

Integrate FortiWeb

EventTracker v8.x and above

Abstract

This guide provides instructions to configure a **FortiWeb** to send its syslog to EventTracker Enterprise.

Scope

The configurations detailed in this guide are consistent with EventTracker Enterprise version v8.x or above and **FortiWeb version 5.0- 6.0**.

Audience

Administrators who are assigned the task to monitor FortiWeb events using EventTracker.

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Overview

FortiWeb's Al-enhanced and multi-layered approach protects your web apps from the OWASP Top 10 and more. Its Web Application Security Service from FortiGuard Labs ensures that you're protected from the latest application vulnerabilities, bots, and suspicious URLs, and with dual machine learning detection, engines your applications and make sure they are safe from sophisticated threats such as SQL injection, cross-site scripting, buffer overflows, cookie poisoning, malicious sources, and DoS attacks.

EventTracker helps to monitor events from **FortiWeb**. It's knowledge object and flex reports will help you to analyse web attacks such as **Sql injection**, **Cross site scripting**, **Directory traversal** etc.

Prerequisites

- EventTracker v8.x or above should be installed.
- FortiWeb version 5.0-6.0 should be configured.
- Create a rule in EventTracker Manager Workstation firewall for inbound and outbound to allow UDP port 514.

Integration of FortiWeb with EventTracker Manager

- To store log messages remotely on a syslog server, you first need to create the syslog connection settings.
- Syslog settings can be referenced by a trigger, which in turn can be selected as the trigger action in a
 protection profile and used to send log messages to one or more syslog servers whenever a policy
 violation occurs.
- You can use each syslog policy to configure connections to up to 3 syslog servers.

To configure Syslog policies,

- Before you can log to syslog, you must enable it for the log type that you want to use as a trigger.
 - 1. Go to Log&Report > Log Policy > Syslog Policy.
 - 2. Click Create New.

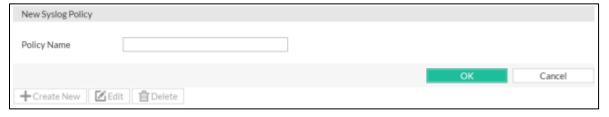


Figure 1



- 3. If the policy is new, in **Policy Name**, type the name of the policy as it will be referenced in the configuration.
- 4. Click Create New.

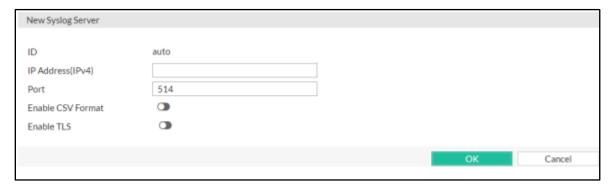


Figure 2

- 5. In IP Address, enter the EventTracker Manager IP Address.
- 6. In **Port**, enter **514 (UDP)**.
- 7. Click OK.
- You can enable or disable logging for each log type, as well as configure system alert thresholds, and which policy violations should cause the appliance to retain the TCP/IP packet payload (HTTP headers and a portion of the HTTP body, if any) that can be viewed with its corresponding log message.

To enable logging,

1. Go to Log&Report > Log Config > Other Log Settings

Configure these settings:



	•	
Enable Attack Log	• • • • • • • • • • • • • • • • • • •	
Enable Traffic Log	3	
Enable Traffic Packet Log	•	
Enable Event Log	0	
Ignore SSL Errors		
Reta	in Packet Payload For	
Parameter Rule Violation	•	
Hidden Fields Violation		
HTTP Protocol Constraints	•	
Signature Detection		
Custom Signature Detection		
Anti Virus Detection	•	
Custom Access Violation	•	
IIIegal XML Format		
IP Reputation Violation		
Illegal File Type		
Cookie Security	•	
Padding Oracle Attack	3	
FortiSandbox Detection	•	
Illegal JSON Format	3	
Illegal File Size	3	
Trojan Detection	•	
CSRF Detection		
User Tracking Detection	•	
Account Lockout	•	
Credential Stuffing Detection	•	
Sys	tem Alert Thresholds	
CPU Utilization	60	(60~99)
Memory Utilization	60	(60~99)
Log Disk Utilization	60	(60~99)
Trigger Policy	[Please Select]	-

Figure 3

2. Click Apply.



To configure log settings,

1. Go to Log&Report > Log Config > Global Log Settings

Configure these settings:

