



CLOUD COMPUTING

S. Thenmozhi

Department of Computer Applications

CLOUD COMPUTING

Software as a Service

S.Thenmozhi

Department of Computer Applications

CLOUD COMPUTING

AWS - SNS

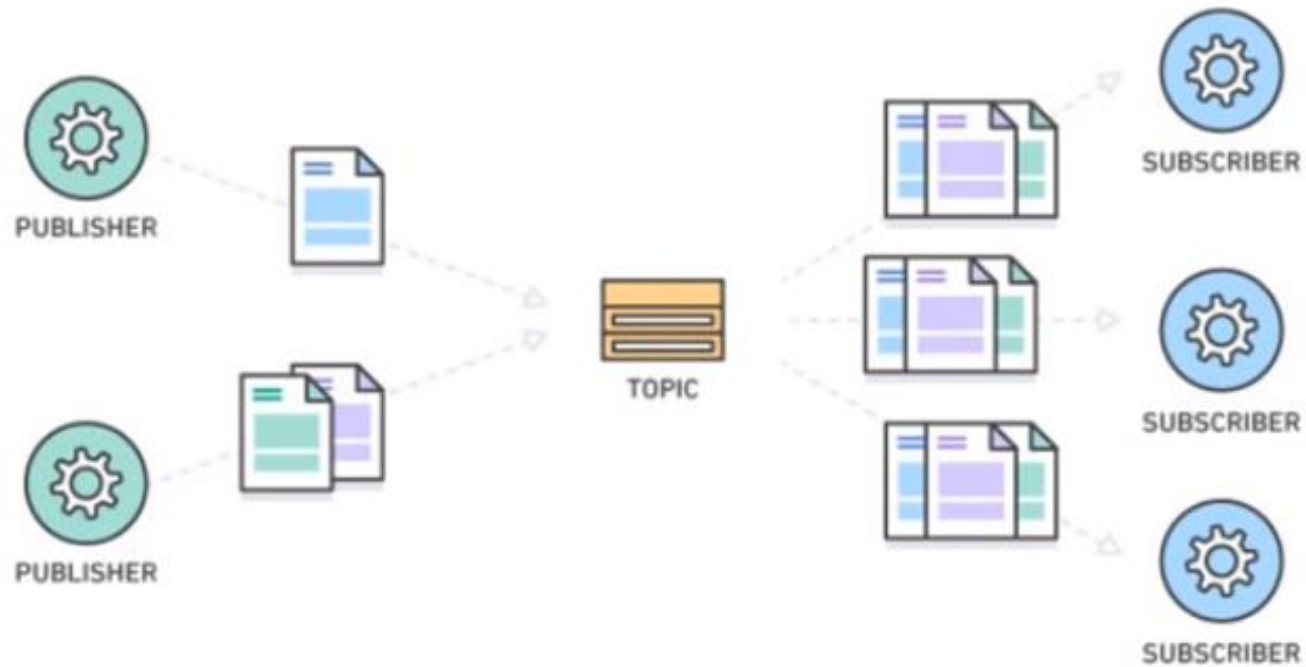


- Amazon Simple Notification Service (SNS) is a fully managed messaging service for both system-to-system and app-to-person (A2P) communication
- It enables you to communicate between systems through publish/subscribe (pub/sub) patterns that enable messaging between decoupled micro service applications or to communicate directly to users via SMS, mobile push and email

CLOUD COMPUTING

AWS -SNS

Pub/Sub Messaging



CLOUD COMPUTING

AWS - SNS



- The system-to-system pub/sub functionality provides topics for high-throughput, push-based, many-to-many messaging
- You can fan-out messages to a large number of subscriber systems or customer endpoints including Amazon SQS queues, AWS Lambda functions and HTTP/S, for parallel processing
- The A2P messaging functionality enables you to send messages to users at scale using either a pub/sub pattern or direct-publish messages using a single API

