

# Firewall Analyzer v12

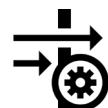
Política de firewall, configuración y software de análisis de logs.



# – ¿Qué es?

Firewall Analyzer es un software de análisis de políticas, monitoreo de configuraciones y generación de informes de log para que los administradores de seguridad controlen los cambios de políticas, optimicen el rendimiento del firewall y mantengan los estándares de cumplimiento.

Detecte y prevenga de forma proactiva las amenazas a la seguridad de la red, aproveche al máximo Firewall Analyzer con las siguientes funciones.



Gestión de reglas

Gestión de cambios



Informes de cumplimiento

Auditorías de seguridad



Gestión de logs

Gestión de alarmas



# ¡Por estas razones lo necesita!

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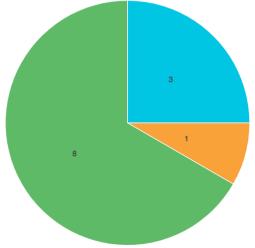
- Simplifique las políticas de firewall, optimice las reglas y mejore el rendimiento del firewall.
- Mantenga un registro de todos los cambios de configuración al automatizar el control de cambios.
- Adhiérase a los estándares de cumplimiento e identifique las brechas de seguridad con los informes de cumplimiento out-of-the-box
- Identifique y prevenga las amenazas a la seguridad de la red al monitorear los logs de seguridad y el uso de Internet de los empleados.
- Recopile fácilmente los incidentes de seguridad de los logs sin procesar y realice análisis forenses para detectar amenazas.
- Reciba notificaciones sobre incidentes anómalos relacionados con la seguridad y el ancho de banda directamente en su correo o teléfono.

Rule Management Standard Change Management Security Audit

Rule Management

Policy Overview Policy Optimization Rule Cleanup Rule Reorder

Note: Click [here](#) to know the anomaly classification details.



Category	Count
Redundancy	3
Generalization	1
Correlation	0
Shadow	8
Grouping	0

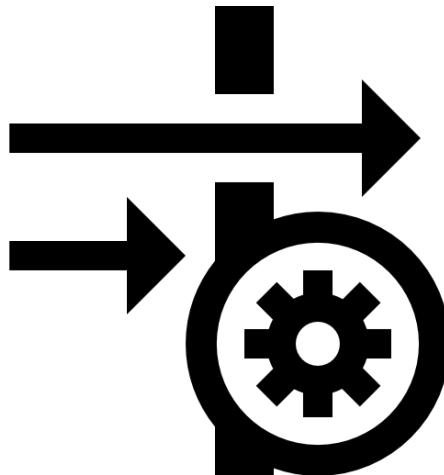
Policy Name	Rule	Source	Destination	Service	Action	Description
Outside_Access_In	3	Any	Any	Any	deny	Rule 3 is generalization of rule 2

All Cisco

# Gestión de reglas

# La importancia de la gestión de reglas

El rendimiento de cualquier firewall depende en gran parte de las reglas y políticas. Si las reglas no se gestionan correctamente, su red podría quedar vulnerable ante los ataques.



- Obtenga visibilidad completa sobre todas las reglas escritas en su firewall.
- Mejore el rendimiento del firewall identificando y eliminando las anomalías de las reglas.
- Optimice el rendimiento de las reglas organizando las reglas de manera correcta.
- Determine si una nueva regla propuesta va a afectar negativamente al conjunto de reglas existente.
- Identifique las reglas no utilizadas y elimínelas regularmente.

# Resumen de la política

Rule Management   Standard   Change Management   Security Audit

## Rule Management

Policy Overview   Policy Optimization   Rule Cleanup   Rule Reorder   Rule Impact

Statistics   Select Policy

Total Rules   All Policy   Search   Choose columns

Policy Name	Rule Number/ID	Source	Destination	Source Interface	Destination Interface	Service	Applied On	Action
MANAGE_ENGINE	1	Any	ZOHO_EXT	Any	ZO_ZCOMM_SRV_LA_NZONE	Any ICMP_3		⋮
MANAGE_ENGINE	2	Any	ZOHO_EXT	Any	ZO_ZCOMM_SRV_LA_NZONE	FTP		⋮
MANAGE_ENGINE	3	Any	ZOHO_EXT	Any	ZO_ZCOMM_SRV_LA_NZONE	SUN_RPC_TCP		⋮
MANAGE_ENGINE	4	Any	ZOHO_EXT	Any	ZO_ZCOMM_SRV_LA_NZONE	SSH		⋮
MANAGE_ENGINE	5	Any	ZOHO_EXT	Any	ZO_ZCOMM_SRV_LA_NZONE	tcp3389		⋮
MANAGE_ENGINE	6	Any	ZOHO_EXT	Any	ZO_ZCOMM_SRV_LA_NZONE	Any ICMP_8		⋮
MANAGE_ENGINE	7	Any	ZOHO_EXT	Any	ZO_ZCOMM_SRV_LA_NZONE	IMAP		⋮