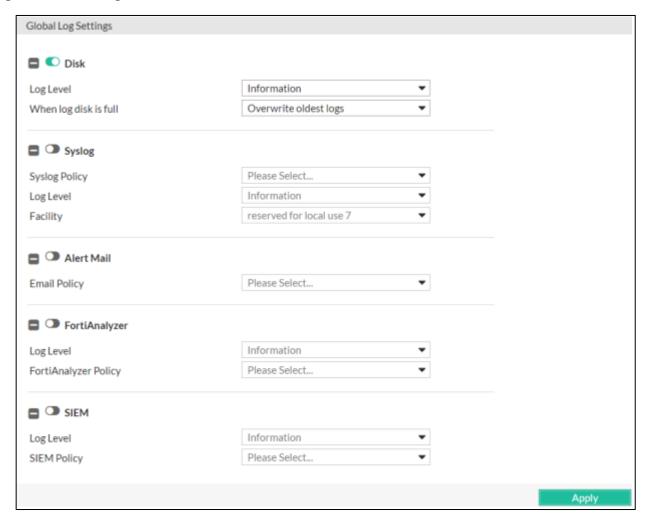


Figure 4

2. Click Apply.

EventTracker Knowledge Pack

Once logs are received by EventTracker manager, knowledge packs can be configured into EventTracker.

The following Knowledge Packs are available in EventTracker Enterprise to support FortiWeb Business.



Category

- **FortiWeb- Admin activities-** This category provides information related to all the admin activities that are done.
- FortiWeb- Admin login and logout- This category provides information related to all the admin login and logout activities.
- FortiWeb- Admin login failures- This category provides information related to all the admin login failures.
- **FortiWeb- System activities-** This category provides information related to all the system activities that are done.
- **FortiWeb- Attack detection-** This category provides information related to all the attacks and threats that are detected by FortiWeb.
- **FortiWeb- Traffic details-** This category provides information related to all the web traffic flow that is observed by the FortiWeb.

Alerts

- FortiWeb: Admin login failures: This alert is generated when any is admin login failure has happened.
- FortiWeb: Attack detection: This alert is generated when any attack or threat is detected.

Knowledge Object

- FortiWeb Admin activities This knowledge object will help us to analyze all the logs related to admin activities.
- FortiWeb Admin logons This knowledge object will help us to analyze all the logs related to admin logons.
- **FortiWeb Attack detection** This knowledge object will help us to analyze all the logs related to attack and threat detection.
- FortiWeb System activities This knowledge object will help us to analyze all the logs related to system activities.
- FortiWeb Traffic details This knowledge object will help us to analyze all the logs related to web traffic flow.

Flex Reports

• FortiWeb- Attack detection- This report gives the information about all the attacks and threats that are detected by FortiWeb.



LogTime	Computer		Source IP Address		Destination IP Address	Destination Port	Priority	Attack Type	Action	Message	Signature Subclass	Policy Name	Status	Http Method	URL Accessed	Service Name	User Agent	Source Country
08/09/2018 05:34:17 PM	Contoso-11	Unknown	10.0.8.103	8142	172.20.120.4 7	443	alert	Informati on Disclosur e	Alert_Deny	HTTP Header triggered signature ID 080200001 of Signatures policy et2-20181025012904	HTTP Header Leakage	Threat IDR	Disabled	Post		.2	Mozilla/4.0(co mpatible; MSIE 8.0; Windows NT 5.1; Trident/4.0; .NET4.0C;	
08/09/2018 05:34:17 PM	Contoso-11	Unknown	172.20.120.4 7	53817	10.20.8.22	443	alert	SQL Injection (Syntax Based Detection)	Alert	Parameter(searchValue_0) triggered signature ID 120030003 of Signatures policy V9DemoLrned-20181026161142		Threat IDR	Disabled	Post	/EventTracker/ LogSearch/Ad vancedSearch .aspx	.2	Mozilla/5.0 (Windows NT 6.1; WOW64; rv:24.0) Gecko/201001 01 Firefox/24.0	
08/09/2018 05:34:17 PM	Contoso-11		113.193.182. 226	62049	1.244.106.25 3	443	alert	Directory Traversal	Alert_Deny	Parameter(hdnJsonFile) triggered signature ID 050180003 of Signatures policy et2- 20181025012904	Directory Traversal	Threat IDR	Disabled	Post	/EventTracker/ LogSearch/Ad vancedSearch .aspx	.2	Mozilla/5.0 (Windows NT 6.1; WOW64; rv:24.0) Gecko/201001 01 Firefox/24.0	

