Agilent Triple Play Analyzer

Data Sheet

Simplify Microsoft® Mediaroom™ Test Complexity

The Agilent J6900A Triple Play Analyzer (TPA) is the most complete monitoring and troubleshooting tool in a single solution for developing, installing, monitoring and troubleshooting triple play networks and services to realize faster time-to-market.

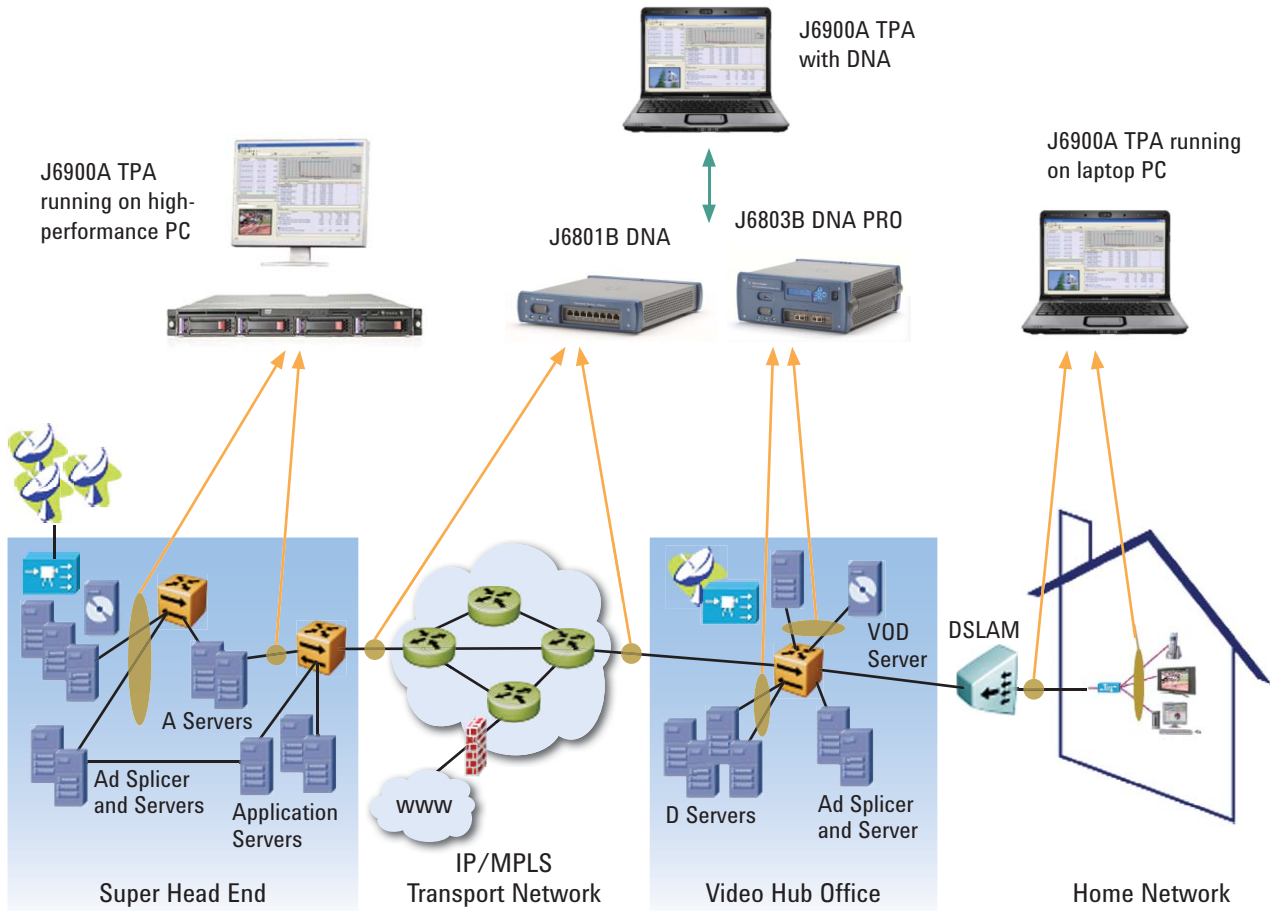## Supports Microsoft Mediaroom and IPTV Evolution

The Agilent Triple Play Analyzer allows you to identify the root causes of media and signaling impairments of video streams in the Microsoft Mediaroom network including:

- Comprehensive Quality of Service analysis for IP, RTP, MPEG-TS, and MPEG-PES
- Instant Channel Change media burst transport and ZAP time analysis
- Reliable UDP hole fulfillment analysis
- Command & Control heartbeat metrics, message and error statistics
- Full Microsoft Mediaroom proprietary protocol decodes and filters

