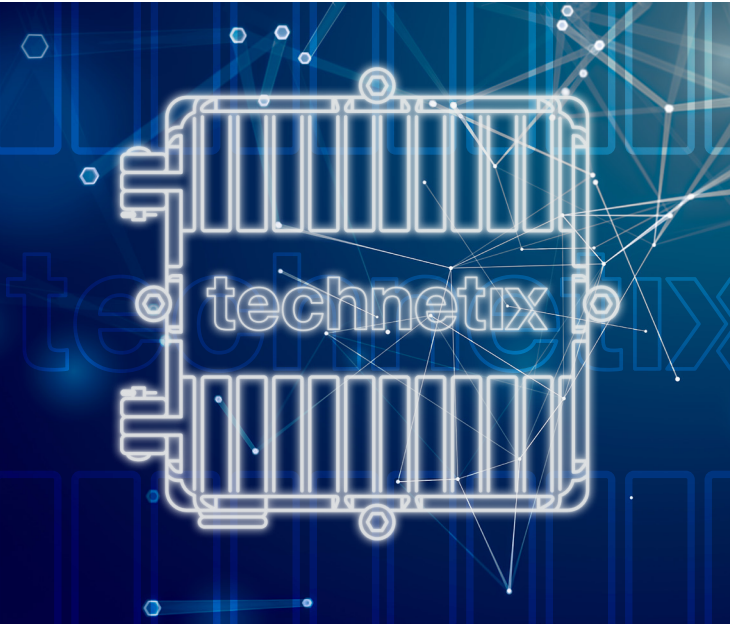


Virtual Segmentation™



Benefits

- Deploy an RPD without fibre
- Extra bandwidth on coax
- Existing infrastructure is kept
- Network is 'virtually' segmented
- Legacy and VS signals on the same cable
- Reduce TCO

Key features

- Up to 10 Gbps symmetrical throughput
- 1K QAM
- 1588v2 transparent clock
- Low latency
- Low power
- 10GE SFP+
- Managed by SNMP/WebGUI



Higher bandwidth demand

The current drive for speed in the broadband industry is forcing broadband network operators to create smaller service groups to deliver data to the subscriber. Historically the average number of homes passed to an optical node was between 500 to 2000 homes. This number will fall even further to 125 to 250 homes passed per node, meaning that fibre will have to go deeper into the network.

Disadvantages of deploying fibre:

- Trenching cable and underground components
- High cost, time, civic/bureaucratic permits

Solution – Virtual Segmentation™

The Technetix Virtual Segmentation™ solution provides extra bandwidth on existing coaxial cable to feed the Remote PHY Device (RPD) without deploying fibre to the new segmentation site.

Benefits:

- Existing infrastructure is retained - Virtual Segmentation™ is an add-on
- Cost efficient
- Future bandwidth growth

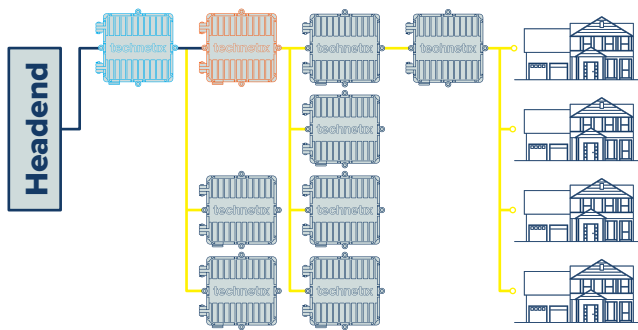
Virtual Segmentation™ enables operators to overlay additional bandwidth on their existing coax infrastructure so an RPD can be deployed without fibre deployment.

technetix.com

Virtual Segmentation™

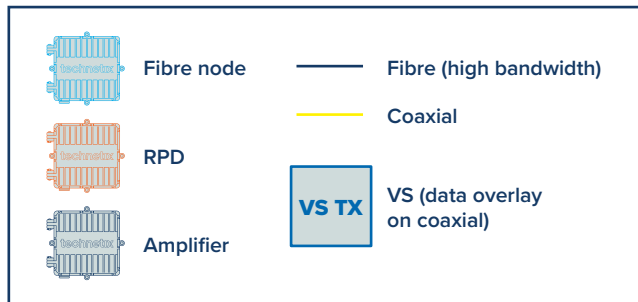
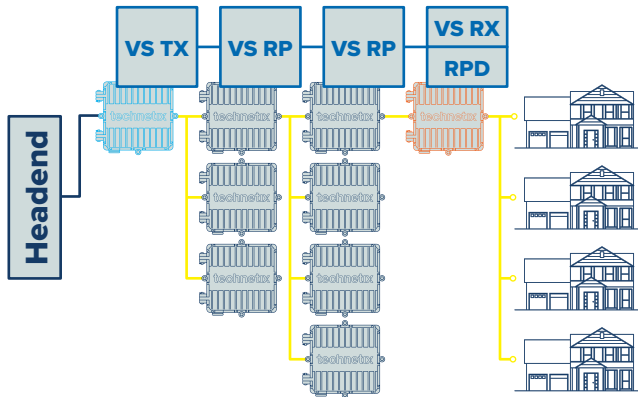
technetix