Figure 5

Logs Considered

Nov 13 03:03:54 PM	Oct 29 08:35:42 1.244.68.100 date=2018-10-29 time=08:35:42 log_id=20000004 msg_id=000000129486 device_id=FVVM020000175209 vd="root" timezone="(GMT-6:00)Central Time(US&Canada)" type=attack pri=alert main
event_category	+- 0
event_computer	+- Fortiweb
event_datetime	+- 11/13/2018 3:03:54 PM
event_datetime_utc	÷- 1542101634
event_description	Oct 29 08:35:42 1.244.68.100 date=2018-10-29 time=08:35:42 log_id=20000004 msg_id=0000000129486 device_id=FVVM020000175209 vd="root" timezone="(GMT-6:00)Central Time(US&Canada)" type=attack pri=alert mai
	n_type="Start Pages" sub_type="N/A" trigger_policy="" severity_level=Low proto=tcp service=https/tls1.2 action=Alert policy="ETPVMDFHMDR00" src=184.58.134.126 src_port=22381 dst=1.244.106.180 dst_port=443 http
	_method=get http_url="/EventTracker/Account/Logout.aspx" http_host="mdr6.eventtracker.com" http_agent="Mozilla/5.0 (Macintosh; Intel Mac OS X 10_14_0) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/70.0.353
	8.77 Safari/537.36" http_session_id=364F64D5408FBEBW4E6DHYTBTHXN388F msg="Start Page Violation" signature_subclass="N/A" signature_id="N/A" srccountry="United States" content_switch_name="none" server_p
	ool_name="ETPVMDFHMDR06-10.255.0.33/32" false_positive_mitigation="none" user_name="Unknown" monitor_status="Disabled" http_refer="https://mdr6.eventtracker.com/EventTracker/Admin/Role/Roles.aspx" htt
	p,ver
event_id	+- 30
event_log_type	+- Application
event_source	+- syslog
event_type	+- Information
event_user_domain	+- N/A
event_user_name	+- N/A

Figure 6

• FortiWeb- Admin login and logout— This report gives the information about all the admin login and logout activities.

LogTime	Computer	User Name	Action	Status	Message	Policy Name
08/09/2018 05:34:17 PM	Contoso-11	admin	login	success	User admin logged in successfully from telnet (10.200.0.1)	admincheck
08/09/2018 05:34:17 PM	Contoso-11	admin	logout	success	User admin logs out from GUI(172.20.120.47)	admincheck

Figure 7



Logs Considered

- Nov 13 04:02:05 PM	date=2014-04-10 time=13:31:37 log_id=10000016 msg_id=000044294845 device_id=FV1KD3A13800002 vd="root" timezone="(GMT+8:00)Beijing, ChongQing, HongKong, Urumgi" type=event subtype="system" pri=notice
event_category	+•0
event_computer	+- Fortiveb
event_datetime	+ - 11/13/2018 4:02:05 PM
event_datetime_utc	+- 1542105125
event_description	date=2014-04-10 time=13:31:37 log_id=10000016 msg_id=000044294845 device_id=FV1KD3A13800002 vd="root" timezone="(GMT+8:00)Beijing_ChongQing_HongKong_Urumgi" type=event subtype="system" pri=notic
	e trigger_policy="check1" user=admin ui=telnet action=login status=success msg="User admin logged in successfully from telnet (10.200.0.1)"
event_id	+- 30
event_log_type	+- Application
event_source	+- syslog
event_type	+- Information
event_user_domain	+- N/A
event_user_name	+- N/A

Figure 8

• FortiWeb- Admin login failures - This report gives information about all the admin login failures.

LogTime	Computer	User Name	Action	Status	Message	Policy Name
08/09/2018 05:34:17 PM	Contoso-11	admin	login	failed	User a login failed from GUI	admincheck

Figure 9

Logs Considered



Figure 10

• **FortiWeb- System activities** -This report gives information about all the system activities that are performed.



LogTime	Computer	User Name	Priority	Action	Status	Message	Policy Name
08/09/2018 05:34:17 PM	Contoso-11	admin	critical	reboot	failed	User admin rebooted the device from GUI (172.20.120.47)	systemcheck
08/09/2018 05:34:17 PM	Contoso-11	admin	critical	shutdown	success	User admin shut down the device from GUI(172.22.6.241)	systemcheck
08/09/2018 05:34:17 PM	Contoso-11	admin	notice	del	success	User admin has deleted disk log elog(2014-04-09-23:34:02).log from GUI(172.22.6.240)	systemcheck
08/09/2018 05:34:17 PM	Contoso-11	admin	critical	downgrade	success	User admin downgraded the image from GUI (10.200.0.1)	systemcheck
08/09/2018 05:34:17 PM	Contoso-11	admin	critical	update	success	User admin manually update virus signature from GUI (10.200.10.80) success	systemcheck

