

WT-600

Triple-Play Service Monitoring



Features Highlighted

- **Monitor up to 512 streams simultaneously**
- **MOS-V Measurement**
- **MDI measurement (RFC-4445)**
- **RTP Layer measurement (RFC-3357)**
- **TR101 290 Priority 1, 2 measurements*¹ in accordance with techniques specified in TR 101 290**
- **Support Single Program Transport Streams(SPTS) and Multi Program Transport Stream(MPTS)**
- **Support Multicast and Unicast Stream**
- **Supports maximum UDP segment size(up to 32k byte, regardless of LIFO or FIFO stack) as used by Alcatel-Lucent*² OVS system**
- **Supports X-bit RTP header extension as used by Microsoft*² IPTV system**
- **Support Byte-swap RTP header as used by UTstarcom IPTV system**
- **Per-Stream VLAN ID with VLAN Priority analysis**
- **Per-Stream MPLS Label with CoS analysis**
- **Per-Stream Layer3/4 checksum Error check**
- **512MB Capture, Trigger buffer**
- **Per-PID throughput statistic**
- **PSI Table re-construction and analysis**
- **PSI and PCR rate measurement**
- **PCR Jitter measurement**
- **Rich Network/Data link layer information:**
 - **CRC Error Frame**
 - **Alignments Frame**
 - **Over/undersize Frame**
 - **Layer 3/4 checksum Error**
 - **Jabber Frame**
 - **Fragment**
 - **Fame Size Distribution**

*1 Except T-STD buffer mode analysis.

*2 Alcatel-Lucent and Microsoft are trademarks or registered trademarks of their respective companies.

Overcoming Challenge of IPTV Monitoring

Prior to service providers rolling out of IPTV services, subscribers seldom complain about network service even when they experience slow Internet access and despite packet loss, TCP can send packets again. If operators can manage the network of under layer 3 well, then almost all things related to the network quality can be resolved easily without meeting too many challenges in those days. However, service providers will meet inevitable QoE/QoS challenges once they begin to deliver IPTV services, e.g. customers may complain about seeing 'mosaic' in films ordered even at a fraction of a second. Ultimately, IPTV service providers must fine tune their network quality of IPTV service delivery to increase revenue.

Having been devoted to the study of IPTV testing and Network troubleshooting for years, AnaCise provides some comprehensive solutions for IPTV maintenance/testing/monitoring/troubleshooting since 2002. Introducing WT-600, it provides measured parameters of MPEG Stream from the DVB standard, conforms to ITU-T and RFC standards providing various measured parameters of MOS-V, MDI (DF & MLR), etc. WT-600 conforms to many International standards, supporting several kinds of Encapsulation layer of IPTV services of leading telecommunication companies. Not only does it display parameters over threshold, but all those factors that may affect the quality of IPTV services. As such, WT-600 speedily detects any problems whenever they occur in specific network segment and able to pinpoint by isolating the causes efficiently. In addition, WT-600 functions brilliantly if work along with AnaCise's WatchiTV NMS to monitor and analyze all IPTV network layers.

Real-Time IPTV Stream Monitoring and Alarm

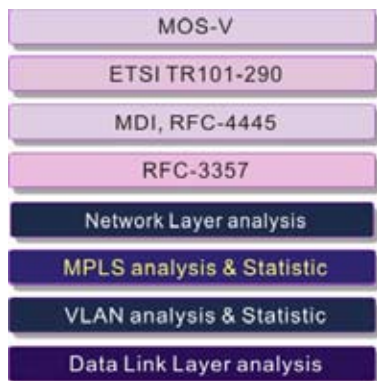
By incorporating Telchemy patent, WT-600 provides real-time subjective video quality analysis of MOS-V, and conforms to RFC-4445 and RFC-3357 standards. From MPEG service layer to Network Layer, WT-600 monitors up to 512 video streams with detailed analysis. All monitoring parameters are concurrently being displayed conveniently in a single screen, which prove more functional and informative than a traditional TV wall. Instant notifications like Alarm Lights, E-MAIL, and SMS, providing real-time alerts to network operator in NOC and doing away the eye-stress of staring at TV wall. Once any problem/s of IPTV services is/are detected, operator sorts the parameters of

defected streams by VLAN ID, MPLS Label, ToS, or IP Address to isolate the cause/s at whichever specific segment within the network.

For example, the defected streams occur in the same VLAN, or in the same Source IP enabling service operator to isolate and identify the root causes productively.

Complete and Detailed Analysis for each IPTV Network Layer

An IPTV architecture comprises of numerous network equipment and network devices to render high-quality services to customers. Service providers not only manage Routers and Switches, but they must control Encoder, Video Server equipment, etc. Whenever a quality problem of IPTV services surfaces, the root cause may be derived from either Video Server or improper setting at routing table. WT-600 automatically recognizes Multicast or Unicast stream and real-time analyzes each IPTV network layer to isolate the problematic root cause effectively.



Variety of Historical Reports

WT-600 generates a variety of historical measurement results and reports. These reports may be integrated

measurement results of all IPTV streams, or display of single stream measurement result among others, which can also include detailed Layers information. Users may search a variety of historical reports according to specific purpose and WT-600 will regenerate them readily within seconds.

Hardware Specifications

Interfaces

- 2 x 10/100/1000T Mbps Ethernet port
- 2 x SFP GigE port
- 1 x USB
- 1 x Serial(RJ-45)
- 6 x 10/100/1000T Mbps Ethernet port*

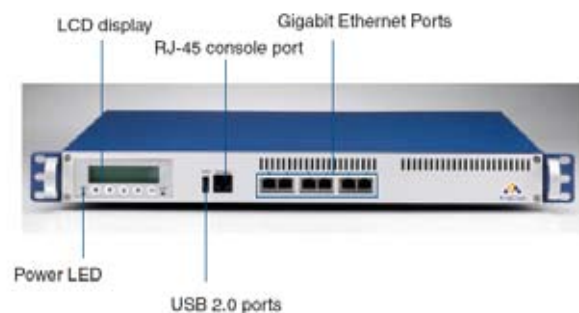
* This platform is designed for multiple purposes, and only one of its Gigabit Ethernet port is for IPTV monitoring at a time.

Mechanical Dimensions

- 426 x 44 x 435 mm
- 4.5kg

Power supply

- 250Walt
- AC 100 ~ 240V @ 50~60Hz, Full Range



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