

Generate Snort 3 Recommendations In Secure Firewall Management Center

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Snort 3 Rule Recommendations

Rule recommendations automatically tune your intrusion policy with rules that are specific to the host environment. You can enable additional rules or tune the current rule set by disabling rules for the vulnerabilities that are not present in your network. For more information, see Overview of Secure Firewall Recommended Rules.

How does it work?

The management center builds a database of hosts on your network with details such as the IP address, hostname, operating system, services, users, and client applications through passive discovery. Based on this information, the system maps vulnerabilities to each discovered host. The Recommendations feature uses this host database to determine the rules that apply to your environment.

In Snort 3, there are four security levels, each corresponding to a specific Talos policy. They are:

- Level 1–Connectivity Over Security
- Level 2-Balanced Security and Connectivity
- Level 3–Security Over Connectivity
- Level 4-Maximum Detection

Check the Accept Recommendations to Disable Rules check box to disable rules for vulnerabilities not found on the hosts in your network. Check this option only if you have to trim your rule set because of a high number of alerts, or to improve inspection performance.

Benefits

- By configuring recommendations, you can tailor your intrusion policy to detect specific types of threats more effectively using rules that are specific to the host environment.
- Recommendations contribute to a more efficient and effective incident response process by reducing false positives and false negatives.

Sample Business Scenario

A large corporate network uses Snort 3 as its primary intrusion detection and prevention system. In a rapidly evolving threat landscape, robust network security measures must be adopted. The security team wants to enhance their incident response capabilities. One of the ways to do that is to generate recommendations or rule sets based on the vulnerabilites detected in the host network. This helps to optimize their intrusion policies, thereby safeguarding the network more effectively.

Best Practices

• You must have quality accurate host data.

Because of the passive nature of Network Discovery, your threat defense devices must be positioned as close as possible to your protected hosts. This allows the threat defense devices to watch network traffic to and from these hosts, giving you an accurate data about applications, services, and vulnerabilities present on your network.

- Devices should have visibility to East-West as well as North-South traffic flows to build an accurate host profile.
- You can create a scheduled task to update recommendations automatically.

Prerequisites

- Ensure that hosts are present in the system to generate recommendations.
- Protected networks configured for recommendations should map to the hosts present in the system.

Generate Snort 3 Recommendations

- **Step 1** Choose **Policies** > **Intrusion**.
- **Step 2** Click the **Snort 3 Version** button of the corresponding intrusion policy.
- **Step 3** Click the **Recommendations** (Not in Use) layer to configure the rule recommendations.

Firewall Management Center Policies / Access Control / Intrusion / Intrus	ion Policies Overview	Analysis Policies	Devices
< Policies / Intrusion /Intrusion_Policy_1	~		
Mode Detection Base Policy Cor	nectivity Over Security	Di	sabled 4878
Base Policy \rightarrow Group Overrides	→ Recommenda	tions Not in use	\rightarrow

In the Cisco Recommended Rules window, you can set the security level.

Secure Firewall Rule Recommendations	0 ×
Security Level (Click to select)	
Accept Recommendation to Disable Rules 1	
Increased Security- Enables additional rules that match potential vuli discovered hosts based on the 'Balanced Security and Connectivity' ru Protected Networks ()	nerabilities on uleset.
•	Add +
Cancel Generate Generate	and Apply

- **Step 4** Click to select the security level.
- **Step 5** (Optional) Check the **Accept Recommendation to Disable Rules** check box to disable the rules written for vulnerabilities not found on the hosts in your network.

Use this option, only if you have to trim your rule set because of a high number of alerts or to improve inspection performance.

Step 6 From the **Protected Networks** drop-down list, choose the network objects that must be examined by the recommendations. By default, any IPv4 or IPv6 networks are selected if you do not make a selection.

Click Add + to create a new network object of type Host or Network and click Save.

- **Step 7** Generate and apply recommendations:
 - Generate—Generates the recommendations for an intrusion policy. This action lists the rules under **Recommended Rules** (Not in use).
 - Generate and Apply—Generates and applies the recommendations for an intrusion policy. This action lists the rules under Recommended Rules (Not in use).

Recommendations are generated successfully. A new recommendation tab appears with all the recommended rules and their corresponding recommended actions. Rule action preset filters are also available for this tab, in addition to new recommendations.

Step 8 Verify the recommendations and then apply them accordingly:

- Accept—Applies the previously generated recommendations for an intrusion policy.
- Refresh—Regenerates and updates the rule recommendations for an intrusion policy.
- Edit—Opens the Recommendations dialog box where you can provide the recommendation input values and then generate the recommendations.
- **Discard**—Either reverts or removes the applied recommended rules from the policy; also removes the **Recommendations** tab.

\rightarrow	Recommendations	\rightarrow	Rule Overrides	\rightarrow	Summary				
									Back To Top
Recoi Firepow	mmended Rules	state sett	ings for 2 networks	Generat	ed on 2023-09-2	 Accept 6 12:25:22 ED1 	C' Refresh	🖋 Edit	Discard

Under All Rules, the Recommended Rules section displays the recommended rules.

