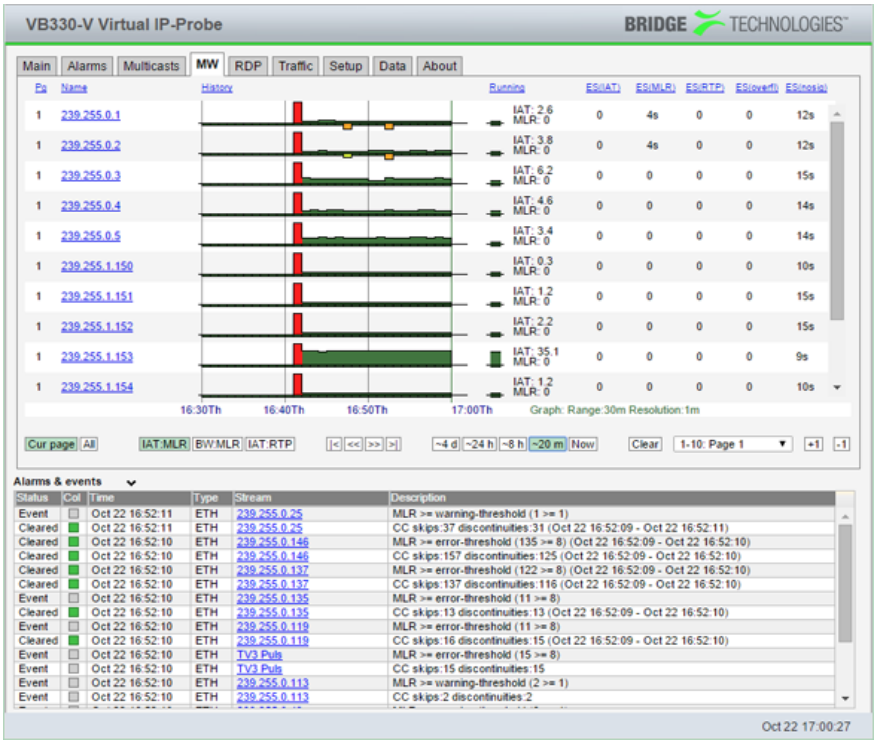
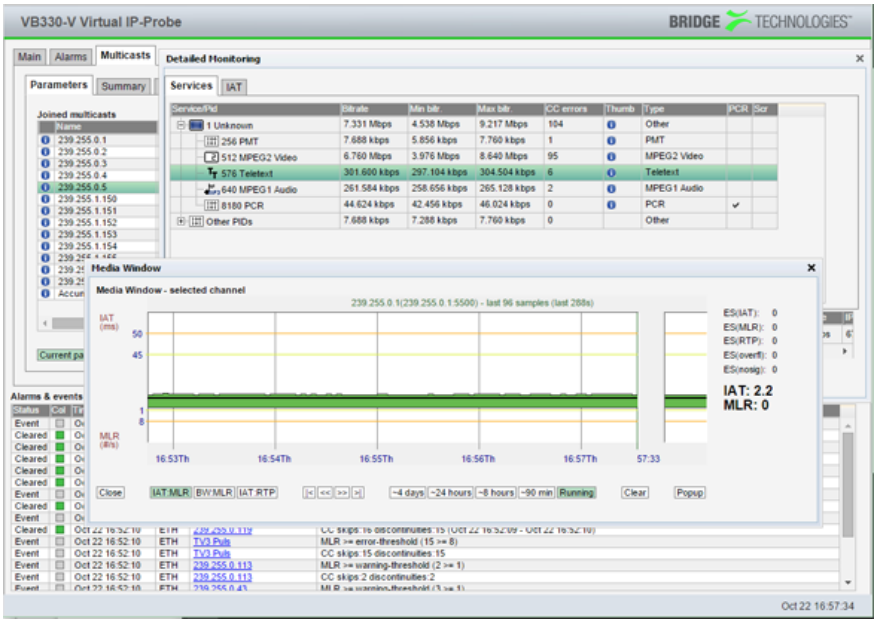
VB330-V VIRTUAL PROBE

Similar to the VB330, the VB330-V is for high-traffic monitoring in core networks but the VB330-V operates on any standard high-performance server blade. With the same feature set and capabilities, the VB330 and VB330-V can be mixed and matched to achieve the most convenient configuration, depending on the user's requirements.

