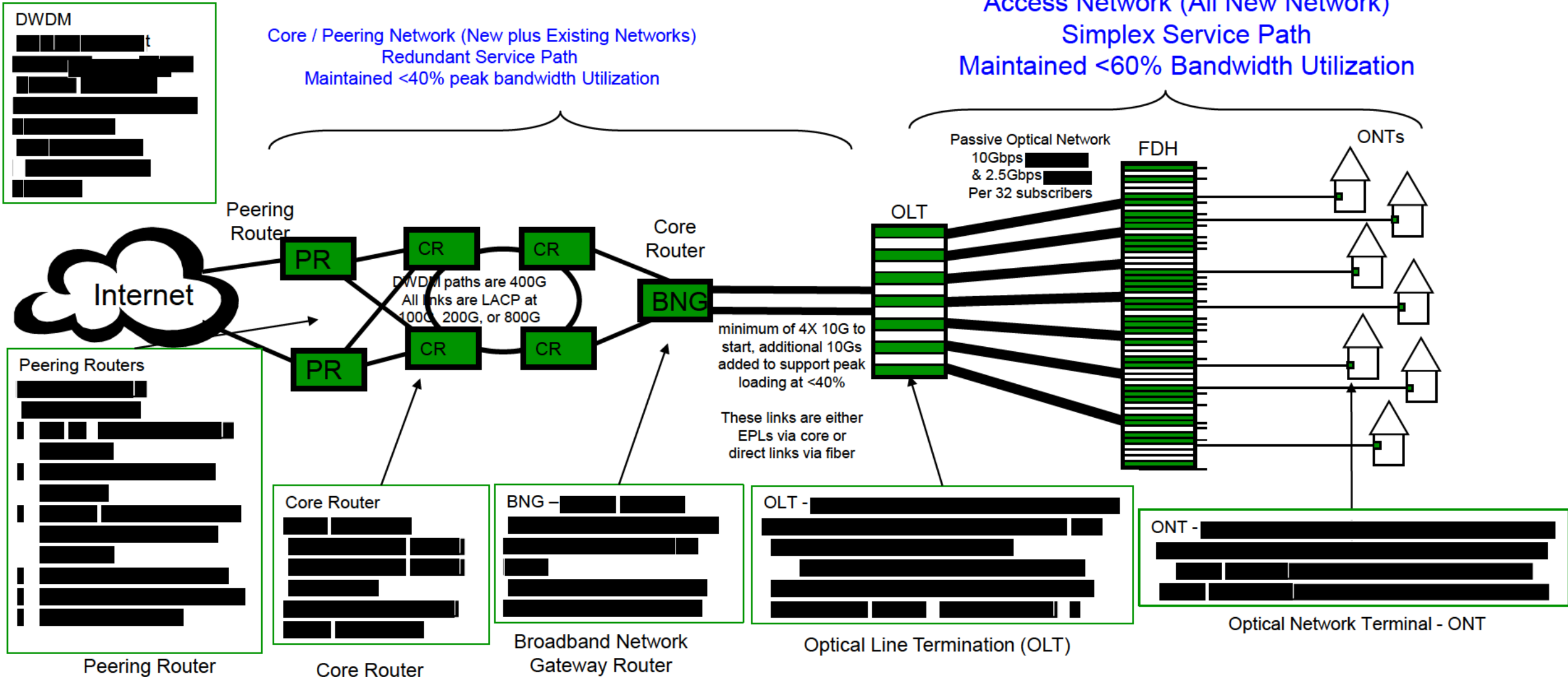# Network Connectivity / Network Topology: Peering edge to customer premise

ziply fiber

No wireless networks are to be utilized in the delivery of the Gigabit performance tier services

Access Network (All New Network)
Simplex Service Path
Maintained <60% Bandwidth Utilization

Core / Peering Network (New plus Existing Networks)
Redundant Service Path
Maintained <40% peak bandwidth Utilization

DWDM

Passive Optical Network
10Gbps
& 2.5Gbps
Per 32 subscribers

FDH

ONTs

OLT

Peering
Router

PR

CR

CR

Core
Router

Internet

DWDM paths are 400G
All links are LACP at
100G, 200G, or 800G

BNG

Peering Routers

PR

CR

CR

minimum of 4X 10G to
start, additional 10Gs
added to support peak
loading at <40%

These links are either
EPLs via core or
direct links via fiber

Core Router

BNG –

OLT -

ONT -

Broadband Network
Gateway Router

Optical Line Termination (OLT)

Optical Network Terminal - ONT

Peering Router

Core Router

Network Connectivity / Network Topology
- Bandwidth subscription across Network layers

Internet

**Core Network
and Peering Handoffs**

**Access Network
Optical Line Termination**

**Shared Access
Passive Optical Network**

Subscribers

Managed based on individual link basis, 40% max peak load, trended using kentik forcasting

BNG – OLT shared links Managed to 40% max peak load, 4X 10G minimum, added in A/B pairs

2.6:1 Bandwidth reduction thru dual shared PONs