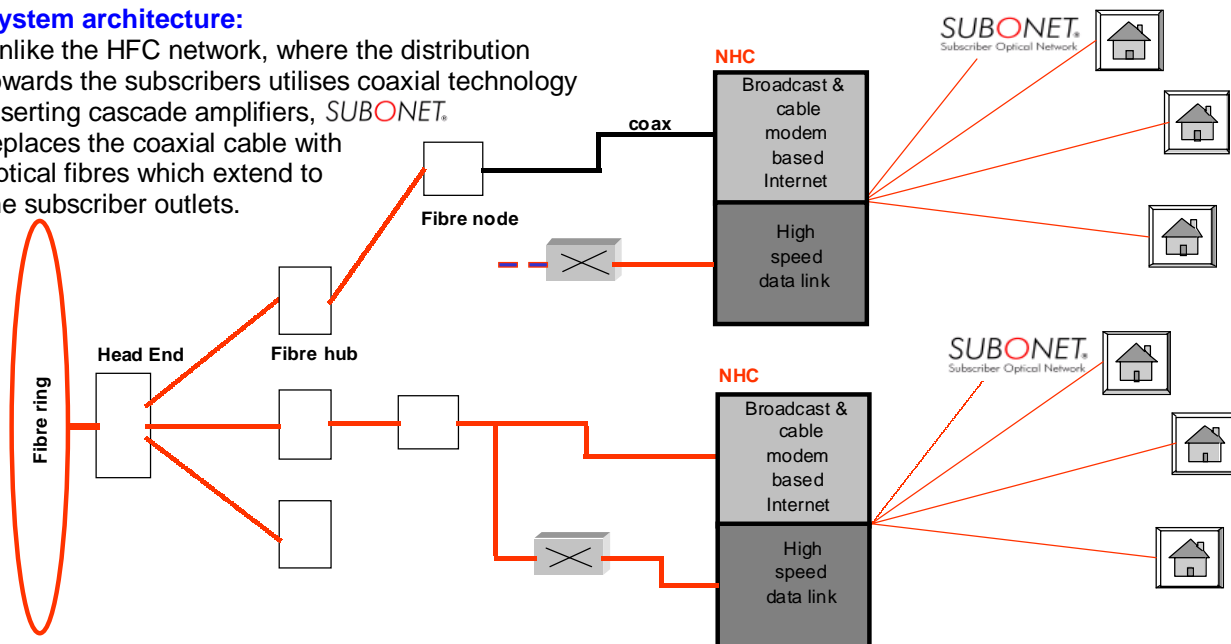


SUBONET is a local loop access optical network to deliver broadband services and full interactivity to accommodate current and future services. It integrates the broadband CATV services, high speed data communication, and voice over one single, flexible, and open system.

SUBONET ensures full compatibility with existing subscriber equipment and cable operator architecture.

System architecture:

Unlike the HFC network, where the distribution towards the subscribers utilises coaxial technology inserting cascade amplifiers, **SUBONET** replaces the coaxial cable with optical fibres which extend to the subscriber outlets.



The optical/electrical and electrical/optical conversions take place inside the subscriber outlet. Between the existing HFC node and the subscribers, Fibre Optic NodeConverters (NHC) are inserted to appropriately handling the signals. Each NHC connects typically 32 subscribers.

The NHC accepts downstream signals either from coaxial cable or optical fibre and is therefore compatible with most existing network architectures. Upstream signals are treated with the same flexibility: frequency modulated signals from subscriber cable modem are converted at the subscriber outlet to optical form and carried via the optical fibre to the NHC where they are combined and retransmitted either electrically or optically towards the Head End. Architectures at the HE remain essentially unchanged.

Features:

- Superior upstream performance and reliability
- High flexibility: can be tailored to the requirements of particular cable operators.
- Full compatible with existing subscriber equipment which are currently in use: TV's, STB's, cable modems.
- Infrastructure at the HE and Hub connection remain essentially unchanged.
- Eliminates the need of cascaded amplifiers, each of which reduces overall quality.
- Reduces the potential for RF ingress noise.
- Less maintenance is required.