Total Rules

- Total Rules
- Allowed Rules
- Denied Rules
- Firewall Inbound Rules
- Firewall Outbound Rules
- Inactive Rules
- Logging Disabled Rules

Select Policy

- All Policies
- MANAGE\_ENGINE
- ANALYZE\_TRAFFIC
- DEFAULT TUNNEL ACTION
- RULE
- REMOTE\_ACCESS
- ZOHO Career portal block 80

Obtenga visibilidad de todas las reglas escritas en un firewall específico.

Obtenga detalles completos de las reglas enumeradas, incluido el número de regla, el origen, el destino, la interfaz y el tipo de servicio.

Filtre fácilmente las reglas usando varios criterios de filtro.

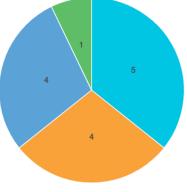
# Optimización de la política

Rule Management   Standard   Change Management   Security Audit

## Rule Management

Policy Overview   Policy Optimization   Rule Cleanup   Rule Reorder   Rule Impact

Note: Click here to know the anomaly classification details.



Category	Count
Redundancy	5
Generalization	4
Correlation	4
Shadow	1
Grouping	0

Identifique las anomalías que afectan negativamente el rendimiento del firewall.

Obtenga detalles completos de los diferentes tipos de anomalías. Identifique las reglas que tengan anomalías de seguimiento, redundancia, generalización, correlación y agrupación.

Filtre fácilmente las anomalías usando varios criterios de filtro.

Rule Management

Policy Overview   Policy Optimization   Rule Cleanup   Rule Reorder   Rule Impact

Rule	Source	Destination	Service	Action	
26	Segment_Office	Fortigate-WAN-IP	SSLVPN-10443	deny	Rule 26 is correlated to rule 4
26	Segment_Office	Fortigate-WAN-IP	SSLVPN-10443	deny	Rule 26 is correlated to rule 22
23	Segment_Office	Any	HTTP HTTPS ICMP_ANY	accept	Rule 23 is correlated to rule 26
15	Segment_Office	Any	UDP	deny	Rule 15 is correlated to rule 19
			POP3s SMTPs SNMP SSH NTP PPTP FTP IMAP imaps POP3 SMTP SSLVPN-10443 CVS http-8080 OP25B zchat 5905		
5	Segment_Office	Any		accept	Rule 5 is generalization of rule 26
15	Segment_Office	Any	UDP	deny	Rule 15 is generalization of rule 28

# Sugerencia de reordenamiento de reglas

Rule Management Standard Change Management Security Audit

Rule Management

Policy Overview Policy Optimization Rule Cleanup Rule Reorder Rule Impact

Last Hour Fortigate-3200D

Suggested Changes Complete Changes Generated at: 2019-01-30 05:31:51.0

Rule Name	Position (From - To)	Hit Count	Perf. Improvement
17	2 → 1	72	8
22	7 → 3	31	20
19	8 → 4	51	20
5	11 → 5	17	28
15	13 → 6	65	32
9	20 → 7	63	56
7	16 → 8	57	36
20	23 → 10	50	56
24	25 → 11	39	60
25	19 → 12	30	32
16	17 → 13	23	20
11	22 → 18	4	20

Page 1 of 1 50 View 1 - 12 of 12

Obtenga información sobre cómo organizar las reglas de firewall para maximizar la velocidad.

Estime cuál es la mejora del rendimiento para un cambio de orden sugerido correlacionando el número de aciertos de la regla con la complejidad y las anomalías de la regla.

Exporte el reordenamiento sugerido y analícelo sin conexión.

# Administración de reglas

Policy Overview Policy Optimization Rule Cleanup Rule Reorder Rule Impact Rule Administration

Device Name: cpGateway1

Network Objects Service Objects Security Rules Review & Push Commit Choose columns

*Security Rules fetched from the firewall are listed here. Any requested action (Edit or delete) will not be directly implemented in your device. It will first be listed under the "Local Objects" tab. Post which, you need to review the changes in the "Review & Push" tab and push the selected changes.*

Local Rules Firewall Rules

Rule Number/ID	Access Layer	Source	Destination	Service	VPN	Rule Action
Cleanup rule	Network	Any	Any	Any	Any	<input checked="" type="checkbox"/> <input type="checkbox"/>
allowAll	Network	Any	Any	Any	Any	<input checked="" type="checkbox"/> <input type="checkbox"/>
rule 1	Network	networkObj	Host	srvGroup tcpSrv udpSrv	Any	<input checked="" type="checkbox"/> <input type="checkbox"/>

View 1 - 3 of 3

Agregue, modifique y elimine reglas y objetos de red, analice las implicaciones de un cambio propuesto y envíe los cambios directamente al firewall.

