



APP200™

APP1000™

APP200™ and **APP1000™** are purpose-built network appliances that support active testing or passive quality monitoring in a wide range of network environments. The active test models (**APP-DVQ-200** and **APP-DVQ-1000**) test and troubleshoot VoIP, Videoconferencing, Web, Email, DNS and DHCP services, and the passive monitoring models (**APP-SQP-200** and **APP-SQP-1000**) analyze the quality of live VoIP and Videoconferencing calls in real time.

Active Testing for VoIP / Videoconferencing / Data

APP-DVQ-200 and APP-DVQ-1000 provide a comprehensive solution for testing and troubleshooting a range of network data services and applications including VoIP and videoconferencing. APP-DVQ-200/1000 can perform tests on other Telchemy appliances, network devices running a DVQatstest software test agent, IP phones or videoconferencing endpoints, or network devices such as Web and email servers.

APP-DVQ-200/1000 can generate multiple concurrent VoIP or videoconferencing test calls using a wide range of configurable codec and payload types while analyzing call quality in real time. APP-DVQ-200/1000 tests network services and applications by performing synthetic transactions with DNS, DHCP, HTTP, POP3, and SMTP servers, and provides rapid diagnosis of routing problems using peer-to-peer probe tests and advanced per-hop IP path diagnosis. At the end of each test, APP-DVQ-200/1000 generates a test record with detailed media, signaling, and network performance metrics—including perceptual quality scores (MOS) for voice and video tests—and a diagnosis of factors that may be impacting performance.

Passive Quality Monitoring for VoIP / Videoconferencing

For passive monitoring applications, APP-SQP-200 or APP-SQP-1000 automatically detects individual VoIP or Videoconferencing calls and monitors call quality and performance in real time. At the end of a call or at periodic intervals during calls, APP-SQP-200/1000 generates a quality report with MOS scores, extensive transport and signaling metrics, and diagnostic data to assist in troubleshooting performance problems. APP-SQP-200/1000 are non-intrusive monitoring solutions that provide real-time quality feedback without compromising bandwidth.

APP-SQP-200/1000 provides real-time analysis of signaling associated with VoIP traffic, identifying calls by URI and detecting failed calls. Call flow and signaling performance metrics reported by APP-SQP-200/1000 provide key information for troubleshooting VoIP calls affected by signaling problems.

Integrates Seamlessly with Telchemy SQmediator®

Active records from APP-DVQ-200/1000 or passive records from APP-SQP-200/1000 are sent to Telchemy's SQmediator® performance management application, which correlates and displays the quality metrics and diagnostic data in a dashboard-style web user interface with intuitive charts. SQmediator can also collect quality reports from other Telchemy appliances as well as directly from IP phones, handsets, tablets, gateways, videoconferencing systems, routers, and other devices with embedded reporting software such as Telchemy's VQmon® or SQlive™.



*APP200 or APP1000 Network Appliance
(Front Panel View)*

Key Features

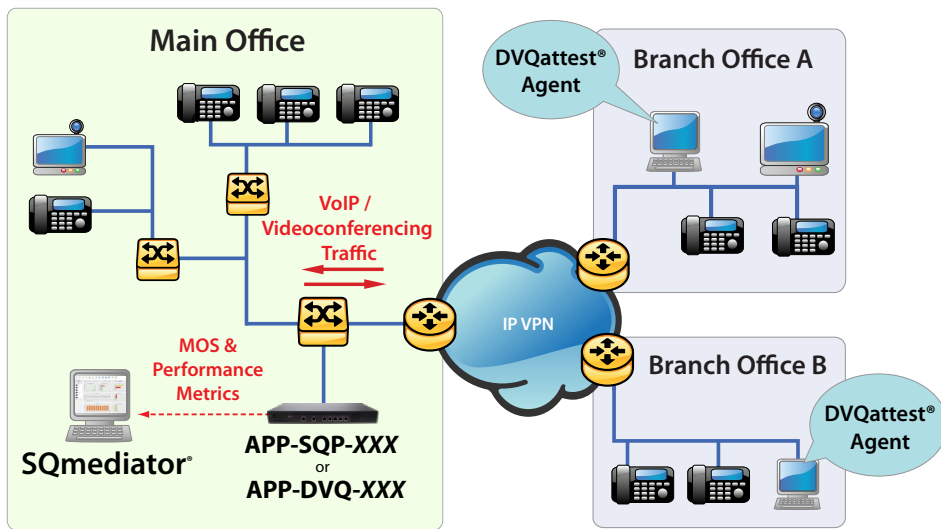
- Secure Linux OS
- Active testing or passive monitoring
- Bandwidth capacity of 200Mbps (APP200) or 1000Mbps (APP1000)

