Day 11

"CLOUD SECURITY"

Amazon CloudFront Security:

1. **Secure Content Delivery & Access Control**

   - Delivers content with low latency via global edge locations.
   - Supports HTTPS/TLS encryption, signed URLs, geo-restriction, and Origin Access Identity (OAI) to control who can access content.
   - Private content feature protects S3-origin files and prevents unauthorized downloads.

2. **Authentication & Encryption**

   - All API calls require HMAC-SHA1 authentication and SSL encryption.
   - Uses Perfect Forward Secrecy (ECDHE) to prevent decryption even if long-term keys are compromised.
   - Supports custom SSL via SNI or dedicated IP for secure HTTPS delivery using customer domains.

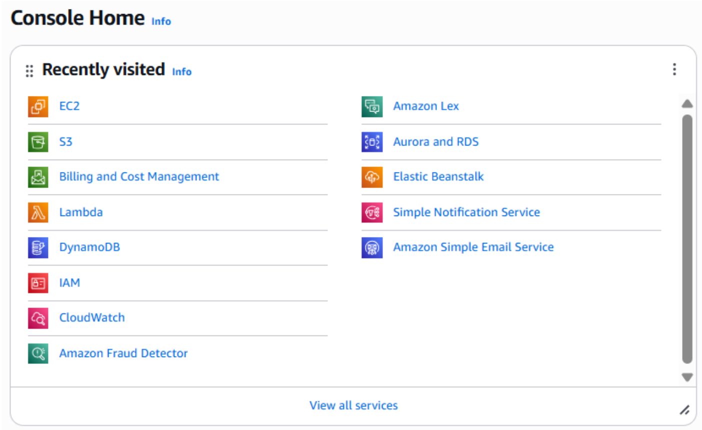
3. **Logging & Monitoring**

   - CloudFront access logs track requests, IPs, edge locations, referrers, and user agents.
   - Customers can configure S3 to store logs and monitor usage securely.

Create Security Group to Secure EC2 Instances:

Steps:

Open the AWS, and click on the EC2 instance option:



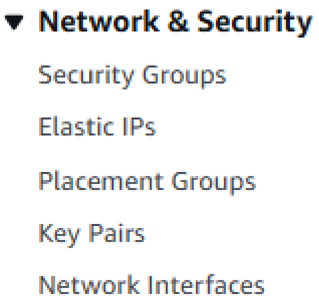
Console Home Info

Recently visited Info

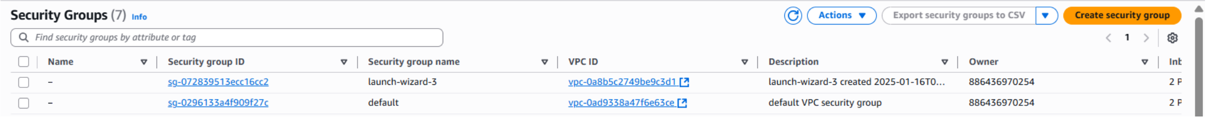
EC2	Amazon Lex
S3	Aurora and RDS
Billing and Cost Management	Elastic Beanstalk
Lambda	Simple Notification Service
DynamoDB	Amazon Simple Email Service
IAM	
CloudWatch	
Amazon Fraud Detector	

View all services

Under the "Network and Security" option in the menu click on the "Security Groups" option:



Following list of security groups will appear:

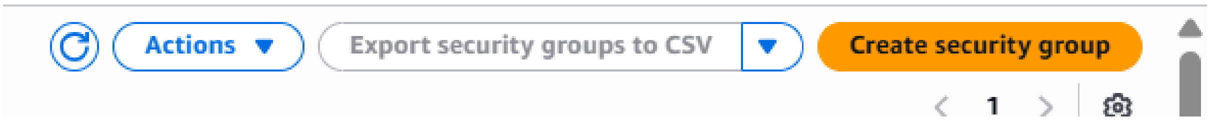


Security Groups (7) Info

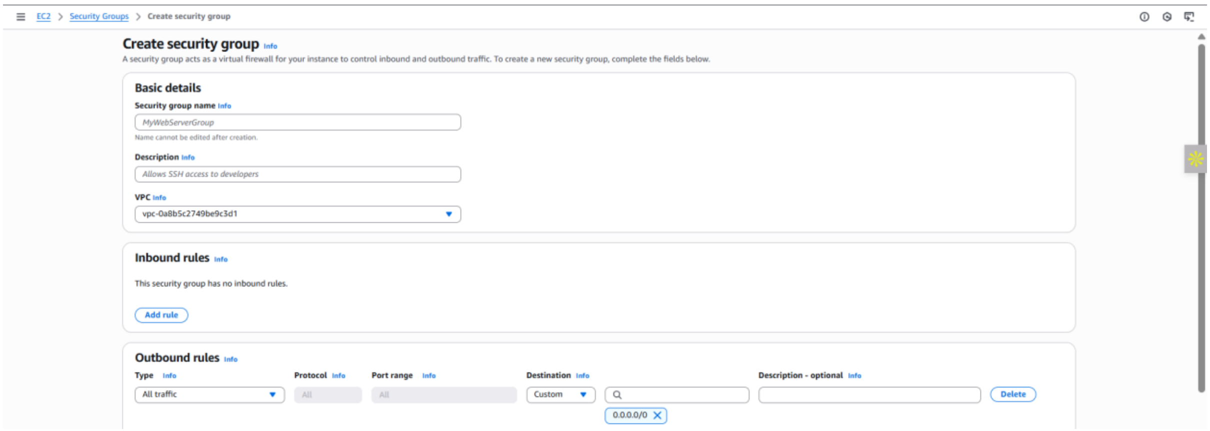
Find security groups by attribute or tag

□	Name	Security group ID	Security group name	VPC ID	Description	Owner	Inb
□	–	sg-072839513ecc16cc2	launch-wizard-3	vpc-0a8b5c2749be9c3d1	launch-wizard-3 created 2025-01-16T0...	886436970254	2 P
□	–	sg-0296133a4f909f27c	default	vpc-0ad9338a47f6e63ce	default VPC security group	886436970254	2 P

Click on the “Create security group” button:



Following screen will appear:



Create security group Info

A security group acts as a virtual firewall for your instance to control inbound and outbound traffic. To create a new security group, complete the fields below.

Basic details

Security group name Info: MyWebServerGroup

Name cannot be edited after creation.

Description Info: Allows SSH access to developers

VPC Info: vpc-0a8b5c2749be9c3d1

Inbound rules Info

This security group has no inbound rules.

Outbound rules Info

Type Info	Protocol Info	Port range Info	Destination Info		Description - optional Info	
All traffic	All	All	Custom	0.0.0.0/0		Delete

Specify the details and click on the orange button at the right bottom corner.

--The End--