to enable cable network operators to offer a wide range of IP based services including voice communication and other time-critical services. With the name IPCablecom, the technology found its way into international standardization and is with slight extensions accommodating regional requirements adopted by many cable operators and product manufacturers. As such, IPCablecom is cable's contribution to the development and deployment of NGN. With an initial focus on Voice over IP, IPCablecom uses the transport capabilities and Quality of Service features of cable modem systems enhancing them to an end-to-end service delivery platform.

The presentation summarizes the development and deployment status of IPCablecom. It introduces the topic by naming the organizations involved to create the specifications which already became truly international standards for the delivery of advanced multimedia services across cable TV networks. A short overview of the architecture and the specified interfaces gives an insight on the technology while detailed information on the certification programs in North America and Europe stress on one of the key pre-requisites for a successful commercial rollout. The presentation concludes with some information about actual technical trials or commercial deployment of IPCablecom based services as well as indications of the further steps in the different regions of the world.