Figure 11

Logs Considered

event_category	+- 0
event_computer	+- Fortiweb
event_datetime	+- 11/13/2018 402-05 PM
event_datetime_utc	+- 1542105125
event_description	date=2014-04-10 time=15:22:38 log_id=10000020 msg_id=000000548987 device_id=FVVM040000018474 vd="root" timezone="(GMT+8:00)Beijing_ChongQing_HongKong_Urumgi" type=event subtype="system" pri=criti
	cal trigger_policy="check1" user=admin ui=GUI action=downgrade status=success msg="User admin downgraded the image from GUI (10.200.0.1)"
event_id	+- 30
event_log_type	+ - Application
event_source	+- syslog
event_type	+- Information
event_user_domain	+- N/A
event_user_name	+- N/A

Figure 12

• FortiWeb- Traffic details-This report gives information about all the web traffic flow that is observed by FortiWeb.

LogTime	Computer	Source IP Address		Destination IP Address	Destination Port	Priority	Status	Message	Reason	Policy Name	Bytes In	Bytes Out	Http Method	URL Accessed	Service Name			Source Country
08/09/2018 05:34:17 PM	Contoso-11	10.0.8.103	8142	172.20.120.4 7	80	notice	success	HTTP GET request from 10.0.8.103:8142 to 10.20.8.22:80	none	Auto-policy	7575	2338		http://www.fo rtinet.com/prod ucts/web- application- firewall/fortiw eb.html		Mozilla/4.0(co mpatible; MSIE 8.0; Windows NT 5.1; Trident/4.0; .NET4.0C;	200	US
08/09/2018 05:34:17 PM	Contoso-11	172.20.120.4 7	53817	10.20.8.22	80	notice	success	HTTPS GET request from 172.20.120.47:53817 to 172.20.120.47:80	none	Auto-policy	5756	3836	GET	/index		Mozilla/5.0 (Windows NT 6.1; WOW64; rv:24.0) Gecko/201001 01 Firefox/24.0	200	US

Figure 13



Logs Considered:

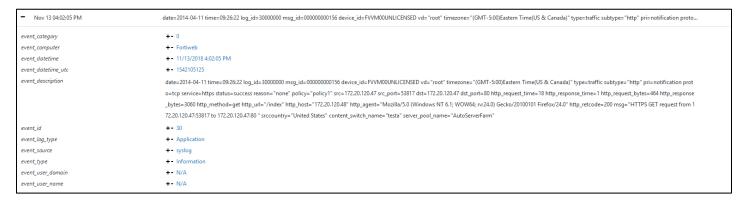


Figure 14

Import FortiWeb knowledge pack into EventTracker

NOTE: Import knowledge pack items in the following sequence:

- Categories
- Alerts
- Token Templates
- Knowledge Objects
- Flex Reports
- Dashboards
- 1. Launch EventTracker Control Panel.
- 2. Double click Export Import Utility.



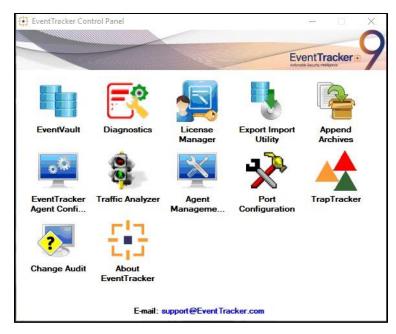


Figure 15

3. Click the **Import** tab.

Category

1. Click **Category** option, and then click the browse button.

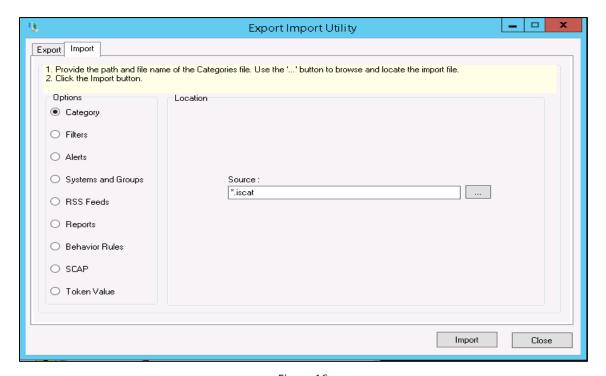


Figure 16



- 2. Locate Category_FortiWeb.iscat file, and then click the Open button.
- 3. To import categories, click the **Import** button.

