

THE LIGHTNING FLASH

A VISION OF NETWORK WORLD ISSUE 10/99

Multi-Internet: A crucial feature for France Telecom Oléane's choice.

France Telecom Oléane, business ISP number one in France, has chosen Lightning's Pocket MultiCom routers with integrated Multi-Internet technology for providing Internet access to its professional customers.

Because the public Internet is used today for the transmission of different types of data, ISPs must provide differentiated services suited to the Internet applications of the customer. Being a business ISP, France Telecom Oléane provides high reliable solutions for differentiated services market demands.

Lightning's Multi-Internet technology has been designed as a response to these requirements. It allows easy set up of Extranets VPNs, differentiated backbones implementation and QoS for a better employment of the ISPs' resources. This is the reason why France Telecom Oléane has chosen Multi-Internet to drive its networking solutions. *Continued on page 2.*

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Managing Director

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In the increasing demand for cost-effective network solutions, the recent utilization of Cable TV infrastructure for Internet access has resulted in a wide positive response from the audience. The winning point has been the possibility of having high-speed Internet connectivity at the prize of a Cable TV subscription and no added call-based costs.

The idea of a potentially not expensive 'Virtual Leased Line' has captured the attention of companies that want to provide low cost, but high-speed, connectivity among headquarter and remote work sites.

Cable modems and ADSL modem have allowed easy connectivity both to the Cable TV backbone and telephone infrastructure, but more sophisticated solutions are needed in those scenarios where strong security and flexibility are required.

Following the new market driven requirements, the specialist of highly secure Internet routers, LIGHTNING Instrumentation SA, presents its new MultiCom Ethernet II router.

The MultiCom new entry.

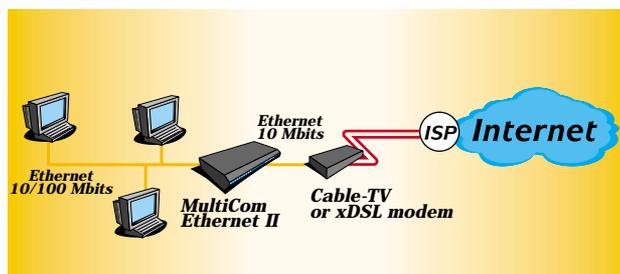
MultiCom Ethernet II introduces the new Ethernet branch of the Lightning's MultiCom family. MultiCom Ethernet II is a high-end router that provides Ethernet to Ethernet connectivity through one 10/100 Mbits/s (LAN connection) and one 10 Mbits/s Ethernet (WAN connection) interface.

Being part of the MultiCom family, it shares a common set of software features and takes advantage of the proven Multi-Internet and SecureWall technologies, allowing flexible man-

MultiCom Ethernet II

LIGHTNING's new solution for xDSL and CABLE TV routing.

LIGHTNING Instrumentation introduces the new MultiCom Ethernet II router for Ethernet - Ethernet connections to the Internet.



agement of IP addresses and high security accesses to the Internet. Lightning's MultiCom Ethernet II router provides Intranet connectivity through Cable TV and

routing and security capabilities on the connection to ISPs or remote sites. The picture on this page depicts some of the most common scenarios in which Lightning's Ethernet routers represent a high-performance, cost-effective solution.



xDSL becoming the optimal solution for Small Office-Home Office (SOHO) and Small-Medium Enterprise (SME).

MultiCom Ethernet II does not play a Modem role, but enforces

Network administrators will find the MultiCom Ethernet II router the optimal, cost-effective network security solution for a wide range of applications: within a corporate LAN, behind a cable, ISDN and xDSL modem as well as complement of an access router for encryption or firewall functions.

The two winning points for France Telecom Oléane.

With the continuous expansion of the Internet in every field of the communication market, ISPs are looking forward to getting new and high performance solutions for better satisfying the increasing customer requirements.

In September 1998 France Telecom Oléane and Lightning Instrumentation SA had their first contact. France Telecom was considering solutions for a new nationwide project: the networking of the French Education System.

The requirement was to offer differentiated services to the administration offices and to the students. After considering various solutions from 12 manufacturers, once again Lightning's

routers Multi-Internet technology proved to be the ideal solution to this scenario.

Today Lightning's Pocket MultiCom is used for France Telecom Oléane needs of ISDN routers, including corporate customers.

Why Multi-Internet ?

Thanks to the integrated Multi-NAT (Multiple Network Address Translation) and Multi-PAT (Multiple Port Address

Translation) functions, every address on the local network can be automatically translated to a different address public to the Internet.