CLOUD COMPUTING

AWS -SNS



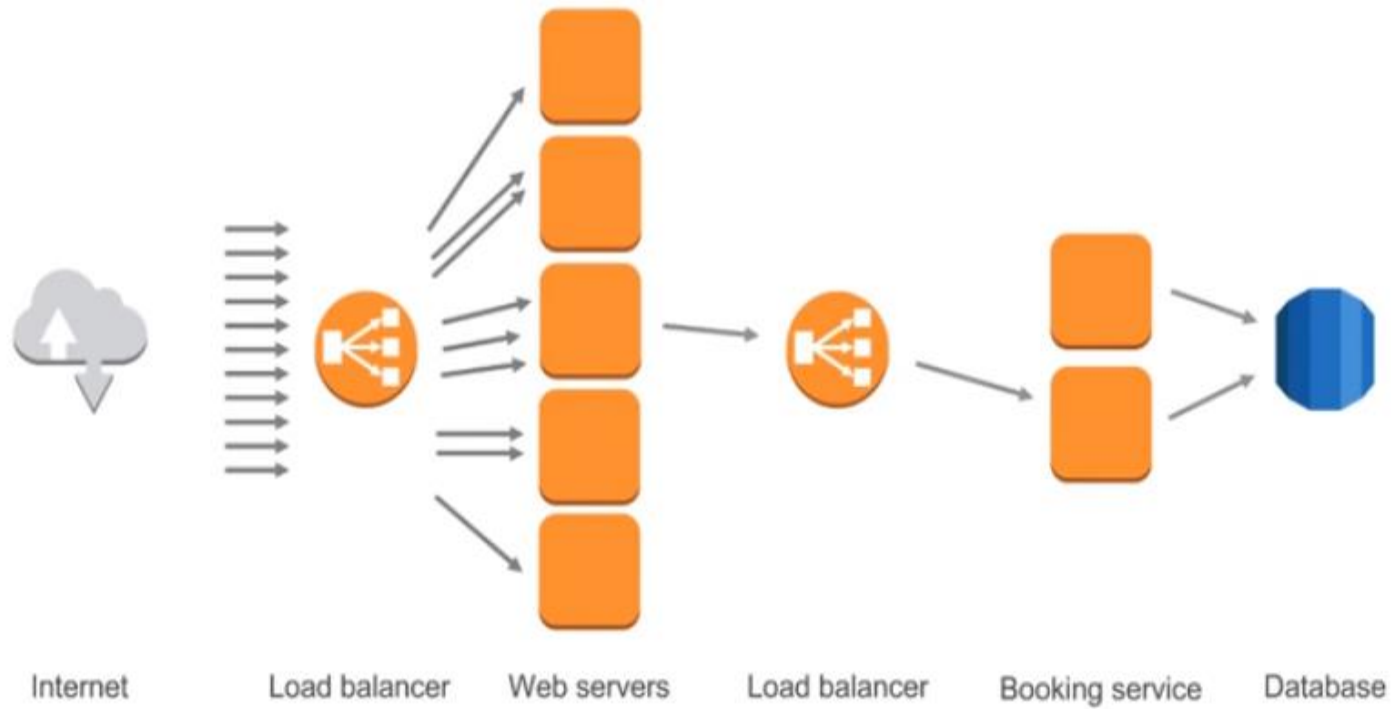
Features

- Message filtering – subscriber can filter out the topics
- Message fan-out – message sent out to a topic , then replicated and pushed to multiple endpoints
- Message durability – messages are made available in multiple azs. If subscribed endpoint is not available message delivery retry policy is executed and move message to dead-letter-queues
- Message encryption – 256-bit AES encryption
- Message privacy – supports for AWS-VPC endpoints
- Mobile notifications
- SMS and Email Notifications

