IQM Principles of operations: Simple introduction

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IQM Agent runs under Linux or another Unix variant. Bundled versions use our own Linux distribution optimized for low delay. Major part of software is written is C++, so it is fast and compact.

SSH (TCP 22) and NTP (TCP/UDP-123) should be configured and running on the agent and configured on the agent's and LAN firewall (if any). Precise time synchronization is vital for network measurements, so selecting the best available NTP servers is major task.

Inter-agent tests are precisely managed data packets series interchanged between them. Based on the measured timings, major network parameters, such as Packet Loss, PDV (Jitter), RTT (Delay) and Bandwidth are calculated. Some type of measurement require special types of payload and/or packet management. All tests now use UDP. UDP ports in use could be dynamically allocated or statically configured by administrator (for firewalls, etc). Data acquisition stores results to text files. Using pre-configured criteria (lines number, time period etc) CDR files are rotated and delivered to IQMM using FTP or SSH (SCP).

IQMM runs data checks and simplifications, loads data into SQL DB, prepares reports and runs user interface. Alarms are generated when violation occurs.

IQMA control protocol (proprietary) uses TCP port 1189 and features handshake, authorization and so on. Agent password is never transmitted in clear.