

Publish / Subscribe

SILICON VALLEY ENGINEER

- A messaging pattern in Redis that **allows communication between multiple clients in a publish/subscribe fashion**
- Real-time message exchange between clients
- Limitation that does not provide the historical messages
- **Use cases**
 - Chat applications
 - Real-time updates
 - Notifications
 - Event-driven architectures

Publish / Subscribe

SILICON VALLEY ENGINEER

- **Publishers:** Clients that **send messages to Redis channels** are referred to as publishers. Publishers use the PUBLISH command to send messages to one or more channels.
- **Subscribers:** Clients that **receive messages from Redis channels** are referred to as subscribers. Subscribers use the SUBSCRIBE, PSUBSCRIBE, UNSUBSCRIBE, and PUNSUBSCRIBE commands to subscribe and unsubscribe from channels.
- **Channels:** Channels are the communication medium in **Redis Pub/Sub**. They act as **message distribution mechanisms** where publishers send messages and subscribers receive messages. Channels are identified by names, which can be any string. Clients can subscribe to multiple channels simultaneously.
 -

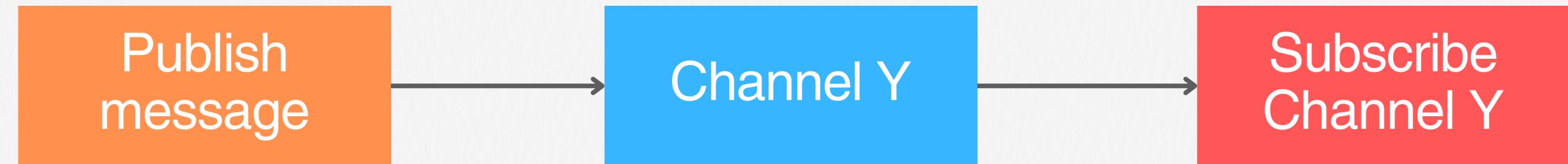
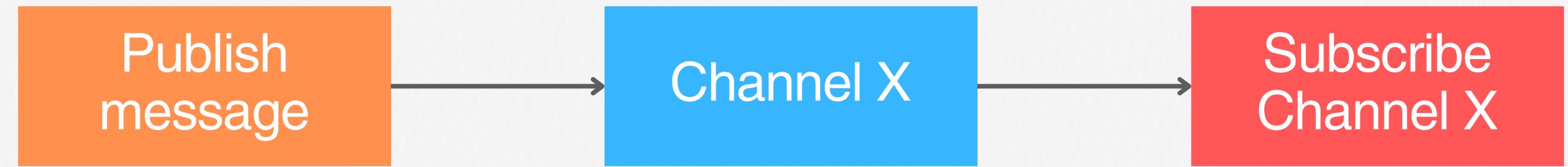
Publish / Subscribe

SILICON VALLEY ENGINEER

- **Messages:** Messages are the **data units** exchanged between publishers and subscribers. They can be any valid Redis string. Publishers send messages to specific channels, and subscribers receive messages published to channels they are subscribed to.
- **Pattern Subscription:** In addition to subscribing to specific channels, subscribers can also **subscribe to patterns** using the PSUBSCRIBE and PUNSUBSCRIBE commands. Patterns are string patterns that match multiple channels based on wildcard characters.
- **Message Delivery:** Messages are delivered to subscribers in a **one-to-many** fashion. When a publisher sends a message to a channel, Redis delivers the message to all subscribers of that channel (and any matching patterns for pattern subscribers). Subscribers receive messages in the order they were published.
 -

Publish / Subscribe

SILICON VALLEY ENGINEER



Publish / Subscribe

SILICON VALLEY ENGINEER

