Benefits and Features

- FTTH/B active Ethernet CPE device
- Triple play delivery voice (VoIP), video, and data
- Indoor and outdoor versions
- Superior voice quality – 0, 2, 4 port modularity
  · Voice priority
  · Layer 3 TOS marking
  · 802.1p
  · 802.1q
- 8 10/100BaseTX LAN ports
- Uplink options
  · 100BaseX pluggable SFP (mini-GBIC) - MM, SM, bi-directional
  · 1000BaseX pluggable SFP (mini-GBIC) - MM, SM, bi-directional
- Supports ITU H.323, MGCP, and SIP
- Enhanced Layer 2 switching
  · VLANs
  · 802.1q
  · STP and RSTP
  · IGMP Snooping
  · Layer 2 QoS
- Wire speed performance
- Integrated Web server for configuration
- Enhanced voice
  · Automatic tone generation: dial, busy, ring-back, stutter tone, distinctive ring
  · DTMF detection and generation
  · Voice activity detection and prioritization
  · Call forwarding, hold, 3-way conferencing, etc.
- Remote automatic mass configuration
- Outdoor version
  · Hardened for extended temperature use
  · Wall mounted cabinet
  · Option for built-in charger and backup battery

EdgeGate CPE, GW-482 FTTH/B Media Gateway

Cost-effective, triple play, active Ethernet FTTH/B solution for ILECs, Utilities, and Municipalities

EdgeGate CPE GW-482, a member of Telco Systems' active Ethernet fiber-to-the-home/business (FTTH/B) product line, is a multi-service customer premises equipment (CPE) device designed to reduce the cost of delivering voice, video, and data services to homes, small office/home office (SOHO), and small enterprise. It is based on Telco Systems' field-proven, rock-solid EdgeGate CPE GW-282 technology, which is deployed in and outside thousands of homes and businesses worldwide.

EdgeGate CPE GW-482 is available as either an indoor device or is equipped in an environmentally controlled enclosure, suitable for mounting on a building's exterior, for service provider access. It offers ILECs, utilities, and municipalities a cost-effective means to deliver triple play (mixed voice, video, and data services) while ensuring high reliability and availability of their networks.

It's the ideal solution for open access applications in which one service provider offers access and multiple providers deliver triple play services, as well as for cases were the service provider delivers both. EdgeGate CPE GW-482 supports 0, 2, or 4 analog voice lines (VoIP FXS ports) and up to 8 10/100BaseTX Ethernet LAN ports. The optical uplink dynamically supports either a fast or Gigabit Ethernet transceiver over traditional fiber pair or single fiber, which can cut service delivery costs in half. It has full wire-speed Layer 2 switching allowing for better QoS and service type differentiation, as well as improved services for video streaming and VoIP.

Outdoor Installations

EdgeGate CPE GW-482's flexible architecture is the ideal solution for service providers delivering triple play services to their residential, SOHO, and enterprise customers. Uplink fiber options include; SM, MM, and bi-directional (single fiber) mini-GBIC transceivers with off-the-shelf LC connectors. 100/1000BaseLX/SX service enables subscribers to enjoy any broadband bandwidth-hungry application, such as video-on-demand while maintaining very high-quality voice.

Voice (VoIP), Video, and Data Convergence

Telco Systems' EdgeGate CPE GW-482 delivers mixed voice, video, and data services over a single IP network. It provides T.38 support for fax over IP, high-quality voice utilizing 802.1p for voice priority and 802.1q VLAN tagging. It also supports all the major VoIP protocols - SIP, MGCP, and H.323, in addition it has undergone thorough interoperability testing for certification with most major soft switch vendors. Service providers can differentiate their service with advanced features like; 3-way calling, call forward and hold, distinctive ring, and many more.

EdgeGate CPE GW-482's support of IGMPv2 (including a snooping feature for video streaming) allows service providers to offer IP video. Analog video is supported as well using an RF splitter. This flexibility ensures interoperability with existing network infrastructure, as well as with various routing, switching, and soft-switching platforms. EdgeGate CPE GW-482 can be initially deployed without integrated voice and then added as required using VoIP upgrade kit.This option also allows for separation of the access service provider and the voice service provider.

A unique battery backup solution and life line support guarantees telephone service will stay up in emergency situations where the external power fails.

