

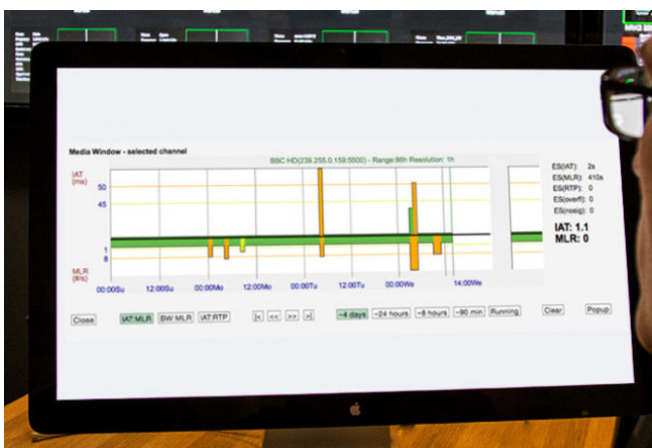
VBC

VBC CONTROLLER SERVER

The (VBC) offers central management and status displaying of all monitored services, providing a window into the performance of the television distribution operation. The VBC gives unprecedented insight into network health and the flow of all types of media streams throughout the network. Key elements in the VBC include: configuration management, stream performance comparison at multiple points, worst-performer identification, drill-down analysis, stream and service status monitoring, graphical alarm historical data-display with the Microtimeline™ technology, Visio™ map import with active alarm indication, trend graphing over up to two years, SNMP multi-destination trap forwarding, alarm logging and SLA report generation. VBC has a built in MAPs view, allowing to geotag probe locations and display alarms in a map view.

Timeline view on ARCHIVE Servers, enables storage of monitoring data for long periods of time allowing operators to compare various values between them; for example EPG, jitter, media loss rate, thumbnails, audio levels, VMAF and MOS scores.

RDW (Remote Data Wall) is a display technology controlled by the VBC, allowing you to create a visual representation of network activity, enabling potential problems to be rapidly identified and appropriate corrective action taken.



Technologies

Bridge Technologies options are designed to enhance the overall ability and performance of accurate monitoring in the broadcast environment

Click below to learn more about compatible technology options:

[Eii™](#) [ETR290™](#) [FSM](#) [Gold](#)
[TS](#) [MediaWindow™](#) [microBURST™](#) [Micr](#)
[oTimeline™](#) [OTT](#) [PCAP](#) [RDP](#) [Timeline™](#)

Environmental

[Euroenvironment](#) [RoHS](#) [WEEE](#)

Overview

The VBC provides multiple views to make it simple to obtain system status overview, and it makes previously unintelligible data meaningful. Error patterns are easily discovered, meaning that an error may be quickly pin-pointed and corrected.

As the VBC can be used for both high level monitoring and detailed signal inspection, it provides a common monitoring GUI for both non-technical staff and system engineers; this facilitates communication within the organisation. Multiple browser-based clients can connect to the server through HTTP. Full access control with individual user preferences and setup is available.

Only users with administrator rights are allowed to define new equipment sites consisting of one or more VideoBRIDGE devices. Individual users are allowed to control already registered devices and to view gathered statistical data on a per site basis. Multiple site data views, combined with strict user access control, all add up to provide flexibility and uncompromising security.

The integrated Reports function, enable automatic or custom generation of enterprise level reports that visualise system performance trends in addition to presenting vital parameters, such as service availability for both management and engineering use. The Reports give full SLA and proof-of-delivery functionality to the VBC system.

With the TS service view option the VBC can present individual services inside transport streams from all probes for monitoring and comparison. The Service thumbs view displays thumbnail pictures for individual services, including services within an MPTS stream.

