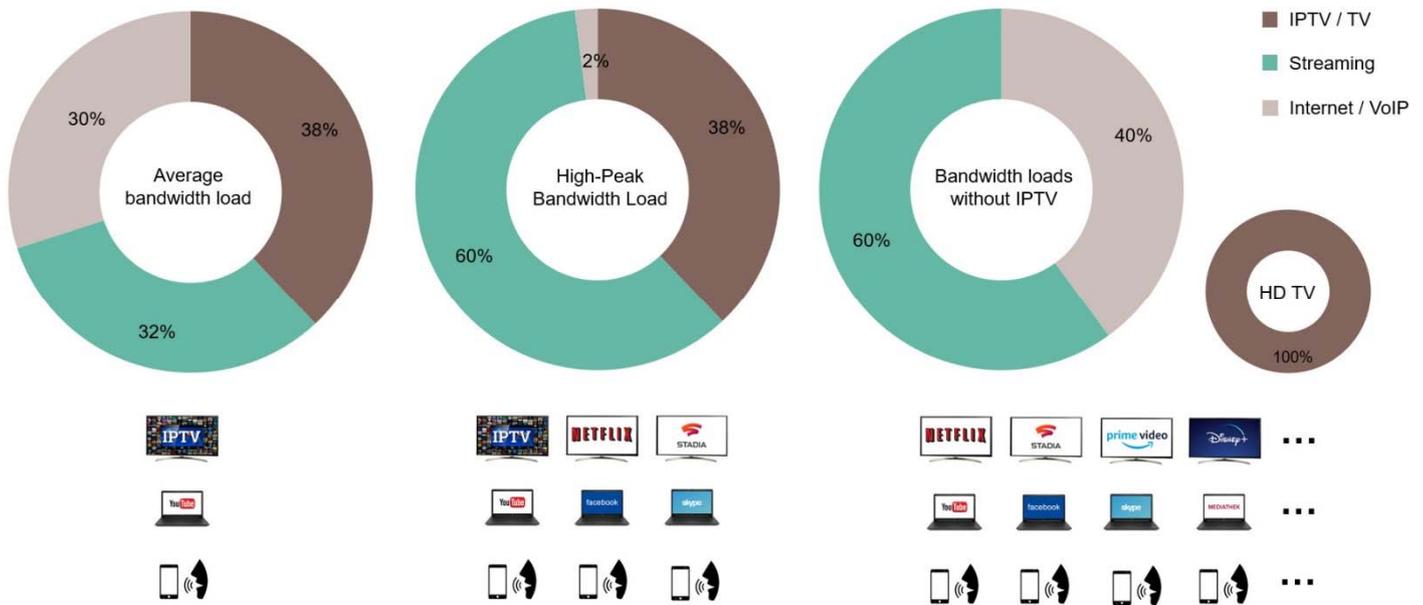


# Home office and streaming slowing you down? Divide and conquer with RF-Video Overlay

The data utilization of digital communication networks is increasing daily. Whereas fast surfing and real-time telephony via the Internet used to be the decisive factors for investments by network operators, new service industries have developed, which require ever greater amounts of data: IP-TV with hundreds of high-resolution TV channels up to 4K, streaming platforms such as Netflix, YouTube or Amazon with an immense range of movies and entertainment on demand, online games with several users in real time as well as extensive data uploads and downloads. In addition, there are new, digital forms of work, such as the home office. These challenges can only be met with a modern fiber optic infrastructure. It is not for nothing that many network operators are converting to Fiber-to-the-home (FTTH), setting a sign for the future.

## **Working, streaming, playing, watching TV – a battle for resources**

Skype conferences and online meetings in the home office are becoming commonplace, but require high data rates so that online meetings, video chats, and document sharing do not become a nuisance. Potentially several family members are using online portals for learning, would like to watch their favourite series and films or play online games with like-minded people all at the same time. The data rate, which providers like to advertise at up to 50-100 Mbit/s, is then often minimized to a few Mbit/s. If other users in the neighbourhood access similar services at the same time, the data rate continues to fall. This leads to permanent bottlenecks, possibly even to a breakdown of the communication network.



Percentage bandwidth load of an end customer connection

**Free up resources – now and in the future**

This problem can be solved by separating the transmission of data from live television and other Internet data so they are delivered in parallel. By applying the so-called RF Video Overlay technology, the live TV signals get bundled and are fed into the fiber optic network on a separate wavelength. In the router of the end customer, these separate light signals are converted into conventional high frequency cable TV signals. This means that the full bandwidth is retained for all other Internet services. Nothing changes for the end customer. On the contrary: While they can connect computers, tablets, smartphones and telephone to the router as usual, they do not even need an additional IPTV set-top box for TV sets with a cable tuner. The parallel transmission of the TV signals relieves the data network and ensures fast and uninterrupted data transmission even at peak times.

**RF Video Overlay – a cost-effective solution for all kinds of FTTH/FTTB networks**

HUBER+SUHNER BKtel has a broad product portfolio for RF video overlay solutions for any fiber optic network. Centrally, the desired TV and radio programs are received from different satellites by the NEO processing series and transmodulated into digital cable TV channels. An optical transmitter converts the high-frequency signals into light signals and feeds them into the fiber optic network. As light-based transmission has almost no loss of quality or latency, transmission of over 100 km is possible. The reconversion of the optical signals takes place at the end customer. For this purpose, HUBER+SUHNER BKtel has developed the XON series of termination units that fit different customer requirements (TV and/or Internet). With "RF Video Overlay", every subscriber has access to a comprehensive and stable TV package and maximum Internet bandwidth, even at peak times.



SAT Headend NEO P-Serie



Optical Transmitter ES10

Customer end unit  
XON1300**Titel: Stable performance despite home office and streaming**HUBER+SUHNER BKtel GmbH  
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