ULC-1000AN MSAN

Multi-Service Access Node High Density, High Capacity MSA/MSB/MSG Systems

Description

Keeping with the current trend of full integration IP and broadband, OPNET Technologies presents ULC-1000AN MSAN, a high density, high capacity Multi-Services Access Node. It can be configured to deploy a wide range of narrowband and broadband services, to subscriber over a copper or optical fiber wire-line network infrastructure.

The ULC-1000AN MSAN can be deployed in central office as well as remote outdoor node applications. It enables migration from legacy PSTN TDM based network to IP-Based Next Generation Network (NGN). It provides operators with maximum flexibility for service access, enabling efficient and effective deployment of new services without the need for additional investment in infrastructure.

- Combination of Traditional PSTN Services and IP-based NGN Services in a Single Universal Platform
- Integrated Multiple High Speed and Reliable GE/10GE Uplink Interfaces
- High Density, Flexible and Scalable Modularized System Design
- Comprehensive NMS Features and for Access Network Management
- An easy way of migration from PSTN network to NGN network
- Protect the values of existing equipment investment
- Lower capital investment and network operation cost
- Increase Average Revenue Per User (ARPU) by introducing new value-added services

◆ Broadband Access Features:

- Variety of xDSL Access Interfaces: ADSL/2/2+, VDSL2
- GPON OLT Interfaces for FTTx Applications
- Integrated L2+ Switch Features for Advanced Data Services
- Built-in POTS Splitter on xDSL board to simplify MDF cross-connection

◆ VoIP Access Features:

- Compliant to standardized IP-based control protocols, H.248 / MGCP / SIP
- IP-based G.711, G.723, G.726 or G.729 payload codec
- Echo-cancellation mechanism
- Voice Activation Detection (VAD)
- Comfort Noise Generation (CNG)
- T.30 Transparent or T.38 Relay Fax over IP functionality
- Local call mode during uplink failure
- Legacy with V5.2 E1 interfaces available for V5 Switch before NGN migration.
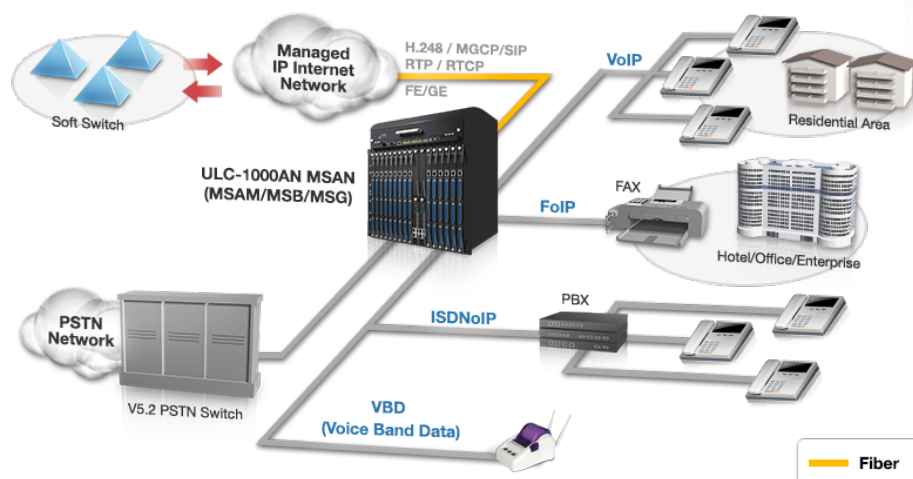
◆ Flexible Uplink Interfaces

- Variety of Network Interface: Fast Ethernet (FE), Gigabit Ethernet (GE) electrical/optical, 10GE optical, and GPON-ONU optical Interfaces
- Variety of Network Topologies: Point-to-point, Linear, Star, Ring or Hybrid
- Fast Recovery from Network Fault by Network Protection Switch

