

WatchiTV Distributed : ProMatrix-II RealTime MPEG Stream Monitoring

KEY FEATURES

- Real-time and historical H.264/MPEG4/MPEG2 analysis
- IP Unicast / Multicast Support
- PCR Jitter Analysis with Graphs
- TR 101 290 Priority I, II, III
- PES Header Analysis
- Live Video Stream Validation
- Up to 32K UDP packet size support
- Complete Ethernet and IP layer Status
- Automatic Alarm generation and forwarding
- Automatic Stream Capture upon Trigger event
- SNMP ver 1+2 & MIB I + II
- QoS reporting
- Comprehensive Report generation based on Service Level Agreements
- Support simultaneous analysis of 64 streams per MPEG module (extendable to 960 Streams)
- Throughput analysis of services and PIDs



WatchiTV ProMatrix-II is a passive, non-intrusive network monitoring probe that enables you to focus on all layers and aspects of an IPTV network. WatchiTV ProMatrix-II enables you to isolate the root cause of a problem efficiently. The probe may be placed anywhere on the network — from core to edge to access networks — and monitor traffic levels according to pre-defined thresholds and generate alarms that may be forwarded to the network management system for centralized processing. WatchiTV ProMatrix-II may act as a stand alone data collecting engine or be a building block in a fully scalable and expandable managed IPTV network.



WatchiTV ProMatrix-II operates as a stand-alone server when controlled individually. Working in correlation with other probes on all network quality related parameters, SNMP and MIB information is automatically sent to the NMS system to give a complete picture of the network. The ProStation provides in-depth and real time analysis of the IPTV network with capture and analysis support of up to 64 concurrent traffic streams per network access card. The ProMatrix-II is able to display the actual video stream in order to do real time verification of the content. WatchiTV ProMatrix-II supports VoD (unicast) stream auto-detection and analysis.

ADVANCED REPORTING

The detailed and comprehensive reporting function of WatchiTV ProMatrix-II gives you an overall picture of the network and enables you to focus on shaping the network for the future. You may create reports that focus on QoS and evaluate QoE via real time validation. Moreover, **WatchiTV Distributed** is easily integrated with a DRM (Digital Rights Management) system for EMM and ECM packet status indication. Reports may be generated based on a subscriber's IP address containing historical data many months back in time as well as in real time. These tools enable you to conduct fast problem identification in the event of a network outage.

The **WatchiTV ProMatrix-II** probe uses the powerful AnaCise FPGA MPEG module for IPTV traffic analysis. Each module has the capacity to capture 64 traffic streams simultaneously, and the probe may be expanded to a capacity of capturing up to 960 MPEG traffic streams. The **ProMatrix-II** is a non-intrusive probe for use in heavy load network environments.

The **ProMatrix-II** is also able to capture and decode traffic streams using UDP packets of up to 32K in size. This is a very unique feature in the IPTV network monitoring market place today. Video servers need to pump out as much traffic as possible, thus their buffer sizes are adjusted to be as big as possible. The receiving entity in the STB still needs to be able to cope with the amount of traffic. At the same time, overall jitter must be kept at a minimum. The concerned network manager must be able to handle and understand these huge UDP segments in order to follow and solve potential problems throughout the network.

Through **WatchiTV NMS's** user-friendly interface, you can drill down to each stream in each **ProMatrix-II** probe location to see real-time analysis of such parameters as delay variation (PCR jitter) and packet loss in graphs per second. For on-air content validation, the operator may press the PLAY button to visually inspect the quality of the content being delivered at the remote end. This is done without inserting any additional traffic or affecting the live traffic, and is made possible by Anacise's unique traffic validation technology.

Together with the DVB TR 101-290 health check support, the **ProMatrix-II** probe provides more in-depth analysis of each stream in terms of PCR rate, PSI rate and PES Header rate information for optimizing the quality of service (QoS) and channel Zapping time.

MPEG2	MPEG4	H.264	PES Header Decode, Live Video Display
MPEG2 Transport Stream			DVB TR 101-290 Read-Time Monitor, PCR Jitter, Packet Loss
UDP			Packet Inter-arrival Time Distribution Analysis
IP			IP Checksum Error, Pause Packet detect
Ethernet			CRC Error, Alignment Error, Dribble Error, Over/UnderSize
Copper	Fiber		Hardware Base Technology, 1000Mbps Full wire Speed

The ProMatrix-II probe is able to drill down and isolate potential problems at any place in the IPTV protocol stack thus preventing potential problems and gaining the competitive proactive edge. In the case of thresholds being exceeded, automatic recording will be triggered enabling you to capture problems and to analyze them in greater depth at your convenience.



**WatchiTV
Distributed**

WatchiTV ProMatrix-II Distributed Solution features:

- Capture Trigger before and after events, 8M Bytes of data per stream captured for further analysis.
- Supports up to 32K UDP segment size (regardless of LIFO or FIFO stack implementation).
- Web based interface provides multiple user access
- Period reporting per channel and network status: yearly, monthly, daily.

WatchiTV ProMatrix-II Specifications

The **ProMatrix-II** is a probe that gives access to anything from 1 to 15 network interfaces for data collection. A total of 15 interface modules enables you to monitor up to 960 MPEG traffic streams.

WatchiTV ProMatrix-II

- 19-inch, 4RU high rack mount
- 100 - 240 Vac, 50 - 60 Hz
- Operating temperature: 0°C to +40°C
- Up to 16 test modules per chassis
- Size: 295mm x 485mm x 196mm



ProMatrix-II MPEG module

- **PM-2TSF** : SFP optical interface x 2 (for TAP or Used ONE port for input only)+ Scalable GigE
- **PM-2TSC** : 10/100/1000 copper x2 (for TAP or Used ONE port for input only)+ Scalable GigE



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