VBC Controller

BRIDGE TECHNOLOGIES™

LOGIN

LIVE

MONITORING

BLADE ALARMS

GRAPHICS VIEW

STREAM VIEW

THUMBS VIEW

SERVICE VIEW

THUMBS

SELECTED

MAP

ROP

ROW

EQUIPMENT

ALARM SETUP

TIMELINE

REPORTS

EXT. REPORTS

MAIN

LastSth	Now	I.F.	Service	#	LastSth	Now	I.F.	Service	#	LastSth	Now	I.F.	Service	#	LastSth	Now	I.F.	Service	#
1		SAT	ESPN HD	1	38		SAT	C-More Sport 1 HD	1	75		SAT	ESportsTV HD	1	112		SAT	Kanal 3 HD antenne	1
2		SAT	AOB basic, zattoo, boxtel	1	39		IPTV	C-More Sport 1 HD	1	76		COFDM	Eurosport	1	113		COFDM	KOS	1
3		SAT	AOB PTV boxtel	1	40		SAT	C-More Sport 2	1	77		SAT	Eurosport 1 HD (H)	1	114		SAT	Kurantenkanalen HD	1
4		SAT	AOB Zattoo boxtel	1	41		SAT	C-More Sport HD	1	78		SAT	Eurosport 2 HD (H)	1	115		SAT	Kurantenkanalen HD - Test	1
5		SAT	AOB Zattoo boxtel	1	42		SAT	C-More Sport HD	1	79		SAT	Eurosport 2 HD (S)	1	116		SAT	Ju	1
6		E-PTV	A-Arabia	1	43		E-PTV	Canal Arabia	1	80		SAT	Eurosport HD	1	117		COFDM	Mohammar	1
7		E-PTV	A-Arabia Channel	1	44		SAT	CANAL3 HD (H)	1	81		SAT	Eurosport HD (S)	1	118		COFDM	MAX	2
8		E-PTV	AL SHARAJAH	1	45		IPTV	Cartoon Network	2	82		GAM	Eurosport Norge	1	119		E-PTV	MAX HD	1
9		E-PTV	AL SHARAJAH HD	1	46		SAT	CHNG	1	83		COFDM	ELM	1	120		SAT	MAX HD	1
10		SAT	ARABIA	1	47		E-PTV	CHNG Europe	1	84		SAT	ELM HD	1	121		GAM	MSG	1
11		E-PTV	Arise 3	1	48		IPTV	CHNG Europe	2	85		SAT	Elbox	1	122		SAT	Nat Geo HD (H)	1
12		COFDM	Animal Planet	2	49		IPTV	CNN International	3	86		IPTV	Elbox	2	123		E-PTV	Nat Geo HD (H)	1
13		SAT	Animal Planet HD	1	50		COFDM	Comedy Central	1	87		SAT	Fish and Hunting	1	124		E-PTV	Nat Geo HD (H)	1
14		E-PTV	Arise TV	1	51		E-PTV	Cubevision International	1	88		IPTV	Fish and Hunting	2	125		COFDM	National Geographic	1
15		GAM	BBC Box	1	52		SAT	DeaTale	1	89		COFDM	Est	1	126		SAT	Nicktoons	1
16		GAM	BBC Earth	1	53		SAT	Deutsche Welle (Levish)	1	90		SAT	EQX (S)	1	127		SAT	Nick Jr.	1
17		E-PTV	BBC Earth HD	1	54		COFDM	Discovery	1	91		COFDM	Edusat	1	128		SAT	Nick Jr.	1
18		COFDM	BBC World News	1	55		E-PTV	Discovery Science	1	92		SAT	GALAXY	1	129		SAT	Nick Jr.	1
19		SAT	Bloomberg	1	56		SAT	Discovery Science	1	93		IPTV	GALAXY	2	130		SAT	Nick Junior Global	1
20		E-PTV	Bloomberg Europe TV	1	57		IPTV	Discovery Science	1	94		E-PTV	HISTORY HD	1	131		SAT	Nick Jr.	1
21		IPTV	Bloomberg Europe TV	3	58		E-PTV	Discovery World	1	95		SAT	Home & Country TV	1	132		SAT	Nicktoons HD	1
22		SAT	Blue Hustler	1	59		SAT	Discovery World	1	96		SAT	Islander TV	1	133		SAT	NICKLODEON Boole	1
23		IPTV	Boomerang	1	60		COFDM	Discovery Channel	2	97		SAT	IQ Investigation Discovery (H)	1	134		COFDM	NICK Adult Network	1
24		COFDM	C-MORE FIRST	2	61		SAT	Discovery Channel (S, P)	1	98		SAT	JFM	1	135		SAT	NICK Adult Network	2
25		SAT	C-More First HD	1	62		SAT	Discovery Junior	1	99		SAT	Kanal 11 HD	1	136		COFDM	NICK Filmkanalen	1
26		SAT	C-More First HD	1	63		SAT	Discovery X2	1	100		SAT	Kanal 11 HD - Test	1	137		SAT	NICK Filmkanalen	2
27		SAT	C-More Golf HD (H)	1	64		SAT	dot	1	101		SAT	Kanal 11 HD antenne	1	138		COFDM	NICK Jazz	1
28		SAT	C-More HD	1	65		SAT	DOG	1	102		SAT	Kanal 3 HD	1	139		SAT	NICK Jazz	2
29		SAT	C-More HD	1	66		IPTV	DOG	2	103		SAT	Kanal 3 HD ant	1	140		COFDM	NICK Klassik	1
30		SAT	C-More Junior	2	67		SAT	DRK	1	104		SAT	Kanal 3 HD (H)	1	141		SAT	NICK Klassik	2
31		SAT	C-More Live 2 HD	1	68		SAT	DRK	1	105		SAT	Kanal 3 HD (H) ant	1	142		COFDM	NICK mP2	1
32		SAT	C-More Live 2 HD	1	69		SAT	DRK	1	106		SAT	Kanal 3 HD (S)	1	143		SAT	NICK mP2	2
33		SAT	C-More Live 4 HD	1	70		GAM	DRK	1	107		SAT	Kanal 3 HD (S) - Test	1	144		SAT	NICK P1 (Antenne)	2
34		SAT	C-More Live 4 HD	1	71		SAT	DRK	1	108		SAT	Kanal 3 HD antenne	1	145		SAT	NICK P1 (Antenne)	2
35		SAT	C-More MAX HD	1	72		SAT	DRK	1	109		SAT	Kanal 3 HD antenne	1	146		SAT	NICK P1 (Antenne)	2
36		COFDM	C-MORE SERIES	2	73		SAT	DRK	1	110		SAT	Kanal 3 HD	1	147		SAT	NICK P1 (Antenne)	2
37		SAT	C-More Series HD	1	74		COFDM	DTT BOOTLOAD	1	111		SAT	Kanal 3 HD - Test	1	148		SAT	NICK P1 (Antenne)	2

