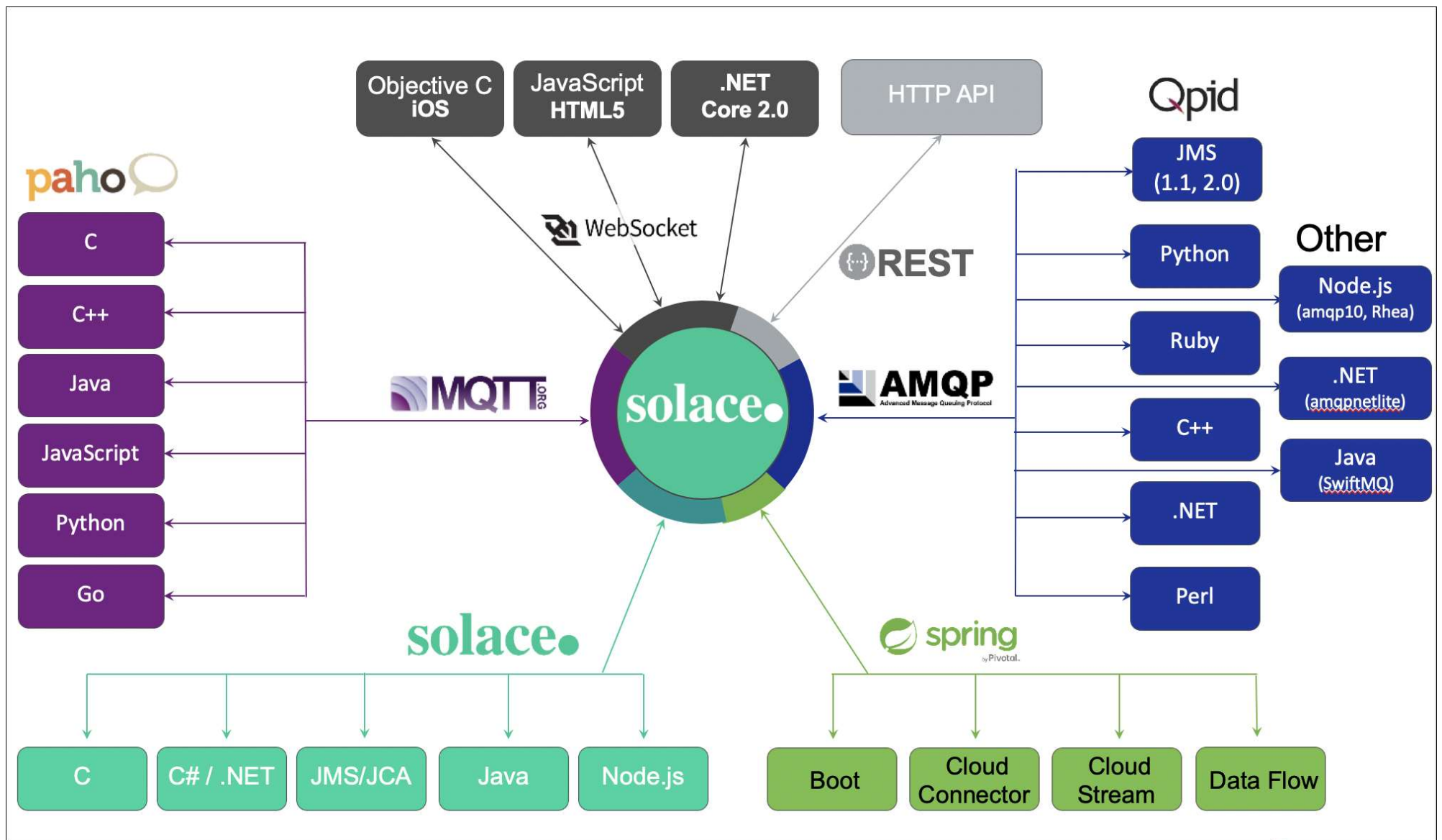
