

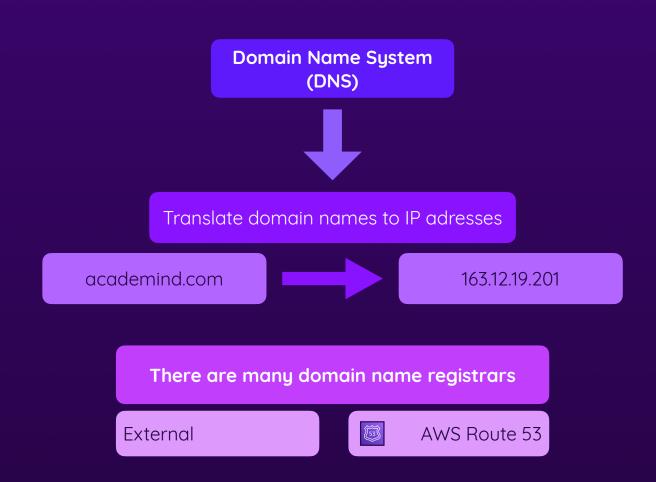
Content Delivery & Global Networking

From servers to users (and back)

- Managing Custom Domains
- Caching & Delivering Content via CloudFront
- Other Networking Features & Services



Understanding DNS





Understanding Route 53



Managed DNS Service

Manage Domains

Register or transfer domains

Create hosted zones for domains (config containers)

Manage DNS

Create routing records

Manage failover or create complex routing rules



Delivering Content with CloudFront



Managed CDN (Content Delivery Network)

Uses AWS' Edge Locations

Manage Content Origins

Create a distribution connected to content sources

Define distribution behaviors

Set logging, SSL & security settings

Deliver & Cache Content

Create caching policies (containing cache rules)

Connect caching policies to distribution

Use functions for request / response manipulation



Understanding CDNs





Local Zones, Outposts, Wavelength



Local Zones

Smaller AWS regions close to big metropolitan areas

Perfect for achieving ultralow latency

Limited set of supported services

Extends VPCs to local zones



Outposts

Add AWS infrastructure to your on-premises

AWS-managed infrastructure

Limited set of supported services

Extends VPCs to outposts



Wavelength Zones

AWS services embedded into 5G networks

Perfect for achieving lowest latency possible

Limited set of supported services

Connect to other services running in a region



Global Accelerator & Transfer Acceleration



Global Accelerator

Improve user traffic performance via AWS network

Receive two unique, stable IP addresses

Use GA for balancing multiregion traffic



S3 Transfer Acceleration

Improve data transfer speed via AWS edge network

Less network variability, more bandwidth utilization



AWS Certificate Manager (ACM)



Managed SSL Certificates

Request Certificates

Request new SSL certificates

Issued by AWS, free to use for AWS services

Alternative: Import your own certificate

Assign Certificates

Use SSL certificates with a variety of AWS services

Examples: ALB, NLB, CloudFront

Services handle SSL encryption



Summary



Various Networking Services

VPC: Cloud-internal

Route 53: DNS service Register domains, define routes

CloudFront: CDN service, using AWS edge locations

Local Zones, Outposts, Wavelength: Extended regions

Global Accelerator, Transfer
Acceleration: Traffic acceleration



Route 53 & CloudFront

Register & manage domains with Route 53

Define request forwarding rules for (sub-)domains

Use CloudFront for distributing (cached) content globally

Target (and "wrap") other services with CF / Route 53



AWS Network & Acceleration Services

Local Zones, **Wavelength**: Run services closer to your customers

Outposts: Run services closer to your infrastructure

Accelerate traffic or data (file) transfers with accelerators