Cisco Remote PHY Shelf 7200 Solution Deployment

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Design Considerations

This section helps you prepare for deploying the Cisco Remote PHY Shelf 7200 solution.

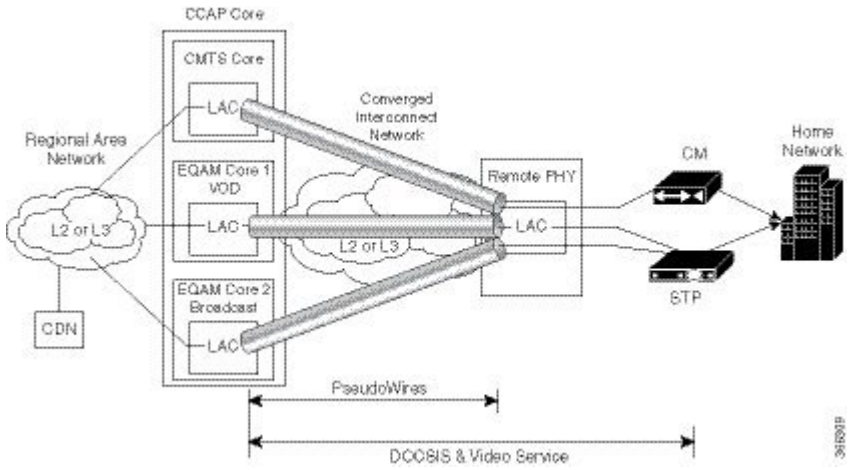
Prerequisites

- Ensure that a digital optical network is deployed between the Cisco Remote PHY Shelf 7200 and Cisco CMTS. The supported digital optical network is Metro Ethernet.
- Ensure that the data path is guaranteed between the Cisco CMTS and the Cisco Remote PHY Shelf 7200.
- Reserve sufficient bandwidth for the DOCSIS traffic.
- Network must support IPv4 multicast forwarding.
- Ensure that the maximum latency is as low as possible.
- Deploy or use the appropriate type of Cisco Remote PHY Shelf 7200 device that is based on the input type in the network.

Network Architecture

The Cisco Remote PHY Shelf 7200 solution supports the *Single Controller Sharing* architecture. In this architecture, multiple Cisco Remote PHY Shelf 7200 Shelves share the downstream and upstream channels of a Cisco RF line card in a Cisco cBR chassis.

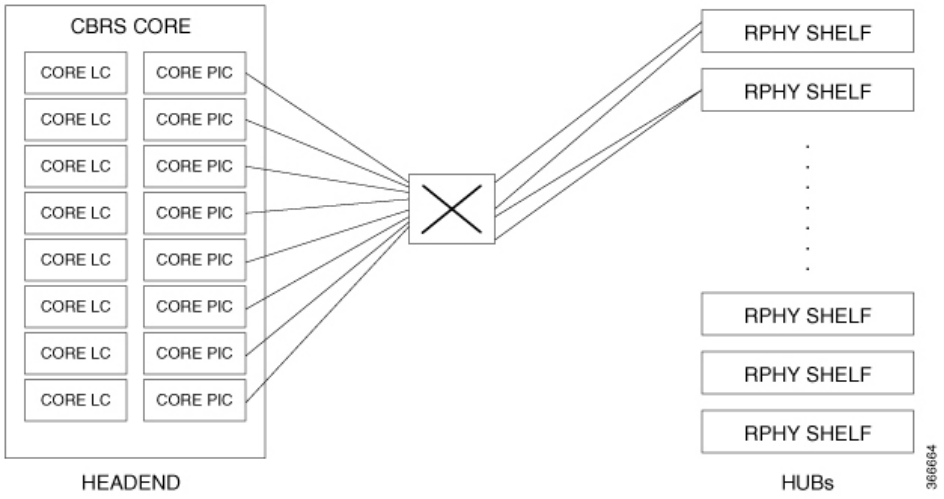
Figure 1: Single Controller Sharing Architecture



Network Topologies

The Cisco Remote PHY Shelf 7200 solution supports Ethernet Based Networking topology.

Figure 2: Standard Deployment



Network Cables

Table 1: Cable Types Supported for the Cisco Remote PHY Shelf 7200

Originating Device	Target Device	Cable Type	Connector Type
CMTS (10-Gigabit Ethernet SFP+ module on the Cisco CCAP line card)	Switch	Ethernet cables	RJ-45 connector
		Copper cables	RJ-45 connector
		Optical fiber	LC Fiber-Optic connector
Switch	Cisco Remote PHY Shelf 7200	Optical fiber	LC Fiber-Optic connector