AWS Certified Solutions Architect: Associate - 11.0 Additional Key Services

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Title: Storage Services

Subtitle: AWS Certified Solutions Architect: Associate

11.1 Storage Services

Amazon CloudFront

- Basics
  - Content Delivery Network (CDN)
  - Uses Amazon's global network of edge locations
  - Users are routed to the lowest latency edge location
  - Supports any content via HTTP/HTTPS
  - Also supports media with HLS/RTMP
- Basic Configuration
  - Distributions
    - Domain name used in place of your application's name
    - Leverages a CNAME
  - Origins
    - Source data
    - Supports:
      - S3 bucket
      - EC2 instance
      - ELB
      - Website URL
  - Cache Control
    - Defines how long items are cached
    - 24 hours by default
    - Can be overridden with an *invalidation* API call
    - Renames are usually easier/faster
- Advanced Configuration (Diagram)
  - Dynamic Content
  - Multiple Origins
  - Custom cache behavior
- Use cases
  - Serving the Static Assets of Popular Websites
  - Serving a Whole Website or Web Application
  - Serving Content to Users Who Are Widely Distributed Geographically
  - Distributing Software or Other Large Files
  - Serving Streaming Media
- Not use cases
  - All or Most Requests Come From a Single Location
  - All or Most Requests Come Through a Corporate VPN

AWS Storage Gateway

- Basics
  - On-premises software appliance
  - Connects to cloud-based storage
  - Supports encrypted backups to S3 or Glacier
  - Storage appears as an iSCSI device
  - Uses SSL and SSE for encryption
  - Not able to be accessed directly through S3
  - Only accessible through the Gateway service
- Configurations
  - Gateway-Cached Volumes
    - All data on the gateway is moved into S3
    - recently read data is cached locally
    - Up to 32TB in a volume
    - 32 volumes per gateway
    - 1PB total per gateway
  - Gateway-Stored Volumes
    - Data is stored on-premises and in S3
    - Acts as an asynchronous off-site backup

- - Data is backed up as EBS snapshots
    - Up to 16 TB in a volume
    - 32 volumes per gateway
    - 512TB total per gateway
  - Gateway-Virtual Tape Libraries
    - Uses pre-existing tape backup software
    - 1,500 tapes per gateway (1PB)
    - Tape eject command triggers a move to the Virtual Tape Shelf (VTS)
    - VTS is Glacier storage
    - 1 VTS per region
    - Multiple gateways can share a VTS