# solace.

# PubSub+ for Digital Manufacturing

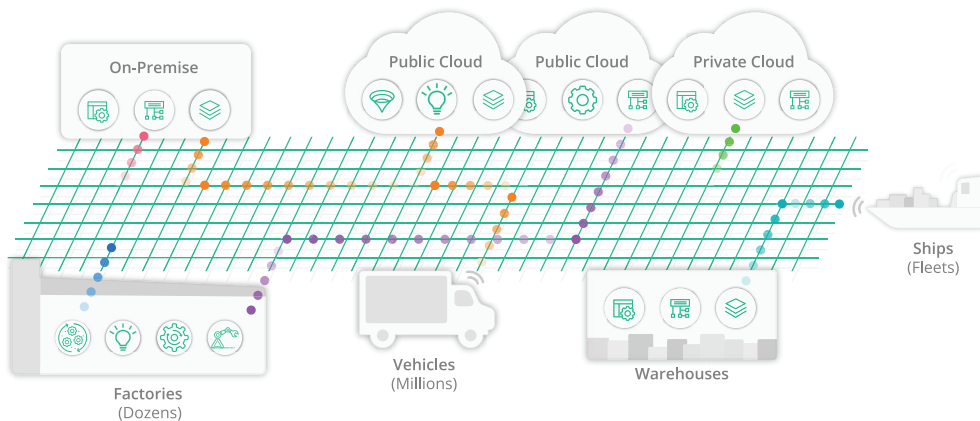## Distribute events and information between IT and OT Systems across Environments and Geographies

Modern manufacturing demands the real-time movement of events and other data, across every environment and component of the digital enterprise. But integrating IT and OT across plants, data centers, clouds and geographies is no small feat, and enabling real-time data movement across it all is even more daunting. PubSub+ is an advanced event broker platform that can help you manage it all.

- Move real-time data between devices, buildings, assembly lines, fleets, containers and more

- Across hybrid clouds and multi-clouds

- At IoT scale

- With industrial strength reliability, performance and security

## What You Can Do with PubSub+

- **Integrate IT and OT across hybrid and multi-cloud architectures**, with an event broker that supports APIs and protocols including MQTT, JMS, AMQP, HTTP/REST, WebSocket, integrates easily with IoT gateways, and can be deployed across on-premises, public cloud and private cloud environments.

- **Stream events and other data** from edge devices and apps to core systems and cloud services for real-time analytics.

- **Command and control devices and in-plant apps and systems**, enabling back-end systems to send commands to a single edge device or application, to a group of end points, or to select end points in various locations.

- **Track and trace materials across global supply chains** and distribute transportation and logistics data to back-end systems for analysis and real-time supply chain optimization.

- **Elastically scale your system to manage millions and even billions of connections** and huge workloads at peak periods of demand, while scaling back capacity when demand is reduced.

- **Ensure performance, reliability and security** across OT and IT, with built-in high availability and disaster recovery, buffering, WAN optimization, burst handling, and end-to-end security.

## Enabling Digital Manufacturing with an Event Mesh

Event mesh is an architectural layer that makes sure that as events occur throughout your organization, information is routed to all the other applications and devices that need it.

You can create an event mesh deploying Solace PubSub+ event brokers in all your environments (PubSub+ is available as an appliance, software and as a service), and connecting them to create a network of event brokers that spans your enterprise.



On-Premise

Public Cloud   Public Cloud   Private Cloud

Ships
(Fleets)

Vehicles
(Millions)

Warehouses

Factories
(Dozens)

# PubSub+ Features and Capabilities

## Advanced Broker Features

- Support for publish-subscribe, queuing, streaming, request/reply

- Reliable, guaranteed delivery, ordered event streams

- Built-in high availability (HA) and disaster recovery (DR): active-active or active-standby redundancy

- Message replay

- Event and message prioritization, dead message queues, wildcards, filtering

- Event security and entitlements

- In-service upgrades

## Federated Event Routing

- Discovery and distribution across public and private clouds, cloud regions, PaaS and on-premises deployments in multiple regions

- Dynamic, intelligent self-learning, topic-based routing

- Fast, bandwidth efficient routing even over WANs

## Integration

- API support for Java, C, .NET, Node.js, and embedded C

- Java Messaging Service (JMS) and HTTP/S

- Full API interoperability

## Scale and Performance

- Hardware: non-persistent: 28M mssgs/sec; persistent: 5.5M mssgs/sec

- Software> non-persistent: 1.9M mssgs/sec; persistent: 288K mssgs/sec

- 200K concurrently connected devices per broker instance

- Vertical and horizontal scalability of connections and messages to support virtually any number of connections and message rates

## Management and Governance

- Centralized admin and governance

- Security of assets and data, both at rest and in motion

- Proactive monitoring and event-driven alerting at system, service and client levels