

CARRIER/BUSINESS ETHERNET

Service description

CARRIER/BUSINESS ETHERNET (EVC) is network service, which allows the subscriber to join two or more remote locations into a single LAN via the network of the service provider. The utilized protocol is ISO OSI Layer-2 Ethernet.

The service provider network interface is via MAN ports, and the links between the locations (MAN ports) are via VLAN-ids.

EVC sub-type	Description	VLAN-id
EPL	Ethernet Private Line	Point-to-Point
EVPL	Ethernet Virtual Line	Point-to-Multipoint
EVPN	Ethernet VPN	Multipoint-to-Multipoint

EVC kind	Description
Metro	Transmission between two or more MAN ports, located in one and the same metropolitan area
InterCity	Transmission between two MAN ports, located in different metropolitan areas

Features

- 64 Kbps to Nx100 Gbps
- Low latency
- Low cost
- Predictable QoS
- Standardized
- Reliable
- Manageable
- Optimal option to link remote locations into one network

Sample applications

- Internet Access via fiber-optical MAN port
- Connect two offices in one network
- VPN service (Multipoint-to-Multipoint)

Synonymous service names

- MAN, VPN, Metro/Long-distance Ethernet, EoSDH

RFI/RFP input details

- EVC sub-type
- EVC speed
- UNI location (city, street, etc.)
- Contact person (name, phone, e-mail)

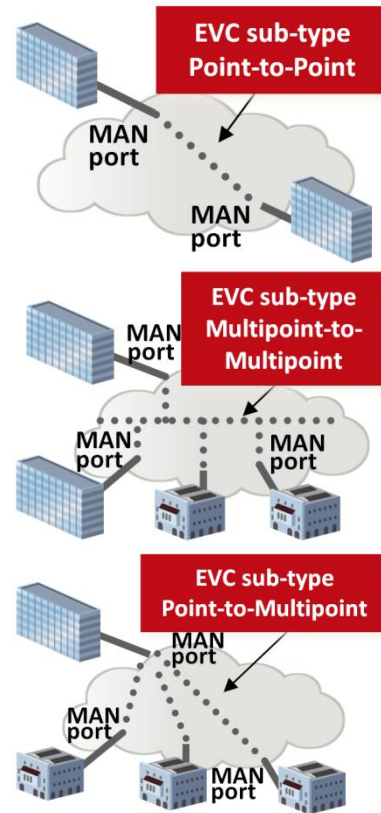
Service provisioning process

- Inquiry > Quotation > Order > Provisioning

To place an order/request for information, please contact

- Phone +359 (2) 490 3211
- E-mail sales@telehouse.bg
- Internet www.telehouse.bg
- Address Ovche Pole 122 str., fl.2, Sofia 1303, BULGARIA

SERVICE DIAGRAMS



SERVICE elements

- MAN port: address, speed, MTU
- VLAN-id: number, speed, MAN port participating in each VLAN-id

Subscriber premises delivery options

- Direct fiber (main case)
- UTP/FTP
- PON
- SDH/SONET (E3/DS3, E1/T1, etc.)
- COAX
- Wireless (WiMAX, WiFi, DRRL, etc.)
- DVB-S

TECHNICAL DESCRIPTION

ISO OSI – Layer-2

Protocol – Ethernet

Network Quality Parameters

Parameter	Details	Value
Backbone availability	Per year	99.999 %
Backbone type	Ring	Dual
Latency	Per 150 km	2 ms
Jitter	Per 150 km	2 ms
Frame loss	-	0 %

Supported Ethernet Frame types

Frame	Standard	Bytes
Standard	IEEE 802.1	1526
Tagged (VLAN-id)	IEEE 802.1q	1530
Double tagged (Q-in-Q)	IEEE 802.1ad	1534
Double tagged w MPLS		1542
Jumbo frame	IEEE 802.1	9046

Supported UNI /MAN port types

UNI/MAN port speed	UNI/MAN port type
Nx64 kbps (<2 mbps)	RJ-45
2 mbps	RJ-45
10 mbps	RJ-45
100 mbps	RJ-45
1 gbps	RJ-45 / optical
10 gbps	optical
100 gbps	optical

Note: The RJ-45 UNI is provided on a media converter or a switch port

Service demarcation point

- UNI

Optical UNI interfaces - SM:

- SC/PC
- LC/PC
- Others available upon request

Details

- CPE is ODF, media converter or switch
- CPE (ODF or media converter) is provided by the service provider for the duration of the service
- Provisioning (RFS date) within 15 business (meantime, ask for exact) days from the Order

GENERIC SLA

24x7 Helpdesk available with TT system

Service availability 99.5%/yearly

Service outage MTTR

- Equipment failure
 - Business hours: <2h
 - Non-business hours: <4h
- Cable failures
 - Business hours: <6h
 - Non-business hours: <12h
 - Stolen cabling and natural disasters: <2 days

GLOSSARY

CPE – Customer Premises Equipment
 DRRL – Digital Radio Relay Line
 DS3 – Digital Signal 3
 DVB-S – Digital Video Broadcasting – Satellite
 EoSDH – Ethernet over SDH
 EPL – Ethernet Private Line
 EVC – Ethernet Virtual Connection (=VLAN-id)
 EVPL – Ethernet Virtual Private Line
 EVPN – Ethernet Virtual Private Network
 ISO – International Standardization Organization
 LAN – Local Area Network
 MAN – Metropolitan Area Network
 MEN – Metro Ethernet Network
 MRC – Monthly Recurring Charge
 MTTR – Mean Time to Recover
 MTU – Maximal Transmission Unit
 NNI – Network to Network Interface
 NRC – Non Recurring Charge
 ODF – Optical Distribution Frame
 OSI – Open System Interconnect 7 layer model
 PON – Passive Optical Network
 PoP – Point of Presence
 QoS – Quality of Service
 RFP/RFI – Request For Proposal/Information
 RFS – Ready for Service
 SDH – Synchronous Digital Hierarchy
 SFP – Small Form-factor Pluggable
 SLA – Service Level Agreement
 SM – Single Mode
 TT – Trouble Ticket
 UNI (also port) – User Network Interface
 UTP/FTP – Unshielded/ Foiled Twisted Pair
 VLAN-id – Virtual LAN identifier (=EVC)