EventTracker displays success message.

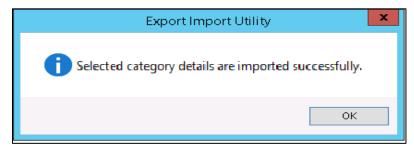


Figure 17

4. Click **OK**, and then click the **Close** button.

Alerts

1. Click **Alert** option, and then click the **browse** button.

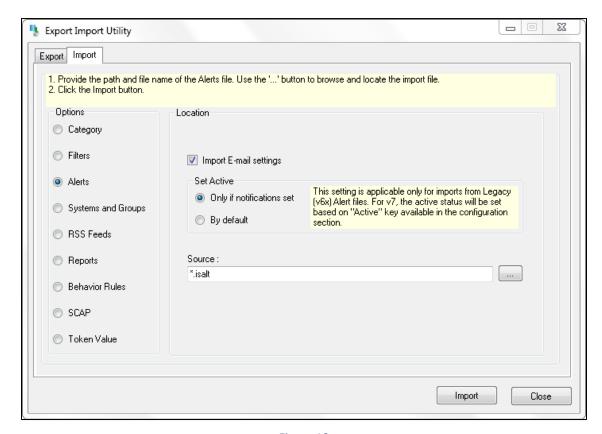


Figure 18



- 2. Locate Alerts_FortiWeb.isalt file, and then click the Open button.
- 3. To import alerts, click the **Import** button. EventTracker displays success message.



Figure 19

4. Click the **OK** button, and then click the **Close** button.

Token Templates

1. Click Parsing Rules under Admin option in the EventTracker manager page.

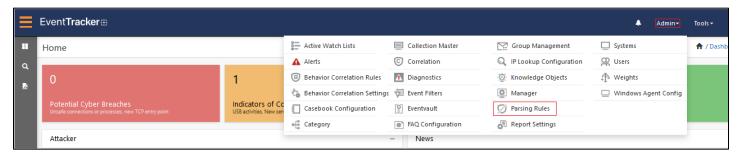


Figure 20

- 2. Move to **Template** and click on import configuration I icon on the top right corner.
- 3. In the popup window browse the file named Template FortiWeb.ettd.



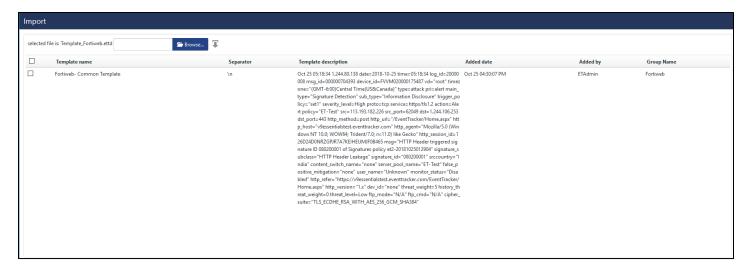


Figure 21

4. Now select all the check box and then click on \P Import option.

Knowledge Object

1. Click **Knowledge objects** under Admin option in the EventTracker manager page.

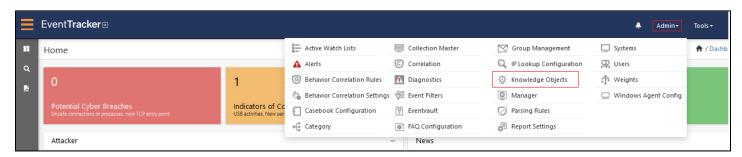


Figure 22

2. Click on **Import** button as highlighted in the below image:



Figure 23

3. Click on Browse.





Figure 24

- 4. Locate the file named KO_FortiWeb.etko.
- 5. Now select all the check box and then click on \$\Bar{\Bar}\$ 'Import' option.

