

# Resilience at Scale



**Shubham Sinha**

Software Engineer | ServiceNow

[linkedin@shubham-sinha-psight](https://www.linkedin.com/in/shubham-sinha-psight)



# Scaling in Kafka Ecosystem

**Horizontal scaling**

**Vertical scaling**

**Partition scaling**

**Consumer scaling**

**Producer scaling**



The background features a light gray abstract pattern with wavy, organic shapes and clusters of small dots, resembling a topographic map or a stylized network. A solid blue vertical bar is positioned to the left of the main title.

# **Demo: Scalability and Fault Tolerance**

**We will scale Kafka brokers and see how Kafka is inherently fault tolerant**





# Demo: Observability

Cluster Manager Apache Kafka





# **Kafka, RabbitMQ, and Pulsar**



# RabbitMQ

**Excels at task  
distribution and  
simple routing**

**When delivery  
guarantees matter  
most**

**Simplicity comes  
with limits in  
scalability and  
throughput**



# Kafka

**Log based messaging**

**Massive scale event  
streaming**

**Persistence**



# Pulsar

**Kafka's scalability  
with RabbitMQ  
flexibility**

**Multi tenant**

**Cloud native**







**Thank you for  
your time!**

