

AWS Certified Solutions Architect: Associate - 8.0 SQS, SWF, and SNS

filename: amazon-acsa-8-1-simple_queue_service

Title: Amazon Simple Queue Service

Subtitle: AWS Certified Solutions Architect: Associate

8.1 Amazon Simple Queue Service

- Basics
 - Messaging buffer used to decouple cloud services
 - Acts as a broker between services
 - A single queue can be shared with multiple components
 - Messages are guaranteed to be delivered at least once
 - Can be delivered multiple times
 - Apps should be designed to handle multiple messages
 - Delivery is guaranteed, although order is not
- Message Lifecycle (Diagram)
- Visibility Timeout (Diagram)
 - Hides a message after a certain period of time passes
 - Timeout starts as soon as the message is initially read
 - Prevents multiple read processes from duplicating workload
 - Can hold up to 120,000 messages for up to 12 hours
- Delay Queues
 - Hides a message immediately
 - Allow holding messages for later processing
 - 0-900 seconds (15 minutes)
- Identifies
 - Each queue is assigned a name (identifier) when created
 - Must be unique among your queues
 - Each message is assigned an ID
 - A *receipt handle* is issued when reading a message
 - The *receipt handle* is used to delete the message from the queue
- Messages
 - Contain two components
 1. Message Body
 - The contents of the message
 2. Message attributes
 - Metadata that describes the message body
 - Up to 10 attributes
- Advanced Features
 - Long Polling
 - Used in place of frequent repetitious polling to save CPU
 - Can stretch a single poll into a 20 second window
 - Dead Letter Queues
 - Used to store messages that were not successfully processed
 - Useful for troubleshooting and alerting
 - IAM Access Control