

Equant IP VPN

Service deployment feedback
and new features required

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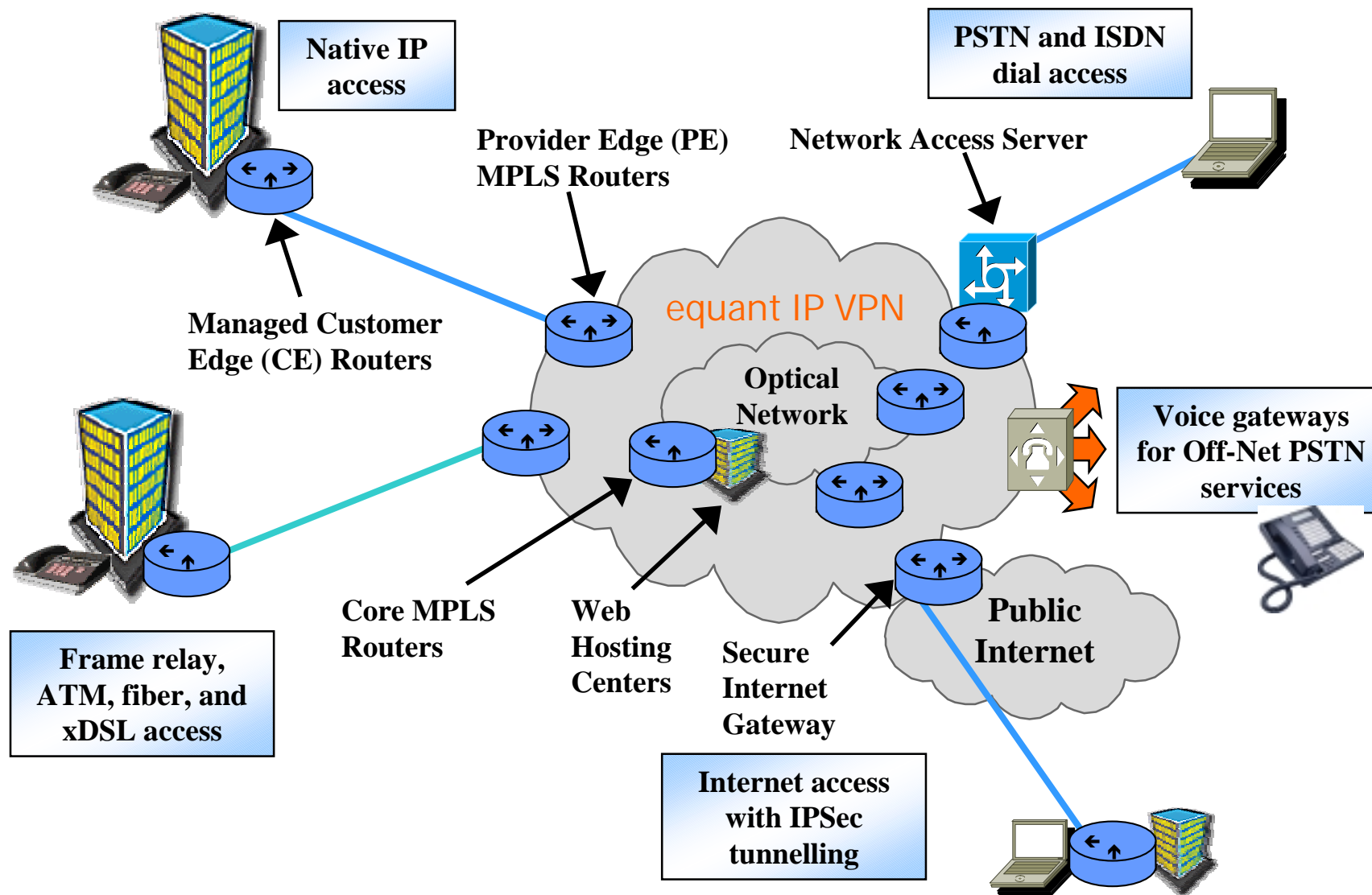
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Equant IP VPN Overview



Equant IP VPN

Technical fundamentals and customer benefits

Implementation of Cisco MPLS VPN solution (tag switching)

- **any to any** VPN service
- **easier to manage** for the customer (to add a new site, a new application server doesn't affect the rest of the network topology)

Implementation of Class of Service (diffserv model) at the access

- **three types of IP VPN ports** are proposed to the customers
 - Silver ports, for site that don't need traffic differentiation
 - Gold ports for sites that need data traffic differentiation (3 different data COS)
 - Platinum ports to enable data and Multimedia (voice / video) integration on a single link
- **IP COS customer vision** :
 - the IP environment enables the development of lots of new applications in the Enterprise network : access to public internet, growth of messaging traffic, news groups...
 - The IP COS model is the opportunity to migrate the IP world and to take advantage of all the new applications without any risk to disturb the business critical application

The BGP MPLS VPN model

...is easier to integrate new customer requirements

Integration of new access modes to cover broadband requirements

- **ADSL access** (ATM VC / L2TP tunnel termination in a VPN) for Remote office / Branch office
- **Ethernet** based MAN access, cable access (use of VLAN) for major sites
- any to any connectivity provided to all types of new access

Access to shared resources

- examples : **network based shared firewall, VoIP gateways/ gatekeepers, hosting center, content provider resources**
- shared resources are connected to the IP network of the provider and are reachable from a pre-defined list of customer VPN

Closed user group and Extranet capabilities

- several VPN can be defined for a single customer
- example : have **different VPN for Intranet and Extranet sites**, to provide a limited access to intranet resources for partners

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Some figures

More than 100 PE

Frame Relay extended coverage in 220 countries

Core network (P routers interconnection) based on optical fiber

Access speed from 19,2 kbps to 622 Mbps

350 customers

About 10.000 CE routers online

New features requirements

Layer 2 VPN

In the current IP VPN solution, Equant always manages the CE routers : mandatory to provide layer 3 end to end service management

Legacy Frame Relay customers in some cases manage their own CPE :

- specific router types that may be not supported by the provider
- specific protocols / software configurations

We see layer 2 VPN as an opportunity to mesh on a same customer network :

- fully managed layer 3 IP VPN service (including CPE)
- layer 2 VPN service for sites with customer managed routers

New features requirements

Encryption

BGP MPLS VPN enables any to any connectivity, BUT no encryption

IP SEC enables customer traffic encryption, BUT not any to any connectivity

Encryption is required by customers with sensitive data (ex : financial community)

- need of a any VPN service
- with embedded encryption

New feature requirements

Third party interconnect

Objective : connect customers sites on partners MPLS network,
to extend service coverage

Services needed :

- keep the any to any connectivity between sites connected to the Partner et to our network
- exchange Class of Service information between the 2 networks

New features requirements

Service Surround

Enhanced reporting in order to simplify the customer network dimensioning and the COS implementation

- real time end to end traffic for a given path
- total traffic, traffic per COS, traffic per application...

Customer Provisioned VPN : Web tool enabling the customer to

- add a site in a given VPN
- change the COS rules for a given site