Service group

[x] services

Sort

Name

Filter

1:58 149:296 253:850

The VBC alarm view provides information about current and historical alarms, and alarm logs are stored in XML format on the VBC server.

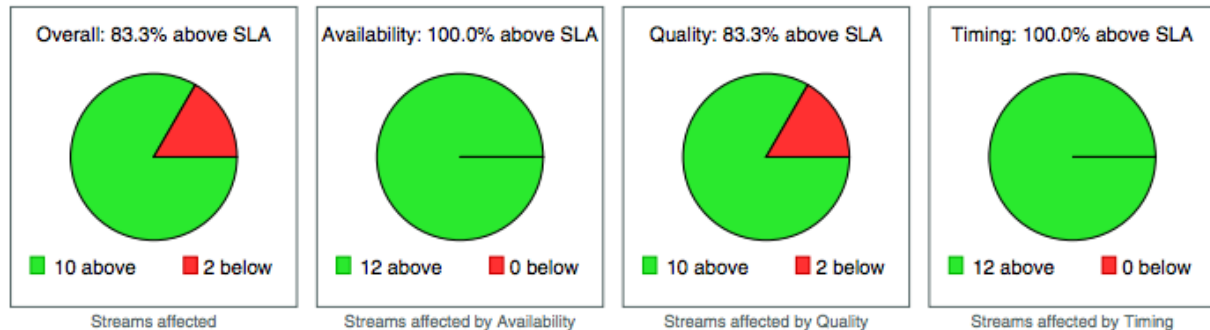
The VBC server may be accessed by several users simultaneously. An administrator manages users and their access rights, and a user can only view information concerning sites that he has access rights to. A user with read-only access can only view alarms whereas a user with read/write access can alter equipment settings at the sites he has access to.

Often probes in a system should be configured identically or similarly, and the VBC's configuration control tools make it easy for an administrator to copy the configuration of a probe to other probes. Considering the number of parameters that constitute a probe configuration this is an important feature that makes life a lot easier for the system administrator. Remote software upgrades may also be performed through the VBC GUI. Through the VBC the user may access the regular graphical user interface of each component in the system, thus allowing detailed configuration control and status read-out.

The VBC Reports enable generation of reports showing statistics of the key parameters availability, quality and jitter. Trend graphs display how these key quality parameters develop over time, and by setting parameter limits it is easy to see whether or not the system performance is in accordance with an SLA.

Streams above and below SLA thresholds

The error-seconds are summed for each stream and compared against SLA



The extended reports function enables full overview of all ETSI TR 101 290 parameters over long periods of time gathered and presented on a PDF document.

The Graphics Option allows Visio™ formatted maps to be imported into VBC with active data objects defined. This allows visual alarm status to be mapped onto the drawings. The drawings could typically be geographically maps, system diagrams or rack drawings.

The VBC supports an easy to use interface to the Return Data Path (RDP) functionality of individual probes. This is useful for visualising and changing the RDP settings of all the probes in a consistent manner.

There is also a synchronization mode where the VBC operator can select that only one RDP should be active at a time. This is useful when comparing the signal at various points in the network and avoids sending multiple signals to a single destination.

