

**Penta** SECURITY

**Cloudbric Managed Rules** 

# Cloudbric Managed Rules for AWS WAF Setting Guide v1.4 2024.06

FOR ENDUSER(PUBLIC)

15

# **CHANGE HISTORY**

Date	Author	<b>Revision Description</b>	Page no.	Comment
2022.12	Park. Junhyung	Initial documentation		v 1.0
2023.05	Park. Junhyung	Added details regarding the Rule override using Labels.	15, 17, 22, 26	v 1.1
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2024.06	Park. Junhyung	Changed the name of the company to Penta Security Inc. Changed the customer support e-mail address Added description for Anonymous IP Protection Changed the product line name to Cloudbric Managed Rules Changed the name of all managed rule groups due to rebranding of Cloudbric Managed Rules Updated the document in accordance with the latest version of AWS console	3-30	v 1.4

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# 1. Overview

This document was made to explain how an AWS Web Application Firewall (WAF) user can subscribe and implement <sup>Г</sup>Cloudbric Managed Rules for AWS WAF, provided by Penta Security Inc., currently available in AWS Marketplace.

# **1.1 What are 'Cloudbric Managed Rules?':**

Cloudbric Managed Rules for AWS WAF is a product line of managed rule groups developed by Penta Security, an official AWS WAF Ready Program Launch Partner of Amazon Web Services (AWS). Cloudbric Managed Rules were developed by security experts with over 20 years of experience, based on Penta Security's core technology. Penta Security is currently one of only seven Independent Software Vendors (ISV) to provide managed rule group products within AWS WAF. Cloudbric Managed Rules are continuously updated and managed by Penta Security to maintain a stable level of security and boost the AWS WAF experience for the users.

# What are Managed Rule Groups in AWS Marketplace?

Managed rule groups are collections of predefined, ready-to-use rules that AWS and AWS Marketplace sellers write for AWS WAF users. Managed rule groups are available by subscription through AWS Marketplace. By subscribing to and implementing the managed rule groups with AWS WAF, users can immediately start protecting their web applications and APIs from general threats without having to define the rules themselves.

# **1.2 Cloudbric Managed Rules Products:**

Name	Details
OWASP Top 10 Protection <u>Go to Subscribe</u>	Provides security against threats from OWASP Top 10 Web Application Security Risks, such as SQL Injection and Cross Site Scripting (XSS) utilizing the logic-based detection engine recognized by world-renowned research organizations such as Gartner and Frost & Sullivan.
Malicious IP Protection <u>Go to Subscribe</u>	Provides security against malicious IP traffic based on the Malicious IP Reputation list created using ThreatDB, which is collected and analyzed from 700,000 websites in 148 countries worldwide by Cloudbric labs, Penta Security's own Cyber Threat Intelligence (CTI).
Bot Protection <u>Go to Subscribe</u>	Provides security against malicious bots, such as scrapers, scanners, and crawlers, which negatively impact and damage websites and web applications through repetitive behavior, based on the malicious bot patterns collected and analyzed by Penta Security.
Anonymous IP Protection <u>Go to Subscribe</u>	Provides integrated security against Anonymous IPs originating from various sources including VPNs, Data Centers, DNS Proxies, Tor Networks, Relays, and P2P Networks, responding to threats such as geo-location frauds, DDoS, and license and copyright infringement.
Tor IP Protection <u>Go to Subscribe</u>	Provides security against Anonymous IP traffic, specifically originating from the Tor network, which can be difficult to detect using an ordinary IP Risk Index, utilizing the Tor IP list managed and updated by Cloudbric Labs.

# 2. Setting Up Cloudbric Managed Rules

To set up Cloudbric Managed Rules for your AWS WAF, you must first subscribe to the Cloudbric Managed Rules for AWS WAF. After subscribing to the Cloudbric Managed Rules, the rule groups can be associated with the web ACL from the AWS WAF console, and you can configure the specifics of the rule groups, such as versions and update notifications, which you will receive through Amazon Simple Notification Service (Amazon SNS).

# 2.1 Subscribing to Cloudbric Managed Rules

• Step 1

Log in to AWS Marketplace with your AWS Account. *XAWS Marketplace:* <u>https://aws.amazon.com/marketplace/</u>



#### • Step 2

Search for 'Cloudbric Managed Rules' and select the name of the rule group you wish to subscribe.



### • Step 3

Make sure to read the details of the selected rule group, then select [View purchase options].



### • Step 4

Review the terms and pricing information, then select [Subscribe].

Offer		
Offer Offer ID: 741xt60ic0nsjj43k4u8ukmho	Offer ld 741xt60ic0nsjj43k4u8ukmho	Offer type Public
Pricing information		Purchase
Q Find by Unit	< 1 > ©	This software is priced based on usage. Your bill will be determined by the number of units you use.
Unit	⊽ Cost ▼	Additional taxes may apply.
Charge per month in each available region the hour)	(pro-rated by \$25/unit	Subscribe
Charge per million requests in each availab	le region \$1/unit	M,
÷	-	Legal M Download EULA(s)

### • Step 5

You are now subscribed to the rule group. Select **[Set up your account]** to go to your AWS WAF console and implement Cloudbric Managed Rules.

aws m	arketplace	2		Q Search	6				Hello, user@example.com 🔻
About 👻	Categories 👻	Delivery Methods 👻	Solutions 💌	AWS IQ 👻	Resources 👻	Your Saved List	Become a Channel Pa	mer Sell in AWS Marketplace	Amazon Web Services Home Help
⊘ To conti	nue, <b>set up your</b> a	account and complete	registration. If y	ou're unable t	o complete regist	tration, return through the I	1anage subscriptions 🛃 page on AWS Marketp	ace.	Set up your account 🗹
		Cloudb	ric Managed Ru	les for AWS W	AF - OWASP Top	10 Protection > Subscrib	2		W
		Sub Pro	oscribe to tection	o Cloud	bric Mar	naged Rules fo	r AWS WAF - OWASP To	p 10	

# 2.2 Implementing Cloudbric Managed Rules

### • Step 1

Go to AWS WAF console.

