

BV-10 Performance Endpoint Unit

PERFORMANCE DEMARCATION FOR NETWORK-WIDE VISIBILITY



Highly cost-effective Ethernet performance monitoring device providing complete network visibility for mobile backhaul, Carrier Ethernet and PTN networks

KEY FEATURES

Fully integrated in EXFO's end-to-end mobile backhaul solution for service turn-up, troubleshooting and performance monitoring

Offers complete network visibility at a third of the cost of traditional Ethernet NID solutions

Simple and remote management for zero-truck-roll network maintenance

Completely standards-based, supporting Ethernet OAM, with 802.1ag and Y.1731 message response as a performance endpoint, as well as TWAMP (RFC 5357)

Capability to perform full-line-rate loopback from layer 2 up to layer 4 with rates of 10/100/1000 Mbit/s

SIMPLIFYING ETHERNET SERVICES TESTING

EXFO's BV-10 series is a low-cost, easy-to-configure, dedicated, smart performance endpoint device that is fully interoperable with any standards-based Ethernet test unit. The BV-10 can be easily deployed across the entire network without having to interrupt services, offering Ethernet service providers an economical alternative to remote testing, monitoring and troubleshooting.

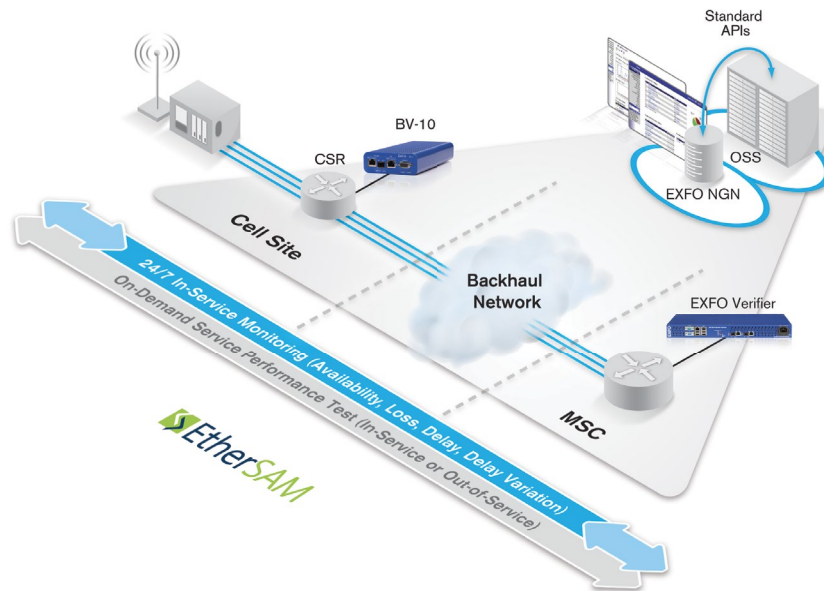


Figure 1. Mobile backhaul network lifecycle performance assessment

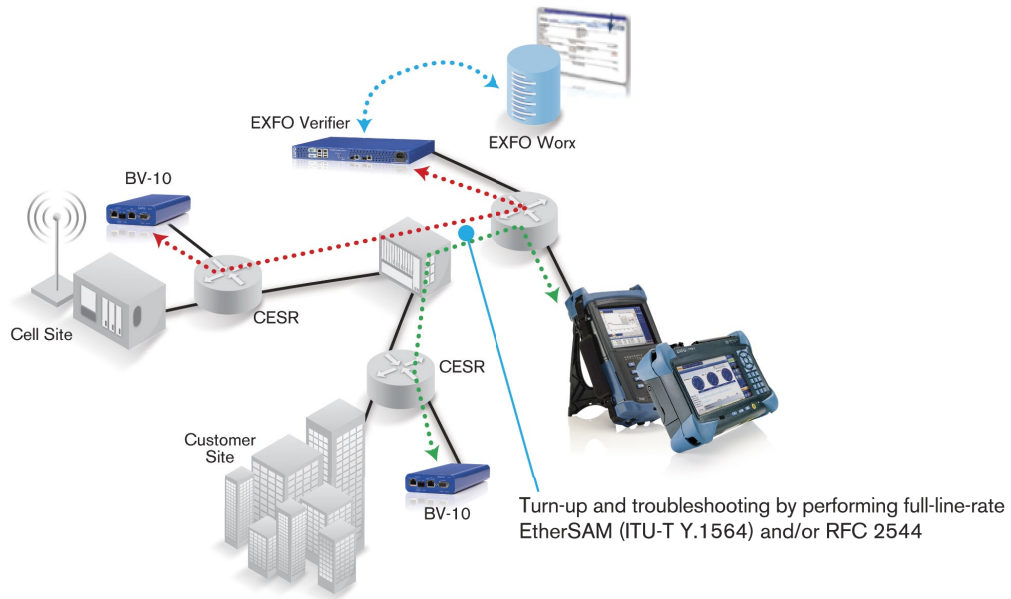
20/20 VISIBILITY

Service providers are continuously challenged to improve network performance and reliability while controlling operational costs. One of the key challenges in testing and monitoring network performance is having full visibility across the entire network. Thanks to a very low deployment cost, the simple and intuitive BV-10 can be quickly installed at any number of sites to reduce human intervention and enhance network performance visibility. In fact, the BV-10 provides visibility without having to send field technicians to remote sites and/or use more expensive Ethernet network interface devices to perform simple loopback functionalities.

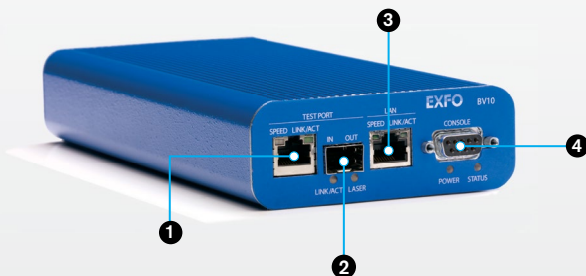
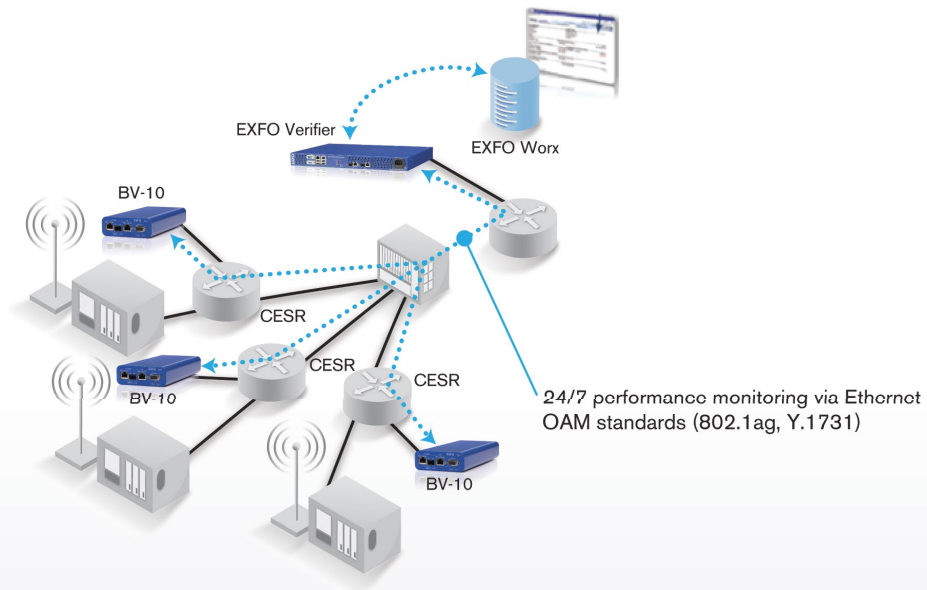
END-TO-END ETHERNET NETWORK PERFORMANCE ASSESSMENT

Fully integrated into EXFO's mobile backhaul and Carrier Ethernet end-to-end testing solutions, the BV-10 can be used as a performance endpoint device for a number of applications and throughout the network lifecycle phases, from turn-up to performance monitoring and troubleshooting.

