10G Network Evolution Components

Next technology steps on the 10G journey...

- Distributed Access
- Digital optics, intelligent edge devices
- DOCSIS 4.0
- Increased spectrum
- Fiber/PON/FTTH
- Fiber to the Home
Distributed Access – Fiber Deep

Traditional DOCSIS/HFC (Centralized CCAP)

0
CCAP
Hub

Analog Fiber Optics

Fiber Node

Amp_1

Amp_2

Amp_N

“Fiber Deep” w/ Remote PHY

1
CCAP Core
Hub

Digital Fiber Optics

Aggregation Node

RPD_1

Amp_1

Amp_M

RPD_N

Fiber Deep, “N+0” w/ Remote PHY

2
CCAP Core
Hub

Digital Fiber Optics

Aggregation Node

RPD_1

RPD_N

5-80 km

0.2-2 km

**Not drawn to scale**
Distributed Access – Extending Beyond Coax for Resi

Distributed Access w/ FTTH, DOCSIS/coax, Fixed Wire Access

Fiber to the Home (FTTH)

DOCSIS

Fixed Wireless Access

**Not drawn to scale**
Key Takeaways

• Cable broadband operators continue to invest to advance the capabilities and performance of their networks, including w/ FTTH.

• DOCSIS/HFC networks are predominantly fiber networks, increasing fiber footprint every year.

• In new build scenarios, cable operators largely build fiber to the home networks.