

Provider provisioned CE-based VPNs using IPsec

Update, open issues, future steps

draft-ietf-ppvpn-ce-based-01.txt

Jeremy De Clercq, Andrew Krywaniuk, Mahadevan Iyer,
Olivier Paridaens (Alcatel), Cliff Wang (SmartPipes)

draft-wang-cevpn-routing-00.txt

draft-wang-cevpn-group-00.txt

Cliff Wang, M. Beadles, A. Khetan (SmartPipes)

Agenda

- update of draft-ietf-ppvpn-ce-based
- issues in draft-ietf-ppvpn-ce-based
- next steps with draft-ietf-ppvpn-ce-based
- role of draft-wang-cevpn-routing and draft-wang-cevpn-group

Update

draft-ietf-ppvpn-ce-based-01

- Initially started as a framework document (-00.txt)
- general architectural concepts : moved in PPVPN framework ID
- progress : towards a “solution document”
- changes -00.txt => -01.txt :
 - reference model in line with general framework document
 - advance w.r.t. configuration of ‘security information’
 - VPN identifier from RFC 2685
 - advance w.r.t. ‘routing issues’
 - encapsulation of routing protocol messages
 - or using a ‘management solution’
 - new sections: VPN resilience; CE-based VPNs and NAT

Issues

draft-ietf-ppvpn-ce-based-01

- In terms of progress to “solutions document”
- ‘management protocol’ (SNMP, LDAP, etc.)
- description of VPN topology
- security information (example ?)
- **constant** or (traffic-driven) IPsec tunnels ?
- customer Routing and IPsec tunnelling
- IPsec tunnel mode or transport mode (see draft-touch-etc) ?

Next steps

draft-ietf-ppvpn-ce-based-01

- describe solution for ‘routing issue’ with the help of draft-wang-cevpn-routing
 - requirements for protocol changes ?
- describe solution for topology description (draft-wang-cevpn-group ?)
- decision for ‘management protocol’
- example for ‘security information’ ?
- QoS and CE-based VPNs using IPsec
- extranet functionality ?

draft-wang-cevpn-routing-00.txt

Motivation

- Customer needs to support site-to-site connectivity.

Potential approach

- 1) Managed static route distribution
- 2) Direct tunneling of routing exchanges
- 3) Use external route distribution protocol? Like BGP distribution?

draft-wang-cevpn-routing-00.txt

Next steps

- study and propose potential solutions specific to IPsec VPN
- request for collaboration/contributions

draft-wang-cevpn-group-00.txt

Motivation: There is a gap between device level IPsec configuration and a large scale VPN deployment.

A larger VPN deployment requires:

- Security
- Scalability
- Manageability
- Reach-ability

draft-wang-cevpn-group-00.txt

VPN group:

- Provide a way to support complex topology
- Break large VPN into smaller groups.
- Provides better scalability, manageability, and connectivity control.