SERVICE TURN-UP AND TROUBLESHOOTING



PERFORMANCE MONITORING



- ❶ 10/100/1000 Base-T test port
- ❷ Gigabit Ethernet test port (SFP-based)
- ❸ LAN port
- ❹ Console port

SPECIFICATIONS

ELECTRICAL INTERFACE

| | | | |
|----------------------|-----------------------------|----------------------|-------------|
| Electrical interface | One 10/100/1000 Base-T port | | |
| Tx bit rate | 10 Mbit/s | 125 Mbit/s | 1 Gbit/s |
| Rx bit rate | 10 Mbit/s | 125 Mbit/s | 1 Gbit/s |
| Duplex mode | Half and full duplex | Half and full duplex | Full duplex |
| Jitter compliance | IEEE 802.3 | IEEE 802.3 | IEEE 802.3 |
| Connector | RJ-45 | RJ-45 | RJ-45 |
| Maximum reach (m) | 100 | 100 | 100 |

OPTICAL INTERFACE

| | | | |
|--------------------------------|--------------------|--------------|--------------|
| Optical interface | One GigE port | | |
| Available wavelengths (nm) | 850, 1310 and 1550 | | |
| | 1000 Base-SX | 1000 Base-LX | 1000 Base-ZX |
| Wavelength (nm) | 850 | 1310 | 1550 |
| Tx level (dBm) | -9 to -3 | -9.5 to -3 | 0 to 5 |
| Rx level sensitivity (dBm) | -20 | -22 | -22 |
| Maximum reach | 550 m | 10 km | 80 km |
| Transmission bit rate (Gbit/s) | 1.25 | 1.25 | 1.25 |
| Reception bit rate (Gbit/s) | 1.25 | 1.25 | 1.25 |
| Tx operational wavelength (nm) | 830 to 860 | 1270 to 1360 | 1540 to 1570 |
| Maximum Rx before damage (dBm) | 6 | 6 | 6 |
| Jitter compliance | IEEE 802.3 | IEEE 802.3 | |
| Ethernet classification | IEEE 802.3 | IEEE 802.3 | |
| Laser type | VCSEL | FP | DFB |
| Eye safety | Class 1 | Class 1 | Class 1 |
| Connector | LC | LC | LC |
| Transceiver type | SFP | SFP | SFP |

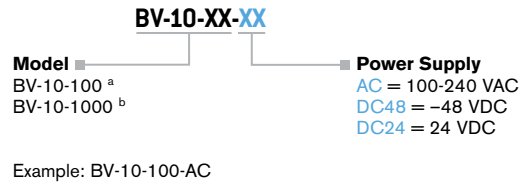
TESTING SPECIFICATIONS

| | |
|-------------------|--|
| Ethernet OAM | Capability to respond up to full line rate, Ethernet OAM 802.1ag and Y.1731 messages as a performance endpoint (LBM, DMM, LTM) |
| TWAMP (RFC 5357) | Capability to respond to TWAMP messages for layer 3 performance testing |
| Ping | Capability to generate and respond to ping request |
| UDP echo response | Capability to respond to UDP echo requests |
| VLAN | Capability to configure VLAN on test interface |
| Loopback | Capability to perform full-line-rate loopback with intelligent header swapping from layer 2 up to layer 4 |
| Other | |
| Remote control | In-band remote control via test port or out-of-band remote control via LAN port |

GENERAL SPECIFICATIONS

| | |
|------------------|---|
| Temperature | 0 °C to 50 °C (32 °F to 122 °F) |
| Humidity | 5 % to 95 % relative humidity, non-condensing |
| Size (H x W x D) | 38 mm x 103 mm x 210 mm (1 1/2 in x 4 1/16 in x 8 1/4 in) |
| Weight | 0.6 kg (1.3 lb) |

ORDERING INFORMATION



Notes

- a. One 10/100 Base-T port.
- b. One 10/100/1000 Base-T port and one optical (SFP) GigE port.

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