

A Framework for Provider Provisioned Virtual Private Networks

<draft-ietf-ppvpn-framework-00.txt>

Ross Callon	(Juniper)
Muneyoshi Suzuki	(NTT)
Bryan Gleeson	(Nortel)
Andy Malis	(Vivace)
Karthik Muthukrishnan	(Lucent)
Eric Rosen	(Cisco)
Chandru Sargor	(Cosine)
Jieyun Jessica Yu	(Cosine)

Framework Document

- ◆ **Discusses significant technical issues**
- ◆ **Discusses range of possible solutions**
- ◆ **Discusses tradeoffs**

- ◆ **Does NOT make choices (no no)**
- ◆ **Does NOT do protocol design (no no)**

How Did We Get Here?

- ◆ **Merger of Multiple (2 or 3) inputs:**
 - ❖ “A Framework for Network-based VPNs (draft-suzuki-nbvpn-framework-02.txt) (NTT, Vivace, Lucent)
 - ❖ Outline for A Framework for Network Based Virtual Private Networks (draft-callon-nbvpn-outline-00.txt) (Juniper, Nortel, Cisco, Cosine)
 - ❖ “A Framework for Network-Based VPN” (Cosine)
- ◆ **We have spent a few months editing and merging**
- ◆ **This gives the working group a single document to work from**

Status

- ◆ **Discussion of Layer 3 VPNs is in decent shape (but some updates are needed)**
- ◆ **Discussion of Layer 2 VPNs is limited**
- ◆ **Discussion of PP CPE VPNs is missing**
- ◆ **We are mostly compatible with req's (but not entirely)**
- ◆ **More work is needed**

Where Do We Go From Here?

- ◆ **Coordinate with requirements**
- ◆ **Respond to working group comments**
- ◆ **Fill in missing parts**
- ◆ **Fix a few parts**
- ◆ **Respond to ongoing work in the working group**

Outline

- ◆ **Introduction**
 - ◆ **Objectives and Scope of this Document**
 - ◆ **Overview of Virtual Private Networks**
 - ◆ **Types of VPNs**
 - ◆ **Terminology**
 - ◆ **Acronyms**
- ◆ **A Brief Overview of Requirements**
- ◆ **Reference Models**
 - ◆ **Layer 3 VPNs**
 - ◆ **Provider-Provisioned CPE-based VPNs**
 - ◆ **Layer 2 VPNs**

Outline, continued

- ◆ **Customer Interface**
 - ◆ **VPN establishment at CE-PE boundary**
 - ◆ **Data exchange at CE-PE boundary**
 - ◆ **Customer Visible Routing**
 - ◆ **QoS**
- ◆ **Network Interface and Service Provider Support of VPNs**
 - ◆ **Functional Components of a VPN**
 - ◆ **VPN Establishment and Maintenance**
 - ◆ **VPN Tunneling**
 - ◆ **Routing for VPNs across the SP Network**
 - ◆ **QoS, SLAs, and IP Diff Serve**
 - ◆ **Concurrent access to VPNs and the Internet**
 - ◆ **Network Management**
- ◆ **Security Considerations**

[Appendix A: Optimizations for Tunnel Forwarding](#)