



SQS, SNS and EventBridge

Let us take a closer look at the three aforementioned services used for the purposes of decoupling:

Simple Queue Service (SQS): SQS is designed for reliable, one-to-one asynchronous communication, where messages are held temporarily in a queue until they are processed. It is ideal for distributed systems that require message decoupling. SQS excels in situations where we need a temporary message holding pool and ordered message processing, especially when the consumer may not be available to process messages immediately. It is primarily used in cases where we want guaranteed message delivery whilst being able to tolerate a little flexibility in processing speed.

Simple Notification Service (SNS): SNS on the other hand, is a fully managed pub/sub (publish/subscribe) service allowing a one-to-many communication model. It is suited for scenarios where a single message needs to be sent to multiple subscribers in parallel, such as in fan-out patterns. It supports high throughput and can handle many subscribers. SNS is often used when we wish to decouple different parts of our system by broadcasting a message to various services at once.

Amazon EventBridge: A relatively new service, EventBridge is used when we wish to connect AWS services or integrate with third-party SaaS applications in a scalable manner. While it also supports one-to-many communication similar to SNS, it has more limitations than SNS in terms of throughput and distribution, but excels in the ability to conveniently integrate AWS services with both external and internal SaaS products.

An infographic comparing and contrasting the three different services is given below:

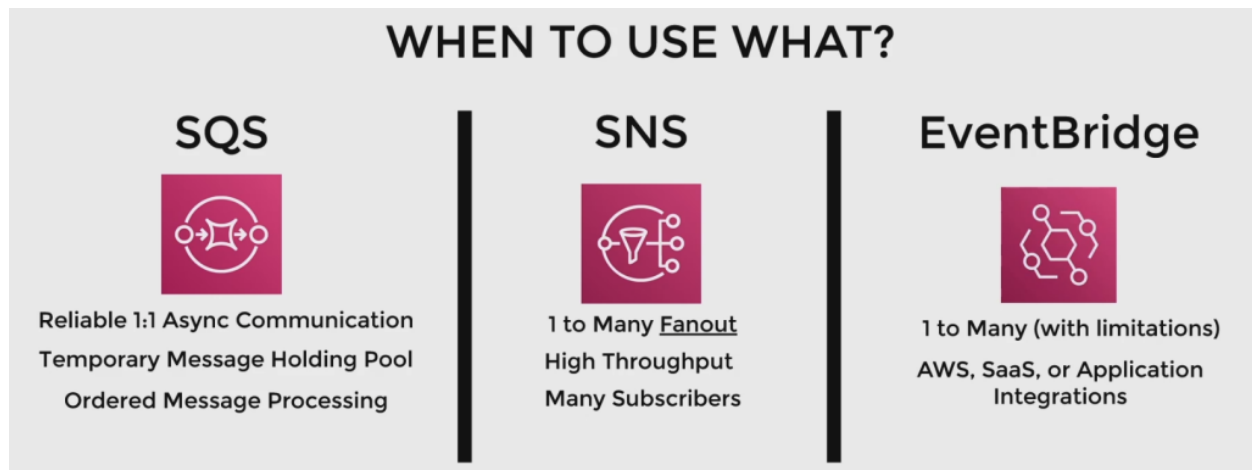


Image credit: Be a Better Dev; (Do check out his YouTube Channel)