



3560 Message Router Appliance

The Solace 3560 message router is the highest performance data movement technology available, with the capacity and robustness to support the most demanding enterprise messaging, big data, cloud computing and Internet of Things applications.



Key Capabilities

Reliable Messaging

Solace can deliver millions of messages per second to hundreds of thousands of subscribers.

Guaranteed Messaging

Solace message routers can guarantee that messages are delivered no matter what, in the same order they were sent.

Web Messaging

Solace can stream millions of real-time messages over the internet and wireless networks with much higher and more consistent performance than other solutions.

WAN Optimization

Solace accelerates WAN distribution through real-time compression and intelligent routing.

Internet of Things

Solace appliances can provide high throughput, end-to-end messaging across the core, edge and device layers of typical IoT architectures

Appliance Form Factor for Simplicity

As a self-contained device, the Solace 3560 is easy to deploy, harden for high availability, and upgrade with new firmware. It offers a powerful monitoring and management framework that's easy to integrate with your existing management tools and security systems, making it easier than ever to protect your infrastructure and troubleshoot any faults that arise.

Hardware Datapath for Performance

Many appliances are just software that's been pre-installed on servers, but Solace has embedded data movement logic and protocols into high-speed FPGAs and Network Processors. Since all processing runs in these purpose-built chips there's no operating system in the datapath, which eliminates the latency and unpredictability associated with OS interrupts and context switching. That translates into higher throughput and lower, more predictable latency than other solutions.

Open Standard APIs and Unified Administration

All of Solace's messaging capabilities are accessible through open standard APIs that are available for common operating systems and programming languages. Solace VMRs and appliances are managed together, providing system-level visibility across hybrid clouds.

Capacity and Performance

Expansion Cards

- Slots: 8
- Field-Serviceable: Yes
- Control Plane: High-Performance

Connectivity

- I/O Card: 8x1GE, 2x10GE, 6x10GE, 8x10GE
- Maximum LAN Connections: 30,000
- Maximum Internet Connections: 200,000

Non-Persistent Messaging

- Point to Point Max Rate: 9.29M msgs/sec
Max Throughput: 80 Gbps
- Fanout Max Rate: 28.4M msgs/sec
Max Throughput: 80 Gbps
- Average Latency: 18µs at 1M msgs/sec

Persistent Messaging

- Point to Point Max Rate: 645k msgs/sec
Max Throughput: 9.5 Gbps
- Fanout Max Rate: 5.53M msgs/sec
Max Throughput: 80 Gbps
- Max Queue: 10B messages, 6 TB
- Average Latency: 75µs at 140,000 msgs/sec

Specifications

Physical

- Weight: 54lbs. (24.5 kg)
- Height: 3.5" (89mm)
- Width: 17.1" (435mm)
- Depth: 31.9" (810mm)

Power

- Power Supply: 80+, 2x1000W
- Input: 100-240VAC, 3.5-1.5A, 47-63Hz
- Consumption: 325W @120V (350VA)

Environmental

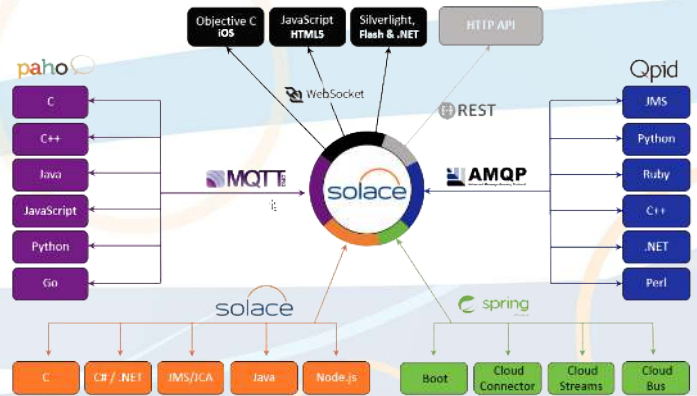
- Operating Temperature: 10°C to 40°C
- Operating Humidity: 5% to 85% (non-condensing)
- Storage Temperature: -40°C to 65°C
- Storage Humidity: 5% to 95% (non-condensing)
- Air Flow Direction: Front to Back

Go to solace.com/performance for full performance numbers.

APIs & Protocols

Solace messaging APIs offer robust and uniform client access to all of Solace's capabilities and qualities of service, and are available for C, .NET, iOS, Java, JavaScript, JMS and Node.js.

Solace also supports open APIs, standard protocols and open source technologies such as JMS/JCA, MQTT, Paho, REST and WebSockets, and soon AMQP and Qpid.



Features and Functionality

Safety Approvals

- IEC 60950-1:2005 + Am 1:2009 +Am 2:2013
- UL 60950-1 2nd Ed. (Including AM 1&2)
- CSA 22.2 No. 60950-1-07 (Including AM 1&2)

EMC Approvals

- FCC Part 15 Class A
- EN 55032:2012
- EN55024:2012
- EN 61000-3-2:2014
- EN 61000-3-3:2013

Interfaces

- Ethernet 1000BaseT
- Ethernet 10G Base SR
- Fibre Channel 4/2/1Gbps auto-negotiation
- RS232

Network Protocols

- TCP/IP
- Fibre Channel
- Ethernet IEEE Std 803.2ab
- Ethernet IEEE Std 802.3ae
- Ethernet Link Aggregation IEEE Std 802.3ad



Message Exchange Patterns and QoS

- Publish/Subscribe and Request/Reply
- Fanin, fanout, streaming
- Reliable and guaranteed (persistent) delivery

High Availability

- 99.999% reliability
- Active-Active or Active-Standby redundancy via VRRP
- Chassis based system with discrete data and control planes

Security

- Per client authentication via Radius, LDAP, or Local
- Publisher, subscriber and IP layer access control lists

Distribution

- Integrated routing protocols for WAN between data centers, with support for reliable and guaranteed messaging
- Per topic, per subscriber rate control (eliding) for consumers who can't consume messages at real-time rate
- Streaming compression with clients and/or between appliances

Virtualization

- Ability to virtualize application groups on the same physical Solace message router with complete message isolation.

DevOps

- Ansible, Bosh, Chef, GitHub, Gradle, Jenkins, Maven, Puppet, Vagrant

Monitoring & Management

- Manage via CLI, SolAdmin GUI and SEMP RESTful API
- Deep per-client and per-message stats from layers 1 to 7
- Syslog, SNMP and SEMP for message logging/monitoring
- Hands-off management with wake-on LAN

Other

- Streaming GZIP compression, configurable on a per-client basis
- Integrated ITRS plug-in for full Solace monitoring
- Last value caching with all request/reply semantics built into the API.
- TS Associates integration for latency monitoring



Solace technology enables open data movement by routing information between applications, devices and people across clouds using open APIs and protocols. Open data movement helps companies modernize legacy applications and successfully pursue analytics, big data, cloud computing and Internet of Things strategies.

Learn more at solace.com