Specifications

VoIP Protocols

SIP (RFC 2543, RFC 3261 selected sections)
MGCP (RFC 2705, NCS)
ITU H.323
FXS Ports number – 0, 2, 4
Connector RJ-11 for analog phones (POTS)
Life Line

Voice CODECs

ITU G.711 (µ-law, A-law)
ITU G.723.1
ITU G.726
ITU G.729A/B
T.38 fax relay (SIP, H.323)
Automatic fax/modem detection
Voice Activity Detection (VAD)
Comfort Noise Generation (CNG)
Caller ID
Error Mitigation
Adaptive Jitter buffer
5 REN (distance dependent)
RTP voice packet encapsulation

Routing and Provisioning

IPSec/ VPN pass-through
RFC 2068 HTTP
Static and dynamic IP address assignment

Quality of Service

16 802.1q VLANs
VLAN tagging IEEE 802.1q
Voice priority over data IEEE 802.1p
IEEE 802.3

Video

IGMPv2 snooping with fast leave
RFC 2236 IGMPv2

Uplink Interface - SFP

100BaseFX	MMF, SMF, bi-directional
1000BaseX	SX, LX, ZX
Connector	LC
Transmission	Full/half duplex, auto negotiation, pluggable transceiver

LAN Interface

10/100BaseTX auto negotiation

Connector	RJ-45
Ports	8
Transmission	Full/half duplex, auto negotiation, auto detect

LAN Cabling

10BaseT	UTP, Cat. 3/4/5 333 ft. (100m)
100BaseTX	UTP, Cat. 5 333 ft. (100m)

Management

Web-based management
Remote auto configuration via TFTP and HTTP
IP Configuration DHCP or static
SW download/upgrade via TFTP and HTTP, secure, reliable mechanism
SNMP
TELNET

Security

Passwords, encrypted configuration file, NMS community password

General

Dimensions

Stand alone	(H) 2.06" (L) 7.52" (W) 6.1" (5.23x19.1 x15.5 cm)
Cabinet	(H) 13" (L) 4" (W) 13" (32x10x32 cm)

Power

Stand alone	12 (9-18) VDC external power supply
Cabinet	90-264 VAC, 50-60 Hz

Weight

Standalone	2.42 lb (1.1Kg)
Cabinet	8 lb (3.63Kg)

Operating Temperature

Stand-alone	0° to 55° C (32° to 131° F)
Cabinet	-25° to 55° C (-13° to 131° F)
Operating Humidity	10% to 90% non-condensing

Emission and Safety Regulations

FCC Class B, UL, CUL, CE

Ordering Information
Part Number

EDGEGATE482-X-Y

FTTH Integrated IP Gateway, indoor version, with voice ports, 8 10/100BaseTX ports, and unpopulated SFP for 100/1000-uplink options. 2 fields parameters are needed for configuration completion.
* SFP should be ordered separately

EDGEGATE482S-X-Y

FTTH Integrated IP Gateway, Outdoors (System) cabinet version, with voice ports, 8 10/100BaseTX ports, and unpopulated SFP for 100/1000-uplink options. 2 field parameters are needed for configuration completion.
* SFP should be ordered separately

X= Voice ports number
0=No FXS ports
2=2 FXS ports
4=4 FXS ports

Y= VoIP protocol
S=SIP
M=MGCP
H=H.323
Not required when X=0 meaning when no Voice ports

BTI-MGBIC-GLX-LC
1 port 1000BaseLX Single Mode Mini GBIC transceiver (1310nm), Connector: LC, Distance: 10 km

BTI-MGBIC-GSX-LC
1 port 1000BaseSX Multi Mode Mini GBIC transceiver (850nm), Connector: LC, Distance: 550 m

BTI-SFP-FSM-LC
1 port 100BaseLX Single Mode Mini GBIC transceiver (1310nm), Connector LC, Distance: 15Km

BTI-SFP-FMM-LC
1 port 100BaseSX Multi Mode Mini GBIC transceiver (1310nm), Connector LC, Distance: 2Km

*Please contact us for other optic types.

482-Charger-KIT	Charger kit
482-NID-KIT	NID cable
482-2FXS-KIT	2 FXS port VoIP upgrade kit (up to 4 total per Edgegate482)