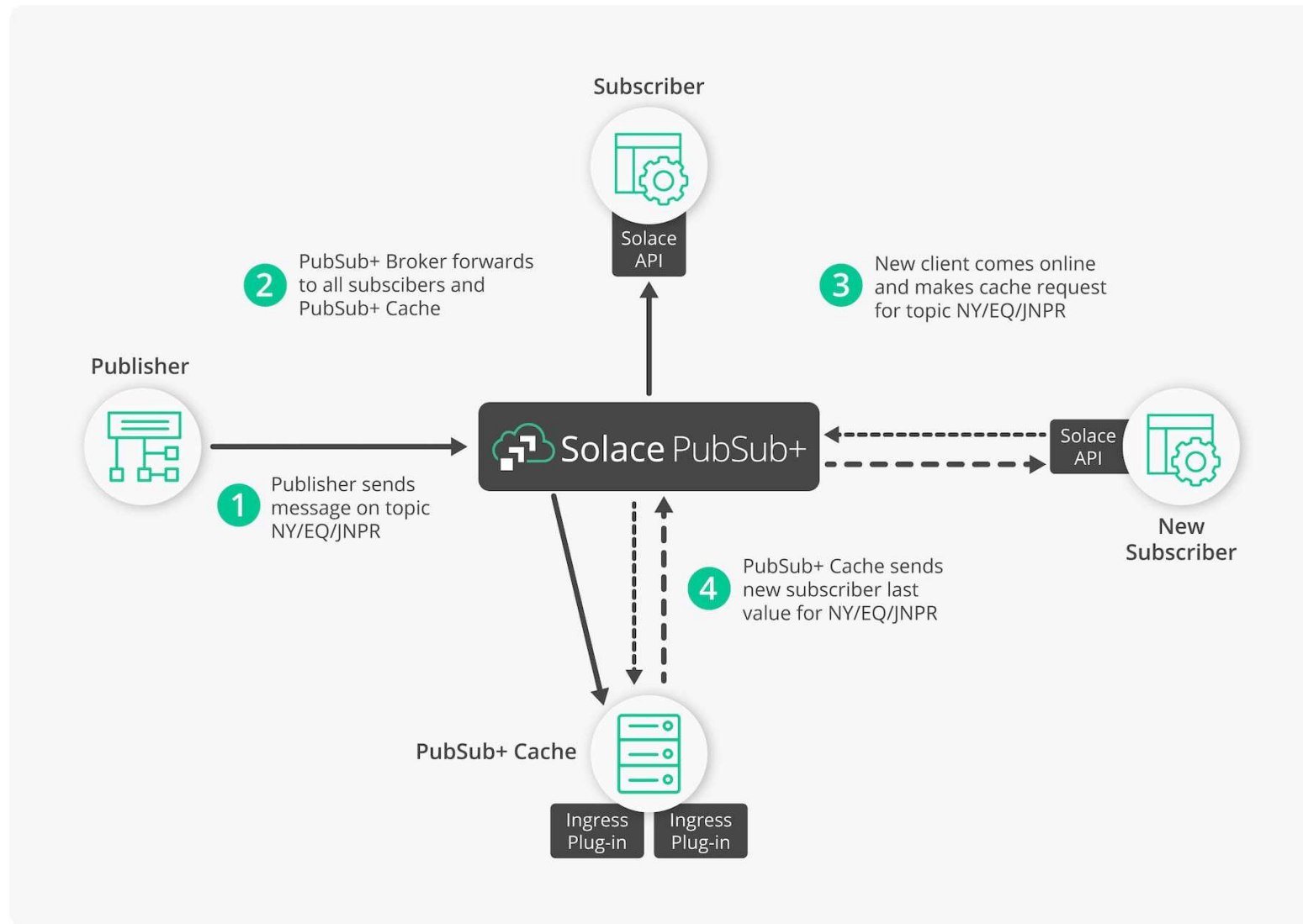


