

GeoProbe® | Mobile Video

Network Assurance for Mobile Core



Monitor Signaling and Media Traffic in the Network to Ensure Mobile TV Service Performance

An extension of Tektronix' 3G monitoring capabilities, GeoProbe for Mobile Video addresses the complexities of video streaming in UMTS network architectures. With both unicast and broadcast offerings poised to meet commercial demand and deliver new revenue streams, service providers must ensure the success and quality of mobile video's real-time unidirectional traffic.

Tektronix assists service providers in this effort by providing a field-verified mobile video monitoring solution for RTP/RTCP/RTSP protocols.

ID	State	Client IP Addr	Media Server IP Addr	Call Type	Session ID
0001	Closed	10.122.39.244	138.188.101.105	RTSP SETUP	200 OK
		Request URL: rtsp://138.188.101.105:554/v/tageschau_1179745478_51090739.3gp?msisdn=41412922357&p1228014120008145			
		Start Time: 05/21/2007 13:32:27:404			
0002	Closed	10.122.39.244	138.188.101.105	RTSP DESCRIBE	200 OK
		Request URL: rtsp://138.188.101.105:554/v/tageschau_1179745478_51090739.3gp?msisdn=41412922357&p1228014120008145			
		Start Time: 05/21/2007 13:32:27:404			
0003	Closed	10.122.39.244	138.188.101.105	RTSP STREAM CALL	785925208-3
		Request URL: rtsp://138.188.101.105:554/v/tageschau_1179745478_51090739.3gp?msisdn=41412922357&p1228014120008145			
		Start Time: 05/21/2007 13:32:27:822			

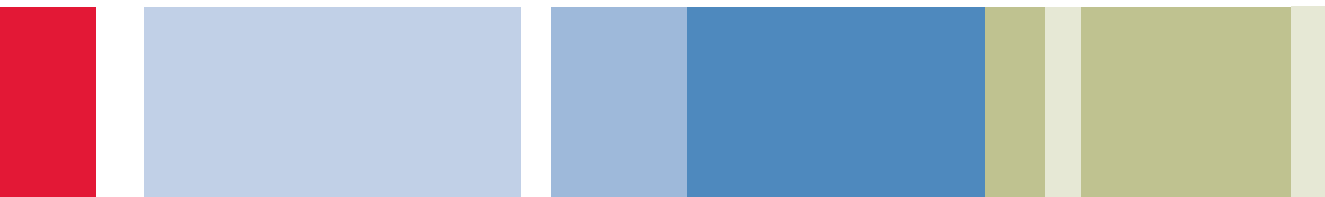
Capture and correlate the complete customer call with Filter, View, Search and Call in Progress trace capabilities.

Fully integrated with Tektronix' suite of network monitoring applications for mobile and fixed networks, GeoProbe for Mobile Video is easily deployed with scalable components that accelerate up time and maximize capital investments.

- Multi-Protocol Correlation with Gb, luPS, GTP, GSM MAP, Gi, RTP, RTCP, and RTSP provides powerful end-to-end network troubleshooting and monitoring capability.
- Real-Time, Behavioral, and Historical Statistics support for RTCP, RTP and RTSP packets and sessions offer insight into actual media performance.
- Robust call trace capabilities handle complex mobile video call scenarios including RTSP basic streaming sessions and RTSP streaming sessions originated via MMS.

Typical Monitoring Points

- Gi: Home subscriber and Roamer traffic if not ciphered
- GTP-U: Visitor traffic at SGSN, GGSN for Roamer traffic and SGSN or GGSN for Home subscribers
- Physical Interfaces: IP over GigE (Fiber and Copper) and IP over ATM



Call Trace Capabilities

Signaling

RTSP Call Trace Filters with Extensive Filtering

- Call Type, Status, Release Cause, Timeout, Digit

Multi-Protocol Correlations and Supported Call Filtering

- Basic: RTSP/RTSP (IP Address, URI); RTSP/RTCP/RTP (IP Address, URI, SSRC, CNAME)
- Advanced: Gb/luPS/GTP/GSM MAP/Gi/RTSP/ RTP/RTCP (IMSI, PTMSI, IMEI, IMEISV, MSISDN, IP Address, URI, SSRC, CNAME)

Media

RTP+RTCP and RTCP-only Call Trace Filters

- Call Type, Status, Result Code, Timeout, Call Address

Multi-Protocol Correlations

- RTP/RTCP/RTSP
- Gb/luPS/GTP/Gr/RTSP/RTP/RTCP

About Tektronix:

Tektronix has more than 60 years of experience in providing network operators and equipment manufacturers a comprehensive and unparalleled suite of network diagnostics and management solutions for fixed, mobile, IP and converged multi-service networks.

These solutions support such architectures and applications as fixed mobile convergence, IMS, broadband wireless access, WiMAX, VoIP and triple play, including IPTV.

For Further Information:

Tektronix maintains a comprehensive, constantly expanding collection of application notes, technical briefs and other resources to help engineers working on the cutting edge of technology.

Please visit www.tektronix.com/communications

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GeoProbe | Mobile Video Applications

Network Status Maps

- Provide at-a-glance indications of network degradation in real-time

Real-Time and Historical Call Trace and Protocol Analysis

- Capture and correlate the complete customer call with Filter, View Search and Call-in-Progress capabilities
- Supports Call Summary, Call Detail and Call Ladder Diagram displays
- Web-based call trace options
- Multi-protocol correlation support provides powerful end-to-end troubleshooting and monitoring capabilities
- Protocol Analysis through embedded Wireshark provides real-time signal unit capture and decode of signaling and media traffic

Statistics

- Real-time, Historical and Behavioral Statistics Packages

Alarms

- Network-generated Statistical Event Alarms
- Bullseye Alarm Displays
- SNMP Alarm Forwarding

Programmable Data Records

- Real-time xDR generation at various or multiple instances during the call/transaction/session
- Independent of multiple-vendor environments
- For RTP/RTCP xDRs, information may be derived from any combination of Direct RTCP measurements, RTCP monitoring or RTCP-XR monitoring.