

# 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.

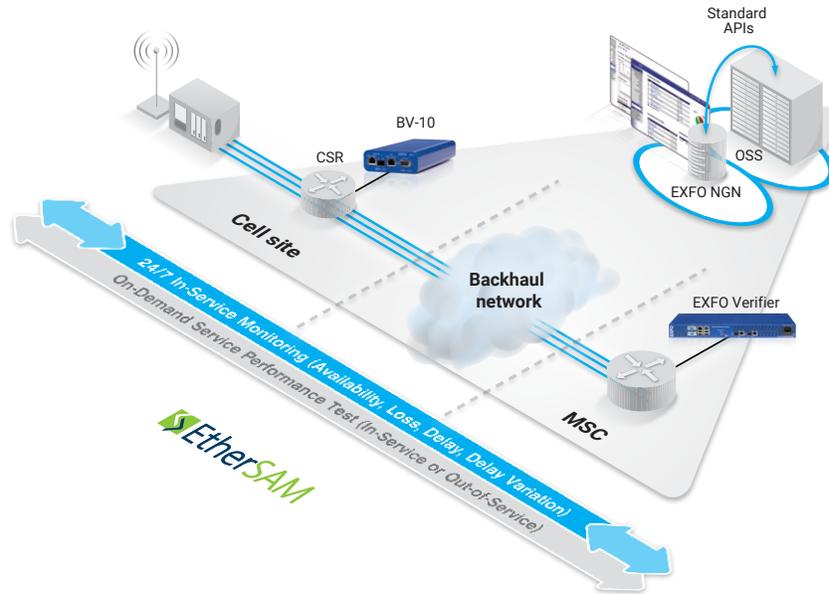


Figure 1. Mobile backhaul network lifecycle performance assessment

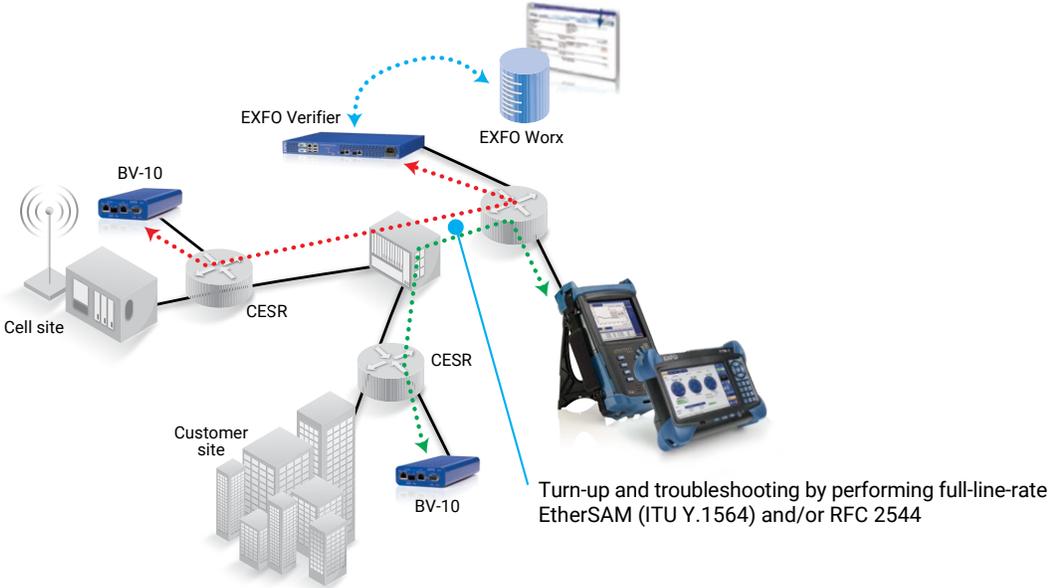
## 20/20 VISIBILITY

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.

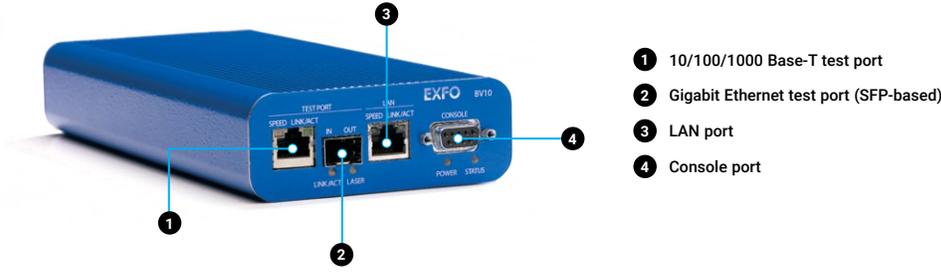
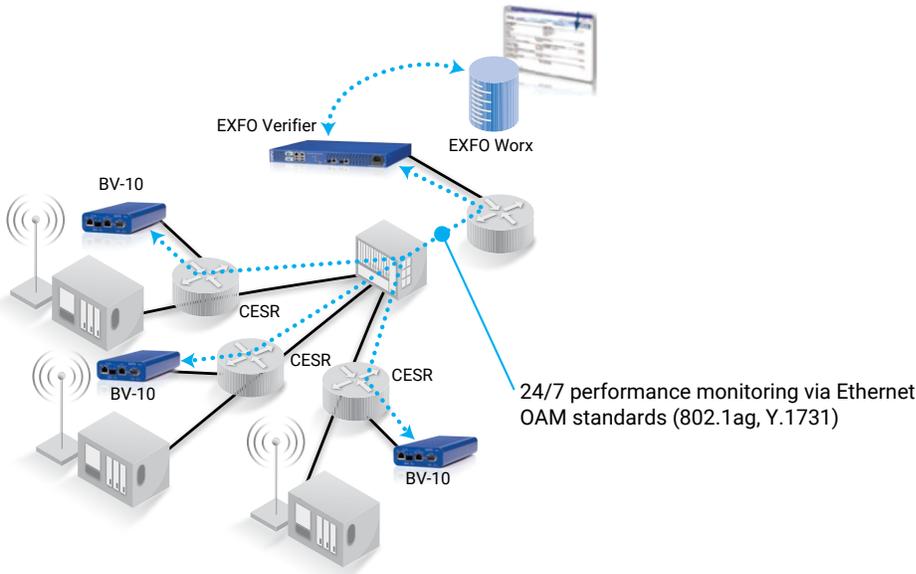
## END-TO-END ETHERNET NETWORK PERFORMANCE ASSESSMENT

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



## 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		
	<b>1000 Base-SX</b>	<b>1000 Base-LX</b>	<b>1000 Base-ZX</b>
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
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 ½ in x 4 1/16 in x 8 ¼ in)
Weight	0.6 kg (1.3 lb)

## ORDERING INFORMATION

## BV-10-XX-XX

## Model

BV-10-100 = One 10/100 Base-T port  
 BV-10-1000 = One 10/100/1000 Base-T port and  
 one optical (SFP) GigE port

Example: BV-10-100-AC

## Power supply

AC = 100-240 VAC  
 DC48 = -48 VDC  
 DC24 = 24 VDC

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