The PAT function allows to map the addresses of a group of hosts belonging to the Local Area Network (LAN) connected to the router to only one external address.

The Multi-PAT feature allows to support more than one external address and to map different groups of hosts on the same LAN to separated external addresses.

Once the correspondence between external address and internal group of host has been

defined, each external address can be managed in different ways.

At the ISP side, source routing can be applied to perform differentiated Internet accesses for applications requiring Quality of Service (QoS) or to create Extranets and VPNs links across the public Internet.

A side advantage of the Multi-Internet technology comes from the Multi-NAT feature. Each host address on the LAN can be translated in a public Internet address. The consequence is that the ISP assigned addresses are not anymore a problem for the network administrator.

The local network doesn't require to be re-configured with the new addresses, the router itself is programmed to map the already existing local addresses to the public ones provided by the ISP.

Multi-Internet allows easy and reliable set up of Extranets and VPNs over the Internet.

Lightning's Multi-Internet technology has demonstrated to be the ideal solution to France Telecom Oléane requirements. Thanks to it, differentiated services can be assured to administration and students hosts, while specific groups of Intranet computers can be translated to exter-



France Telecom Oléane

Since it was established in 1989, Oléane focused its attention to the needs of the professional Internet market. It oriented its offer towards specific and highly reliable services often customized for company based requirements. Oléane has been the first provider in France to have a network completely dedicated to the Internet.

Inside the Corporate Branch of France Telecom, Services and Data Networks division, Oléane is today a 100% subsidiary of the group and, from 1st June 1999, the new France Telecom brand for business Internet solutions.

Oléane offers the broadest portfolio of business Internet solutions available today, spanning everything from basic dial-up access to very high

capacity value-added services. This includes hosting e-mail accounts, Web sites and security solutions for e-business. Oléane offers three major lines of business solutions:

- Internet Connections (on demand or dedicated lines),
- Internet Services Hosting (everything from Web sites to audio-visual retransmission),
- Extranet or Virtual Community type solutions

Lightning's MultiCom routers have been approved and are used by France Telecom Oléane for their high-end performances, being the ideal solution in a framework where reliability and security is the leading philosophy. The Pocket Multicom is the first "highly-recommended" ISDN router of France Telecom Oléane.

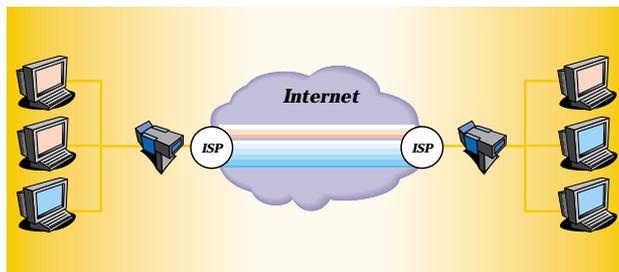


Figure: Multiple Qualities of Service (QoS)

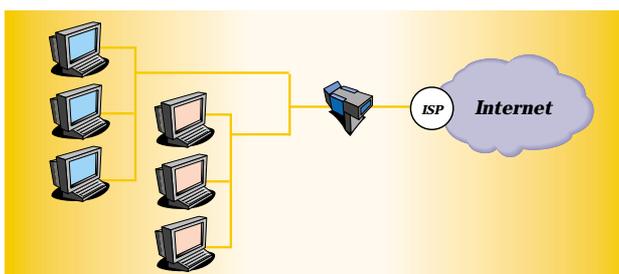


Figure: Multiple Clients

nal Internet addresses and routed into an Extranet over the Internet.

This allows the offsite branch of a school to be connected to the central administration site through a VPN or to connect the administration sections of two different schools through a secure Extranet while keeping them separated by the students' accesses.

Lightning's solution proved also to be cost effective. It doesn't require changes to the existing backbone but just a Pocket MultiCom router needs to be distributed to each remote school that wants to be connected to the Education System Network.

Web server and AutoConfiguration: take it easy!

What is more desirable, for both the ISP and the remote site users, than having an easy set up of the router?

Lightning's routers allow an easy set up of the network thanks to an integrated Web server or a

Wizard. Lightning's routers provide also AutoConfiguration technology. Only three parameters need to be passed to the Pocket MultiCom (ISP phone number, user name, user password). The router and all the connected hosts are so automatically configured. AutoConfiguration tool saves a lot of time and technical assistance.

In case sophisticated situations are present on a network, Lightning's router can be configured at user site by mean of the advanced configuration capability

SecureWall is the world's first integrated bulletproof firewall.

ities also provided by the Wizard tool.