Simplifique la gestión de políticas de firewall automatizando el proceso de administración de reglas de firewall.

Network Objects Service Objects Security Rules Review & Push Commit Commit Audit Push

All the requested actions (Add or edit or delete) on the objects or rules are listed here for review. Once reviewed, select the required objects or rules and push them directly into your firewall device by clicking on the "Push" button.

Mode: API CLI All

Name	Type	Status	Mode	Operations	Created Time	FWA User	Command	Action	Q
PingService	Service Objects	Pending	API	add	2019-12-16 17:39:21	admin	Show Commands	<input type="checkbox"/>	
addrGrp_10	Network Objects	Pending	API	add	2019-12-16 17:38:43	admin	Show Commands	<input checked="" type="checkbox"/> <input type="checkbox"/>	
APIUDPServicet1_9	Service Objects	Pending	API	edit	2019-12-16 17:34:26	admin	Show Commands	<input checked="" type="checkbox"/> <input type="checkbox"/>	
ipRange02	Network Objects	Pending	API	delete	2019-12-16 17:34:00	admin	Show Commands	<input type="checkbox"/>	
Facebook	Network Objects	Pending	API	edit	2019-12-16 17:33:07	admin	Show Commands	<input checked="" type="checkbox"/> <input type="checkbox"/>	
rule1899	Security Rules	Pending	API	delete	2019-12-16 17:39:52	admin	Show Commands	<input type="checkbox"/>	
rule_38	Security Rules	Pending	API	add	2019-12-16 17:36:39	admin	Show Commands	<input checked="" type="checkbox"/> <input type="checkbox"/>	

Network Objects Service Objects Security Rules Review & Push Commit Commit Audit Commit Cleanup

The commit status for object or rule changes that have been pushed are listed here. To validate changes that are yet to be committed, click on the commit button.

Yet to commit Committed

Name	Type	Operations	Changes	Time	FWA User	Mode	Action	Q
rule_42	Security Rules	add	<input type="checkbox"/> View Diff	2019-12-16 16:42:09	admin	CLI	<input checked="" type="checkbox"/> <input type="checkbox"/>	
rule29	Security Rules	edit	<input type="checkbox"/> View Diff	2019-12-16 16:39:10	admin	CLI	<input checked="" type="checkbox"/> <input type="checkbox"/>	
tcp_20	Service Objects	add	<input type="checkbox"/> View Diff	2019-12-16 16:38:51	admin	CLI	<input checked="" type="checkbox"/> <input type="checkbox"/>	
ipRange_04	Network Objects	add	<input type="checkbox"/> View Diff	2019-12-16 16:38:46	admin	CLI	<input checked="" type="checkbox"/> <input type="checkbox"/>	
rule_39	Security Rules	add	<input type="checkbox"/> View Diff	2019-12-16 12:26:36	admin	API	<input checked="" type="checkbox"/> <input type="checkbox"/>	
udp_25	Service Objects	delete	<input type="checkbox"/> View Diff	2019-12-16 12:16:54	admin	API	<input checked="" type="checkbox"/> <input type="checkbox"/>	
ipRange04	Network Objects	edit	<input type="checkbox"/> View Diff	2019-12-16 12:16:51	admin	API	<input checked="" type="checkbox"/> <input type="checkbox"/>	

# Análisis del impacto de las reglas

Rule Management   Standard   Change Management   Security Audit

Fortigate-3200D

Rule Management

Policy Overview   Policy Optimization   Rule Cleanup   Rule Reorder   Rule Impact

Impact Analysis

Policy Name	Reports	Created on	Export	Actions
101	<a href="#">View Reports</a>	16-04-2019 11:54:30		
100	<a href="#">View Reports</a>	16-04-2019 09:06:29		
88	<a href="#">View Reports</a>	15-04-2019 12:41:23		
77	<a href="#">View Reports</a>	15-04-2019 12:38:48		
444	<a href="#">View Reports</a>	15-04-2019 12:34:38		
124	<a href="#">View Reports</a>	15-04-2019 12:24:01		
r-60	<a href="#">View Reports</a>	12-04-2019 06:43:56		
Mgmt_Ext	<a href="#">View Reports</a>	30-01-2019 05:45:26		
...	...	...	...	...

## 1. Anomaly Details :

Check the proposed new rule against existing rule base for anomalies :

Rule	Source	Destination	Service/Application	Action	Anomaly Type	Description
101	any	223.242.246.134/255.255.255.0	RIP	accept	Redundancy	Rule 101 is redundant because of Rule 18
18	Any	Any	Any	sslvpn	Redundancy	Rule 101 is redundant because of Rule 18

## 2. Rule Reorder Suggestions :

On analysing the proposed new rule for rule complexity and anomaly, suggesting the following rule order.