VBC Controller

LOGIN

LIVE

MONITORING

BLADE ALARMS

GRAPHICS VIEW

STREAM VIEW

THUMBS VIEW

SERVICE VIEW

MAP

ROP

ROW

EQUIPMENT


ALARM SETUP

TIMELINE


REPORTS

EXT. REPORTS


MAIN


 Adobe HLS
OTT/185.102.108.126


 Al Arabia
IPTV/185.102.108.126


 Al Jazeera Channel
IPTV/185.102.108.126

 Al Karma TV-ME
IPTV/185.102.108.126

 Al Shaoya
IPTV/185.102.108.126

 Al Sharjah
IPTV/185.102.108.126


 Algeria 3
OTT/185.102.108.126

 Arvana TV
IPTV/185.102.108.126


 BBC Earth HD
IPTV/185.102.108.126

 Biboo
OTT/185.102.108.126

 Bloomberg Europe TV
IPTV/185.102.108.126


 Canal Alerte
IPTV/185.102.108.126

 Canal Italia
IPTV/185.102.108.126


 CNBC Europe
IPTV/185.102.108.126


 CTV AP
IPTV/185.102.108.126

 Cubetvision Internacional
IPTV/185.102.108.126

 Discovery (N)
IPTV/185.102.108.126


 Discovery Science
IPTV/185.102.108.126


 Discovery World
IPTV/185.102.108.126

 HISTORY HD
IPTV/185.102.108.126

 Integral testing
OTT/185.102.108.126

 Juvelo
IPTV/185.102.108.126

 Madaxay
IPTV/185.102.108.126

 MAX HD
IPTV/185.102.108.126

 Nat Geo HD (N)
IPTV/185.102.108.126


 Nat Geo Wild HD
IPTV/185.102.108.126


 NRK 1
OTT/185.102.108.126

 NRK 2
OTT/185.102.108.126


 NRK 3
OTT/185.102.108.126

 NRK Nordland
OTT/185.102.108.126


 NRK Super
OTT/185.102.108.126


 NRK Super_NRK2 HD
IPTV/185.102.108.126

 NRK Tegnator_k
IPTV/185.102.108.126

 NRK Tegnatorik
OTT/185.102.108.126


 NRK Troms
OTT/185.102.108.126

 NRK Trøndelag
OTT/185.102.108.126

 NRK1 HD
IPTV/185.102.108.126


 NRK2 HD
IPTV/185.102.108.126


 Orient News
IPTV/185.102.108.126

 Sky News
IPTV/185.102.108.126

 Sky News Arabia
IPTV/185.102.108.126


 Sorlife Broadcasting Network
OTT/185.102.108.126

 TV 2 HD (N)
IPTV/185.102.108.126


 TV 2 Nyheterkanalen HD
IPTV/185.102.108.126


 TV3 HD (N)
IPTV/185.102.108.126

 TV4 HD
IPTV/185.102.108.126

 TVNorge HD
IPTV/185.102.108.126


 TVP Polonia
IPTV/185.102.108.126


 Yassat 4 HD
IPTV/185.102.108.126

 WaterfallCam
OTT/185.102.108.126

 WaterfallCam
OTT/185.102.108.126

 Wooka Cam DASH
OTT/185.102.108.126

 Wooka Cam HD5
OTT/185.102.108.126

 Wooka Cam HLS
OTT/185.102.108.126

 Wooka Cam RTMP
OTT/185.102.108.126

 Wooka Cam RTMP e1
OTT/185.102.108.126

 Wooka Cam RTMP e2
OTT/185.102.108.126

 YAS Sports
IPTV/185.102.108.126

 ZAD TV
IPTV/185.102.108.126

Stream-group [All streams] Sort Name Filter

1-84 85-168 169-252 253-336 317-400

To support 3rd party equipment the VBC will send alarms as SNMP traps and it allows an administrator to configure a maximum of four SNMP trap destinations. Traps may be aggregated in order to reduce the number of traps being sent. The VBC further offers a machine readable XML-based interface called Eii (External Integration Interface). This can be used to extract data directly for further manipulation by 3rd party applications.

