SMARTSolutions

TV | Internet | Telephony
Digitisation via the existing TV coaxial cabling

✓ **CMTS (DOCSIS)**
✓ **Ethernet over Coax**
✓ **Simple, clean, no laying of new cables**

Internet over existing coaxial lines

In many buildings the requirements for fast internet are not given! AXING provides two solutions with CMTS or Ethernet over Coax.

The coaxial cable network installed in many buildings can do more than you might think. Because the „television cable" is not limited to TV and radio, but also transports data very well. This allows you to set up a modern network and offer digital solutions without extensive construction work:

- ✓ Internet in every room where you can watch TV
- ✓ eLearning, eConference, surfing, streaming, telemedical applications
- ✓ Optimum network coverage and reliably high data rates

Advantages for operators, owners, property management:

- ✓ No dirt and noise from knocking through slits
- ✓ Short implementation times
- ✓ Installation during operation and therefore minimal disruption
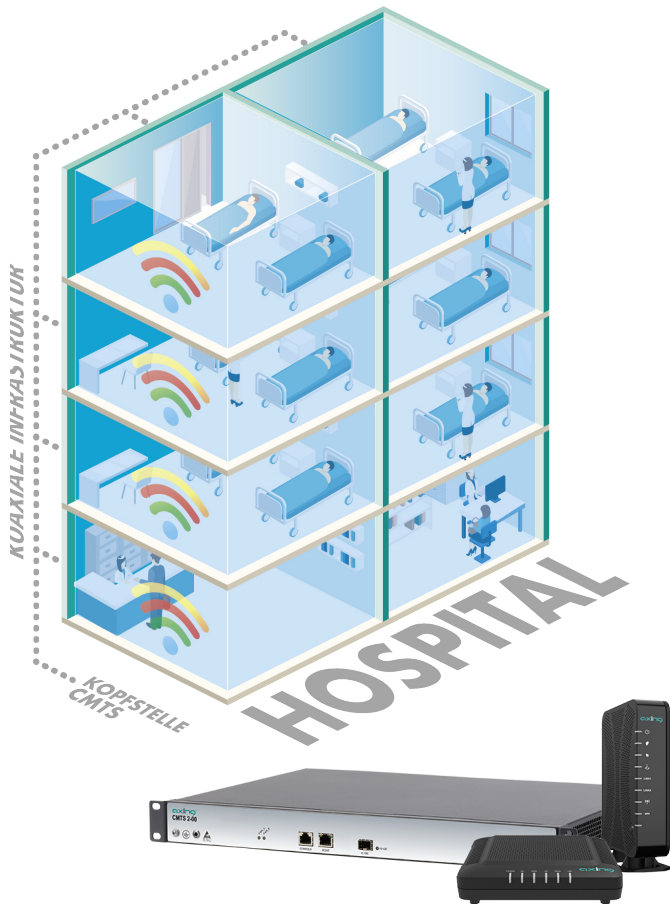- ✓ No laying of new cables

Advantages for system integrators:

- ✓ You have one contact - from Axing.
- ✓ Inventory by surveying your network
- ✓ Support in planning, project management and commissioning by AXING
- ✓ Powerful administration, analysis and monitoring tools

CMTS
Cable Modem Termination System

KOAXIALE INFRASTRUKTUR

KOPFSTELLE CMTS

HOSPITAL

Professional feed-in of IP services

Scan for details

A Cable Modem Termination System (CMTS) allows the professional feeding of IP services into cable systems. DOCSIS cable modems provide Internet access for users. DOCSIS (Data Over Coax Service Interface Specification) is also used by the major cable network operators for their modems and routers. Television and radio are transmitted as usual.

This means that a powerful Internet distribution system can be set up without new cables and long conversion times. Because construction work is no longer necessary, there are no new fire protection requirements. This solution is ideal for the hospitality sector, senior/student housing estates and schools with existing coaxial cable networks.
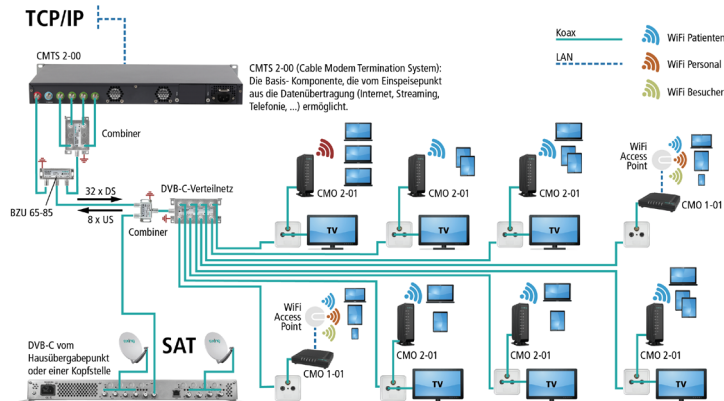
This is how it works:

The CMTS provides the connection to the Internet backbone for up to 1,000 modems. The downstream modulator modulates the data coming from the Internet onto a carrier and sends the data to the cable modem. The upstream demodulator receives the data sent from the cable modem to the CMTS.

The cable modems then provide the access points for Internet and data services via Ethernet and WLAN. High-performance WiFi access points, switches and other network technology can also be connected to such a modem.