Rule	Position (From - To)	Perf. Improvement
101	24 > 10	57%

Generate Rule Pre-Impact Report

Rule Name: 101

Position: Default (Custom: 24)

Source: Any (Select)

Destination: Any (Select)

Available Destination: Search, hyderabad, zdb, SV2-WinServer, Fortigate-WAN-IP, nalar.wanindia.com

Selected Destination: 223.242.246.134/255.255.255.0

Source Interface: wan1

Analice detalladamente el impacto de una nueva regla propuesta y determine si la nueva regla propuesta afectará negativamente al conjunto de reglas existente.

Utilice el análisis de impacto para identificar las amenazas, comprender los riesgos, determinar las anomalías y optimizar la nueva regla propuesta.

# Limpieza de reglas

Rule Management Standard Change Management Security Audit

## Rule Management

Last Hour Fortigate-3200D

Policy Overview	Policy Optimization	Rule Cleanup	Rule Reorder	Rule Impact
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Unused Rules Objects Interfaces

Rule Number/ID	Rule Description
9	<pre>set name mms set port 1863 set protocol 6  set srcintf "wan1" set distintf "internal" set srcaddr "all" set dstaddr "all" set action deny set status enable set schedule "always" set service "ANY" set logtraffic enable set session-ttl 0</pre>

Unused Rules Objects Interfaces

Object name	Object Details	Type
Juniper	<pre>test_1_snmp(IPMap:0.0.0--&gt;192.168.81.41and PortMap:1621--&gt;161) test_1_telnet(IPMap:172.0.0--&gt;192.168.81.41and PortMap:2301--&gt;23) test_2_snmp(IPMap:0.0.0--&gt;192.168.81.42and PortMap:1622--&gt;161) test_2_telnet(IPMap:10.0.0--&gt;192.168.81.42and PortMap:2302--&gt;23) test_3_snmp(IPMap:0.0.0--&gt;192.168.81.43and PortMap:1623--&gt;161) test_3_telnet(IPMap:0.0.0--&gt;192.168.81.43and PortMap:2303--&gt;23)</pre>	StaticNAT
Sonicwall	<pre>Sonicwall-1614(IPMap:0.0.0--&gt;192.168.81.44and PortMap:1614--&gt;161) Sonicwall-1615(IPMap:0.0.0--&gt;192.168.81.45and PortMap:1615--&gt;161) Sonicwall-2244(IPMap:0.0.0--&gt;192.168.81.44and PortMap:2244--&gt;22) Sonicwall-2245(IPMap:0.0.0--&gt;192.168.81.45and PortMap:2245--&gt;22) Sonicwall-8044(IPMap:0.0.0--&gt;192.168.81.44and PortMap:8044--&gt;80) Sonicwall-8045(IPMap:0.0.0--&gt;192.168.81.45and PortMap:8045--&gt;45)</pre>	StaticNAT

Unused Rules Objects Interfaces

Interface Name	IPAddress	Type	Mode	Services allowed	Vdom	ARP Forward
modem					root	
wan2	0.0.0/0.0.0	physical	static	ping	root	enable

Reduzca las amenazas de seguridad al identificar las reglas, objetos e interfaces de firewall no utilizados.

Obtenga un resumen general de alto nivel de cuáles reglas, objetos e interfaces se pueden eliminar o desactivar.

Firewall Analyzer

Dashboard Inventory Alarms Reports **Compliance** Search Settings Support

Rule Management Standard Change Management Security Audit

Change Management

Generated on: Jun 11, 2019 01:33 AM

A bar chart titled 'Configuration Changes On' showing the number of changes per day. The x-axis lists dates from May 11 to May 13, 2019. The y-axis ranges from 0 to 6. Most days show 2 changes, except for May 12 which shows 1 change.

Configuration Changes On	Changed by	Changed from
May 12, 2019 00:01 AM	John	- 96
May 13, 2019 00:01 AM	Nick	- 97

Last 30 days CiscoFirepower...

# Gestión de cambios de configuración

This block contains a large watermark-like image of the 'Change Management' section of the Firewall Analyzer interface. The watermark shows a bar chart with dates on the x-axis and a y-axis from 0 to 6. The bars are colored green and red. Below the chart is a table with two rows of configuration change details. The main content area has a dark gray background with white text for the title 'Gestión de cambios de configuración'.

# Importancia de la gestión de cambios

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¡Es importante controlar los cambios de manera automática para obtener una mejor visibilidad de la configuración y seguridad de su firewall!