%AWS WAF console : https://console.aws.amazon.com/wafv2/



### • Step 2

Go to the Web ACLs menu and select the Web ACL you wish to associate with Cloudbric Managed Rules.

aws Services Q Sec	arch [Alt+S]	A Ø  Global ▼ user@example.com ▼
WAF & Shield ×	AWS WAF > Web ACLs	٥
▼ AWS WAF	New AWS WAF dashboards are now available. Check them out by selecting any of your web ACLs.	©
Getting started Web ACLs	Web ACLs Info	
Bot control dashboard	Web ACLs (1) US East (N. Virgin	nia) ▼ Di Copy ARN Delete Create web ACL
Application integration New	Web ACLs that you have defined in the selected region.	
IP sets	Q Find web ACLs	< 1 > @
Regex pattern sets	Name   Description	▽ ID
Rule groups AWS Marketplace managed rules	example -	\$25x480x48x40x4x1x4x144488482110

### • Step 3

Select the [Rules] tab and select [Add managed rule group] from the [Add rules] drop down menu.

example				Download web ACL as JSON
< Traffic overview Rules	Associated AWS resources	Custom response bodies	Logging and metrics S	ampled requests New CloudWatci >
<b>Rules</b> (0)			E	dit Delete Add rules ▲
Q Find rules				Add managed rule groups Add my own rules And rule groups
Name	Action	Priority	Custom response	Se

### • Step 4

Enable 'Add to web ACL' for the rule group you wish to associate with the web ACL, then select [Add rules]. *X* To test the Rules Set first, select [Edit] and change the Action to 'count'.

AWS managed rule groups		
<ul> <li>Cloudbric Corp. managed rule groups</li> </ul>		
Name	Capacity	Action
Anonymous IP Protection Cloudbric Managed Rules for AWS WAF - Anonymous IP Protection provides integrated security against Anonymous IPs originating from various sources including VPNs, Data Centers, DNS Proxies, Tor Networks, Relays, P2P Networks, etc.	90	Add to web ACL
<b>Bot Protection Rule set</b> By managing malicious Bots, Cloudbric Bot Protection Rule Set prevents negative impact towards the enterprise, theft of important information, Account Takeovers (ATOs), and any damages to the assets of the enterprise.	150	Add to web ACL          Edit
Malicious IP Reputation Rule Set Cloudbric Labs provides a comprehensive list of Malicious IP Reputation based on threat intelligence gathered from over 700,000 sites in 95 countries, reducing the amount of time required for identifying and processing, and in turn, helping minimizing the damages caused by these threats.	6	Add to web ACL          Edit
<b>OWASP Top 10 Rule Set</b> Cloudbric utilizes a logic-based intelligent WAF engine that was voted as Asia Pacific's no.1 for 5 consecutive years. Automated updates ensures it protects against the OWASP Top 10 vulnerabilities and new threats.	1400	Add to web ACL
<b>Tor IP Detection Rule Set</b> The experts at Cloudbric Labs continuously maintain and update rapidly renewed Tor IPs, which reduces the time required for the users to register and deploy the Rule Set to minimize the risk against Tor IP threats.	6	Add to web ACL          Edit

### • Step 5

If you wish to implement multiple Cloudbric managed rule groups for your web ACL, we recommend configuring the priority of each rule group for maximum performance. It is recommended that the IP-based rules, such as Malicious IP Protection and Anonymous IP Protection be configured with the highest priority, and the OWASP Top 10 Protection be configured with the lowest priority. The managed rule groups are implemented in order of highest priority to lowest. If you have any inquiries regarding how to configure the priority of Cloudbric managed rule groups, please contact <a href="mailto:awsmkp@pentasecurity.com">awsmkp@pentasecurity.com</a>.

Set rule priority Info						
Rule	es (1/5) quest matches a rule, take the corresponding action. The rules are prioritized in o	rder they appear.	▼ Move down			
	Name	Capacity	Action			
$\bigcirc$	CloudbricCorp-Cloudbric_TorIPDetectionRuleSet	6	Use rule actions			
$\bigcirc$	CloudbricCorp-Cloudbric_OWASPTop10RuleSet	1400	Use rule actions			
0	CloudbricCorp-Cloudbric_MaliciousIPReputationRuleSet	6	Use rule actions			
$\bigcirc$	CloudbricCorp-Cloudbric_BotProtectionRuleSet	150	Use rule actions			
$\bigcirc$	CloudbricCorp-Cloudbric_AnonymousIPProtection	90	Use rule actions			
		Cancel	Previous Next			

#### • Step 6

Review the **[Rules]** tab of the web ACLs menu to see if Cloudbric managed rule groups has been properly implemented.