◆ Scalable System Capacity from Small, Medium to Large
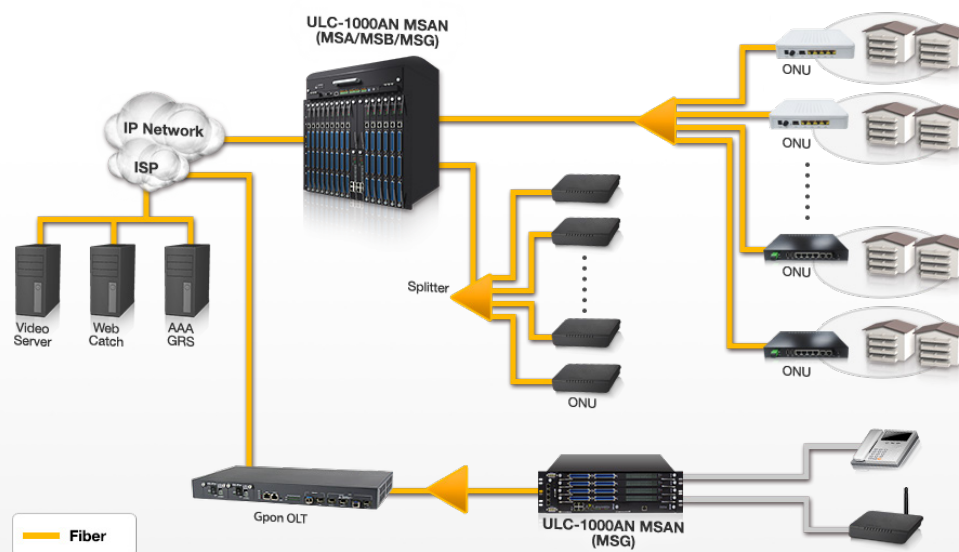Network Management and Maintenance

- Comprehensive Network Management Features: CM, PM, FM, SM and Inventory
- Management for overall Access Network
- Integrated Line Testing Features for easy maintenance
- Scalable Management Capacity for Different size of Access Network
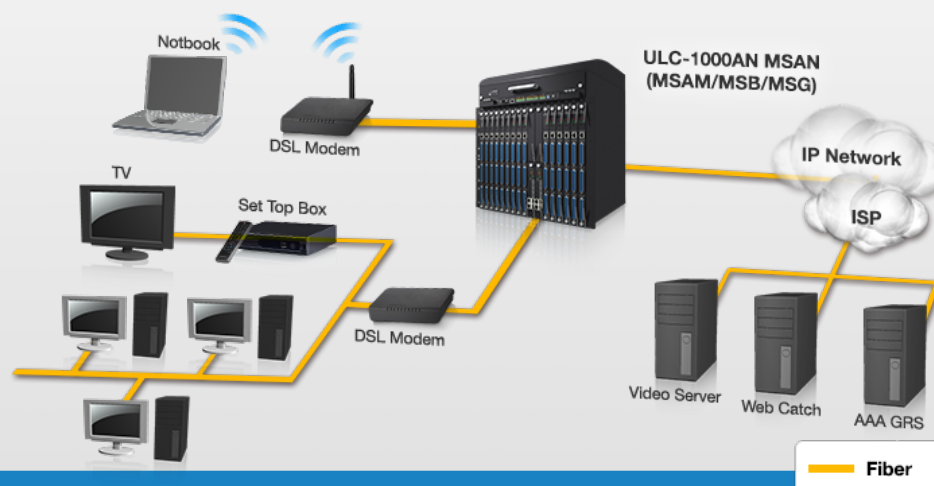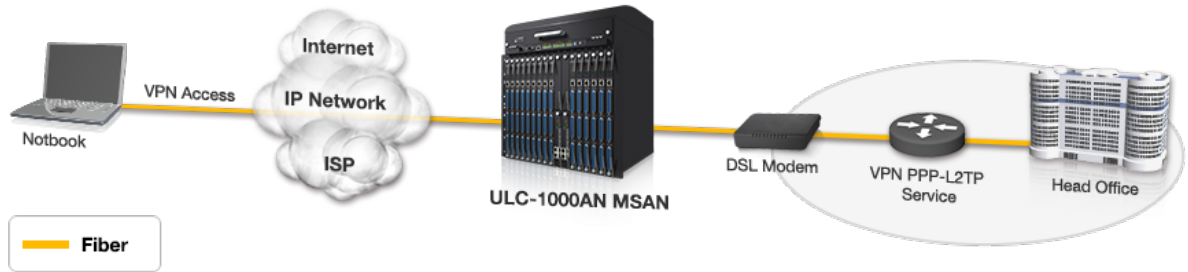- User Friendly Interface for easy operation

