

## VBC

### VBC CONTROLLER SERVER

The VideoBRIDGE Controller (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:

[MediaWindow™](#)

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, provided that one or more VB288 Content Extractors are present in the configuration.

VBC Controller BRIDGE TECHNOLOGIES

	Last5th	Now	I.F.	Service	#	Last5th	Now	I.F.	Service	#	Last5th	Now	I.F.	Service	#	Last5th	Now	I.F.	Service	#	
LOGON																					
LIVE	1		SAT	ESPN.HD	1	38		SAT	C.Mars.Sport.1.HD	1	75		SAT	ESportsTV.HD	1	112		SAT	Kanal.9.HD.portskino	1	
MONITORING	2		SAT	AOB.basic.zattoo.bootload	1	39		IPTV	C.Mars.Sport.1.HD	1	76		COFDM	Eurosport	1	113		COFDM	KISS	1	
BLADE ALARMS	3		SAT	AOB.PVR.bootload	1	40		SAT	C.Mars.Sport.2	1	77		SAT	Eurosport.1.HD(N)	1	114		SAT	Kurzbachskanalar.HD	1	
GRAPHICS VIEW	4		SAT	AOB.Zattoo.bootload	1	41		SAT	C.Mars.Sport.HD	1	78		SAT	Eurosport.2.HD(D)	1	115		SAT	Kurzbachskanalar.HD_Test	1	
STREAM VIEW	5		SAT	AOB.TS	1	42		SAT	C.Mars.Sport.HD	1	79		SAT	Eurosport.2.HD(S)	1	116		SAT	Jr	1	
THUMBS VIEW	6		E-PTV	A.Asia	1	43		E-PTV	Canal.Asia	1	80		SAT	Eurosport.HD	1	117		COFDM	Maharaja	1	
SERVICE VIEW	7		E-PTV	A.Access.Channel	1	44		E-PTV	CANAL.HD(D)	1	81		SAT	Eurosport.HD(S)	1	118		COFDM	MAX	2	
THUMBS SELECTED	8		E-PTV	A.SHARUKH	1	45		IPTV	Cartoon.Network	2	82		QAM	Eurosport.Norve	1	119		E-PTV	MAX.HD	1	
MAP	9		E-PTV	A.SWINGON.HD	1	46		SAT	CHOC	1	83		COFDM	ELIM	1	120		SAT	MAX.HD	1	
ROP	10		SAT	AOA.TV	1	47		E-PTV	CHOC.Europe	2	84		SAT	ELIM.HD	1	121		QAM	MISG	1	
ROW	11		E-PTV	Aosock.3	1	48		IPTV	CHOC.Europe	2	85		SAT	Elibox	1	122		SAT	MTV.HD	1	
EQUIPMENT	12		COFDM	Animal.Planet	2	49		IPTV	CHN.International	3	86		IPTV	Elibox	2	123		E-PTV	Nat.Geo.HD(N)	1	
ALARM SETUP	13		SAT	Animal.Planet.HD	1	50		COFDM	Comedy.Central	1	87		SAT	Fishbase.and.Hunters	1	124		E-PTV	Nat.Geo.Wild.HD	1	
TIMELINE	14		E-PTV	Arctics.TV	1	51		E-PTV	Cubacion.Internacional	1	88		IPTV	Fishbase.and.Hunters	2	125		COFDM	National.Geographic	1	
REPORTS	15		QAM	BBC.Biz	1	52		SAT	Das.Sitz	1	89		COFDM	Est	1	126		SAT	Nicktoons	1	
EXT. REPORTS	16		QAM	BBC.Earth	1	53		SAT	Deutsche.Welt.(Livest)	1	90		SAT	ESK(S)	1	127		SAT	Nick.Jr	1	
MAIN	17		E-PTV	BBC.Earth.HD	1	54		COFDM	Discovery	1	91		COFDM	Edukation	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.Jr.Globel	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.A.Country.TV	1	132		SAT	Nickodeon.HD	1	
	22		SAT	Blue.Hunter	1	59		SAT	Discovery.World	1	96		SAT	Islander.TV	1	133		SAT	NICK.CODON.Beats	1	
	23		IPTV	Bloomberg	1	60		COFDM	Damen.Channel	2	97		SAT	ID.Investigation.Discovery(D)	1	134		COFDM	NICK.AVIA.hyater	1	
	24		COFDM	C.MOORE.FIRST	2	61		SAT	Damen.Channel.(S.P)	1	98		SAT	JM	1	135		SAT	NICK.AVIA.hyater	2	
	25		SAT	C.Mars.Futsal.HD	1	62		SAT	Damen.Judo	1	99		SAT	Kanal.11.HD	1	136		COFDM	NICK.Faltemu.kkk	1	
	26		SAT	C.Mars.Futsal.HD	1	63		SAT	Damen.Judo	1	100		SAT	Kanal.11.HD_Test	1	137		SAT	NICK.Faltemu.kkk	2	
	27		SAT	C.Mars.Golf.HD(D)	1	64		SAT	dbf	1	101		SAT	Kanal.11.HD.portskino	1	138		COFDM	NICK.Jazz	1	
	28		SAT	C.Mars.Hits.HD	1	65		SAT	DOG	1	102		SAT	Kanal.1.HD	1	139		SAT	NICK.Jazz	2	
	29		SAT	C.Mars.Hockey.HD	1	66		IPTV	DOG	2	103		SAT	Kanal.1.HD.am	1	140		COFDM	NICK.Gamesk	1	
	30		SAT	C.Mars.Judo	2	67		SAT	DRK	1	104		SAT	Kanal.3.HD(D)	1	141		SAT	NICK.Gamesk	2	
	31		SAT	C.Mars.Live.2.HD	1	68		SAT	DR.Ramenskoye	1	105		SAT	Kanal.3.HD(D).am	1	142		COFDM	NICK.mP3	1	
	32		SAT	C.Mars.Live.2.HD	1	69		SAT	DR.Litva	1	106		SAT	Kanal.3.HD(S)	1	143		SAT	NICK.mP3	2	
	33		SAT	C.Mars.Live.4.HD	1	70		QAM	DR1	1	107		SAT	Kanal.3.HD(S)_Test	1	144		SAT	NICK.P1.Buekerad	2	
	34		SAT	C.Mars.Live.HD	1	71		SAT	DR1.HD	1	108		SAT	Kanal.3.HD.portskino	1	145		SAT	NICK.P1.Finnmark	2	
	35		SAT	C.Mars.MAX.HD	1	72		SAT	DR2	1	109		SAT	Kanal.3.Sunderbaker	1	146		SAT	NICK.P1.Hordmark.Oostland	2	
	36		COFDM	C.MOORE.SICHEL	2	73		SAT	DR3.HD	1	110		SAT	Kanal.3.HD	1	147		SAT	NICK.P1.Hordland	2	
	37		SAT	C.Mars.Series.HD	1	74		COFDM	DTT.BOOTLOAD	1	111		SAT	Kanal.3.HD_Test	1	148		SAT	NICK.P1.Mars.pd.Romade	2	