Finally, the text-based configuration file allows automation of the configuration process. A

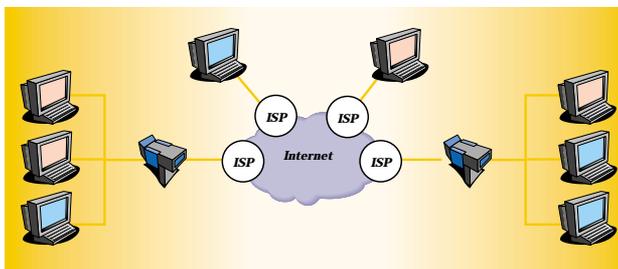


Figure: Multiple VPNs

remote loading of this file can be easily performed.

France Telecom Oléane has chosen this last method to easily manage the set up of its customers networks avoiding on place assistance and realizing that MultiCom routers configuration methods are a cost effective solution on the ISP side.

SecureWall: get Firewall security.

SecureWall is the world's first integrated bulletproof firewall. Thanks to the IP address and port number based statefull filtering it is able to block unwanted accesses to the router.

Having a firewall integrated in the MultiCom routers allows the users not to worry about

Internet security and be sure that unauthorized attempts will be blocked.

Moreover a logging function is part of the SecureWall suite and allows using a Syslog server for detecting all types of undesired accesses and logging the authorized ones.

Lightning's exclusive Multi-Internet and SecureWall technologies allow FranceTelecom Oléane to provide a high degree of security and reliability to its professional customers while offering flexible and scalable solutions.



Another successful partnership: Pocket MultiCom and Swisscom the blue window

Lightning's expertise in the Internet Service Provider market has already been attested by the long-lasting collaboration with the Swiss number one ISP: the blue window. The well-known ISP from Swisscom has chosen Lightning Pocket MultiCom router as the ideal solu-

tion for providing ISDN connectivity to its Internet customers.

Lightning's Pocket MultiCom attracted Swisscom's interest thanks to two main features: its dimensions, which made it suitable to mobile users, and its easy set-up.

A configuration file specifically designed for Swisscom the blue window was prepared by Lightning's engineers. Just the

knowledge of few parameters is required to the user (ISP phone number, user name, user password). These parameters are passed through a friendly Web interface or Windows wizard. Once they are inserted, the Pocket MultiCom automatically configures itself and the connected PC, Macs and workstations thanks to the integrated Autoconfiguration technology.

A package containing a pre-configured Pocket MultiCom, one month free access to the blue window and a specific user manual for the blue window configuration have been prepared. A special box has been designed carrying both the blue window and Lightning logos and is today offered in all Swisscom shops. The Swisscom and Lightning 'bundle' has been finally advertised through a joint marketing campaign (mailings, advertisements, etc.).

Pocket MultiCom has allowed Swisscom customers to have a fast, secure and easy access to the Internet without being worried by configuration problems. Once again Lightning's exclusive features have made Pocket MultiCom the ideal solution for the ISP market.

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highlight

LIGHTNING's Web site

Next time you are on the Internet, explore the www.lightning.ch site for almost everything you want to know about lightning products and services.

The lightning home page presents the complete products listings and technical features about the materials we use. The Internet is today the most appropriate channel for people who want to keep on with the quick evolution of the technological market, that's the reason why we are efficiently present with a detailed description of our products and services.

Just a click....it's all here

And what can you see on the Lightning home page. The first stop is "What's new?" page to get news about the latest products introduction and products. The heart of the web site is the "feedback form", an automatic E-mail form that lets you fire off technical questions or marketing information over the net.

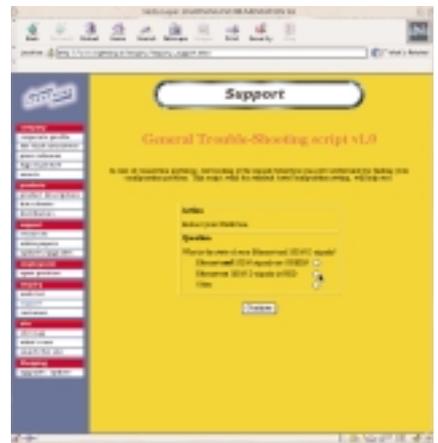
Starting with this issue, selected topics from THE LIGHTNING FLASH can also be read or downloaded from the site. Located under the press area, articles complete with products photos are also available.

Let's talk!

We would like to invite you to drop by our web site, to surf the pages and let us know what you think. Our Web site want to suit your requirements, so let us know what you would like to see on the Lightning home page in the future. Every enquiry will be answered!



the main page with news and what's going on.



A helpful support page.

<http://www.lightning.ch>

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