- Elimine el control de cambios manual.
- Proteja su red monitoreando los cambios realizados en la configuración del firewall.
- Las notificaciones de cambios le ayudan a mantenerse alerta.

# Control de los cambios de configuración

Firewall Analyzer

Dashboard Inventory Alarms Reports Compliance Search Settings Support

Rule Management Standard Change Management Security Audit

Generated on: Jun 11, 2019 01:33 AM

Last 30 days CiscoFirepower...

LHS

Configuration Type: Running

Select Config: 96

RHS

Configuration Type: Running

Select Config: 97

Configuration Changes On	Changed by	Changed from	Version No	Change count	Change Type
May 12, 2019 00:01 AM	John	- 96	97	2	running
May 13, 2019 00:01 AM	Nick	- 97	98	2	running

BurbankSFR

Added - (0) Modified - (2) Deleted - (0)

Diff Only All Lines < > X

Line	Content
11	enable password 8Ry2Yjlyt7RRXU24 encrypted
12	enable https false

Automatice el control de cambios de configuración en todos sus dispositivos de firewall.

Controle el "qué", "quién" y "cuándo" de los cambios de configuración.

Reciba notificaciones de cambios directamente en su correo.

# Comparación de configuración usando la vista de diferencias [diff]

The screenshot shows a configuration comparison interface. On the left, there are two sections: 'LHS' and 'RHS'. Each section has a 'Configuration Type' dropdown set to 'Running' and a 'Select Config' dropdown. The 'LHS' dropdown is set to '1' and the 'RHS' dropdown is set to '2'. In the center, there is a table titled 'Fortigate1' with two columns. The first column contains the configuration lines from the LHS, and the second column contains the configuration lines from the RHS. The table includes a header row with status indicators: 'Added - (4)', 'Modified - (16)', 'Deleted - (10)', 'Diff Only', 'All Lines', and navigation arrows. The configuration lines are color-coded: green for additions, red for deletions, and blue for modifications. Some lines are also highlighted with a purple background.

LHS	RHS
Configuration Type Running Select Config 1	Configuration Type Running Select Config 2
config system global set access-banner disable set admin-https-pki-required disable set admin-lockout-duration 60 set admin-lockout-threshold 3 set admin-maintainer enable set admin-port 80 set admin-scp enable set admin-server-cert "self-sign" set admin-sport 443 set admin-ssh-port 22 set admin-ssh-v1 disable set admin-telnet-port 23 set admintimeout 5 set anti-replay strict set auth-cert "self-sign" set auth-http-port 1000 set auth-https-port 1003 set auth-keepalive disable set auth-policy-exact-match enable set av-failopen pass set av-failopen-session disable set batch-cmdb enable set cfg-save automatic set check-protocol-header loose set check-reset-range disable set cld-cert-req disable set daily-restart disable set detection-summary enable	config system global set access-banner disable set admin-https-pki-required disable set admin-lockout-duration 62 set admin-lockout-threshold 4 set admin-maintainer enable set admin-port 8080 set admin-scp enable set admin-server-cert "self-sign" set admin-sport 443 set admin-ssh-port 22 set admin-ssh-v1 disable set admin-telnet-port 25 set admintimeout 5 set anti-replay strict set auth-cert "self-sign" set auth-http-port 2000 set auth-https-port 1000 set auth-keepalive disable set auth-policy-exact-match enable set av-failopen pass set av-failopen-session disable set batch-cmdb enable set cfg-save automatic set check-protocol-header loose set check-reset-range disable set cld-cert-req disable set daily-restart disable set detection-summary enable

Compare los cambios de configuración entre dos configuraciones, una al lado de la otra, usando la vista de diferencias [diff view].

Identifique fácilmente los cambios entre los archivos de configuración usando una representación de cambios codificada por colores.

Vea las adiciones en verde, las eliminaciones en rojo y las modificaciones en azul.

# Auditoría de cumplimiento y seguridad

Firewall Analyzer

Dashboard Inventory Alarms Reports **Compliance** Search Settings Support

Rule Management Standard Change Management Security Audit

**Compliance Standards**

**SANS** on 2019-02-18 06:26

This assessment is based on the check list provided by SANS Institute for firewalls. For more information, please visit <http://www.sans.org>

**50% Compliant**  
Recommendation: Your Organization is under threat.

**Failed Count** 3  
**4** Enable Logging  
**11** Insecure Services  
**15** Block ICMP Unwanted Traffic

**NIST** on 2019-01-30 04:49

This assessment is based on the NIST Standard of compliance. For more information, please visit <http://www.nist.gov/cybersecurity-awareness.com/nist-security-compliance>

**60% Compliant**  
Recommendation: Please ensure that you satisfy all the compliance requirement.

**Failed Count** 4  
**23** Explicit Deny rule  
**24** Permit only necessary Internal traffic  
**25** Allow All External traffic  
**26** Allow All Internal traffic

