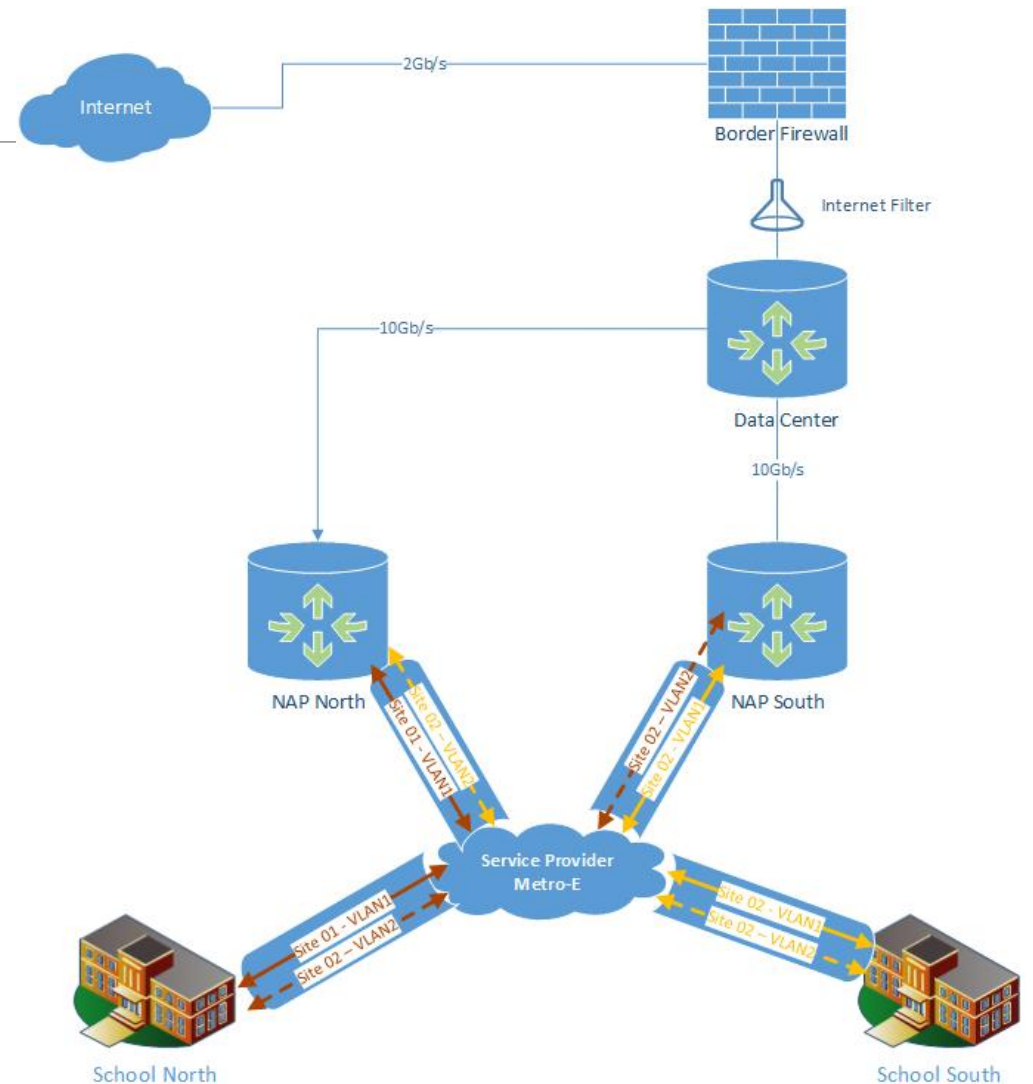


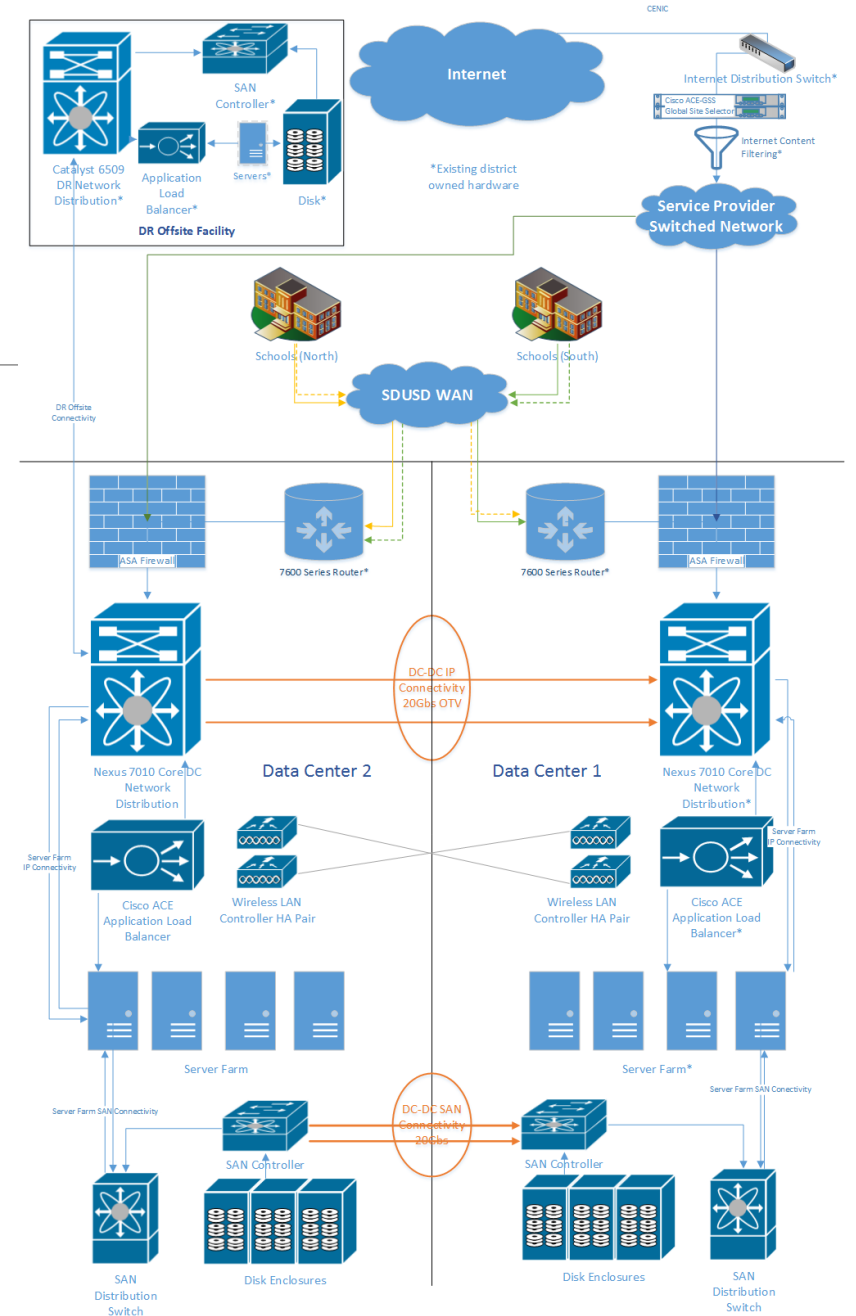
# Current Network Environment

- Single Data Center
- Single internet connection
- 196 Metro-E Wan sites running at 100Mb/s or 1Gb/s.
- 2 Network Aggregation Points (NAP)
  - No generator backup
  - Lack adequate cooling
  - Lack adequate power
  - Lack physical security
  - 113 Sites hosted via Southern NAP
  - 083 Sites hosted via Northern NAP
- 10 Gb/s WAN Backbone
- Redundant paths from all sites to each NAP
- Single instance of Unified Communications Platform (VoIP)
- Single instance of Light Weight Wireless Access Point Control
- 1 Offsite Business Continuity center
- Tape backup system with offsite storage



# New Network Environment

- Dual Data Centers
- Multi-Point Load Balanced Internet Connection for sites.
- Load Balanced inbound application requests across both Data Centers
- 196 Metro-E Wan sites running at 1Gb/s. (Future E-Rate Year)
- Wide Area Network aggregation moved inside the Data Centers
  - Generator backup
  - Adequate cooling
  - Adequate power
  - Physical security
  - 113 Sites hosted via DC1
  - 083 Sites hosted via DC2
- 10 Gb/s WAN Backbone
- Redundant paths from all sites to each DC
- Virtualized and Redundant Unified Communications Platform (VoIP)
- Multiple instance (HA) of Light Weight Wireless Access Point Control
- 1 Offsite Business Continuity center
- Backup directly to SAN offsite at the Business Continuity center



# Multi-Point Load Balanced Internet Connection

- Internal Internet requests load balanced across data centers logically based on physical connection.
- Internet requests route directly from WAN to Border Firewalls.
- Wan/Site Internet traffic does not touch the Data Center network.
- Requires change to our current point to point internet connection.
- Multipoint connection with the offsite Internet POP being the hub and our 2 data centers as spokes.
- A single point of failure for Internet connectivity exists but risk of outage minimal. Cost of having 2 different Internet Providers or Points of Presence are cost prohibitive.

