



# Cryptography

## AWS Signature version 4:

- When you send HTTP requests to AWS services, you (or your client tool/SDK) sign the requests so that AWS can identify who sent them.
- You sign requests with your AWS access key, which consists of an access key ID and secret access key.
- Some requests do not need to be signed, such as anonymous requests to Amazon S3.

## Envelope encryption:

- Envelope encryption is the practice of encrypting plaintext data with a data key, and then encrypting the data key under another key.
- The latter key can also be encrypted under a third key, and so on.
- Eventually, one key must remain in plaintext so you can decrypt the keys and your data.
- This top-level plaintext encryption key is known as the master key.

## AWS Key Management Service (KMS):

- A fully managed service to create and manage cryptographic keys.