**PCI DSS** on 2019-02-18 06:26

This assessment is based on the PCI Data Security Standard, Version 3.0, and covers all control items that address Firewall policy issues. For more information, please visit <https://www.pcisecuritystandards.org>

**55% Compliant**  
Recommendation: Please ensure that you satisfy all the compliance requirement.

**Failed Count** 4  
**1.1.5 b** Insecure Services  
**1.1.7** Periodic Review of Rule Sets  
**1.2.1 b** Explicit Deny rule

**ISO** on 2019-01-30 04:49

This assessment is based on the ISO/IEC 27001:2013 Security Standard for firewalls. For more information, please visit [http://www.iso.org/iso/home/store/catalogue\\_tc/catalogue\\_detail.htm?csnumber=60000](http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=60000)

**28% Compliant**  
Recommendation: Your Organization is under threat.

**Failed Count** 5  
**9.3** Use Audit Config  
**12.4.2** TamperProof of Logs  
**12.4.4** Use Time Synchronization

# Cumpla con los informes de cumplimiento out-of-the-box

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¡Siga las prácticas estándar y aplique políticas de seguridad internas / externas para evitar problemas legales implementando una gestión de cumplimiento adecuada!

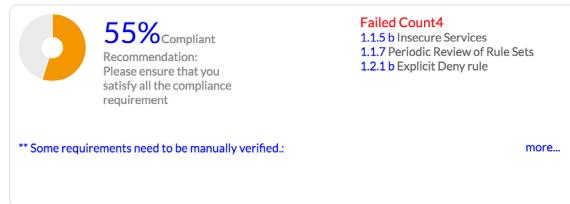


- Cumpla con los requisitos reglamentarios PCI-DSS, ISO 27001, NIST, NERC-CIP, SANS.
- Identifique las brechas de configuración y manténgase protegido.
- Genere informes sobre el estado de cumplimiento de los dispositivos de firewall.

# Informe de cumplimiento

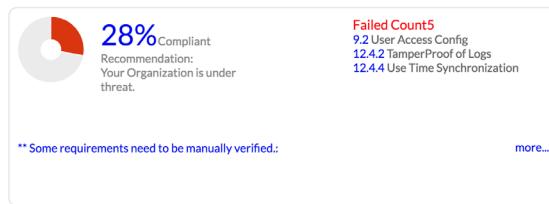
PCI DSS on 2019-02-18 06:26

This assessment is based on the PCI Data Security Standard, Version 3.0, and covers all control items that address Firewall policy issues. For more information, please visit <https://www.pcisecuritystandards.org>



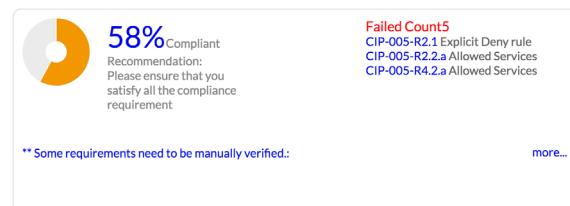
ISO on 2019-01-30 04:49

This assessment is based on the ISO(27001:2013) Security Standard for firewalls. For more information, please visit [http://www.iso.org/iso/home/store/catalogue\\_tc/catalogue\\_detail.htm?csnumber=54534](http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=54534)



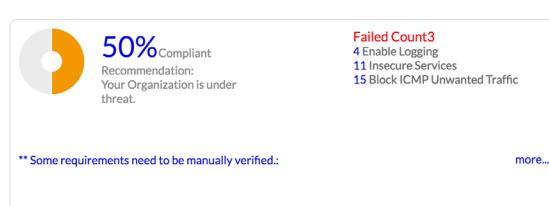
NERC-CIP on 2019-01-30 04:49

This assessment is based on the NERC-CIP Standards oversight by the Federal Energy Regulatory Commission for version 3. Please visit <http://www.nerc.com//pa/Stand/Pages/CIPStandards.aspx>



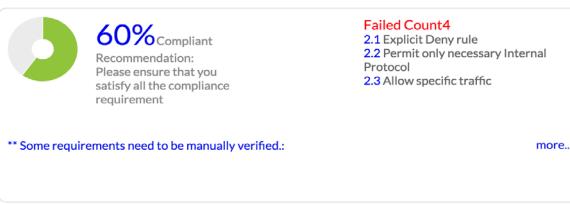
SANS on 2019-02-18 06:26

This assessment is based on the check list provided by SANS Institute for firewalls. For more information, please visit <http://www.sans.org>



NIST on 2019-01-30 04:49

This assessment is based on the NIST Standard of compliance. For more information, please visit <http://www.identity-theft-awareness.com/NIST-security-compliance.html>



Proteja los datos de los titulares de tarjetas de manera efectiva al cumplir con PCI-DSS.