AWS WAR	AWS WAF > Web ACLs > example							
exan	nple				Download web ACL as JSON			
Traffi	c overview Rules Associated AWS resources	Custom response bodies	Logging and metrics	Sampled requests	CloudWatch Log Insights			
Rule	<b>s</b> (5)			Edit	Delete Add rules 🔻			
Q F	ïind rules				< 1 > 💿			
	Name		Action	Priority	Custom response			
	CloudbricCorp-Cloudbric_MaliciousIPReputationRuleSet		Use rule actions	0	-			
	CloudbricCorp-Cloudbric_TorIPDetectionRuleSet		Use rule actions	1	-			
	CloudbricCorp-Cloudbric_AnonymousIPProtection		Use rule actions	2	-			
	CloudbricCorp-Cloudbric_BotProtectionRuleSet		Use rule actions	3				
	CloudbricCorp-Cloudbric_OWASPTop10RuleSet		Use rule actions	4	-			

### 2.3 Selecting the Version of Cloudbric Managed Rules

#### • Step 1

Go to AWS WAF console.

%AWS WAF console : <u>https://console.aws.amazon.com/wafv2/</u>



#### • Step 2

Go to the web ACLs menu and select the web ACL that requires a different version of the Cloudbric managed rule group.

aws Services	<b>Q</b> Search	[Alt+S]	D 4 0	Global ▼ user@example.com ▼
WAF & Shield	×	AWS WAF > Web ACLs		(
▼ AWS WAF		New AWS WAF dashboards are now available. Check them out by selecting a	y of your web ACLs.	G
Getting started Web ACLs		Web ACLs Info		
Bot control dashboard		Web ACLs (1)	US East (N. Virginia) 🔻 🗇 Copy ARN Delet	e Create web ACL
Application integration New		Web ACLs that you have defined in the selected region.		
IP sets		Q Find web ACLs		< 1 > 💿
Regex pattern sets		Name   Description	▽ ID	
Rule groups		o example -	174400.00	A DOLLAR AND A DOLLAR AND A
AWS Marketplace managed rules				

### • Step 3

Select the [Rules] tab of the Web ACL, select the managed rule group, and click [Edit].

AWS WAF > Web ACLs > example			
example			Download web ACL as JSON
Traffic overview Rules Associated AWS resources Custom response bodies Logging and metrics	Sampled requests CloudWatch Log Insights		
Rules (1/5)			Edit Delete Add rules V
Q Find rules			< 1 > @
Name	Action	Priority	Custom response
CloudbricCorp-Cloudbric_MaliciousIPReputationRuleSet	Use rule actions	0	
CloudbricCorp-Cloudbric_ToriPDetectionRuleSet	Use rule actions	1	-
CloudbricCorp-Cloudbric_AnonymousIPProtection	Use rule actions	2	-
CloudbricCorp-Cloudbric_BotProtectionRuleSet	Use rule actions	3	-
CloudbricCorp-Cloudbric_OWASPTop10RuleSet	Use rule actions	4	-

*X* Versioning is currently only available for OWASP Top 10 Protection.

#### • Step 4

Select the version of the managed rule group and click [Save rule] to associate with the web ACL.

OWASP Top 10 Rule Set	
Description Cloudbric utilizes a logic-based intelligent WAF engine that was voted as Asia Pacific's no.1 for 5 consecutive years. Automated updates ensures it protects against the OWASP Top 10 vulnerabilities and new threats.	Version Default (using an unversioned rule group) Capacity 1400 Amazon SNS topic Subscribe to notifications about this rule group from its provider. arn:aws:sns:us-east-1:079609876149:Cloudbric_OWASP_Top.

XAs the managed rule group is updated, new versions of the managed rule group will be available to be associated with the web ACL.

# 2.4 Setting Up Notifications for Cloudbric Managed Rules

- Step 1
  - Go to AWS WAF console.

XAWS WAF console : https://console.aws.amazon.com/wafv2/

![](_page_12_Picture_9.jpeg)

### • Step 2

Go to the web ACLs menu and select the web ACL that requires a different version of the Cloudbric managed rule group.

aws Servic	es 🛛 Q	Search		[Alt+S]	Ð	4	4	3	۲	Global 🔻	user@example	e.com 🔻
WAF & Shield	I X	•	AWS WAF > Web ACLs									Ġ
AWS WAF		L	New AWS WAF dashboard	s are now available. Check them out by selecting a	ıy of your web ACLs.							0
Getting started Web ACLs		L	Web ACLs Info									
Bot control dashboard		L	Web ACLs (1)		US East (N. Virginia) 🔻 🗇 Copy A	RN		Delete	e	Create wel	ACL	
Application integration New		L	Web ACLs that you have defined in	the selected region.						. 1		
IP sets			Q Find web ACLS									
Rule groups	5		Name	Description	$\nabla$	ID	)					
AWS Marketplace managed rules				-								

#### Step 3

•

Select the [Rules] tab of the Web ACL, select the managed rule group, and click [Edit].

