



# Solace PubSub+ 3560 Appliance

The Solace PubSub+ 3560 appliance is the highest performance message broker available, with the capacity and robustness to support the most demanding enterprise messaging, big data, cloud computing and IoT applications.

## Appliance Form Factor for Simplicity

As a self-contained device, the Solace 3560 is easy to deploy, manage and upgrade over time. 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 faults.

## 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 PubSub+ software and appliances are managed together, providing system-level visibility across



## 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

## Capacity and Performance Specifications

### Expansion Cards

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

### Connectivity

- I/O Card: 8x1GE, 2x10GE, 8x10GE
- Max Enterprise/JMS Connections: 30,000
- Max IoT/Web/REST 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

### 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)

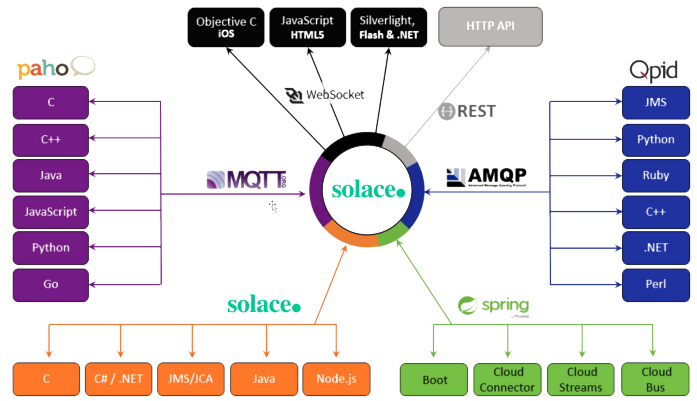
### Environmental

- 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

# 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 AMQP/Qpid, JMS/JCA, MQTT/Paho, REST and WebSocket.



# 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

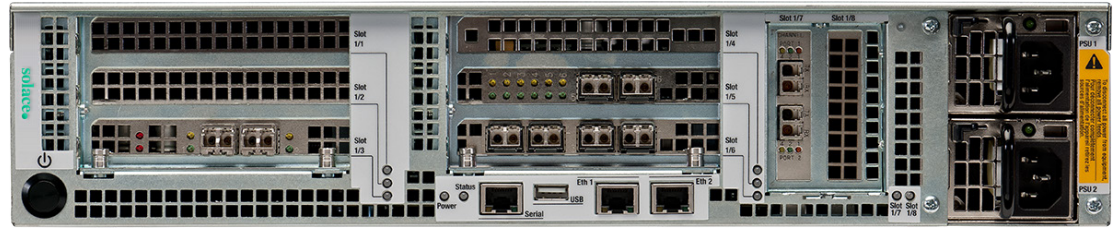
- FCC Part 15 Class A
- EN 55032:2012
- EN55024:2012
- EN 61000-3-2:2014
- EN 61000-3-3:2013

## Interfaces

- Ethernet 1000BaseT
- Ethernet 10G Base SR
- Fibre Channel 8/4 Gbps 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% availability for an HA pair
- Active-Active or Active-Standby redundancy
- Chassis based system with discrete data and control planes
- Integrated replication for disaster recovery

## Security

- Per client authentication via Radius, LDAP, TLS Certificate, Kerberos, or local
- Publisher, subscriber and IP layer access control lists
- TLS for client and inter-broker connections

## 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 GZIP compression with clients and/or between appliances

## Virtualization

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

## Monitoring & Management

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

## Other

- 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's smart data movement technologies use open APIs and protocols to rapidly and reliably route information between applications, devices and people across clouds. Elite enterprises and high-growth startups around the world use Solace to modernize legacy applications and successfully pursue analytics, hybrid cloud and IoT strategies. Learn more or contact us at <https://solace.com>.