Solver Iq/Ix

SOLVER Iq/Ix

Solver helps to considerably improve business productivity, drastically decrease roll-out time of new technologies, reduce time to market, and allows faster response to ever-changing market demands. The platform boasts 20 times higher system capacity, functionality and high load test towards Access Gateway/Access Transit Gateway in IMS network, enhanced complex functionalities like VoLTE with SRVCC hand-over, and an unrivalled price–performance ratio on load testing for voice in 2G/3G and 4G networks.

Solver Iq/Ix is able to simulate massive RTP traffic towards Access/Transit Gateway (AGW/TrGW) in IMS Core network. Solver system simulates subscribers and the IMS network to provide the high load traffic for testing Access Gateway. Solver sets up a large amount of terminations in the AGW/TrGW and then sends RTP traffic on those terminations to load test the AGW/TrGW. Solver records the incoming voice stream and by applying PESQ/POLQA and PEVQ algorithms it is possible to verify the quality of user plane traffic passing the AGW/TrGW during load.

H.248

H.248, or Megaco, is a standard protocol for controlling elements of a physically decomposed multimedia gateway. It's a master/slave protocol used to separate the call control logic from media processing. H.248, also called Megaco in IETF, is used to manage signaling and session management needed during a multimedia session.

Iq/Ix INTERFACE

Iq is the interface between a P-CSCF (IMS-ALG/ATCF) and IMS-(AGW/ATGW) while Ix is the interface between IMS-ALG and TrGW. Both interfaces uses H248 to carry information to allocate, modify and release IP terminations used for user plane traffic.

DEPLOYMENT

Solver for Ix/Iq is available as a rack-mounted server-based system. It is also available in a Lite format, which you can run from an ordinary notebook. Smaller in scope, but offering the same functionality and features in an efficient and practical portable format. With Solver Lite, it is possible to simulate a couple of hundred calls—perfect for quick and easy on-site testing.

KEY BENEFITS

- Simplify complex test scenarios and offer outstanding ease of use
- Generate and receive calls including control signalling and user data (payload)
- Provide fine-grain control over call set-up rates and parameters
- Display call activity and completion statistics such as set-ups, releases and active calls
- Generate heavy traffic load towards the Core Network
- Stress and feature testing of TrGW/AGW/ATGW

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ADD-ONS

PEVQ

Verify video quality by using PEVQ measurement on voice traffic, while at the same time generating heavy background traffic.

PESQ or POLQA

Verify speech quality by using PESQ/ POLQA measurements on voice traffic, while at the same time generating heavy background traffic.

WebRTC (Web Real-Time Communication)

To simulate that the traffic is generated by a WebRTC client, Solver can apply SRTP and NAT functions on the user plane data.

MSRP (Message Session Relay Protocol)

Solver can generated MSRP user plane traffic to simulate chat/file transfer or video sharing.

TECHNICAL DATA

- ⊗ Interface: Iq /Ix
- ⊗ Protocol Conformance:
    - User plane:
        - (RTP) IEFT RFC 1889
        - (RTCP) IETF RFC 3550
        - (DTLS-SRTP): IETF RFC 5764
        - (MSRP): IETF RFC 4975
    - Control plane:
        - (H.248) ITU-T H.248.1 v2
- ⊗ Add on Applications: PESQ, POLQA
- ⊗ Transport protocols: UDP (voice), SCTP (H.248) and TCP (MSRP)
- ⊗ Codecs: G711 A-law/µ-Law, G.729A(B), G723.1(A), G722, GSM-FR, GSM-EFR, GSM-HR, iLBC, AMR, AMR-WB, RFC3389 Comfort Noise
- ⊗ Product Capacity:
    - 500 000 subscribers
    - 300 CAPS
    - 45000 simultaneous RTP streams (90000 simultaneous traffic in Dual system)
- ⊗ 1 PESQ/POLQA/PEVQ measurement per second
- ⊗ Physical Dimensions
    - Height: 2 x1U
    - Width: 19"
    - Depth: 28"
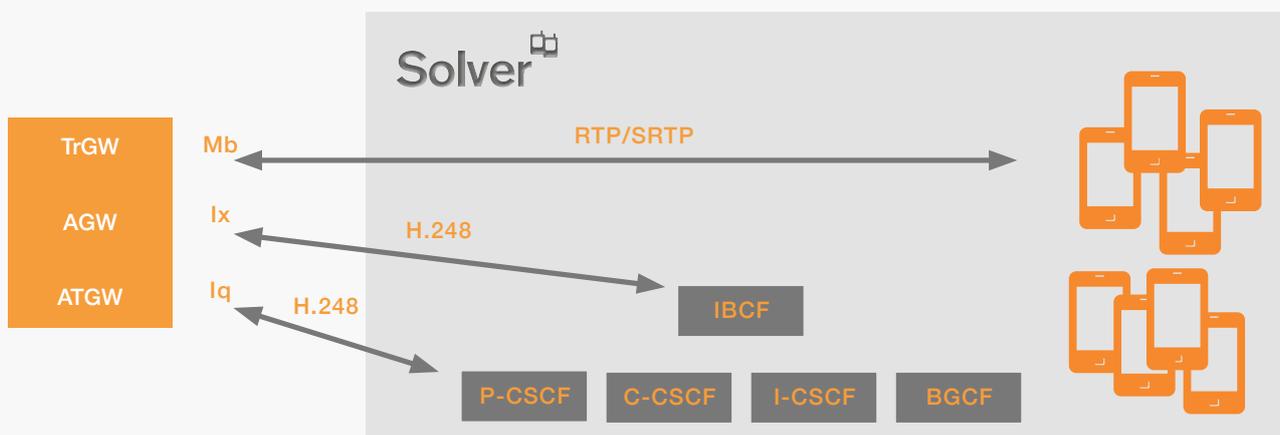
ABOUT POLYSTAR

Polystar enables Communications Service Providers to achieve excellence in CEM, Big Data Analytics, Service Assurance, Network Monitoring and High Performance Testing. We help CSPs to simplify their CEM strategies and drive operational efficiency through real-time network analytics. Polystar's real-time Network and Customer Insights uncover a goldmine of data, which yields indispensible analytics to CSPs. Polystar is recognised as one of the fastest-growing companies in Sweden. Since Polystar's foundation in Stockholm in 1983, we have experienced continuous and sustainable growth, and evolved to a global presence, serving our customers in over 50 countries.

For more information, please visit www.polystar.com