APP-DVQ-200/1000 Features

- Tests VoIP / Videoconferencing service performance using simulated test calls and real-time quality analysis
- Tests DNS, DHCP, HTTP, POP3, SMTP performance with synthetic server transactions
- Supports peer-to-peer probe tests and advanced IP path diagnosis Places test calls to other Telchemy appliances, DVQatstest test agents, or SIP-capable devices
- Real-time quality analysis with detailed test records
- Listening & Conversational Quality MOS (VoIP) plus Video/Audio/Audiovisual Quality MOS (Videoconferencing)

APP-SQP-200/1000 Features

- Non-intrusively monitors voice and/or video quality
- Real-time MOS scores for Voice, Video, Audio, Audiovisual
- Extensive media, signaling & network performance metrics
- Signaling, call outcome and call flow analysis
- Expert diagnosis identifies the source of quality problems



Example Application

The figure at left shows an example application of APP200 or APP1000 deployed for performance management of VoIP and videoconferencing services in an Enterprise network. The APP-SQP-200/1000 can non-intrusively monitor the quality of voice and video calls as they traverse the network between the main office and branch offices. The APP-DVQ-200/1000 can place test VoIP or video calls to other APP devices, to IP phones and videoconferencing terminals throughout the enterprise network, or to DVQattest test agents if they are installed on devices such as PCs, servers, or routers. Quality metrics from the APP-SQP-200/1000 or APP-DVQ-200/1000 are sent to the SQmediator application and can be viewed in the SQmediator Reporter web user interface.

Device Specifications

Form Factor	1U rack mount (rack mount ears and screws included)
Dimensions	431mm(W) x 44mm(H) x 305mm(D)
Weight	7 kg (15.43 lbs)
Environmental Requirements	Temperature, ambient operating: 0°C ~40°C Temperature, storage: -20°C~70°C Humidity (RH), ambient operating/ambient non-operating: 5 ~ 95%, non condensing
Power	Type / Watts: 1U ATX SPS / 220W Input: AC 100~240V@50~60Hz Output: +5V output: 1V min, 12V max +3.3V output: 1V min, 14V max +12V output 1V min, 14V max
Ethernet Ports	One (1) Ethernet RJ45 management port Five (5) GbE RJ45 ports (3 reserved for active testing, 2 for passive monitoring)
Serial Port	One (1) serial RJ45 console connector
OS	Linux

Software Specifications

- VoIP call generation (*APP-DVQ-200/1000*) - SIP Signaling (RFC 3216) Register, Invite, Bye; RTP (RFC3550) with RTCP SR/RR; RTCP XR (RFC3611) VoIP Metrics; Multiple codecs supported
- Videoconferencing stream generation (*APP-DVQ-200/1000*)- from low bitrate to 1080p HD streams; selectable GoP structure/codec
- Network service/application testing (*APP-DVQ-200/1000*) - synthetic DHCP/DNS/HTTP/POP3/SMTP transactions
- Network tests (*APP-DVQ-200/1000*) - ping, traceroute, IP path diagnosis, peer-to-peer probe tests
- VQmon call quality analysis (*APP-DVQ-200/1000* or *APP-SQP-200/1000*) - Extended ITU-T Recommendation G.107; ETSI TS 101 3295- Annex E; MOS-LQ, MOS-CQ, R-LQ, R-CQ
- VQmon video quality measurement (*APP-DVQ-200/1000* or *APP-SQP-200/1000*) - MOS-V, MOS-A, MOS-AV, VSTQ; levels of detail/motion/panning; identifies blank/frozen video

Application	Product Model	Bandwidth Capacity	Typical Call Capacity*
Active Testing	APP-DVQ-200	200 Mbps	200 concurrent test calls
	APP-DVQ-1000	1000 Mbps	1000 concurrent test calls
Passive Monitoring	APP-SQP-200	200 Mbps	1000 concurrent live calls (G.711)
	APP-SQP-1000	1000 Mbps	5000 concurrent live calls (G.711)

* Actual number of concurrent calls supported is dependent on call codec and payload type.

Contact Telchemy for pricing information.



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