Service group: [30 services] | Sort: Name | Filter:

1,748 149,256 253,450

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

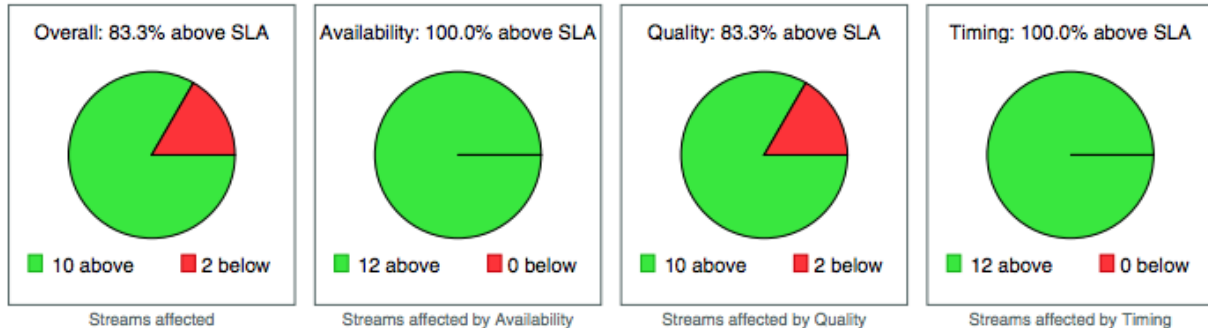
The VBC server may be accessed by several users simultaneously. An administrator manages users and their access rights, and a user can only view information concerning sites that he has access rights to. A user with read-only access can only view alarms whereas a user with read/write access can alter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