- ✓ Reliable data rate of up to 1600 Mbps downstream and up to 240 Mbps upstream
- ✓ Realisation of optimum WLAN coverage throughout the building possible
- ✓ Several networks and separate accesses can be realised (e.g. for patients, staff, visitors)

Any additional television supply that may be necessary or possible is provided via a cable connection, via a headend with SAT reception (Fig. above) or via an existing SAT IF installation.

Ideal for:

- ✓ Hospitals
- ✓ Retirement homes
- ✓ Student residences
- ✓ Schools
- ✓ Hotels

Ethernet over Coax

The EoC devices use the G.hn standard to build an Ethernet-over-Coax network via the coaxial infrastructure (television and radio are still transmitted via the same cable).

The Peer-to-Peer solution - as simple as a switch!

Scan for details

All EoC modems (maximum 16) communicate with each other on equal terms. This EoC network acts like a large switch distributed throughout the whole house (in the example with 8 ports). Typical scenarios can be flats, single-family homes, law firms, medical practices or offices.

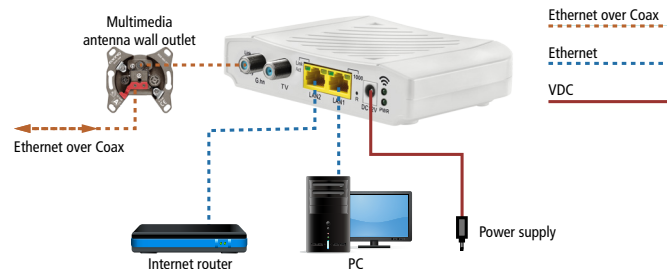### The centralised solution - Master/Endpoint

The EoC master modem connects to the Internet and manages up to 16 or 32 endpoint modems. All endpoints communicate with the master, but not with each other. Such a solution is ideal for Internet supply in apartment buildings, small to medium-sized hotels and residential complexes for senior citizens.

Scan for details

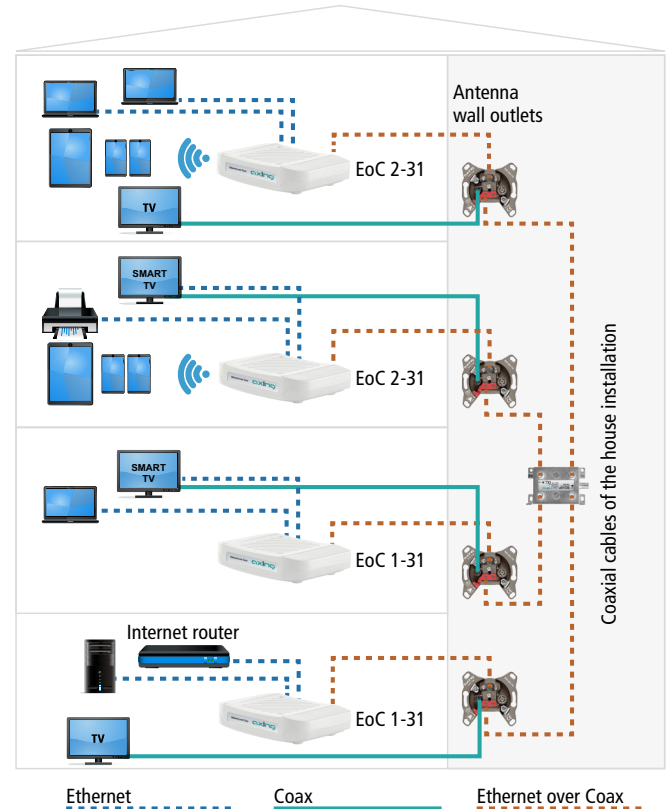### Large variety of connections

Two Ethernet-capable devices (PCs, notebooks, servers, printers, smart TVs, etc.) can be connected to each EoC device. In addition, EOC devices with WiFi are available, which can be used to wirelessly connect smartphones, tablets and notebooks.

High data transfer rate

The peer-to-peer devices EOC 1-32 and EOC 2-32 and the master endpoint devices EOC 30-xx use the return path range of 5 to 204 MHz and achieve a net data rate of 1800 Mbps (PHY).

However, this is only possible in pure SAT systems, or if in a modern CATV network the forward path frequency range starts from 258 MHz or if transmitters below 258 MHz can be dispensed with.

Ideal for:

- ✓ Small to medium-sized residential buildings
- ✓ Law offices
- ✓ Practices
- ✓ small to medium-sized hotels

Competence in
Communication
Technologies

Why AXING in particular?

We Swiss don't waste words. But what we do, we do thoroughly. Which is why AXING products are always state of the art. The compact design and easy installation are equally impressive.

What is more, with AXING you have a partner at your side offering you all the services you need as a one-stop provider – from planning via preparation through to delivery and operation. Contact us now; we would be pleased to advise you on site and make you a detailed offer.

Our AXING commitment:

- ✓ Very easy handling and installation of all AXING products
- ✓ Short-term and reliable delivery capability
- ✓ Consistently high quality
- ✓ Highly modern technology – state of the art

- ✓ Great flexibility due to wide variety of products
- ✓ Optimum support via competent planning and installation service
- ✓ Technical service / after sales

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