The VB330-V has been developed for Data Centre and Headend deployment. It can be installed almost instantly on standard blade servers to allow rapid scaling of capacity, appearing identical to any hardware VB330s installed at other points in the network - For example at a point of presence (POP). The virtual VB330-V is addressable by the Bridge Technologies VBC central controller-server in exactly the same way as the hardware probe, and through its Eii (External Integration Interface) can be integrated with third-party management and data systems.



Designed for extremely high-density applications at points of maximum data throughput in today's core networks, the VB330 and VB330-V offer telcos, network operators and digital media organizations a monitoring solution with the potential for scaling to match any level of traffic, and delivering monitoring and analytics of thousands of streams and a multitude of technologies in real-time and in parallel.



The VB330 and VB330-V are designed for the full cross-section of services commonly found in media-related network operations, as a multi-use tool to monitor network performance involving signal formats and areas as diverse as video IP multicast, video OTT/ABR streaming, video-on-demand unicast, Ethernet packet micro bursts, PCAP recording and general traffic protocol inspection.

Up to 500 OTT/ABR streams may be monitored at the master play-out or at CDN origin server in all common streaming formats using the bulk OTT option. Streaming formats supported currently include Microsoft Smooth Stream™, Apple

SOFTWARE OPTIONS

ETR290 | BULK-ETR290 | OTT | BULK-OTT | AEO | T2MI | SCTE35 | EXTRACTOR

RELATED PRODUCTS

VBC | VB330

TECHNOLOGIES

MediaWindow | FSM | microETR | RDP | PCAP Recording | Eii | OTT Engine | microBURST

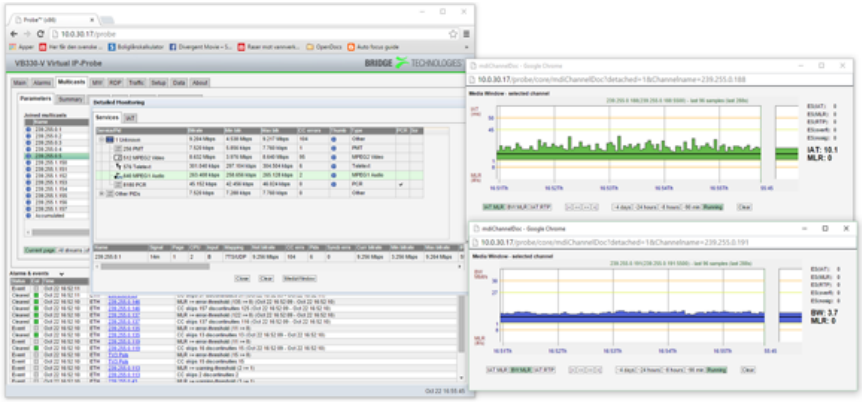
COMPLIANCE AND SAFETY

Compliant to requirements for US and Canada. Designed for CSA approval. Bridge Technologies continuously improves on products and reserves the right to modify the specifications without prior notice.

EMC: EN 55022I CISPR 22 Class A, EN 55024I CISPR 24, EN 61000-3-2/ IEC 61000-3-2, EN 61000-3-3/ IEC 61000-3-3, 47 CFR, Class B **SAFETY**: EN 60950-1, IEC 60950-1 Edition 2.0

Bridge Technologies Co AS,
Address: Bentsebrugata 20, NO-0476 Oslo, Norway.
Phone: +47 22 38 51 00. Web: www.bridgetech.tv
VAT NO987002808MVA, DUNS: 7303 64945

HLS™, Adobe HDS™, MPEG-DASH and basic RTMP. Measurement analytics are available via easy drill-down functionality and the patented Bridge Technologies MediaWindow™ technology which provides easy-to-assess graphical visualizations of the data.



GENERAL OVERVIEW

- Future proof for long life deployments
- Optimize Headend performance
- Install on standard Intel hardware
- Fully VMware and OpenStack compliant
- Feature parity to HW VB330
- Option equality and license equality
- Deliverable as ISO installer or OVF image
- MultiCore CPU utilisation architecture
- MediaWindow™ visualization of streams
- Thousands of streams in parallel
- OTT Engine option w/HLS, HDS, Smooth Streaming, MPEG-DASH and RTMP
- ETR290 Engine Option with Gold TS Protection™
- FEC analysis, Time-Loss-Distance, TOS, ICMP analysis
- Full Eii interfacing to 3rd party systems, Video IP multicast, video OTT/ABR streaming, video-on-demand unicast, PCAP recording and general traffic protocol inspection

