



Certificates and Tokens

Quick Analogy

- Certificate – Passport (issued by a trusted authority, proves identity)
- Token – Boarding pass (lets you do something temporarily after showing who you are)

Certificate vs. Tokens

Feature	Certificate	Token
Purpose	Prove identity	Grant access to a resource or service
Used for	Authentication, encryption, secure communication	API access, session control, delegated permissions
Issued by	Certificate Authority (CA)	Authentication server / Identity Provider (IdP)
Duration	Long-term (months/years)	Variable lifespan (minutes/hours)
Contains	Public key, identity info, expiration, CA digital signature	User/client ID, scopes, expiration, signature
Format Type	X.509 (usually .pem, .crt, .cer)	JWT (JSON Web Token), opaque string, or SAML
Communication Style	Synchronous (used during handshakes, like TLS)	Typically Asynchronous (used after authentication)
Example	HTTPS certificate for a website	OAuth 2.0 Bearer token for an API call
How it's validated	Verified by CA chain using public-key infrastructure (PKI)	Verified by checking token signature and expiration locally
Revocation	Can be revoked (via CRL or OCSP)	Usually expires soon; sometimes can be revoked manually

Apple Push Notification service (APNs) Certificate or Token APNs is used to identify and secure a device management service's communication with Apple and devices. NOTE: Using certificate-based or token-based authentication depends on the your device management service.
<https://developer.apple.com/documentation/usernotifications/establishing-a-token-based-connection-to-apns>

Service Token The device management service token is used to identify and secure communications between the device management service and Apple Business.
<https://support.apple.com/guide/business/axm1c1be359d/>

Content Token The content token is used to identify and secure communications between the device management service and Apps and Books.
<https://support.apple.com/guide/business/axme0f8659ec/>

Secure Token A secure token enables a user to unlock storage on FileVault encrypted APFS volumes. NOTE: The term Token used in these Apple technologies differ from the chart above.
<https://support.apple.com/guide/deployment/dep24dbdcf9e/>

Bootstrap Token A bootstrap token enables an device management service to grant a secure token to mobile accounts and device enrollment-created administrator accounts. NOTE: The term Token used in these Apple technologies differ from the chart above.
<https://support.apple.com/guide/deployment/dep24dbdcf9e/>