CLOUD COMPUTING

AWS -SNS

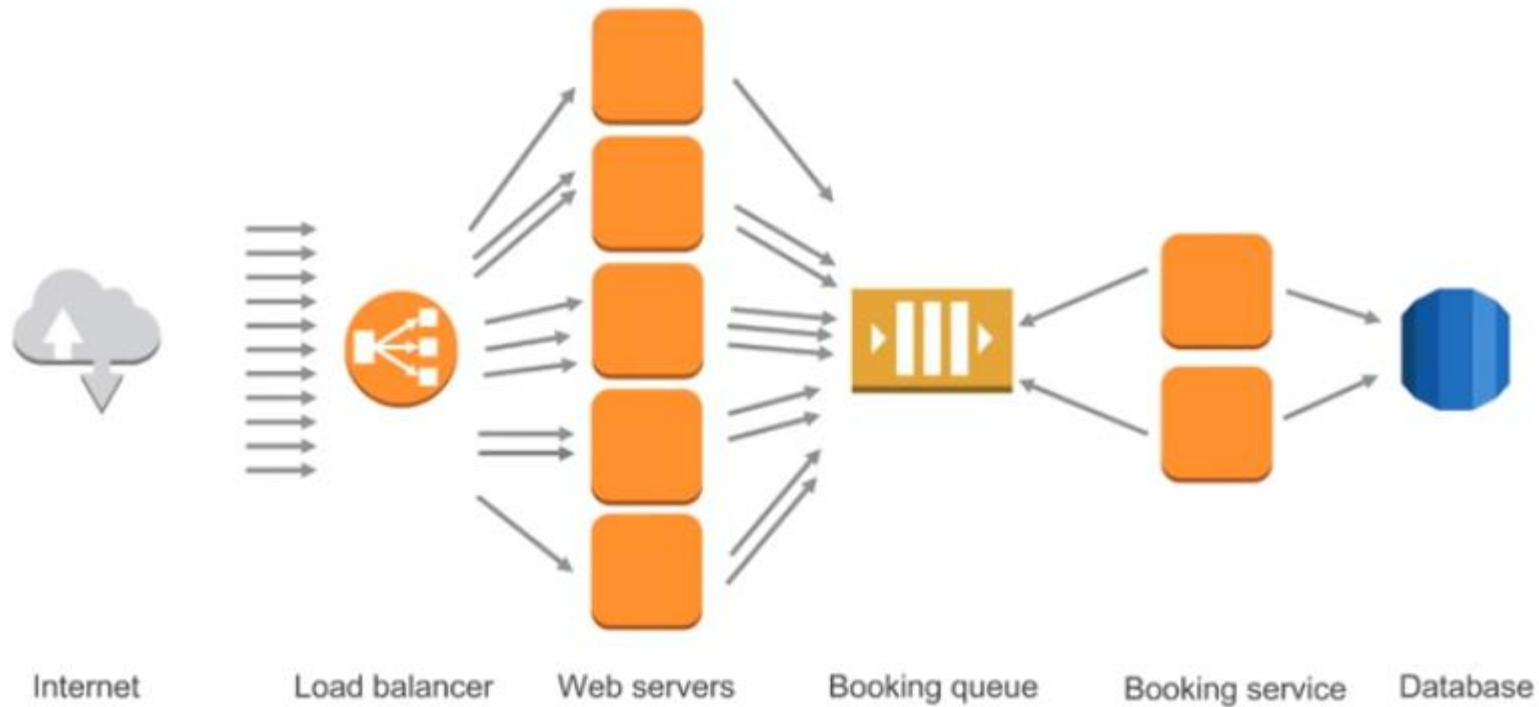
Service to Service Communication



CLOUD COMPUTING

AWS -SNS

Queue as a Safe and Fast buffer



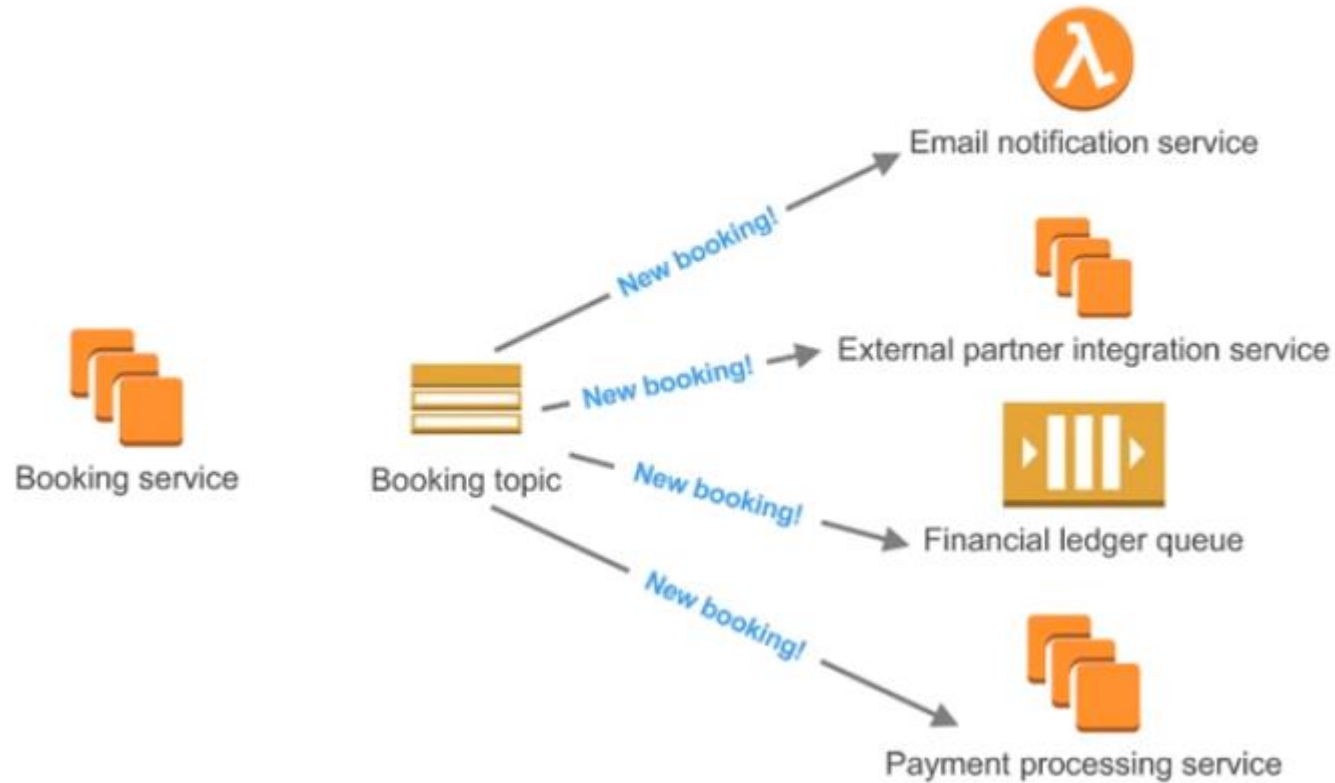
Improving synchronous Latency

Booking takes up to 3 seconds, it's too slow!

Let's break it down:

Change status in database	30 ms
Notify external booking supplier	800 ms
Prepare a PDF invoice	900 ms
Send a confirmation e-mail with large PDF	500 ms

Decouple by Publishing Event through SNS



Benefits

- Modernize and decouple your application
- Reliably deliver messages
- Fan-out messages to millions of users
- Automatically scale your workload

CLOUD COMPUTING

Create an SNS Topic



1. Open the Amazon SNS console
2. On the Amazon SNS dashboard, under **Common actions**, choose **Create Topic**.
3. In the **Create new topic** dialog box, for **Topic name**, enter a name for the topic
4. Choose **Create topic**.
5. Copy the **Topic ARN** for the next task

CLOUD COMPUTING

Subscribe to SNS Topic



1. Open the Amazon SNS console
2. In the navigation pane, choose **Subscriptions, Create subscription**.
3. In the **Create subscription** dialog box, for **Topic ARN**, paste the topic ARN that you created in the previous task.
4. For **Protocol**, choose **Email**.
5. For **Endpoint**, enter an email address that you can use to receive the notification, and then choose **Create subscription**.
6. From your email application, open the message from AWS Notifications and confirm your subscription.

Your web browser displays a confirmation response from Amazon SNS

CLOUD COMPUTING

Test Message to SNS



1. Open the Amazon SNS console
2. In the navigation pane, choose **Topics**.
3. On the **Topics** page, select a topic and choose **Publish to topic**.
4. In the **Publish a message** page, for **Subject**, enter a subject line for your message, and for **Message**, enter a brief message.
5. Choose **Publish Message**.
6. Check your email to confirm that you received the message



THANK YOU

S. Thenmozhi

Department of Computer Applications

thenmozhis@pes.edu

+91 80 6666 3333 Extn 393