AWS Solution Architect Associate Certification Training – Module 28

28. Certificate Manager

SSL (Secure Sockets Layer) and Transport Layer Security (TLS) is the standard security technology for establishing an encrypted link between a web server and a browser. This link ensures that all data passed between the web server and browsers remain private and integral.

These are cryptographic protocols designed to provide communications security over a computer network.

AWS Certificate Manager is a service that lets you easily provision, manage, and deploy public and private Secure Sockets Layer/Transport Layer Security (SSL/TLS) certificates for use with AWS services and your internal connected resources. SSL/TLS certificates are used to secure network communications and establish the identity of websites over the Internet as well as resources on private networks. AWS Certificate Manager removes the time-consuming manual process of purchasing, uploading, and renewing SSL/TLS certificates.

With AWS Certificate Manager, you can quickly request a certificate, deploy it on ACM-integrated AWS resources, such as Elastic Load Balancers, Amazon CloudFront distributions, and APIs on API Gateway, and let AWS Certificate Manager handle certificate renewals. It also enables you to create private certificates for your internal resources and manage the certificate lifecycle centrally. Public and private certificates provisioned through AWS Certificate Manager for use with ACM-integrated services are free. You pay only for the AWS resources you create to run your application.

Use Cases

Protect and secure your website: SSL, and its successor TLS, are industry standard protocols for encrypting network communications and establishing the identity of websites over the Internet. SSL/TLS provides encryption for sensitive data in transit and authentication using SSL/TLS certificates to establish the identity of your site and secure connections between browsers and applications and your site. AWS Certificate Manager provides an easy way to provision and manage these certificates so you can configure a website or application to use the SSL/TLS protocol.

Protect and Secure your internal resources: Private certificates are used for identifying and securing communication between connected resources on private networks, such as servers, mobile and IoT devices, and applications. AWS Certificate Manager (ACM) Private Certificate Authority (CA) is a managed private CA service that helps you easily and securely manage the lifecycle of your private certificates.