

Secrets Manager

SECRETS MANAGER

What Is Secrets Manager?

- Similar to Systems Manager Parameter Store
- **Charge** per secret stored and per 10,000 API calls
- Automatically **rotate** secrets
- Apply the new key/password in RDS for you
- Generate **random secrets**

AWS Shield

AWS SHIELD

What is AWS Shield?

 A CLOUD GURU



Protects against distributed denial-of-service (DDoS) attacks

AWS Shield Standard

- Automatically enabled for all customers at **no cost**
- Protects against common layer 3 and 4 attacks
 - SYN/UDP floods
 - Reflection attacks
- Stopped a 2.3 Tbps DDoS attack for three days in February 2020

AWS Shield Advanced

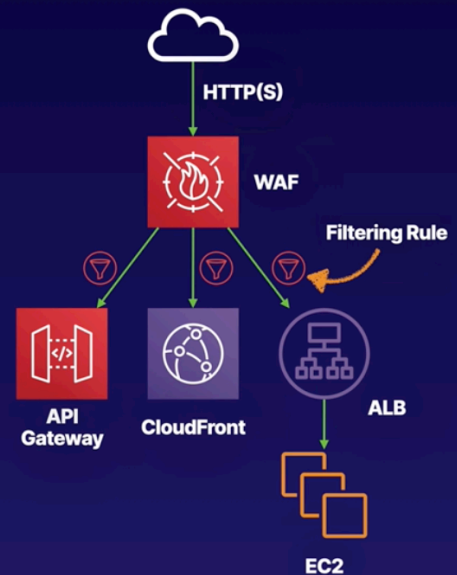
- \$3,000 per month, per org
- Enhanced protection for EC2, ELB, CloudFront, Global Accelerator, Route 53
- Business and Enterprise support customers get 24×7 access to the DDoS Response Team (DRT)
- DDoS cost protection

Web Application Firewall (WAF)

What Is WAF?

Web application firewall that lets you monitor HTTP(S) requests to **CloudFront**, **ALB**, or **API Gateway**

- Control access to content
- Configure **filtering rules** to allow/deny traffic:
 - IP addresses
 - Query string parameters
`http://example.com/page?foo=bar&abc=xyz&baz=123`
 - SQL query injection



How Does WAF Work?

WAF allows three different behaviors:

- **Allow** all requests, except the ones you specify
- **Block** all requests, except the ones you specify
- **Count** the requests that match the properties you specify
- Request properties:
 - Originating IP address
 - Originating country
 - Request size
 - Values in request headers
 - Strings in request matching regular expressions (regex) patterns
 - SQL code (injection)
 - Cross-site scripting (XSS)

AWS Firewall Manager

Centrally configure and manage firewall rules across an **AWS Organization**

- WAF rules:
 - ALB
 - API Gateway
 - CloudFront distributions
- AWS Shield Advanced protections:
 - ALB
 - ELB Classic
 - EIP
 - CloudFront distributions
- Enable security groups for EC2 and ENIs

