ITU-T Activities on Traffic Engineering of IP VPNs

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- WP3/2 (Traffic Engineering)
- E.ipvpn

ITU-T Study Group 2, Working Party 3 (Traffic Engineering)

http://www.itu.int/ITU-T/com2/index.html

3 Questions (in Working Party 3)

- Q7/2 Traffic engineering for personal communications
- Q8/2 Traffic engineering for SS No.7- and IP-based signaling networks
- Q9/2 Traffic engineering for networks supporting IP services

Related Question (in Working Party 1)

- Q2/2 Routing and interworking plans for fixed and mobile networks

ITU-T WP 3/2 (Traffic Engineering)

5 major categories of Recommendations

- General aspects and reference connections
- Traffic modeling
- Grade of Service
- Control and dimensioning methods
- Traffic measurements

Recommendation series

E.700-series ISDN, including ATM-based B-ISDN

E.750-series Mobile networks

E.650-series IP-based networks

E.651 *Reference Connections for Traffic Engineering of IP Access Networks*

E.671 *Post Selection Delay in PSTN/ISDNs Using Internet Telephony for a Portion of the Connection*

E.hfc *Traffic Engineering Methods for IP Access Networks based on Hybrid Fiber-Coax System*

E.ipvpn *Traffic Engineering Methods for Network-Based IP Virtual Private Networks*

E.ipvpn

Traffic Engineering Methods for Network-Based IP Virtual Private Networks

Objectives

- describes generic methods for traffic control and dimensioning of a service provider's network in supporting VPNs so that site-to-site performance may be assured
- aims at achieving multivendor interoperability of traffic engineering implementations in provider networks

Work has just started recently in WP 3/2.

Further development requires inputs from IETF ppvpn and ITU-T Q11/13 (e.g., number and types of service classes to be offered, the use of backdoor link for traffic engineering)

Internet Draft

Service requirements for Provider Provisioned Virtual Private Networks

Numerical assumptions

- support of a very large number, on the order of **1,000,000**, of VPNs per Service Provider network
- support of a wide range of number of site interfaces per VPN (depending on size or structure of the customer organization): ranging from a few site interfaces to **50,000** site interfaces per VPN per customer
- support of a wide range of number of routes per VPN : ranging from few to **200,000** routes per VPN

These quantities are useful indications regarding how a provider network should scale. They also have a significant impact on the methods of traffic engineering to be used.

It may be useful to specify also expected averages in the initial roll-out.