Tech Features

BASIC VideoBRIDGE CONTROLLER FEATURES

- HTTP/web based client access
- Configurable access control / support for different user roles
- Password protected login for clients
- Framework for organising probes into sites
- Group TV channels into stream groups for easy problem identification
- Highly scalable system allowing 200 monitoring probes through licensing
- Easy integration and data export for 3rd party NMS systems through XML and SMNP traps
- Central element management of all monitoring probes in the network through HTTP
 - Configuration file copy/paste functionality between probes
 - Perform centralized software upgrades
 - Copy/Paste parts of configuration files between probes from central equipment view
- Central alarm aggregation of all monitoring probes in the network
 - Alarm aggregation (per-site, per-channel)
 - Trend graphs over multiple days of RF parameters (MER, Channel Power)
 - Graphical timeline view for several days for comparison between sites
 - Graphical Transport Stream aggregated alarm view for several days
 - Alarm logging with readout as HTML or XML
 - Thumbnail and meta data view
 - Alarm Scheduling to filter alarms during specific times during week
- Alarm filtering
 - Define turn-on time and turn-off time to limit alarm floods
 - Define window of time over which alarms are disabled
- General system health status panel
- MICROTIMELINE™ view of last 96 hours of operation for individual streams and configurable stream groups
- MICROTIMELINE™ stream view allowing easy identification of worst-performers
- Thumbnail and meta data view
- Hierarchical equipment view with bulk edit functionality
- Framework for centrally controlling the Return Data Path video relay functionality in probes
- Supports adding PocketProbe apps as devices for active and continuous OTT

monitoring

- Linux based server OS for stability

REPORTS FEATURES

- Comparison of measurements with SLA agreements
- Automatic SLA trend reporting in PDF format for IP multicasts monitored
- Automatic SLA trend reporting in PDF format summarizing TR 101 290 analysis results for all transport streams monitored
- Report time period selectable from 1 day to 2 years
- Selection of sites and streams to be included in report
- Upload your own logos to personalize report
- Automatically set up regular email distribution of reports at predefined points in time

TRANSPORT STREAM SERVICE VIEW OPTION

- View alarm state of all services inside transport streams based information in PSI/SI
- 4-day microTimeline™ alarm view of all services monitored

GRAPHICS OPTION

- Active system maps with alarm highlighting based on VISIO™ import
- Alarm indication for individual graphic icons
- Logical system diagram showing signal flow
- TV channel signal flow diagram with issue highlighting

Software Options

GRAPHICS-OPTION

The graphics option is used with the VBC to visualise a monitoring system based on Bridge Technologies equipment. Objects contained within a user-created SVG drawing are linked to site, device or stream status, enabling the user to freely design a graphical view perfectly suited to his own system and presentation preferences. The SVG drawing may be very simple or extremely detailed; the operation of connecting elements to a specific system status is anyway as easy as right-clicking an element and assigning object properties to it. When the drawing has been imported, the VBC graphics engine will display it in the VBC networks view and colour an object according to the status requested. Green indicates status OK, whereas other colours show conditions ranging from warning to major alarm.

TRANSPORT STREAM SERVICE VIEW-OPTION (VBC server)

The Transport Stream Service View option for the VBC utilizes the ETR290 engines inside the probes to report individual services automatically to the VBC based on the information signaled in the SDT tables. This allows viewing of services within a MPTS (Multiple Program Transport Streams) and the services can more easily be displayed and understood. The TSSV-Option also allows the utilization of the VB288 Objective QoE Content Extractor to display Thumbnails from individual services within an MPTS. The TSSV-Option further allows server-based ETR290 comparisons between probes installed at different geographical locations.

RDW-OPT

Remote Data Wall enables users to create displays, extending over multiple screens in a video wall format.

Ordering Codes

VBC-SERVER WITH REPORTS

VBC-BASE-5 – GRFX-TSSV included – can be upgraded to support up to 500 probes

VBC ELEMENT MANAGER – VBC Element Manager up to 250 probes

VBC OPTIONS

VBC-ADD1 – Adds 1 probe to base system

VBC-ADD5 – Adds 5 probe to base system

VBC-R – One-time license for a second redundant VBC installation

TSSV-OPT – Transport Stream Service View option

GRFX-OPT – VBC Graphics Option – enables VISIO™ drawings to be imported

Documentation

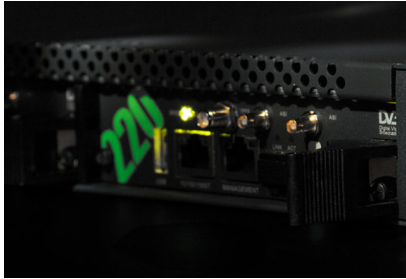
[User Manual – Download](#)

Related Products



VB120

IP and RF MONITOR PROBE /
DVB-T/T2, DVB-S/S2/S2X,
DVB-C, QAM-B, ATSC1.0,
ATSC3.0, ISDB-T, ASI



VB220

IP NETWORK PROBE



VB330 APPLIANCE

HIGH CAPACITY PROBE /
2000 STREAMS, 1000 OTT
CHANNELS & ETR290
ENGINES



NOMAD

PORTABLE IP AND RF PROBE