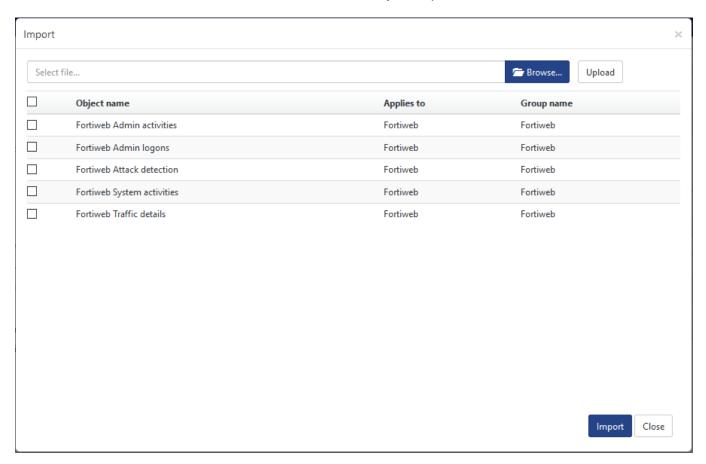


Figure 25



6. Knowledge objects are now imported successfully.

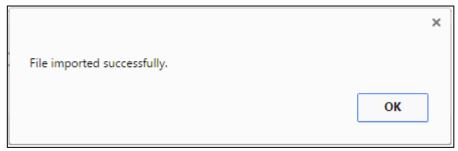


Figure 26

Flex Report

On EventTracker Control Panel,

1. Click **Reports** option and select **New (*. etcrx)** option.

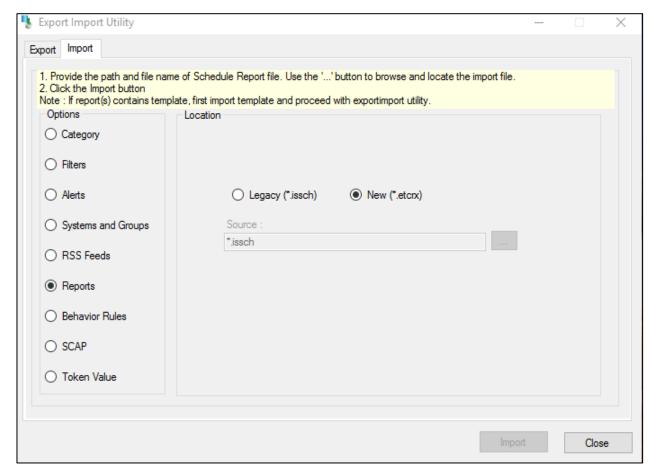


Figure 27

2. Locate the file named **Reports_ FortiWeb.etcrx** and select all the check box.



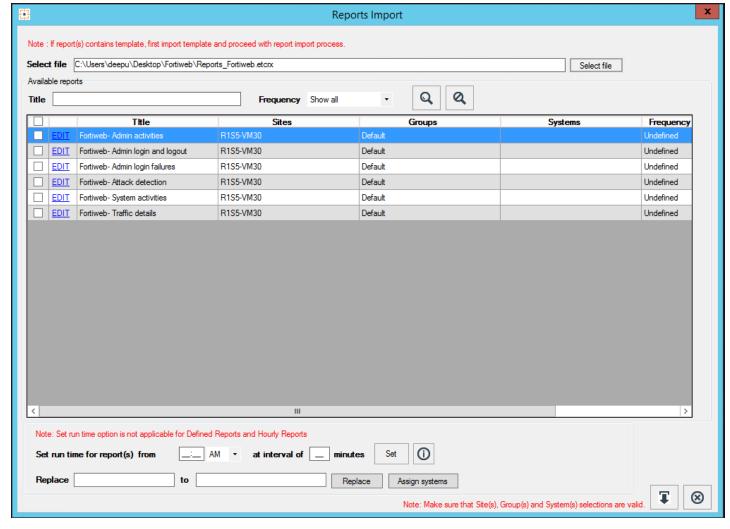


Figure 28

3. Click the Import button to import the reports. EventTracker displays success message.



Figure 29



Dashboard

NOTE- Below steps given are specific to EventTracker 9 and later.

• Open EventTracker Enterprise in browser and logon.

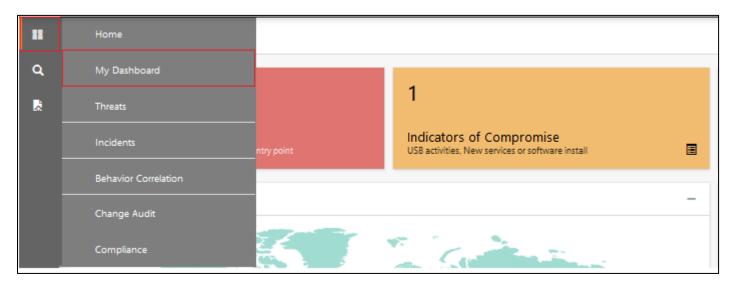


Figure 30

- Navigate to My Dashboard option as shown above.
- Click on the **Import** button as show below:

