SDH
Services description

SDH is an ISO OSI Layer-2 SERVICE, which is based on standardized multiplexing protocols and allows the transfer of multiple synchronous digital bit streams over optical fiber or via an electrical interface at low transmission rates

Service	Description
Nx64	N x 64 Kbps
E1 / T1	2 Mbps
E3 / T3	34 Mbps
STM-1	155 Mbps
STM-4	622 Mbps
STM-16	2.5 Gbps
STM-64	10 Gbps
STM-256	40 Gbps

Features
- Low latency
- Predictable QoS
- Nx64 Kbps to 10 Gbps
- Standardized
- Reliable
- Manageable
- 100% utilizable
- Optimal price

Sample applications
- Line services (Point-to-Point):
  - LL
  - EoSDH

Synonymous service names
- SONET

RFI/RFP input details
- Service type/protection/duration
- Services and port peed
- UNI location (city, street, etc.)
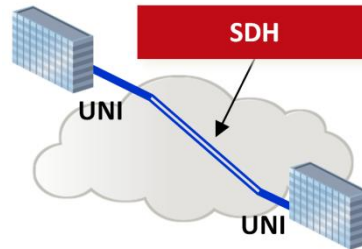- Contact person (name, mobile phone, E-mail)

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

SERVICES DIAGRAMS

Service elements
- Service: duration, protection type
- Ports: number, speeds, physical locations
- VC: number and speed

Various subscriber premises delivery options
- Optical – Direct fiber (main case)
- Copper – Twisted-pair/COAX
- Wireless – DRRL

TECHNICAL DESCRIPTION
ISO OSI – Layer-2
Protocol – SDH protocol

Network Quality Parameters

Parameter	Details	Value
Backbone availability	Per year	99.999 %
Backbone type	Ring	Dual

Applicable standards:
- ITU-T G.803 Optical
- ITU-T G.703 120 Ω balanced (TP/RJ-48)
- ITU-T G.703 75 Ω unbalanced (COAX/BNC)

Protection types:
- SNCP
- MSP
- MS-SPRings

Service Demarcation Point
- UNI
- ODF

Optical UNI interfaces:
- All applicable

Details
- Provisioning (RFS date) within 15 business days (meantime, ask for exact)

SERVICE PROVIDER BACKBONE DETAILS
- Multi-service
- Dual-ring protection
- Head-end located in the cutting-edge colocation center www.TelePoint.bg
- PoPs located in specialized Telco colocation facilities

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
DS1 – Digital Signal 1
DS3 – Digital Signal 3
EoSDH – Ethernet over SDH
ISO – International Standardization Organization
LL – Leased Line
MRC – Monthly Recurring Charge
MSP – Multiplex Section Protection
MS-SPRings – Multiplex Section Shared Protection Rings
MTTR – Mean Time to Recover
NNI – Network to Network Interface
NRC – Non Recurring Charge
ODF – Optical Distribution Frame
OSI – Open System Interconnect 7 layer model
PoP – Point of Presence
QoS – Quality of Service
RFS – Ready for Service
SDH – Synchronous Digital Hierarchy
SLA – Service Level Agreement
SNCP – Sub Network Connection Protection
SONET – Synchronous Optical Networking
TT – Trouble Ticket
UNI – User Network Interface
UTP/FTP – Unshielded/Foiled Twisted Pair
VC – Virtual Circuit