AWS WAF > Web ACLs > example			
example			Download web ACL as JSON
Traffic overview Rules Associated AWS resources Custom response bodies Logging and metrics San	npled requests CloudWatch Log Insights		
Rules (1/5) Q. Find rules			East Delete Add rules V < 1 > ③
Name	Action	Priority	Custom response
CloudbricCorp-Cloudbric_MaliciousIPReputationRuleSet	Use rule actions	0	
CloudbricCorp-Cloudbric_TorIPDetectionRuleSet	Use rule actions	1	
CloudbricCorp-Cloudbric_AnonymousIPProtection	Use rule actions	2	-
CloudbricCorp-Cloudbric_BotProtectionRuleSet	Use rule actions	3	
CloudbricCorp-Cloudbric_OWASPTop10RuleSet	Use rule actions	4	-

### Step 4

Copy Amazon Resource Name (ARN) of the Amazon Simple Notification Service (SNS) topic for the selected Cloudbric managed rule group and click on the ARN to configure the update notifications of Amazon SNS.

OWASP Top 10 Rule Set	
Description	Version
that was voted as Asia Pacific's no.1 for 5 consecutive	Default (using an unversioned rule group)
years. Automated updates ensures it protects against	
the OWASP Top TO vulnerabilities and new threats.	Capacity
	1400
	Amazon SNS topic
	Subscribe to notifications about this rule group from its provider.
	arn:aws:sns:us-east-1:079609876149:Cloudbric_OWASP_Top_10_Notification

#### • Step 5

Enter the Protocol and Endpoint to receive the notifications of the updates.

- Topic ARN: ARN of the Amazon SNS topic copied from the previous step.
- Protocol: Select 'Email.'
- Endpoint: Email address to receive the update notifications.

×	
×	
•	

×If you wish to receive the update notifications through protocols other than email, enter the endpoint that matches the protocol.

#### • Step 6

Complete the process of configuring the update notifications by clicking the "**Create subscription**" from the email sent to the email address you entered for the Endpoint in the previous step.

# 3. Canceling Cloudbric Managed Rules Subscription

If you wish to cancel the subscription for Cloudbric Managed Rules, Cloudbric managed rule groups must be deleted from all web ACLs created in the AWS WAF console before canceling the subscription from the AWS Marketplace. Additionally, if you are subscribed to the Amazon SNS topic for Cloudbric managed rule group, you may continue to be charged for the update notifications.

X You will be continued to be billed for the Cloudbric managed rule group if it has not been deleted from the Web ACLs, even after you canceled the subscription.

X You may also be billed for the update notifications of Cloudbric managed rule groups if the subscription for Amazon SNS has not been canceled.

# 3.1 Canceling Cloudbric Managed Rules Subscription

### • Step 1

Go to AWS Marketplace Subscriptions management console.

XAWS WAF console : https://console.aws.amazon.com/marketplace/home#/subscriptions

![](_page_15_Picture_5.jpeg)

### • Step 2

Go to the **[Manage subscriptions]** menu and click **[Manage]** for the Cloudbric managed rule group you wish to cancel the subscription.

Aws Marketplace > Manage subscriptions		
Manage subscriptions Info		Actions 🔻
Your subscriptions		
Q	All delivery methods	< 1 > @
Penta EXERT Bot Protection by Penta Security	Pentasoury Cloudbric Managed Rules for AWS WAF - OWASP Top 10 Protec by Penta Security	Pentatazar Cloudbric Managed Rules for AWS WAF - Tor IP Protection by Penta Security
Delivery method SaaS	Delivery method SaaS	Delivery method SaaS
Service start April 25, 2024, 12:34 (UTC+09:00)	Service start April 25, 2024, 11:11 (UTC+09:00)	Service start June 24, 2024, 09:41 (UTC+09:00)
Access level Agreement	Access level Agreement	Access level Agreement
Set up product Manage	Set up product Manage	Set up product

### • Step 3

Select [Cancel subscription] from [Actions] drop down menu in 'Agreement.'

Summary				
Product Cloudbric Managed Rules for AWS WAF - Tor IP Protection	Delivery method SaaS	Product ID 8bde7bfe-9572-46d6-b02d-3fe0ea0537e2		
Agreement				Actions
Agreement ID agmt-uiyhs3gn2jmronacu8yujghf Service start June 24, 2024, 09:41 (UTC+09:00)	Seller Penta Security 🚰 Auto-renewal	Access level Agreement	Offer ID 8a3n44oip7pvdhlmc71wvln8i	Set up product Usage instructions Write review Subscription View terms
				Cancel subscription

### • Step 4

Complete the cancellation of subscription by typing "confirm" in the input box and selecting [Yes, cancel subscription].

Cancel subscription ×
Are you sure that you want to cancel your subscription to Cloudbric Managed Rules for AWS WAF - Tor IP Protection ?? Canceling your subscription means that you lose access to the software.
All resources and data related to this subscription <b>will be deleted</b> . Once deleted, this data <b>cannot be recovered</b> .
To avoid accidental cancellations, we ask you to provide additional written consent.
To confirm cancellation, please type " <b>confirm</b> ".
confirm
No, don't cancel Yes, cancel subscription

# 3.2 Deleting Cloudbric Managed Rules

### • Step 1

Go to AWS WAF console.