 <b>Adobe HLS</b> OTT/185.102.108.126 	 <b>Canal Italia</b> IPTV/185.102.108.126 	 <b>Nat Geo HD (N)</b> IPTV/185.102.108.126 	 <b>NRK1 HD</b> IPTV/185.102.108.126 	 <b>Yasat 4 HD</b> IPTV/185.102.108.126 
 <b>Al Arabia</b> IPTV/185.102.108.126 	 <b>CNBC Europe</b> IPTV/185.102.108.126 	 <b>Nat Geo Wild HD</b> IPTV/185.102.108.126 	 <b>NRK2 HD</b> IPTV/185.102.108.126 	 <b>WaterfallCam</b> OTT/185.102.108.126 
 <b>Al Jazeera Channel</b> IPTV/185.102.108.126 	 <b>CTV AP</b> IPTV/185.102.108.126 	 <b>NRK 1</b> OTT/185.102.108.126 	 <b>Orient News</b> IPTV/185.102.108.126 	 <b>WaterfallCam</b> OTT/185.102.108.126 
 <b>Al Karma TV-ME</b> IPTV/185.102.108.126 	 <b>Cubetvision Internacional</b> IPTV/185.102.108.126 	 <b>NRK 2</b> OTT/185.102.108.126 	 <b>Sky News</b> IPTV/185.102.108.126 	 <b>Wokca Cam DASH</b> OTT/185.102.108.126 
 <b>Al Shavvia</b> IPTV/185.102.108.126 	 <b>Discovery (N)</b> IPTV/185.102.108.126 	 <b>NRK 3</b> OTT/185.102.108.126 	 <b>Sky News Arabia</b> IPTV/185.102.108.126 	 <b>Wokca Cam HD5</b> OTT/185.102.108.126 
 <b>Al Sharjah</b> IPTV/185.102.108.126 	 <b>Discovery Science</b> IPTV/185.102.108.126 	 <b>NRK Nordland</b> OTT/185.102.108.126 	 <b>Sorlife Broadcasting Network</b> IPTV/185.102.108.126 	 <b>Wokca Cam HLS</b> OTT/185.102.108.126 
 <b>Algerie 3</b> IPTV/185.102.108.126 	 <b>Discovery World</b> IPTV/185.102.108.126 	 <b>NRK Super</b> OTT/185.102.108.126 	 <b>TV 2 HD (N)</b> IPTV/185.102.108.126 	 <b>Wokca RTMP</b> OTT/185.102.108.126 
 <b>Arvana TV</b> IPTV/185.102.108.126 	 <b>HISTORY HD</b> IPTV/185.102.108.126 	 <b>NRK Super_NRKJ HD</b> IPTV/185.102.108.126 	 <b>TV 2 Nyheterkanalen HD</b> IPTV/185.102.108.126 	 <b>Wokca RTMP a1</b> OTT/185.102.108.126 
 <b>BBC Earth HD</b> IPTV/185.102.108.126 	 <b>Integral testing</b> IPTV/185.102.108.126 	 <b>NRK Telemor_k</b> IPTV/185.102.108.126 	 <b>TV3 HD (N)</b> IPTV/185.102.108.126 	 <b>Wokca RTMP a2</b> OTT/185.102.108.126 
 <b>Biboo</b> OTT/185.102.108.126 	 <b>Juvelo</b> IPTV/185.102.108.126 	 <b>NRK Telemorik</b> OTT/185.102.108.126 	 <b>TV4 HD</b> IPTV/185.102.108.126 	 <b>YAS Sports</b> IPTV/185.102.108.126 
 <b>Bloomberg Europe TV</b> IPTV/185.102.108.126 	 <b>Madaxay</b> IPTV/185.102.108.126 	 <b>NRK Troms</b> OTT/185.102.108.126 	 <b>TVNorge HD</b> IPTV/185.102.108.126 	 <b>ZAD TV</b> IPTV/185.102.108.126 
 <b>Canal Alerte</b> IPTV/185.102.108.126 	 <b>MAX HD</b> IPTV/185.102.108.126 	 <b>NRK Trøndelag</b> OTT/185.102.108.126 	 <b>TVP Polonia</b> IPTV/185.102.108.126 	 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 with the addition of the VB288 CONTENT EXTRACTOR module
- 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.

Learn more:

### **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.

Learn more:

## Ordering Codes

### VBC-SERVER WITH REPORTS

VBC-5 – One-time license for 5 probes

VBC-20 – One-time license for 20 probes

VBC-50 – One-time license for 50 probes

VBC-100 – One-time license for 100 probes

VBC ELEMENT MANAGER – VBC Element Manager up to 250 probes

### VBC OPTIONS

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

ARCHIVE-SERVER – Archiving of data for Timeline feature. Requires sw v5.3

## Documentation

[User Manual – Download](#)

## Related Products



**VB120**

IP MONITOR PROBE



**VB242**

ASI SWITCHED DUAL INPUT



**VB220**

IP NETWORK PROBE



**VB252**

DVB-T/T2 TERRESTRIAL RF  
INPUT MODULE



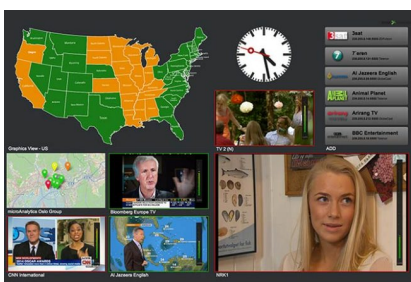
**VB262**

DVB-C QAM/VSB DIGITAL  
CABLE



**VB266**

DVB-C/C2 CABLE RF  
INTERFACE CARD



**VB288**

OBJECTIVE QoE CONTENT  
EXTRACTOR



**VB330**

HARDWARE, APPLIANCE,  
SOFTWARE