Solace

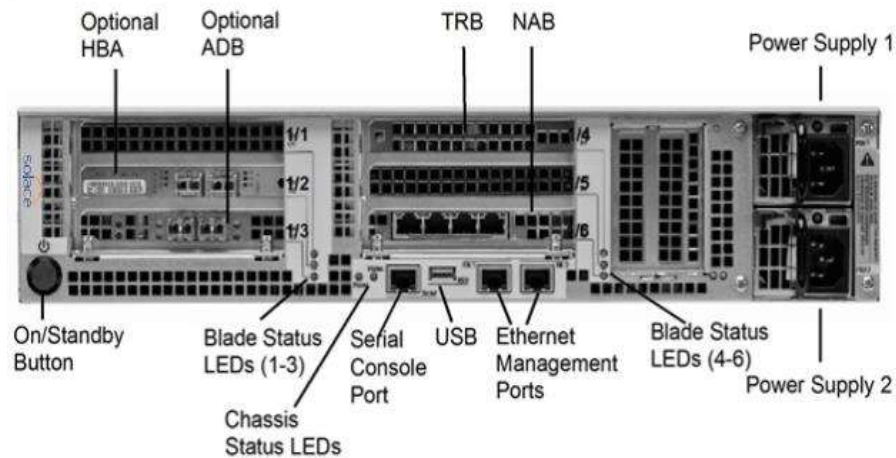


# PubSub+ Cache



# Solace Appliance

<https://solace.com/products/event-broker/appliance/>



# SolAdmin

- Management application for Solace PubSub+ event brokers

- Features

- Setting Up the SolAdmin Management Domain
- Configuring User Authentication and Authorization
- Performing Common Event Broker Configuration Tasks
- Configuring Message VPNs
- Configuring Message VPN Bridges
- Configuring ACL Profiles
- Configuring Clients
- Working with Endpoints
- Configuring JMS Objects
- Configuring Event Broker Redundancy
- Configuring Site Replication
- Configuring PubSub+ Cache
- Monitoring Event Brokers

SolAdmin : 8.11.0.51 - C:\[redacted]\SolAdmin\_Setup\Solace\_Dev\_Prod\_Setup.soa

Router Resource Management

Message VPN Context: [redacted]

Select View: Durable Queues

Name: [redacted] Message VPN: [redacted] Search (Use ? or \* as wildcard)