%AWS WAF console : https://console.aws.amazon.com/wafv2/

![](_page_17_Picture_5.jpeg)

### • Step 2

Go to the Web ACLs menu and select the web ACL to delete the Cloudbric managed rule group.

aws Services Q Se	arch [Alt+S]	ඩ 🗛 🕅 Global ▼ user@example.com	•
WAF & Shield ×	AWS WAF > Web ACLs		١
AWS WAF     Getting started     Web ACLs	<ul> <li>New AWS WAF dashboards are now available. Check them out by selecting any</li> <li>Web ACLs Info</li> </ul>	/ of your web ACLs.	0
Bot control dashboard	Web ACLs (1)	US East (N. Virginia) 🔻 🗇 Copy ARN Delete Create web ACL	
Application integration New	Web ACLs that you have defined in the selected region. Q. Find web ACLs	< 1 > @	
Regex pattern sets	Name   Description	▼ ID	
Rule groups AWS Marketplace managed rules	o example -	KOWING WAS ANY ALL WARRANTS	

### • Step 3

Go to the [Rules] tab and select the Cloudbric managed rule group to delete. Then click [Delete].

AWS W/	F > Web ACLs > example			
exar	nple			Download web ACL as JSON
Traff	ic overview Rules Associated AWS resources Custom response bodies Logging and metrics Samp	led requests CloudWatch Log Insights		
Rul	es (1/5) Find rules			Edit Delaye Add rules V
~	1005			< · / Q
	Name	Action	Priority	Custom response
	CloudbricCorp-Cloudbric_MaliciousIPReputationRuleSet	Use rule actions	0	-
	CloudbricCorp-Cloudbric_TorIPDetectionRuleSet	Use rule actions	1	-
	CloudbricCorp-Cloudbric_AnonymousIPProtection	Use rule actions	2	-
	CloudbricCorp-Cloudbric_BotProtectionRuleSet	Use rule actions	3	-
	CloudbricCorp-Cloudbric_OWASPTop10RuleSet	Use rule actions	4	

### • Step 4

Type in 'delete,' and click [Delete] to complete the process.

Delete 8d753df8-b403-49b2-af11-ba573b760b98?	×
Are you sure you want to remove CloudbricCorp- Cloudbric_TorIPDetectionRuleSet from the web ACL? This will remove the selected rules from the web ACL.	
To confirm deletion, type "delete" in the field          delete	
Cancel	elete

# **3.3 Canceling Notifications for Cloudbric Managed Rules**

### • Step 1

Go to Amazon Simple Notification Service (SNS) console.

XAmazon SNS console: https://console.aws.amazon.com/sns/home

![](_page_18_Picture_8.jpeg)

### • Step 2

Select the ID that is currently receiving the update notifications for the Cloudbric managed rule group from the Subscriptions menu and click **[Delete]**.

Amazon SNS ×	Amazon SNS > Subscriptions	
Dashboard	Subscriptions (3)	Edit Del Request
Topics	Q Search	
Subscriptions		
▼ Mobile	ID      Endpoint	▼ Status
Push notifications	• 00000000-0000-0000-0000000 test@pentasecurity.com	⊘ Confirmed
Text messaging (SMS)		
Origination numbers		

#### Step 3

Click [Delete] to confirm. This action cannot be undone.

Delete subscription	×
Are you sure you want to delete this subscription? You can't undo this action	1.
Cancel	Dele

# 4. Overriding Cloudbric Managed Rules

When a false-positive has occurred, in which a legitimate request has been blocked by Cloudbric managed rule group, the rule action must be changed to **'Count'** to override the rule. However, overriding the rule could also result in permitting malicious requests. To maintain the performance of the rules and apply the override only for a specific pattern that caused the false-positive, the override rule must be defined by adding a label-based, user-defined rule.

% All Rules in Cloudbric OWASP Top 10 Protection are configured with labels.

*X* The IP-based Cloudbric managed rule groups are not configured with any labels due to the dynamic tendency of the IP List. If you need to override a specific IP, you must create an additional rule, allowing the IP.

# 4.1 Configuring Rule Action to 'Count'

### • Step 1

Go to AWS WAF console.

%AWS WAF console : https://console.aws.amazon.com/wafv2/

![](_page_20_Picture_5.jpeg)

### • Step 2

Go to the web ACL menu and select the web ACL associated with a Cloudbric managed rule group.

aws Services Q	Search	[Alt+S]	D
WAF & Shield $ imes$	^	AWS WAF > Web ACLs	٥
▼ AWS WAF		New AWS WAF dashboards are now available. Check them out by selecting a	ny of your web ACLs.
Getting started Web ACLs		Web ACLs Info	
Bot control dashboard		Web ACLs (1)	US East (N. Virginia) 🔻 🗇 Copy ARN Delete Create web ACL
Application integration New		Web ACLs that you have defined in the selected region.	
IP sets		Q. Find web ACLs	< 1 > @
Regex pattern sets		Name   Description	⊽ ID
Rule groups			COMPANY OF ALL ADDRESS
AWS Marketplace managed rules			

### • Step 3

Go to **[Rules]** tab, then select the checkboxes for all the Cloudbric managed rule group to override and select **[Edit]**.