TECHNICAL FEATURES

- Continuous monitoring of up to 2000 IP multicasts in parallel
  - Monitor current/min/max UDP payload bitrate
  - Monitor current/min/max TS payload not counting NULL TS packets
  - Count number of IP packets
  - Source/destination IP address
  - Type-of-Service field (TOS/DSCP)
  - Time-to-Live field (TTL)
  - VLAN ID, if appropriate
  - Max/min/average IP packet Inter-Arrival time (IAT) for jitter analysis
  - TS Continuity Counter errors
  - TS Sync errors
  - Media Loss Rate - number of TS packets lost
  - Source/destination MAC address
  - RTP dropped packets, duplicate packets, out-of-order packets
  - RTP max/min hole size, hole separation
  - Forward Error Correction analysis according to MPTE 2022
  - Visual graphing of jitter, packet loss and bandwidth performance with at least 4 days of history for all IP multicasts
- Framework for automatic detection of present multicast/unicast stream
- Protocol hierarchy view with bandwidth and packet count statistics for each active video interface
- Functionality for relaying any IP multicast monitored to a different IP destination for further analysis or recording (Remote Data Path - RDP)
- IGMPv2/v3 protocol logging and analysis framework
- Flexible template based alarming system to allow custom configuration of what parameters result in an alarm being generated on a per-TS level
- PCAP capture of up to 2GB of data for further analysis using Wireshark or similar
- Microbursting jitter analysis for monitoring total 10G trunk load
- IEEE 802.1Q VLAN tagging support
- Thumbnail decoding of uni/multicast IP transport streams
- ETSI TS 102 034 support
- SMPTE 2022 FEC support
- Microsoft mediaRoom X-bit RTP header extension support
- Alarm on changes to TOS/DSCP and TTL for detection of changes in network prioritization
- Time loss distance measurements according to RFC3357
- MediaWindow™ visualisation technology for trending packet loss and jitter over time
- Full Service Monitoring of any network device via built-in ICMP and HTTP query agents
- Searchable alarm lists
- Alarm forwarding to 3rd party systems via SNMP TRAP via up to 3 unique destinations
- NTP client time synchronization support according to RFC2030
- Easy web-based software and license upgrade
- XML-based configuration save and retrieval via web
- Powerful and openly available XML-based External Integration Interface (Eii) for 3rd party integration
- Condensed mosaic thumbnail view of all services monitored

PRODUCT ORDERING CODE	
VB330-V	Software based virtual Probe. Requires software v5.2
ORDERING CODES SOFTWARE OPTIONS	
ETR290-OPT	ETSI TR 101 290. Licence for VB20/VB220 factory ordered
ETR290-UPGR	ETSI TR 101 290. Upgrade licence VB20/VB220. Upgrade
BULK-ETR-OPT	50 engines with testing of ETSI TR 101 290 VB3 series, factory ordered
BULK-ETR-UPGR	50 engines with testing of ETSI TR 101 290 VB3 series, field upgrade
OTT-ENG-OPT	1 engine w/active testing of 1 channel or 10 channels round robin (up to 5 engines or 50 channels) factory ordered
OTT-ENG-UPGR	1 engine w/active testing of 1 channel or 10 channels round robin (up to 5 engines or 50 channels), upgrade
BULK-OTT-OPT	25 engines w/ active testing of 25 channels or 250 channels round robin for VB3 series, factory ordered. NB Requires v4.9 S/W or newer
BULK-OTT-UPGR	25 engines w/ active testing of 25 channels or 250 channels round robin for VB3 series, upgrade. NB Requires v4.9 S/W or newer
AEO-OPT	Advanced Ethernet Option w/ Traffic filtering - VoD Monitoring - Microburst Analysis - PCAP Recording. Factory ordered
AEO-UPGR	Advanced Ethernet Option w/ Traffic filtering - VoD Monitoring - Microburst Analysis - PCAP Recording. Upgrade
T2MI-OPT	DVB-T2MI Encapsulation Synhcronisation monitoring option, factory ordered
T2MI-UPGR	DVB-T2MI Encapsulation Synhcronisation monitoring option. Upgrade.
EXTRACT-OPT	Content Extraction and Alarming Option - factory ordered - requires v5 sw
EXTRACT-UPGR	Content Extraction and Alarming Option - requires v5 sw, upgrade
SCTE35-OPT	SCTE35 Signaling Analysis and Logging. License factory ordered. Requires v5 sw/ETR Engine
SCTE35-UPGR	SCTE35 Signaling Analysis and Logging. Upgrade license. Requires v5 sw and ETR Engine