\rightarrow		Recommend	ations	\rightarrow	Rule Overrides	\rightarrow	Summary						
											B	ack T	о Тор
Re	con	nmended I	Rules					C	C Refresh	💉 Edit) Not	Use
Fire	powe	er recommends	s 12 rules s	tate sett	ings for 2 networks ()	Generate	ed on 2023-09-26	12:26:08 ED	т				
Ru	le Ac	tion	~	T Se	earch by CVE, SID, Refe	rence Inf	o, or Rule Message	9					
12 r	ules			Preset	Filters: 0 Alert rules 12	Block rule	es 0 Disabled rule	s 0 Overrid	Iden rules	New recon	nmendat	tions	
		GID:SID	Info			Rule A	ction 🕕		Assigned	Groups			
>		1:56421 Ґ	SERVER-V	VEBAPP	Cisco Security Manager	e Ble	ock 🗸	\Leftrightarrow	Server/W	eb Applicat	ions	ا	
>		1:56422 Ґ	SERVER-\	VEBAPP	Cisco Security Manager	9 Blo	ock 🗸	\Leftrightarrow	Server/W	eb Applicat	ions	و	
>		1:56420 Ґ	SERVER-V	VEBAPP	Cisco Security Manager	e Ble	ock 🗸	\Leftrightarrow	Server/W	eb Applicat	ions	Fa ,	

Step 9

- a. Choose System >Tools > Scheduling.
- b. Click Add Task.
- c. Choose Cisco Recommended Rules from the Job Type drop-down list.

To effectively use recommendations, they must be updated periodically. Follow these steps:

d. Update the required fields, as needed.

New Task									
Job Type	Cisco Recommend	ed Rules 🔹							
	(Cisco Recommende	d Rules must first b	e configure	d in the selected po	olicies)				
Schedule task to run	⊖ Once	ing							
Start On	September	•	26		•	2023		•	America/New York
Repeat Every	1		×	O Hours	🔿 Day	s	Weeks	0	Months
Run At	10:00	•	Pm		•				
Repeat On	🖌 Sunday 🗌 Mond	lay 🗌 Tuesday 🗌	Wednes	day 🗌 Thursday	Friday	Saturday			
Job Name	Update recommen	dations							
		_Intrusion_Po	licy_1						
Policies	All Policies								
	_								

e. Click Save.

What to do next

Deploy configuration changes. See Deploy Configuration Changes.

Deploy Configuration Changes

After you change configurations, deploy them to the affected devices.

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Note This topic covers the basic steps involved in deploying configuration changes. We *strongly* recommend that you refer the *Deploy Configuration Changes* topic in the latest version of the *Cisco Secure Firewall Management Center Configuration Guide* to understand the prerequisites and implications of deploying the changes before proceeding with the steps.



Caution When you deploy, resource demands may result in a small number of packets dropping without inspection. Additionally, deploying some configurations restarts the Snort process, which interrupts traffic inspection. Whether traffic drops during this interruption or passes without further inspection depends on how the target device handles traffic.

Step 1 On the Secure Firewall Management Center menu bar, click **Deploy** and choose **Deployment**.

The GUI page lists the devices with out-of-date configurations having Pendingstatus.

• The **Modified By** column lists the users who have modified the policies or objects. Expand the device listing to view the users who have modified the policies for each policy listing.

Note Usernames are not provided for deleted policies and objects.

• The **Inspect Interruption** column indicates if traffic inspection interruption might occur in the device during deployment.

If this column is blank for a device, it indicates that there will be no traffic inspection interruptions on that device during deployment.

- The Last Modified Time column specifies the last time you made configuration changes.
- The Preview column allows you to preview the changes for the next deployment.
- The Status column provides the status for each deployment.
- **Step 2** Identify and choose the devices on which you want to deploy configuration changes.
 - Search—Search for the device name, type, domain, group, or status in the search box.
 - Expand—Click Expand Arrow (?) to view device-specific configuration changes to be deployed.

When you check a check box adjacent to a device, all the changes made to the device and listed under the device,

are pushed for deployment. However, you can use **Policy selection** ($\stackrel{\leftarrow}{\leftarrow}$) to select individual policies or specific configurations to deploy while withholding the remaining changes without deploying them.

• When the status in the **Inspect Interruption** column indicates (**Yes**) that deploying will interrupt inspection, and perhaps traffic, on a threat defense device, the expanded list indicates the specific

configurations causing the interruption with the **Inspect Interruption** (²).

• When there are changes to interface groups, security zones, or objects, the impacted devices are shown as out-of-date on the management center. To ensure that these changes take effect, the policies with these interface groups, security zones, or objects, also need to be deployed along with these changes. The impacted policies are shown as out-of-date on the **Preview**page on the management center.

Step 3 Click Deploy.

Step 4 If the system identifies errors or warnings in the changes to be deployed, it displays them in the **Validation Messages** window. To view complete details, click the arrow icon before the warnings or errors.

You have the following choices:

- Deploy—Continue deploying without resolving warning conditions. You cannot proceed if the system identifies errors.
- Close—Exit without deploying. Resolve the error and warning conditions, and attempt to deploy the configuration again.

What to do next

During deployment, if there is a deployment failure, there is a possibility that the failure may impact traffic. However, it depends on certain conditions. If there are specific configuration changes in the deployment, the deployment failure may lead to traffic being interrupted. For details, see the Deploy Configuration Changes topic in the latest version of the *Cisco Secure Firewall Management Center Configuration Guide*. **Deploy Configuration Changes**