AWS WAF > Web ACLs > example			
example			Download web ACL as JSON
Traffic overview Rules Associated AWS resources Custom response bodies Logging and metrics	Sampled requests CloudWatch Log Insig	hts	
Rules (1/5)			Ect Delete Add rules 🔻
Q Find rules			< 1 > @
Name Name	Action	Priority	Custom response
CloudbricCorp-Cloudbric_MaliciousIPReputationRuleSet	Use rule actions	0	-
CloudbricCorp-Cloudbric_ToriPDetectionRuleSet	Use rule actions	1	-
CloudbricCorp-Cloudbric_AnonymousIPProtection	Use rule actions	2	-
CloudbricCorp-Cloudbric_BotProtectionRuleSet	Use rule actions	3	
<u>CloudbricCorp-Cloudbric_OWASPTop10RuleSet</u>	Use rule actions	4	-

### • Step 4

Change the rule action of the rule to override to 'Count' and click [Save rule] to complete the process.

By default, the rule group uses its configured rule actions. You can override the actions for all rules and for individual rules. For a single rule, use the rule dropdown to specify an override action or to remove an override. Allow and Block actions terminate web ACL evaluation for matching requests. Count action counts matching requests and continues the web ACL evaluation. Learn More Choose rule action override Cloudbric_BufferOverFlow Rule action: Block Choose rule action override Cloudbric_SQLInjection_URL Rule action: Block Choose rule action override Cloudbric_SQLInjection_URL Rule action: Block Choose rule action override Cloudbric_SQLInjection_Header_2 Rule action: Block Choose rule action override Cloudbric_SQLInjection_Header_2 Rule action: Block Choose rule action override Choose rule action override Choose rule action override Cloudbric_SQLInjection_Header_2 Rule action: Block Choose rule action override Choose	OWASP Top 10 Rule Set rule The rules apply actions and labels to request	<b>S</b> Is that match their criteria.	
Allow and Block actions terminate web ACL evaluation for matching requests. Count action counts matching requests and continues the web ACL evaluation. Learn More C Override all rule actions Choose rule action override Choose	By default, the rule group uses its configured rule, use the rule dropdown to specify an over	d rule actions. You can override the actions for a erride action or to remove an override.	all rules and for individual rules. For a single
Override all rule actions         Choose rule action override         Remove all overrides         Cloudbric_BufferOverFlow         Rule action: Block         Choose rule action override         Choose rule action override         Cloudbric_SQLInjection_URL         Rule action: Block         Cloudbric_SQLInjection_URL         Rule action: Block         Choose rule action override         Q         Cloudbric_SQLInjection_URL         Rule action: Block         Choose rule action override         Q         Cloudbric_SQLInjection_Header_2         Rule action: Block         Override to Count         Override to CAPTCHA         Override to Challenge         S Remove Override         Cloudbric_SequestHeaderFiltering         Rule action: Block         Choose rule action override         Choose rule action override         Choose rule action override         Cloudbric_RequestHeaderFiltering         Rule action: Block         Choose rule action override	Allow and Block actions terminate web ACL web ACL web ACL evaluation. Learn More []	evaluation for matching requests. Count action	counts matching requests and continues the
Choose rule action override       Remove all overrides         Cloudbric_BufferOverFlow       Cloudbric_XSS_1         Rule action: Block       Rule action: Block         Choose rule action override       Choose rule action override         Cloudbric_SQLInjection_URL       Choose rule action override         Rule action: Block       Override to Allow         Choose rule action override       Override to Block         Choose rule action override       Override to Count         Rule action: Block       Override to Count         Choose rule action override       Override to Count         Choose rule action override       Override to Count         Override to Challenge       Override to Choose rule action override         Choose rule action override       S Remove Override         Cloudbric_RequestHeaderFiltering       Rule action: Block         Choose rule action override       Cloudbric_StealthCommanding_URL         Rule action: Block       Choose rule action override	Override all rule actions		
Cloudbric_BufferOverFlow       Cloudbric_XSS_1       Cloudbric_XSS_2         Rule action: Block       Rule action: Block       Choose rule action override       Rule action: Block         Cloudbric_SQLInjection_URL       Choose rule action override       Q       Cloudbric_SQLInjection_Header_1         Rule action: Block       Override to Allow       Choose rule action override       Cloudbric_SQLInjection_Header_1         Cloudbric_SQLInjection_Header_2       Override to Count       Override to Count       Choose rule action override         Cloudbric_RequestHeaderFiltering       Nemove Override       Override       Cloudbric_StealthCommanding_URL         Rule action: Block       Choose rule action override       1         Choose rule action override       Cloudbric_StealthCommanding_URL       Rule action: Block	Choose rule action override 🔹 🔻	Remove all overrides	
Choose rule action override   Cloudbric_SQLInjection_URL   Rule action: Block   Choose rule action override   Choose rule action override   Cloudbric_SQLInjection_Header_2   Rule action: Block   Choose rule action override   Cloudbric_SQLInjection_Header_2   Rule action: Block   Choose rule action override   Override to Count   Override to Count   Override to Count   Override to Count   Override to CAPTCHA   Override to Challenge   S Remove Override   Cloudbric_StealthCommanding_URL   Rule action: Block   Choose rule action override   Cloudbric_StealthCommanding_URL   Rule action: Block   Choose rule action override	Cloudbric_BufferOverFlow Rule action: Block	Cloudbric_XSS_1 Rule action: Block	Cloudbric_XSS_2 Rule action: Block
Q   Cloudbric_SQLInjection_URL   Rule action: Block   Choose rule action override   Cloudbric_SQLInjection_Header_2   Rule action: Block   Choose rule action override   Cloudbric_SQLInjection_Header_2   Rule action: Block   Choose rule action override	Choose rule action override 🛛 🔻	Choose rule action override	Choose rule action override 🔹 🔻
Choose rule action override   Cloudbric_SQLInjection_Header_2   Rule action: Block   Choose rule action override   Choose rule action override   Cloudbric_RequestHeaderFiltering   Rule action: Block   Choose rule action override   Cloudbric_RequestHeaderFiltering   Rule action: Block   Choose rule action override   Cloudbric_StealthCommanding_URL   Rule action: Block   Choose rule action override	Cloudbric_SQLInjection_URL Rule action: Block	Cloudbric_SQLInjection_Header_1 Rule action: Block	
Cloudbric_SQLInjection_Header_2         Rule action: Block         Choose rule action override         Cloudbric_RequestHeaderFiltering         Rule action: Block         Choose rule action override         Cloudbric_RequestHeaderFiltering         Rule action: Block         Choose rule action override         Cloudbric_RequestHeaderFiltering         Rule action: Block         Choose rule action override         Choose rule action override         Choose rule action override	Choose rule action override 🛛 🔻	Override to Block	Choose rule action override 🔹 🔻
Choose rule action override       Override to Challenge       Choose rule action override         Cloudbric_RequestHeaderFiltering Rule action: Block       Cloudbric_StealthCommanding_URL Rule action: Block       Cloudbric_StealthCommanding_URL Rule action: Block       1 Rule action: Block	Cloudbric_SQLInjection_Header_2 Rule action: Block	Override to Count	erride to Count RequestMethodFiltering
S Remove Override         Cloudbric_RequestHeaderFiltering         Rule action: Block         Choose rule action override         Choose rule action override	Choose rule action override 🛛 🔻	Override to Challenge	Choose rule action override 🔹 🔻
Choose rule action override	Cloudbric_RequestHeaderFiltering Rule action: Block	S Remove Override Cloudbric_StealthCommanding_URL Rule action: Block	Cloudbric_StealthCommanding_Bod
	Choose rule action override 🔹 🔻	Choose rule action override 🔹 🔻	Rule action: Block