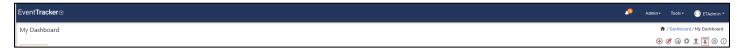


Figure 31

 Import dashboard file Dashboard_FortiWeb.etwd and select the dashboards that you require and click on Import as shown below:



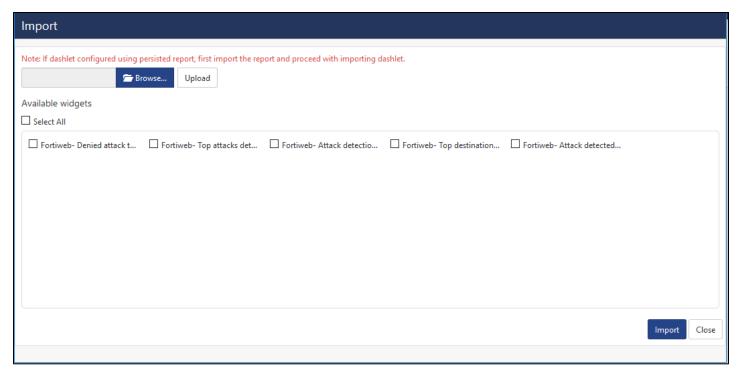


Figure 32

Import is now completed successfully.

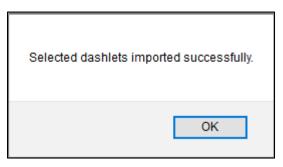


Figure 33

Verify FortiWeb knowledge pack in EventTracker

Category

- 1. Logon to EventTracker Enterprise.
- 2. Click **Admin** dropdown, and then click **Categories**.





Figure 34

3. In **Category Tree** to view imported categories, scroll down and expand FortiWeb group folder to view the imported categories.



Figure 35

Alerts

- 1. Logon to EventTracker Enterprise.
- 2. Click the Admin menu, and then click Alerts.

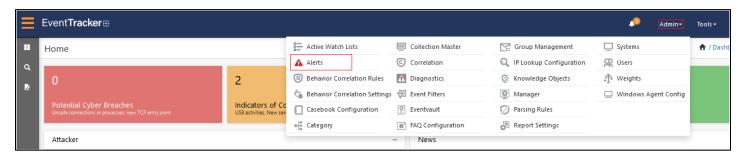


Figure 36

3. In the **Search** box, type '**Fortiweb**, and then click the **Go** button. Alert Management page will display all the imported alerts.





Figure 37

4. To activate the imported alerts, select the respective checkbox in the **Active** column.

EventTracker displays message box.



Figure 38

5. Click **OK**, and then click the **Activate Now** button.

NOTE: Please specify appropriate **systems** in **alert configuration** for better performance.

Token Template

1. In the EventTracker Enterprise web interface, click the Admin dropdown, and then click Parsing rules.

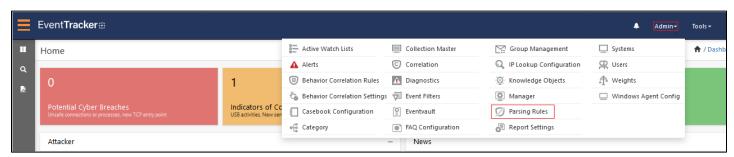


Figure 39

2. On **Template** tab, click on the **FortiWeb** group folder to view the imported Templates.



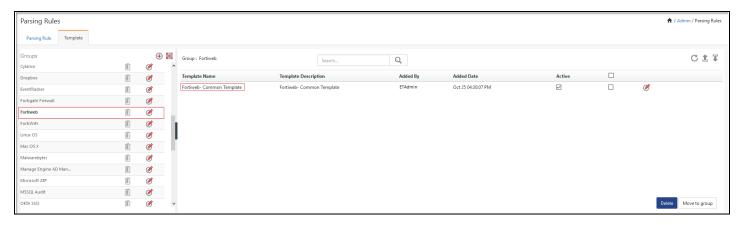


Figure 40

Knowledge Object

1. In the **EventTracker Enterprise** web interface, click the **Admin** dropdown, and then click **Knowledge Objects.**



Figure 41

2. In the Knowledge Object tree, expand FortiWeb group folder to view the imported Knowledge objects.

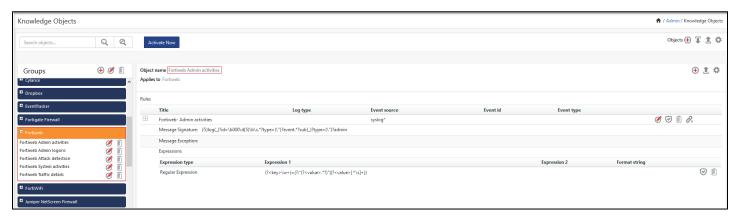


Figure 42



Flex Report

 In the EventTracker Enterprise web interface, click the Reports menu, and then select Report Configuration.

