



# Secure connection between the offices of your end-customers and your data centre

E-Line is a virtual Ethernet circuit that enables you to link your end-customer sites securely with your data centre. This virtual circuit operates with an Ethernet interface. It is economical, because Ethernet is currently the benchmark for WAN connectivity. The circuit is extremely flexible and so fits in entirely with your needs, enabling you to determine the exact bandwidth for each site. This unique solution is available in Belgium and Luxembourg.

#### **Advantages**

## Comprehensive and powerful

- > 1 Ethernet interface per location, regardless of the total number of network locations
- > Pay-as-you-grow: choose the bandwidth you need for each location and pay a fixed monthly charge
- > Based on VLAN trunks: several lines possible on the same physical interface
- > Point-to-point and hence totally separate: each E-Line is based on the MEF-defined "Ethernet (Virtual) Private Line" service
- > Fibre optic access delivers higher quality and great flexibility in bandwidth
- > Smaller sites can also be connected via VDSL or SDSL

#### Easy and effective

- > Ethernet interfaces have many more benefits than conventional WAN modules
- > Simpler network management that uses the same technology for LAN and WAN
- > Flexible bandwidth, adjustable for each site
- > Transparent for all "layer 3-protocols" (IP, SNA, IPX,...)

#### Reliable and secure

- > WAN topology retained: existing services are easy to migrate
- > Superior network: not just Quality of Service (QoS) support, but also standard QoS profiles
- > Service Level Agreement (SLA) with high quality guarantees
- > Fibre redundancy



### **Specifications**

Point-to-point Ethernet over MPLS	Based on MEF "Ethernet Private Line" or "Ethernet Virtual Private Line" specification	
Ethernet Frame Encapsulaties	Ethernet II	
	Fiber-optics	> IEEE 802.1q (VLAN-Trunking) > IEEE 802.2 LLC > IEEE 802.2 LLC/SNAP > IEEE 802.3 (RFC 1042)
	SDSL and VDSL	> IEEE 802.3 (RFC 1042) with IEEE 802.2 LLC/SNAP
Protocol transparency	Fiber-optics	<ul> <li>Spanning Tree Protocol: <ul> <li>Totally transparent</li> <li>BPDU's are transported transparent</li> <li>No interaction in the customer's STP settings</li> </ul> </li> <li>&gt; VLAN-Trunking</li> <li>&gt; Other layer 2 protocols: <ul> <li>STP</li> <li>GVRP</li> <li>RSTP</li> <li>MSTP</li> <li>CDP</li> <li>UDLD</li> <li>VTP</li> <li>PagP</li> </ul> </li> <li>&gt; All layer 3 protocols: totally transparent</li> </ul>
	SDSL and VDSL	<ul><li>Spanning Tree Protocol: niet ondersteund</li><li>Layer 3 protocol: only transparent for IP over Ethernet</li></ul>
LAN-link	Ethernet network card, Hub, Switch, Router	
QoS-options	3 Classes of Servi (CoS)	ce > Best Effort > Business Critical > Real Time
Data-integrity	Based on MPLS-labels	
Acces line Interfaces/ Bandwidths	Fiber-optics	<ul> <li>Interface: Ethernet/Fast Ethernet/Gigabit Ethernet</li> <li>Bandwidths: 1 Mbps – 1 Gbps</li> <li>Extensive redundancy capabilities</li> </ul>
	SDSL	<ul><li>Interface: Fast Ethernet</li><li>Bandwidths: up to 2 Mbps, several profiles</li></ul>
	VDSL	<ul> <li>Interface: Fast Ethernet</li> <li>Bandwidths: symmetrical to 10 Mbps, asymmetrical to 30 Mbps/6 Mbps</li> </ul>