# 4.2 Adding Override Rules Based on Labels

# • Step 1

Go to **[Rules]** tab from the web ACL, click **[Add rules]** and select **[Add my own rules and rule groups]** from the drop-down menu to create a new Rule.

example			Download web ACL as JSON
Traffic overview Rules Associated AWS resources Custom response bodies Loggi	ng and metrics Sampled requests CloudWatch Log Insights		
Rules (4) Q. Find rules			Edit         Delete         Add rules           Add managed rule groups           Add my own rule         and rule groups
□ Name	Action	Priority	Custom response
CloudbricCorp-Cloudbric_MaliciousIPReputationRuleSet	Use rule actions	0	
<u>CloudbricCorp-Cloudbric_AnonymousIPProtection</u>	Use rule actions	2	· ·
<u>CloudbricCorp-Cloudbric_BotProtectionRuleSet</u>	Use rule actions	3	
CloudbricCorp-Cloudbric_OWASPTop10RuleSet	Use rule actions	4	-

### • Step 2

Select the overlapping 'AND' option for the request to match the rule if it fulfills 2 statements. - If a request: matches all the statements (AND)

f a request	matches the statement
	matches the statement
Statement	matches all the statements (AND)
	matches at least one of the statements (OR)
Inspect	doesn't match the statement (NOT)
Choose an inspection option	
<u></u>	

### • Step 3

Statement 1 is defined to inspect the request that matches the rule configured to override in  $\lceil 4.1 \rfloor$ .

- Inspect: Has a label
- Match key: Enter 'Label Name' for the rule configured to override

![](_page_23_Picture_5.jpeg)

*X* The structure of Label Name for Cloudbric OWASP Top 10 Protection:

awswaf:managed:cloudbric:owasp:[Rule Name]

- Example: If the Rule Name is 'Cloudbric\_XXS\_1,' the label is created as: 'awswaf:managed:cloudbric:owasp:**XSS\_1**'

### • Step 4

Statement 2 is defined to override the inspection option for the request with the false-positive occurrence from the Rule configured to override in  $\lceil 4.1 \rfloor$ .

- Negate statement results: Configured to check to override the detection option defined in the statement.

- Inspect: Configures the inspection option with the false-positive occurrences.

AND	
NOT Statement 2	Remove
Negate statement (NOT) Select this to match requests that don't satisfy the statement criteria. Negate statement results Expect	

*X*The inspection option that matched with the request can be viewed from AWS WAF 'ruleMatchDetails' log field, limited to the rules that detect SQL Injections and Cross Site Scripting (XSS) attacks.

XPlease contact <a>awsmkp@pentasecurity.com</a> and provide the log information if any false-positives occurred in the other rules.

### • Step 5

Select the Action of the Rule as 'Block' to block the requests when it matches the rule and click **[Add rule]** to add Rule.

![](_page_24_Figure_10.jpeg)

# • Step 6

Set the priority of the created rule to come after the override rule configured in  $\lceil 4.1 \rfloor$  and click **[Save]** to complete the configuration of the override Rule.