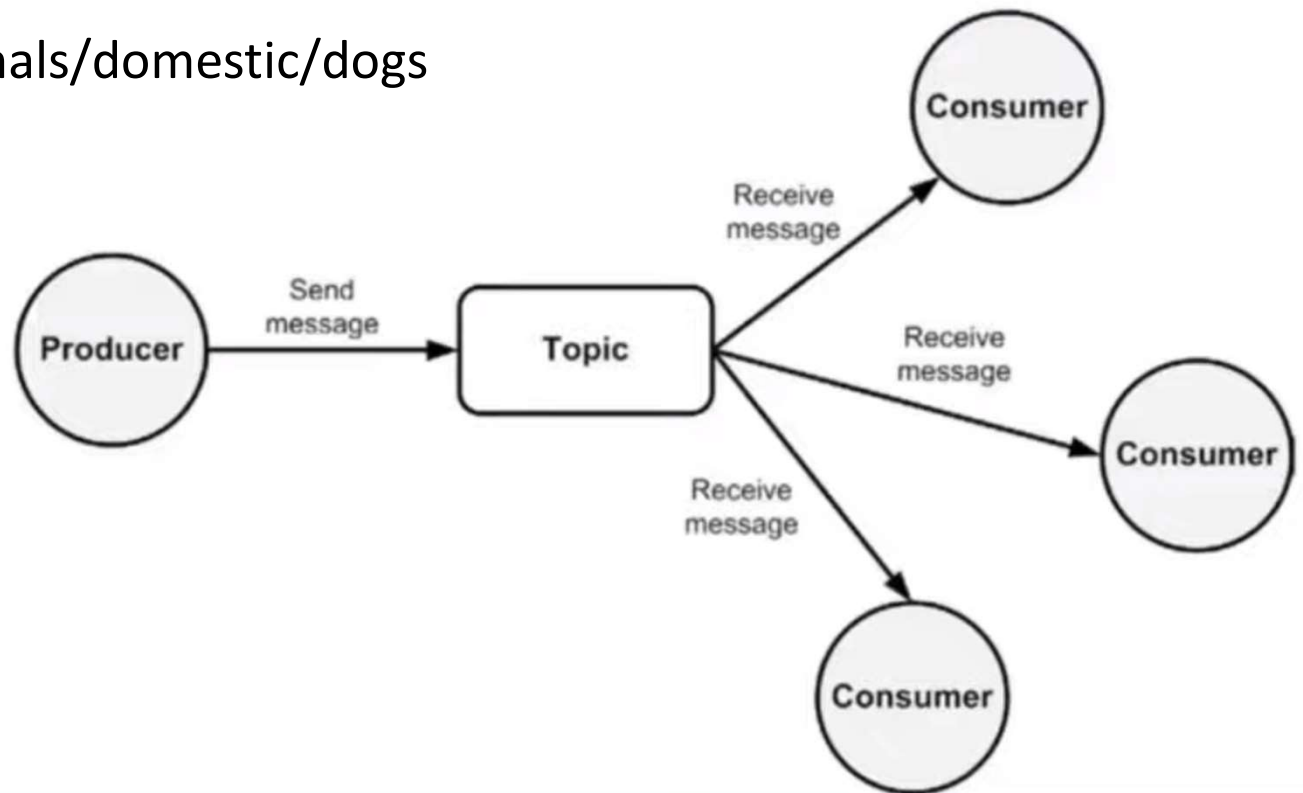
Sorted View

Name	Message VPN	Admin Status	Ingress/Egress	Access Type	Selector	Messages Spooled	Current Spool Usage (MB)	HWM (MB)	Bind Count	Subscription Count
[redacted]	[redacted]	Up/Up	Exclusive	No	46640	35,1673	55,7376	0	1	1
[redacted]	[redacted]	Up/Up	Non-Exclusive	No	38564	28,9449	45,9987	1	1	1
[redacted]	[redacted]	Up/Up	Non-Exclusive	No	0	0	0	0	0	0
[redacted]	[redacted]	Up/Up	Non-Exclusive	No	12157	8,9751	54,1745	2	1	1
log#/divisions	[redacted]	Up/Up	Non-Exclusive	No	1	0,0009	0,0402	1	1	1
[redacted]	[redacted]	Down/Down	Non-Exclusive	No	0	0	0	0	0	0
[redacted]	[redacted]	Up/Up	Exclusive	No	15	0,0109	51,217	1	1	1
[redacted]	[redacted]	Up/Up	Non-Exclusive	No	2	0,168	6,6574	3	0	0

Note: To plot a chart, select ONE queue and then drag Plot Chart icon to Real-Time Stats Chart window

# Understanding Topics

- Are a means of classifying the information contained in the event message
- Topics have the format a/b/c/.../n, where a, b, c and so on to n are identifiers
- Example
  - animals/domestic/cats and animals/domestic/dogs



# Topic Subscription

- **animals/\*/cats** matches the topics
  - animals/domestic/cats and
  - animals/wild/cats
- The > character
  - **animals/domestic/>** doesn't match the topic
    - animals/domestic
  - but it does match
    - animals/domestic/cats
    - animals/domestic/dogs
    - animals/domestic/dogs/beagles/long-eared

# Topics in Solace

- Hierarchical structure allows for levels, delimited by “/” forward slash
- A topic is more than just a flat label, or a destination
- A topic typically **describes** the contents of the message data
  - Recall: topics are used by the broker to route and filter the messages
- Example Solace topics:

[app]/[venue]/[feed]/[type]/[QoS]/[cur]/[cur2]

level 1

level 2

level 3

level 4

level 5

level 6

level 7

fxstream/ny4/feed02/spot/realtime/EUR/USD



# Topics in Solace

- Example Solace topics:

- #2) Next-generation Payments platform

`[app]/[type]/[bank_id]/[card_num]/[store_id]`

level 1

level 2

level 3

level 4

level 5

`quikpay/debit/0018/4817382639594164/01049`

- #3) IoT Connected Vehicles architecture

`[app]/[type]/[bus_num]/[route]/[lat]/[lon]`

level 1

level 2

level 3

level 4

level 5

level 6

`bustrak/gps_updt/8391/095A/045.3895/-075.7510`

# Subscriptions and Wildcards in Solace

- The Solace event broker maintains a list of all subscriptions
  - When a message is received, it performs matching on the topic in real-time
  - Delivers the message to client applications and/or persistent endpoints
- So how to match on an infinite number of topics? **Subscription wildcards!**
  - Wildcards enable advanced routing and filtering of messages
  - A consumer-side concept, allows matching a range of topics
- Two different wildcard types:
  - Single-level \* – this can be used with a prefix
  - Multi-level >
  - Corresponds to MQTT wildcards: "+" and "#"

# Solace Wildcard Subscription Examples

- #1) Foreign Exchange trading platform

```
[app]/[venue]/[feed]/[type]/[QoS]/[cur]/[cur2]
```

- All data out of NY4 data centre:

```
fxstream/ny4/>
```

- All realtime spot prices on Euro vs. anything, regardless of venue:

```
fxstream/*/*spot/realtime/EUR/*
```

# Solace Wildcard Subscription Examples

- #2) Next-generation Payments platform

```
[app]/[type]/[bank_id]/[card_num]/[store_id]
```