Agilent Technologies

TPA Test and Monitoring Architecture in Microsoft Mediaroom Network

J6900A TPA
with DNA

J6900A TPA
running on high-
performance PC

J6900A TPA running
on laptop PC

J6801B DNA

J6803B DNA PRO

A Servers

Ad Splicer
and Servers

Application
Servers

Super Head End

www

IP/MPLS
Transport Network

VOD
Server

DSLAM

D Servers

Ad Splicer
and Server

Video Hub Office

Home Network

Advanced Capabilities

The Agilent Triple Play Analyzer (TPA) enables network professionals to develop, install, monitor, troubleshoot, analyze and optimize real-time video, voice and data services over next generation converged IP networks. The TPA top level dashboard view shows the performance of IPTV, VoD, VoIP and broadband data applications in a single window. The drill down capability provides extensive Quality of Service (QoS) and Quality of Experience (QoE) measurements for the selected service. TPA is part of the Agilent Network Analysis and Troubleshooting solutions suite.

Full Triple Play Service Support

- Powerful real-time monitoring, analysis and troubleshooting solution for next generation IPv4 and IPv6 video, voice and data networks
- Complete triple play solution in a single platform reduces CAPEX and OPEX costs
- Automatically discovers and analyzes Microsoft Mediaroom, IPTV, VoD, VoIP and data streams
- Intuitive triple play dashboard service overview

Video QoS/QoE Measurements

- Monitor and listen in real-time to MPEG-2, MPEG-4, H.263, H.264, AVS and other installed codecs. Verify the end user's real experience
- Video QoS/QoE analysis for MPEG-TS and ISMA encapsulation
- Video MOS degradation based on MPEG TS, PES and transport metrics (patent pending)
- MPEG PES Group of Pictures (GOP) and I, P, B frame performance analysis
- Comprehensive MPEG TS Analysis, such as:
  - PCR jitter measurements
  - ETSI TR 101 290 events

- PSI and PCR rates
- Bitrates and utilizations per PID and ES
- RFC 4445 MDI:DF and MDI:LR
- RTP jitter, packet loss, RTCP delay and RFC 3357 Loss Pattern Sample metrics
- Passive IGMP channel zap time and VoD RTSP command response time analysis

Note: Some features only function with unencrypted streams.

Instant Channel Change (ICC) Measurements

- Auto ICC burst detection and media transport statistics:
  - ICC Burst RTP Packets
  - ICC Burst RTP Throughput
  - ICC Burst RTP Lost Packets
  - All the MPEG2 TS Statistics
- ICC signaling statistics and analysis:
  - ICC ZAP Time
  - ICC Join Latency
  - ICC Joins
  - ICC Successful Joins

Reliable UDP (RUDP) Measurements

- RUDP hole fulfillment analysis:
  - RUDP Holes
  - RUDP Hole Fulfillments
  - RUDP Fulfilled Holes
  - RUDP Partially Fulfilled Holes
  - RUDP Roundtrip Latency (RTT)
  - RUDP Hole Size
  - RUDP Requested Packets
  - RUDP Fulfilled Packets
  - RUDP Fulfillment (%)

Command and Control (C&C) Measurements

- C&C heartbeat statistics:
  - Heartbeat Counts
  - Heartbeat Interval
  - Heartbeat Interval Exceeds

- Heartbeat Responses
- Heartbeat Responses Time
- Heartbeat Responses Exceeds
- C&C message type statistics
- C&C error type statistics, such as invalid service, invalid session, duplicate join, mismatched delivery mode, etc.

Comprehensive Protocol Decode and Filter

- Support for over 500 protocols and decodes
- Full protocol decodes across all seven layers including all major IPTV, VoD and VoIP protocols
- Microsoft Mediaroom proprietary decodes and filters:
  - Microsoft Mediaroom RTP header extension and sub extension decodes and filter
  - Full ICC, RUDP and other C&C message decodes and filters
  - Advanced filter for specific error types, Join Request parameters, and Retry Request hole sizes

Flexible Usage Model

- TPA software running on a PC with one or multiple 10/100/1000M NICs
- TPA Client Software running on a PC while using Agilent Distributed Network Analyzer (DNA) hardware platform for data acquisition

Powerful E2E Troubleshooting

The Agilent J6910A Multiplay Performance Manager (MPM) delivers network-wide, end-to-end multiplay services QoS/QoE troubleshooting and monitoring using TPA probes and the Agilent QoS Manager platform:

- Collect in-depth, real-time information across multiple interfaces and protocol layers in the network
- Real-time automated reporting and alarming on the network performance and QoS/QoE degradation
- Drill-down from MPM into TPA for root-cause analysis

Remove all doubt

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repair diagnostics and genuine parts.
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