VBC CONTROLLER SERVER

The VideoBRIDGE Controller (VBC) offers central management and status displaying of all monitored services. It forms a window into the performance of the television distribution operation. The VBC gives unprecedented insight into network health and the flow 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 2 years, SNMP multi-destination trap forwarding, alarm logging and SLA report generation.

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 Reports option enables 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 option gives 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.

Figure - The Monitoring view showing sites, the alarm history and the stream group alarm status over the last 4 days.

Figure - The Stream view showing the 4-day alarm history of all transport streams in the system monitored at multiple locations..

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.

SOFTWARE OPTIONS

TSSV   GRFX   REPORTS

RELATED PRODUCTS

VB12   VB12-RF   VB20   VB120   VB220   VB242   VB252
VB252-SMA   VB262   VB266   VB272   VB272-SMA   VB288
VB330

TECHNOLOGIES

MediaWindow   MICROTIMELINE

The VBC Reports option enables 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.

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.
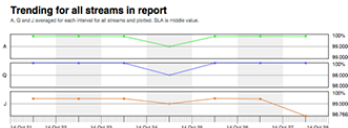
To support 3rd party equipment the VBC will send alarms as SNMP traps and it allows an administrator to configure a maximum of four SNMP trap destinations. Traps may be aggregated in order to reduce the number of traps being sent.

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.

Summary information

Report from	2014-Oct-21
Report to	2014-Oct-28
Days in report	7
User	demo
Streams	87
Stream-group	[All streams]
Number of sites	1
Stream-graph resolution	1h 0m
Report generated	2014 Oct 28 17:24:20
Report type	Full report
Show trending	Daily, all reported streams

Sites:
100_CORE

SLA all streams in report
A, Q and J averaged for all streams in report. SLA is indicated as a line in the graph and max graph value is 100%.

Availability:	99.636%	SLA=99.000%		PASS
Quality:	99.978%	SLA=98.000%		PASS
Jitter:	99.367%	SLA=99.000%		PASS

Trending for all streams in report
A, Q and J averaged for each interval for all streams and ported. SLA is middle value.

SLA thresholds
These threshold percentages were specified when report was generated

Parameter	%	Corresponding ES for 7 days	Corresponding ES for 1 day
Availability	99.0000	1h 40m	14m 24s
Quality	98.0000	3h 21m	28m 48s
Jitter	99.0000	1h 40m	14m 24s

BASIC VideobBRIDGE 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 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
- Linux based server OS for stability

REPORTS OPTION 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

PRODUCT ORDERING CODES

VBC-2	One-time license for two probes free of charge
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-R	One-time license for a second redundant VBC installation
VBC-REPO-2	SLA Reporting for VBC with up to 2 probes
VBC-REPO-5	SLA Reporting for VBC with up to 5 probes

VBC-REPO-20	SLA Reporting for VBC with up to 20 probes
VBC-REPO-50	SLA Reporting for VBC with up to 50 probes
VBC-REPO-100	SLA Reporting for VBC with up to 100 probes
TSSV-OPT	Transport Stream Service View option
GRFX-OPT	VBC Graphics Option - enables VISIO™ drawings to be imported