- All **debit** transactions to be cleared at **Bank 18**:

```
quikpay/debit/0018/>
```

- All **credit card** transactions from **store 1049**, with **card number** beginning 4817:

```
quikpay/credit/*/4817*/01049
```

# Solace Wildcard Subscription Examples

- #3) IoT Connected Vehicles architecture

```
[app]/[type]/[bus_num]/[route]/[lat]/[lon]
```

- All data from all buses on Route 95A:

```
bustrak/*/*/095A/>
```

- All GPS messages from any bus located between 45.3°N-45.4°N and 75.7°W-75.8°W:

```
bustrak/gps_updt/*/*/045.3*/-075.7*
```



# Solace Wildcard Subscription Examples

## #3) IoT Connected Vehicles architecture

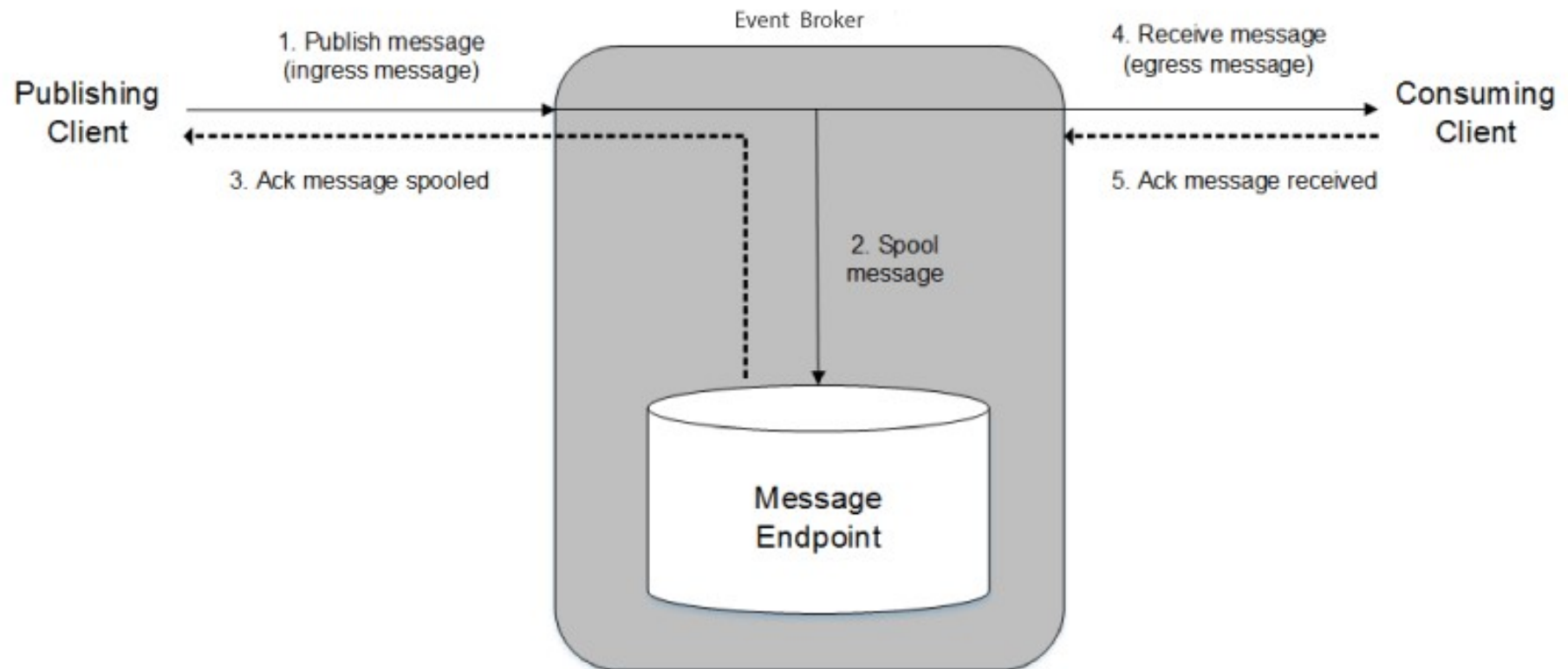


- All GPS messages from any bus located between 45.3°N-45.4°N and 75.7°W-75.8°W:

```
bustrak/gps_updt/*/*/045.3*/-075.7*
```

```
bustrak/gps_updt/8391/095A/045.3895/-075.7510
```

# Guaranteed Messaging



Thanks