Set rule priority Info			
Rule	uest matches a rule, take the corresponding action. The rules are prioritized in order	Move up they appear.	▼ Move down
	Name	Capacity	Action
0	CloudbricCorp-Cloudbric_MaliciousIPReputationRuleSet	6	Use rule actions
0	CloudbricCorp-Cloudbric_AnonymousIPProtection	90	Use rule actions
0	CloudbricCorp-Cloudbric_BotProtectionRuleSet	150	Use rule actions
0	CloudbricCorp-Cloudbric_OWASPTop10RuleSet	1400	Use rule actions
0	MyRule_XSS_1	41	Block
			Cancel Save

# 5. Appendix

# 5.1. FAQ

![](_page_26_Figure_3.jpeg)

When the request matches the Rule that was set as Block, AWS WAF returns a 403 Forbidden error as default. You can check if the Cloudbric managed rule group was properly added by entering a simplified XSS attack example on the browser.

http://your-domain/<script>alert('XSS')</script>

#### Q. Can I view the inspection criteria of Cloudbric managed rule group?

As a default, the details of the inspection location or pattern of AWS WAF Managed Rules are not disclosed, as they are intellectual properties of the AWS Marketplace vendor, and disclosing the detection criteria may be exploited.

However, the inspection option that matched the request can be reviewed from AWS WAF 'ruleMatchDetails' Log field, limited to the Rules that detect SQL injections and Cross Site Scripting (XSS) attacks.

Log example of inspection option of the Rule matched with SQL injection attacks:

![](_page_27_Figure_5.jpeg)

#### (Left)When the Rule terminated the request / (Right)When the Rule did not terminate the request

#### Q. Can the inspection option be changed when a false-positive or over detection occurs?

AWS does not provide any features to change inspection options for managed rules.

If you have any difficulties in optimizing the Rule configuration according to the user environment, we recommend using Cloudbric WMS (WAF Managed Service), a security Rule operation and management service for AWS WAF.

- Cloudbric WMS Overview page: <u>https://www.cloudbric.com/cloudbric-wms/</u>
- Cloudbric WMS Service Inquiry: <a href="https://cloudbric.zendesk.com/hc/en-us/requests/new">https://cloudbric.zendesk.com/hc/en-us/requests/new</a>

#### Q. Where can I view the changes made to the Cloudbric Managed Rules?

Since Nov 12<sup>th</sup>, 2021, any changes or updates to Cloudbric Managed Rules are notified on Cloudbric official homepage.

*X* Due to the variability of the IP address list, the changes made on the IP address list applied to Malicious IP Reputation Protection are not notified on the Cloudbric official homepage.

Cloudbric Managed Rules for AWS WAF Release note URL

- EN: <u>https://www.cloudbric.com/cloudbric-managed-rules-for-aws-waf-release-notes/</u>
- JP: https://www.cloudbric.jp/managed-rules-for-aws-waf-release-notes/

### Q. What is the pricing for Cloudbric Managed Rules each month?

The cost for the AWS WAF Managed Rule is estimated by two cost dimensions based on the Web ACLs with Cloudbric Managed Rules applied as stated as follows.

- 1 **Region**: Number of Regions with web ACL deployed.
- 2 Requests: Number of Requests received by Web ACL per region by units of 1million requests.

### Example of estimating cost for Cloudbric OWASP Top 10 Protection:

• OWASP Top 10 Protection cost information:

Units	Cost
Per Region	\$25/Month (Pro-rated by the hour)
Per million requests in each region	\$1/Month

• Case A:

2 Web ACL with added Cloudbric Managed Rules created for a single region (ex: us-east-1)

Total number of Web requests the Web ACL received was 10million for a month for 2 Web ACLs Estimate)

us-east-1 Region

```
(1) Region Cost: $25.00 * 1 = $25.00
```

(2) Requests Cost: \$1.00(Per million) \* 10 Requests (Total of 10million) = \$10.00

```
= Total Cost(1+2): $35.00
```

• Case B:

2 Web ACL with added Cloudbric Managed Rules created for 2 regions (ex: us-east-1, us-west-2)

Total number of requests for 2 Web ACL in each region received was 10million

Estimate)

us-east-1 Region

(1) **Region Cost**: \$25.00 \* 1 = \$25.00

(2) **Requests Cost**: \$1.00 (Per million) \* 10 Requests(Total of 10million) = \$10.00

us-west-2 Region

(3) **Region Cost**: \$25.00 \* 1 = \$25.00

(4) **Requests Cost**: \$1.00 (Per million) \* 10 Requests(Total of 10million) = \$10.00

= Total Cost(1+2+3+4): \$70.00

# 5.2 Rule Descriptions for OWASP Top 10 Protection

Rule Types	Details
Buffer Overflow	Blocks Request sentence including a volume of data that exceeds the limit which a memory Buffer Overflow attack on the web server.
Cross Site Scripting (XSS)	Blocks malicious script code deployed from the client's side.
SQL Injection	Blocks requests attempting to inject SQL Query.
Directory Traversal	Blocks requests attempting to access directories or files using vulnerabilities of the web server.
Request Method Filtering	Blocks against unsafe HTTP Request Methods.
Request Header Filtering	Detects requests as an abnormal request (for instance sent by an automated attack tool) for requests that lack essential elements in the header or cause an error, unlike normal HTTP Request sentences sent from the web browser.
Stealth Commanding	Blocks requests attempting to execute a particular command within the web server through an HTTP Request.
File Upload	Blocks the upload of the file that can be opened from the web server.
XXE Injection	Blocks attacks that cause the browsing of local files using the External entity of XML documents.