CAPACITY MANAGEMENT PLAN

This document describes the Capacity Management processes and activities for DIR or customer initiated and Verizon-initiated Capacity Requests in support of the CTSA.

IP Backbone

Verizon's Internal Data Traffic Engineering organization is responsible for monitoring, capacity planning and traffic engineering the MPLS backbone. This organization will ensure that diversity, capacity, and network architecture requirements are met to guarantee the Private IP and Public IP networks will perform to Verizon's IP/MPLS Service Level Agreement standards. Verizon's MPLS Global Network architecture is built on scalable carrier class routing devices for growth.

Verizon designed the MPLS backbone to be able to reroute around trunk failures based on the number of trunks that exist out of any given location and the utilization associated with them. For example, when a trunk fails there must be enough capacity on the remaining link(s) to support all the bandwidth previously supported by the failed trunk.

Verizon monitors a host of thresholds including, but not limited to availability, CPU, trunk, and port utilization. A general rule is we try to keep everything below 50%. Daily monitoring is performed on the network to gain actual network traffic and forecast accordingly. For physical trunk utilization we watch them for a month and if the average is consistently above 50%, we will either re-direct traffic, or cap the router, or augment. Based on this information the Traffic Engineering group proactively deploys additional switches/ports/trunks to ensure that customer traffic send across the backbone are delivered within the guidelines set forth in the Service Level Agreement.

Transmission Systems

The MPLS/IP backbone consists of meshed 100G Optical Wavelength circuits provisioned on Verizon's Optical Transport Network (OTN).