solace.

Dynamic Message Routing

Automatic distribution of events and subscriptions across many brokers to enable event mesh

As your business grows, your applications and microservices will become more sophisticated, and your infrastructure will be distributed across an increasing number and variety of environments, including on-prem datacenters, private clouds, public clouds and the Internet of Things. This introduces the need for an event-driven architecture that can dynamically route information across many locations and interfaces.

Dynamic message routing (DMR) is a self-learning routing mechanism that automatically distributes subscriptions and events between PubSub+ event brokers so your applications and devices can share information as if they were connected to the same event broker, without needing to know anything about what applications are creating or consuming the data.

Enabling Event Mesh

An event mesh is an architecture layer that enables events from one application to be dynamically routed and received by any other application, no matter where these applications are deployed (no cloud, private cloud, or public cloud). DMR enables an event mesh by linking PubSub+ event brokers within or between environments. This lets you easily scale capacity within an environment or link applications across many environments.

Scaling Capacity within a Cloud or Datacenter

You can use DMR to quickly increase broker capacity within any cloud or datacenter.
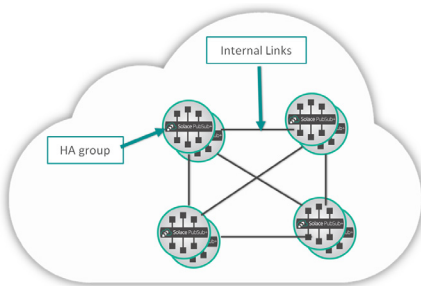

With DMR you can quickly connect new HA groups (triplets) to the network in such a way that they automatically become aware of all subscriptions, both persistent and non-persistent, so that any interested consumer connected to any one of them will get events published by any producer.

You can also configure a broker or HA group as the disaster recovery mate of another broker/HA group for enhanced reliability of your event mesh.

Enabling Data Flow Between Distributed Environments

You can use DMR to connect brokers running in different clouds and datacenters so events can flow between them.

As soon as you configure a bi-directional DMR link, subscriptions are automatically propagated to all other brokers in your enterprise network. Then when applications publish events, they are automatically distributed to all subscribed clients anywhere in the world.
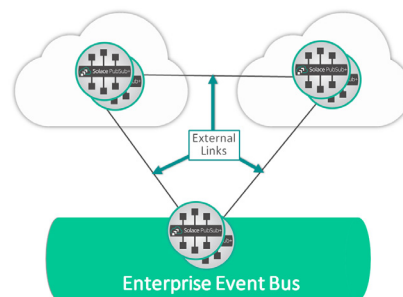
Benefits

Easy to Implement
A configuration wizard called "Click to Connect" lets you establish DMR links between many PubSub+ brokers with a few mouse clicks, without needing to configure subscriptions on links in the mesh.

WAN Efficiency
When interconnecting cloud providers and enterprise data centers over the WAN, bandwidth charges can easily get out of control. DMR reduces WAN costs and cloud egress costs by sending events over the WAN links only when a consumer on the other end is subscribed to them. DMR links can be compressed to further reduce bandwidth costs.

Secure
DMR links support TLS encryption to secure your data (compressed or uncompressed) as it is sent between brokers.

Business Continuity
DMR supports high availability (HA) and disaster recovery (DR) configurations to keep your event mesh running 24x7.