Domine la gestión de la seguridad de la información, cumpliendo con ISO 27001.

Asegúrese de que su infraestructura de TI crítica esté protegida cumpliendo con el mandato NERC-CIP.

Identifique las brechas de seguridad de la información verificando con el informe SANS.

Revise los estándares del NIST con los informes de cumplimiento del NIST.

PCI DSS Show : All | Pass | Fail

✓ Pass ✗ Fail ★ Manual verification is necessary to meet the requirement

Section	Status	Description
1.1	★	A formal process for approving and testing all network connections and changes to the firewall and router configurations
1.1.5 a	★	Verify that firewall and router configuration standards include a documented list of services, protocols and ports necessary for business. For example, hypertext transfer protocol (HTTP) and Secure Sockets Layer (SSL), Secure Shell (SSH), and Virtual Private Network (VPN) protocols.
1.1.5 b	✗	Identify insecure services, protocols, and ports allowed and verify they are necessary and that security features are documented and implemented by examining firewall and router configuration standards and settings for each service.
1.1.7	✗	Review Firewall rule sets at least once in every six months.
1.2.1 a	★	Verify that inbound and outbound traffic is limited to that which is necessary for the card holder data environment, and that the restrictions are documented.
1.2.1 b	✗	Verify that all other inbound and outbound traffic is specifically denied, for example by using an explicit deny all or an implicit deny after allow statement.
1.3.2	★	Limit inbound Internet traffic to IP addresses within the DMZ.
1.3.4	✓	Do not allow internal addresses to pass from the Internet into the DMZ.

# Auditorías de seguridad

Firewall Analyzer

Dashboard Inventory Alarms Reports Compliance Search Settings Support

Rule Management Standard Change Management Security Audit

Security Audit

ManageEngine  
Fortinet FortiGate FG800C3913800555 Security Report

FRIDAY 1ST FEBRUARY 2019

**Security Audit Summary**

ManageEngine performed a security audit of the Fortinet FortiGate device FG800C3913800555 on Friday 1st February 2019 and identified 12 security-related issues. The most significant issue identified was rated as high. ManageEngine recommends that any issue rated higher than a medium should be reviewed as soon as possible.

ManageEngine determined that it was possible to perform administration tasks using unencrypted network communications. It is important that all administrative tasks are encrypted in order to help prevent an attacker, or malicious user, from capturing potentially sensitive information and authentication credentials. An attacker could then use this information either to gain access to the device as an administrator or other devices if the passwords are shared. ManageEngine recommends that all unencrypted services should be replaced with cryptographically secure alternatives.

ManageEngine performed an analysis of the authentication credentials during the security audit. It is important that strong authentication credentials should be chosen in order to help prevent an attacker from gaining unauthorized access by guessing the password, a dictionary-based attack or a brute-force attack. Authentication passwords and keys should be made up of a number of different character types, punctuation, meet a minimum length and not be based on dictionary words, set to the system default or left blank. ManageEngine identified weaknesses with the authentication credentials and recommends that the current password policy should be reviewed and that all passwords should be configured to meet the policy.

To help prevent unauthorized access to network services, all firewall rules should be configured to restrict access to specific network services from only those network hosts that are required. ManageEngine identified weaknesses with the firewall rules and recommends that they should be reviewed to ensure that they do not allow access beyond what is required.

**2. Security Audit**

- 2.1. [Introduction](#)
- 2.2. [Clear-Text Telnet Service Enabled](#)
- 2.3. [Access Allowed To Clear-Text Protocol Services](#)
- 2.4. [Clear-Text HTTP Service Enabled](#)
- 2.5. [Access Allowed To Potentially Dangerous Services](#)
- 2.6. [Firewall Policy Does Not End with Deny All And Log](#)
- 2.7. [A Dictionary-Based SNMP Community String Was Configured](#)
- 2.8. [Rule Permits Packets To Any Service](#)
- 2.9. [Dictionary-Based SNMP Trap](#)
- 2.10. [Clear-Text SNMP In Use](#)
- 2.11. [No Post Logon Banner Message](#)
- 2.12. [Access Allowed To Potentially Unnecessary Services](#)
- 2.13. [Potentially Unused Network Interfaces](#)
- 2.14. [Conclusions](#)
- 2.15. [Recommendations](#)

**3. Security Best Practices**

- 3.1. [Introduction](#)
- 3.2. [Software](#)
- 3.3. [Services](#)
- 3.4. [Interfaces](#)
- 3.5. [Filtering](#)

**2.2. Clear-Text Telnet Service Enabled**

**2.2.1. Finding**

Telnet is widely used to provide remote command-based access to a variety of devices and is commonly used for remote device administration. Telnet is a simple protocol and was developed long before computer network security was an issue. The protocol provides no encryption or encoding, so all network traffic, including the authentication, is transmitted between the client and the server in clear-text.