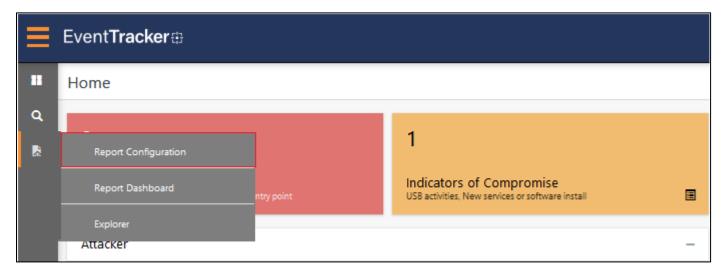


Figure 43

- 2. In **Reports Configuration** pane, select **Defined** option.
- 3. Click on the FortiWeb group folder to view the imported FortiWeb reports.

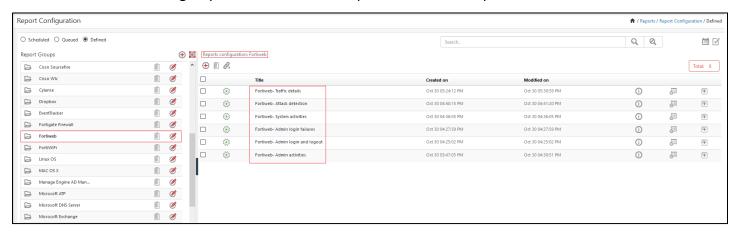


Figure 44



Dashboard

WIDGET TITLE: FortiWeb- Denied attack trend

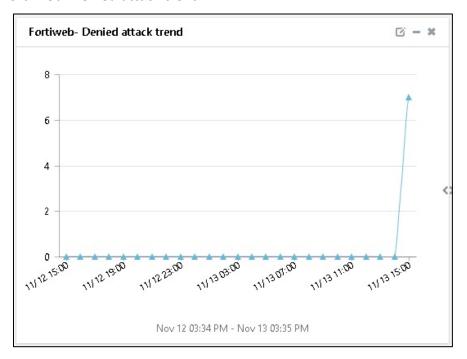


Figure 45

WIDGET TITLE: FortiWeb- Attack detected by Source IP Address

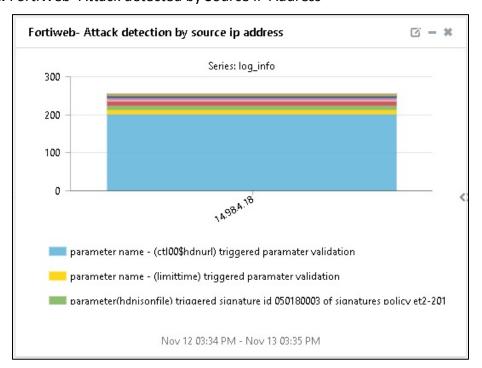


Figure 46



WIDGET TITLE: FortiWeb- Top attacks detected

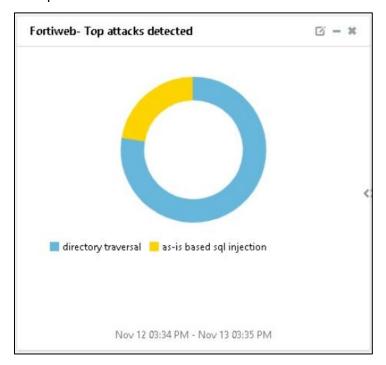


Figure 47

WIDGET TITLE: FortiWeb- Attack detection by destination IP address

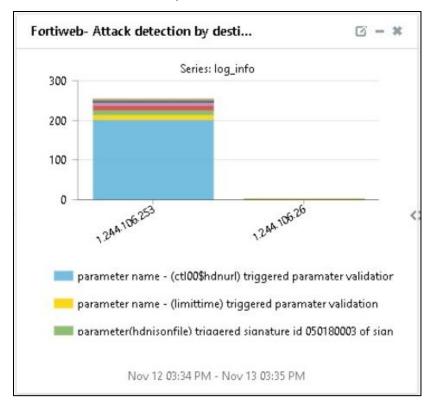


Figure 48



• WIDGET TITLE: FortiWeb- Attack detected by geolocation



Figure 49