Digging fibre all the way down to the RPD is expensive

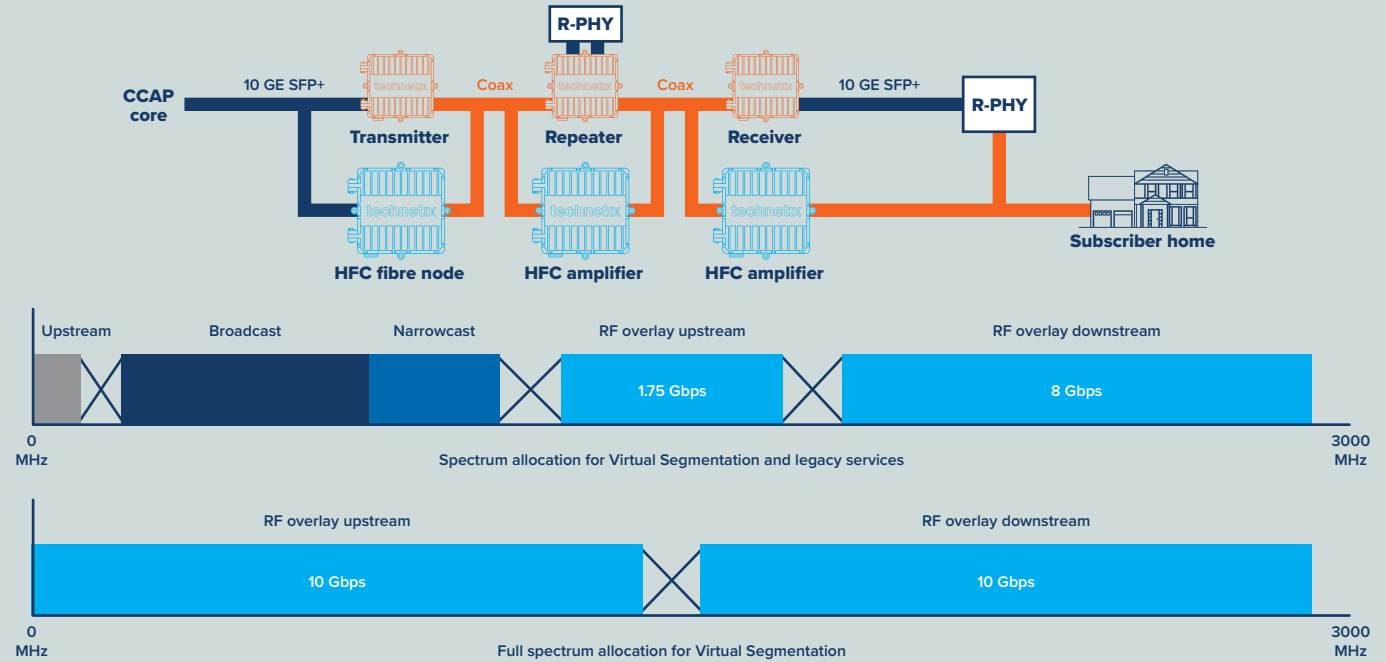


Virtual Segmentation™

Deliver fibre level bandwidth with less time and cost to deploy



Virtual Segmentation™ Link



Transmitter

VS-TX-A-1

- 10 GE input to connect to the core network/uplink
- Single RF output connecting the transceiver to the network (through triplexer)
- Deployed at the original optical node site as the transmitter
- Control module can be deployed on this module to monitor a whole link

Repeater

VS-RP-A-1

- Recreates the RF signal to extend reach between transmitter and repeater sites
- Complete regeneration of signal (Coax>Eth>Coax) allows for cascading without consideration of RF 'issues' building up
- Control module can be deployed on this module to monitor a whole link

Receiver

VS-RX-A-1

- Single-slot cassette used at sites where an RPD is being deployed
- Deployed at the segmentation point (end of the link) to connect to the RPD
- Control module can be deployed on this module to monitor a whole link

Triplexer

VS-TRIP-BK-A-1

- Injects/splits Virtual Segmentation™ signals from standard upstream and downstream
- Replaces existing diplexer
- No impact on existing levels and amplifier configuration
- Used in conjunction with transmitter, receiver, repeater or simply with a jumper to bypass an amplifier

Control Module

VS-CM-A-1

- Virtual Segmentation™ link configuration and monitoring
- Single control module manages the complete link starting from the first transmitter all the way down to the final receiver
- Pluggable equipment: can be installed in transmitter or repeater
- Virtual Segmentation™ link and device information is made available through SNMP and WebGUI
- Connected to the management network via SFP
- Linux based structure
- Secure GUI access via access list control