Why Cisco Routers with SoftEther VPN Server is the Best Solution?

This document explains the advantage of using the combination of both Cisco Routers and SoftEther VPN Server, and using the L2TPv3/IPsec VPN Protocol to make site-to-site Ethernet Bridging VPNs between serveral sites.

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At a Glance of the Advantage

If Only using Cisco's Low-end Routers:

- Cisco's low-end VPN Routers can have only ? point-to-point L2TPv3 VPN tunnels.
- If you have three branches, then you have to have three VPN routers in the center in order to correspond each branches.
- The center VPN routers must know the fixed static global IP address of each branch Cisco routers.
  (Every branch must be assigned a static Global IP address.)

Cisco's Low-end Routers can't Aggregate Many Branches

- Due to the limitation that Cisco's low-end routers don't support point-to-multipoint L2TPv3 VPN Tunnels, the aggregation of multipoint L2TPv3 VPN Tunnels from branches into one center-side Cisco low-end router is impossible.

You have to Purchase High-end Cisco Routers to Aggregate

- Cisco's high-end VPN Router can have ? point-to-multipoint L2TPv3 VPN Tunnels.
  While you have three branches, you need only one Cisco 7200 or above router in the center.

The center VPN router must know the fixed static global IP address of each branch Cisco routers. ?
(Every branch must be assigned a static Global IP addres.

The Best Solution with SoftEther VPN Server

- Set up only one SoftEther VPN Server in the center, then every branches' Cisco low-end VPN Routers can establish L2TPv3 Tunnel to the SoftEther VPN Server.
- The cost is cheaper than purchasing Cisco high-end router.
  SoftEther Server need not know the initiator of VPN connection. (Dynamic IP address, and behind NAT routers in branches are acceptable.)

compare1.png

Comparison of Solutions with Cisco Routers

1. Ethernet (L2) Site-to-Site VPN with Only SoftEther VPN Server and SoftEther VPN Bridge

Advantage

- Low costs.
- Easy Installation.
- High-performance.
  (The center VPN Server can process the aggregated VPN sessions for over 600Mbps.)
- Only one VPN Server is necessary in the Center.
- Dynamic IP Addresses are supported on each Branch.

Disadvantage

- Each branch has to have a server PC which is SoftEther VPN Bridge installed. ? (A PC occupies physical area on floor or desk, has heavy weight, and consumes much of electric power.)
- Installation of Operation System and SoftEther VPN Bridge is required ? on every branch's VPN Bridge PC.

compare2.png

2. Ethernet (L2) Site-to-Site VPN with Only Cisco VPN Routers (low-end.)

Advantage

- Each Cisco VPN Routers occupies fewer physical area or floor on each branch than SoftEther VPN Bridge's Server PC.
- No installation of Operating System is necessary for Cisco Routers.

Disadvantage

- The company mush set up a lot of VPN routers in the headquarters. ?
  (There are no multi-point VPN aggregation functions in low-end Cisco routers.)
- Every branch has to have a fixed static Global IP Address Internet connection.
  (Every branch must be assigned a static Global IP address.)

3. Ethernet (L2) Site-to-Site VPN with Only Cisco VPN Routers (low-end and high-end.)

Advantage

- Each Cisco VPN Routers occupies fewer physical area or floor on each branch than SoftEther VPN Bridge's Server PC.
- No installation of Operating System is necessary for Cisco Routers.
  In the center, only one high-end router is necessary.

Disadvantage

- Too expensive.
  (The appropriate suite of Cisco high-end router takes a cost for $30,000 or more.)
- Configuration on the central router is too difficult. The company must hire a Cisco expert.
- Every branch has to have a fixed static Global IP Address Internet connection.

compare4.png

4. Ethernet (L2) Site-to-Site VPN with SoftEther VPN as Center and Cisco Routers as Branches

Advantage

- Easy Installation.
- High-performance.
  (The center VPN Server can process the aggregated VPN sessions for over 600Mbps.)
- Only one VPN Server is necessary in the Center.
- Dynamic IP Addresses are supported on each Branch.
- Each Cisco VPN Routers occupies fewer physical area or floor on each branch than SoftEther VPN Bridge's Server PC.
- No installation of Operating System is necessary for Branches' Cisco Routers.
- The same instance of VPN Server can also serve Smartphone and PC users for remote accessing.

Disadvantage

- Nothing.

compare5.png