Application

Telephony Service

FTTH, GPON OLT/ONU Applications

Broadband Application - Triple - Play

ULC-1000AN MSAN

Multi-Service Access Network

Broadband Application - Virtual Private Network Service

Specifications

Uplink Interface

◆ 4xGigabit Ethernet Electrical, 100/1000Base-T
◆ 4xGigabit Ethernet Optical, 1000Base-SX, LX, LH, ZX, SFP Module
◆ 2x10Gigabit Ethernet Optical Interface (Option)
◆ GPON-ONU Optical Interface (Option)

Common Units

◆ Network: Central Process Unit, System Control and Traffic Uplink Unit
◆ MGU: Media Gateway Unit, VoIP Protocol (H.248/MGCP/SIP) Process Unit

Subscriber Line Interface and Units

UNIT	
RI-POTS2A	72-port FXS POTS line unit
RI-POTSC	48-port FXS POTS line unit, with built-in VoIP DSP
RI-POTSCA	72-port FXS POTS line unit, with built-in VoIP DSP
ATU-C	24-port ADSL/2/2+ line unit
ATU-CS	48-port ADSL/2/2+ line unit with built-in splitter
VTU-A	24-port VDSL2 line unit
VTU-AS	24-port VDSL2 line unit, with built-in splitter
GPT	4-ports ITU-T Gigabit Passive optical network OLT unit
PRI-12S	12-port ISDN PRI VoIP(SIP) Unit
V5M4	4-port E1 V5.2 Unit
V5M8	8-port E1 V5.2 Unit
TDMoP4/8/12	4/8/12 -port E1

Management Interfaces

◆ 1 x RS-232 DB-9 console port
◆ 1 x FE RJ-45 EMS outband management
◆ 2 x RJ-45 Alarm contacts I/O

Subscriber Line Card Connection

◆ Telco 50 24-port,RJ-21 connector

Operating Environment

◆ Operating conditions: -10 to 60°C(14 to 149° F)
◆ Non-Operating conditions: -10 to 85°C(14 to 185 °F)
◆ Relative Humidity: 5 to 95 %
◆ Storage Humidity: 5 to 95 %
◆ Regulatory Compliance
  • EMC: CE: EN550221 class A & EN300386 V1.3.2
  • Safety: EN60950-1
  • MTBF: 55,000 hours
◆ MSA Chassis Dimensions
  • 436mm x 340mm x 557mm (WxDxH)
  • 4 Common Unit slots, 15 Service Slots
  • Weight: ~40Kg (Full equipped)
◆ MSB Chassis Dimensions
  • 436mm x 340mm x 332mm (WxDxH)
  • 4 Common Unit slots, 8 Service Slots
  • Weight: ~25Kg (Full equipped)
◆ MSG Chassis Dimensions
  • 436mm x 340mm x 135mm (WxDxH)
  • 2 Common Unit slots, 4 Service Slots
  • Weight: ~20Kg (Full equipped)
◆ Power Requirement
  • DC: -40 ~ -60V
  • AC: 90 ~ 260V (MSG shelf option)