ePipe™ ServerWare for Linux®

VPN and Security Concentrator

enterprise multilink IP concentrator

The ePipe ServerWare for Linux transforms a standard Intel computer into a powerful access and security gateway, allowing organizations to securely connect up to 150 distributed office networks together. ePipe ServerWare dramatically increases the reliability, security and bandwidth of connections.

ePipe ServerWare enables any organization to scale bandwidth incrementally to match their changing Internet access and networking requirements, at a fraction of the cost of a high speed connection. It also bridges the gap between T1/E1 and T3/E3 services by bonding multiple xDSL or T-1 connections into one faster connection, independent of the provider infrastructure.

scalable bandwidth with backup

ePipe ServerWare load balances Internet traffic and provides scalable bandwidth between locations across multiple PSTN, ISDN, T-1, xDSL or Frame Relay links. This provides incremental bandwidth management over a range of connection types, removing the cost barrier of dedicated high-speed data services.

By supporting simultaneous links to multiple providers, ePipe ServerWare keeps you connected in the event of service failure. This provides an effective fall back to secondary connections or automatic failover to multiple dial-up connections when the primary high-speed service fails.

the comprehensive solution
ePipe ServerWare provides
- Up to 7 times as reliable as a single high speed connection
- Enhanced link security, compatible with existing solutions
- Works over any link type - DSL, T-1, FR, cable, dial
- IPSec VPN with 3DES encryption, Internet firewall, DMZ
- Load balance Internet access

integrated VPN and security services

Instead of introducing a mishmash of complex, disparate services, ePipe ServerWare integrates many services within a single, comprehensive solution. This unified approach lets you concentrate on delivering content. Secure Remote Access (SRA) lets your mobile workers access central site resources through the Internet. Site to Site VPN (SSV) allows branch offices to securely access the central site. Direct Connection Services (DCS) offers direct dial access.

A packet-filtering firewall controls traffic flow into and out of the network, isolating untrusted Internet connections so they cannot access the private network. Network Address Translation (NAT) hides your network from those on the Internet. Separate, isolated LAN segments (DMZ) can be established for hosting Web, email and e-commerce services, controlling access to these services from both the Internet and internal users.

flexibility to suit any environment

Because it runs on a standard Intel computer running Red Hat Linux, ePipe ServerWare easily adapts to your growing needs. Use 'off the shelf' hardware components to quickly expand resources and increase performance. ePipe ServerWare supports up to 8 Ethernet segments that can be arbitrarily assigned between the private network, a DMZ, an access router and multiple xDSL modems or T-1 routers.

You can also combine ePipe ServerWare and a generic embedded computer to create your own VPN and security appliance.

ePipe's versatile connectivity
ePipe ServerWare provides additional serial connectivity to enable faxing from the desktop, direct-dial access and terminal sessions through Direct Connection Services. Complete application-level control of remote serial ports is available for UNIX and Windows systems.

This allows data collection, factory automation, Point of Sale and other applications to be integrated across a LAN or remotely, through a dial-up connection, or even globally across a secure VPN.

ePipe ServerWare Concentrator

powerful yet affordable

Unlike other solutions that limit the number of network connections based on the number of individual users, ePipe ServerWare connections are licensed by site. This enables all users on every LAN segment at each site to securely access all other sites (10, 50 or 150).

By increasing the number of users on the LAN, you can add more users to the network without purchasing additional licensing. No network concentrator / security firewall is more cost effective than ePipe ServerWare for Linux.

Models include:

| ePipe ServerWare model	site-site active IPSec connections	site-site configured IPSec connections	remote user active PPTP connections
Concentrator-10	10	20	32
Concentrator-50	50	100	32
Concentrator-150	150	300	32

Configuration Details

ePipe ServerWare operates as an application on Red Hat Linux 7.2, 7.3 & 8.0.

Technical Support

ePipe ServerWare Concentrator includes 12 months free telephone technical support for registered users. Registered users also receive free software updates for a period of 12 months. Additional annual support agreements are available. Contact ePipe for details.

Technical Specifications

Internet Services

Protocols	TCP/IP, RIP, DHCP, TFTP, PPP, PPPoE
Firewall	Packet filtering with extensible rules
Internet access - outgoing	Network Address Translation (NAT)
Internet access - incoming	NAT with TCP/UDP port redirection
Scalable bandwidth	Multilink IP (ML-IP)
Bandwidth control	Dynamic link establishment, with thresholds
Access control	Time-based link establishment
Availability	Auto failover to ancillary dialup/broadband links

Secure Remote Access Services (SRA)

Authentication & accounting	RADIUS, PAP, CHAP, MS-CHAP
VPN clients	Microsoft VPN Adapter (PPTP)
Encryption	MPPE

Site to Site VPN Services (SSV)

Site-to-Site VPN	IPSec tunnel mode, ESP
	MD5, SHA-1 and RMD160 authentication algorithms
Key management	Manually configured keys or
	IKE with shared secret authentication
Encryption	DES, 3DES, 128-bit AES and 128-bit Blowfish
Bandwidth control	ML-IP combines connections into a tunnel.
	Dynamic link establishment based on thresholds

Direct Connection Services (DCS)

Authentication	RADIUS, PAP, CHAP, MS-CHAP
Direct dial-in	Windows dial-up networking; any PPP client

System Requirements

Model	Min CPU	Min RAM	Disk
Concentrator-10	Pentium III 400MHz	64MB	1.2GB
Concentrator-50	Pentium III 700MHz	64MB	1.2GB
Concentrator-150	Pentium III 700MHz	128MB	1.2GB

In this example, the central site connects to the Internet through ePipe ServerWare and a T1 link. The regional office is using ePipe ServerWare and multiple ADSL lines, while the satellite office uses an ePipe gateway with multiple analog modems. Only ePipe allows each site to take advantage of the available bandwidth across the secure corporate network, regardless of the service or service provider.
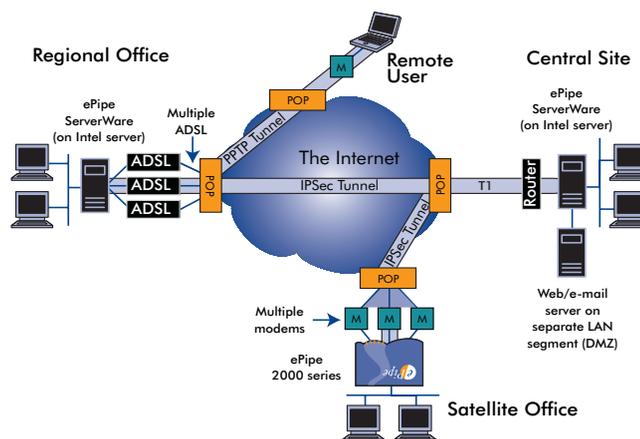
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The Leaders in Multilink IP