Solace and F5 can help you establish a secure, highly scalable and geographically distributed connection and event fabric between IoT devices, edge applications and IT systems across cloud, on-premise, and hybrid cloud environments.

For more information:

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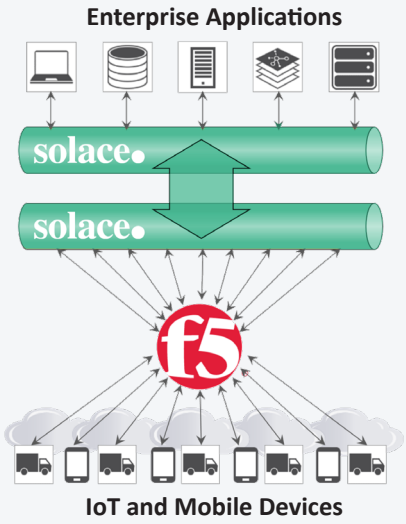
F5 improves the security, performance, and availability of applications, devices, servers, and data centers. All F5 products are programmable and easy to integrate into cloud, on-premises and hybrid cloud environments.

Solace efficiently routes event-driven information between applications, devices and user interfaces in real-time across hybrid cloud environments using open APIs and protocols like AMQP, JMS, MQTT, REST and WebSocket.

Together, F5 and Solace can connect tens of millions of IoT devices, enterprise applications and user interfaces with excellent performance and reliability to ensure consistently fast response times to/from devices and a great customer experience.

The joint solution enables not just the collection and ingestion of high-volume data into big data systems, but the bidirectional communications that enable real-time command and control.

Sophisticated routing and device addressing let any application securely communicate with any device or group of devices even in environments that consist of tens of millions of connected devices.



Performance & Scalability

- Tens of millions of concurrent connections between devices and applications
- Rich rules enable complex business-logic based, load balancing
- Very low latency, even across hybrid clouds and over WANs
- Message buffering and burst handling ensure delivery to slow and temporarily disconnected consumers

Security

- Centralized authentication and TLS termination for simple management of millions of certificates
- F5 BIG-IP can force MQTT connection properties with authenticated ID and other parameters to prevent MQTT-based DoS, even if devices are compromised
- Dynamic access control lists (ACLs) can apply a single rule to millions of devices

Robustness

- Guaranteed delivery with zero data loss
- Zero downtime thanks to automatic HA failover leveraging client-based host lists or VIPs
- Always-on monitoring
- Built-in replication over WAN enables rapid lossless disaster recovery

Relevant Use Cases

- **Smart Transportation**
  (connected cars, buses, trains, planes, ships)
- **Smart Infrastructure**
  (buildings, security & surveillance, elevators, escalators, HVAC)
- **Smart City**
  (roadways, transit systems, parking)
- **Industrial IoT**
  (Industry 4.0, smart factories)

Enabling Daimler's Connected Car Leadership

Daimler selected Solace technology to power their "Mercedes me" app and associated services by streaming data between their cars and back-end applications. Daimler chose Solace's message broker because it's uniquely capable of collecting information from many tens of millions of vehicles, and sending vehicle-specific alerts and instructions to specific cars.

Powering Singapore's Next-Generation Electronic Road Pricing

All vehicles in Singapore will be equipped with an on-board device that transmits real-time position, speed and more. This allows for fine-grained congestion monitoring and dynamic adjustment of road pricing. Physical gantries can be replaced by geo-fences, enabling a flexible and adaptable road pricing strategy.