

AWS Tools(Security):

Wednesday, January 3, 2024 12:11 PM

1. Identity and Access Management:

- **AWS Identity and Access Management (IAM):** Manages user access and encryption keys.
- **IAM Roles and Policies:** The specific use of roles for delegated permissions and policies for defining permissions.
- **IAM Groups:** To manage sets of users and permissions.
- **IAM Access Advisor:** To review service permissions.
- **Amazon Cognito:** Handles user authentication and data synchronization for application access.
- **AWS Key Management Service (KMS):** Manages cryptographic keys for data encryption.
- **Amazon Directory Service:** Integration with existing on-premise Active Directory or setting up a new, standalone directory in the AWS Cloud.
- **AWS Single Sign-On (SSO):** Centrally manage SSO access to multiple AWS accounts and business applications.

2. Threat Detection and Monitoring and logging:

- **Amazon GuardDuty:** Offers continuous monitoring for malicious or unauthorized behavior.
- **AWS CloudTrail:** Records AWS account activity for security monitoring.
- **AWS Security Hub:** Aggregates security alerts and compliance status.
- **Amazon Inspector:** Assesses applications for vulnerabilities and deviations from best practices.
- **Amazon Macie:** Uses machine learning for data classification and protection.
- **Amazon Detective:** Analyzes and visualizes security data for investigative purposes.
- **AWS Trusted Advisor Review:** Is a service that review your account for best practices, at an account level it inspects our environments and makes recommendations based on best practice.
- **AWS Incident Response:** Guides and tools to prepare and manage incidents, including automating the analysis of security events.
- **VPC Flow Logs:** Captures information about the IP traffic going to and from network interfaces in your VPC.
- **Amazon CloudWatch Logs Insights:** Enables interactive exploration of your log data, allowing you to find specific information within the logs.

3. Data Protection and Privacy:

- **AWS Secrets Manager:** Manages access to secrets needed to access applications and services.
- **AWS Certificate Manager:** Handles SSL/TLS certificates for secure data transfer.
- **Amazon Macie:** Protects sensitive data through automatic discovery and classification.
- **Amazon KMS:** Key Management System. AWS KMS is a managed service that makes it easy to create and control encryption keys used to encrypt data.
- **AWS CloudHSM:** Offers hardware security modules in the cloud for customers requiring stringent key storage for regulatory or compliance needs.

4. Networking and Content Delivery:

- **AWS Direct Connect:** Establishes a dedicated network connection from your premises to AWS, which can increase bandwidth throughput and provide a more consistent network experience than internet-based connections.
- **Amazon Route 53:** A scalable and highly available Domain Name System (DNS) web service, also providing domain registration and DNS routing along with automated DDoS protection.
- **AWS Network Firewall:** A managed service that provides network protections for your VPC.
- **AWS Transit Gateway:** Connects VPCs and on-premises networks through a central hub to simplify network topology and reduce operational overhead.
- **Amazon VPC (Virtual Private Cloud):** Offers a private, isolated section of the AWS cloud.
- **Amazon CloudFront:** A content delivery network service.
- **AWS PrivateLink:** Provides private connectivity between VPCs, AWS services, and on-premises applications, securely on the Amazon network.
- **AWS VPN (Virtual Private Network):** Establishes a secure and private tunnel from the on-premises network or client to the AWS global network.

5. Infrastructure Protection:

- **AWS WAF (Web Application Firewall):** Protects web applications from common web exploits.
- **AWS Shield:** Provides DDoS protection.
- **AWS Firewall Manager:** Centralizes firewall rule management across accounts and resources.
- **AWS Systems Manager Patch Manager:** Automates the process of patching managed instances with both security related and other types of updates.

6. Compliance and Governance:

- **AWS Config:** Tracks configurations and changes for compliance auditing.
- **AWS Artifact:** Accesses security and compliance documentation.
- **AWS Well-Architected Tool:** Reviews and improves workloads for compliance with AWS best practices.

7. Application Security:

- **AWS AppSync:** Manages secure application data synchronization.
- **Amazon Cognito Sync:** Synchronizes user profile data across mobile devices and the web without requiring your own backend code or database.

8. Compute Services:

- **Amazon EC2 (Elastic Compute Cloud):** Provides scalable computing capacity.
- **AWS Lambda:** Allows running code without managing servers.
- **Amazon Lightsail:** Offers virtual private servers.
- **Amazon EC2 Auto-scaling:** Automatically adjusts computing capacity.

- AWS Elastic Beanstalk: Manages and deploys web applications.

9. Storage Services:

- Amazon S3 (Simple Storage Service): Object storage service.
- Amazon Glacier: Low-cost storage service for data archiving and backup.
- Amazon EBS (Elastic Block Store): Block storage service for EC2 instances.

10. Database Services:

- Amazon RDS (Relational Database Service): Simplifies setup, operation, and scaling of a relational database.
- Amazon DynamoDB: A NoSQL database service.
- Amazon ElastiCache: In-memory caching service.