ManageEngine determined that the Telnet service was enabled on FG800C3913800555.

**2.2.2. Impact**

An attacker or malicious user who was able to monitor the network traffic between a Telnet server and client would be able to capture the authentication credentials and any data. Furthermore, the attacker could then use the authentication credentials to gain a level of access to FG800C3913800555.

**2.2.3. Ease**

Network packet and password sniffing tools can be downloaded from the Internet and some of the tools are specifically designed to capture clear-text protocol authentication credentials. In a switched environment an attacker may not be able to capture network traffic destined for other devices without performing an additional attack, such as exploiting Address Resolution Protocol (ARP) or routing vulnerabilities.

**2.2.4. Recommendation**

ManageEngine recommends that, if possible, the Telnet service should be disabled. Fortinet FortiGate devices support the Secure Shell (SSH) service, which is a cryptographically secure alternative to Telnet. ManageEngine recommends that this service should be used as an alternative.

The Telnet service can be disabled on Fortinet FortiGate devices individual interfaces by removing the telnet keyword in the following command:



OVERALL ISSUE RATINGS
Critical: 0
High: 1
Medium: 4
Low: 2
Info: 5

Overall: HIGH  
Impact: HIGH  
Ease: EASY  
Fix: QUICK

Realice auditorías de seguridad en el entorno de configuración de su firewall y obtenga informes detallados sobre las brechas de seguridad.

Determine la criticidad de las brechas de configuración y también la facilidad de ataque.

Obtenga recomendaciones sobre las mejores prácticas de la industria.

# Gestión de logs

Firewall Analyzer

Dashboard Inventory Alarms Reports Compliance Search Settings Support

Custom Report Firewall Reports Proxy Reports API Access General

Device Name All Devices

Report Type

- Intranet Reports
- Internet Reports
- Security Reports
- Virus Reports
- Attack Reports
- Spam Reports
- Protocol Trend Reports
- Traffic Trend Reports
- Event Trend Reports
- Admin Reports
- VPN Trend Report

Security Reports

Top Denied Hosts

Resolve DNS

Host	Hits
10.45.0.4	6852
192.168.10.6	1506
192.225.213.141	1386
211.238.35.25	578
84.55.93.169	551
Others	26130

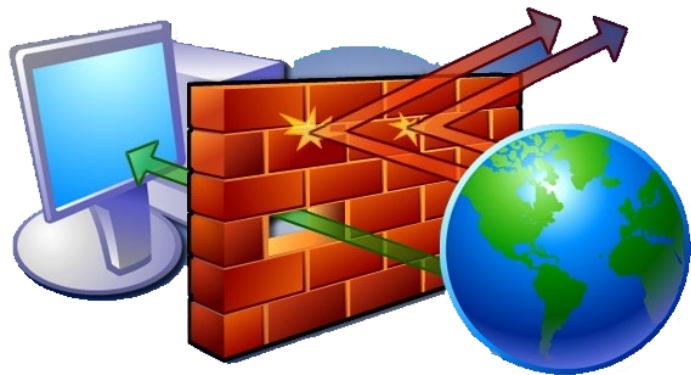
Top Denied Destinations

Resolve DNS

Destination	Hits
12.21.34.212	8539
10.45.0.1	5324
39.4-50-200-static.centenario.net	1834
makerofalledes.com	1593
75.ad.744b.e4.static.si-reverse.com	1568
Others	18349

# La gestión de logs es crucial para la seguridad de la red

Analizar los datos de syslog lo ayudará a identificar y prevenir las amenazas de seguridad en tiempo real



- El análisis de seguridad ayuda a identificar las amenazas internas y externas.
- El análisis de tráfico ayuda a gestionar el ancho de banda.
- Las alertas basadas en logs ayudan a solucionar los problemas instantáneamente.

# Análisis de seguridad

Firewall Analyzer

Dashboard Inventory Alarms Reports Compliance Search Settings Support

Custom Report Firewall Reports Proxy Reports API Access General

Virus Reports

Top Virus Sending Hosts

Host Hits

Host	Protocol	Hits
192.168.4.32	http	240
64.41.199.20	smtp	126
192.168.4.143	ftp	78
192.168.4.74	smtp	42
192.168.4.136	http	42
Others		11691

Top Virus Affected Hosts

Destination Hits

Destination	Protocol	Hits
192.168.4.74	smtp	126
66.35.199.25	ftp	72
216.104.212.81	http	24
208.50.102.119	http	24
64.41.199.25	ftp	24
Others		11949

Top Attacks By Priority

Attack Hits

Attack	Priority	Hits
ARP Poisoning	Unknown	8000
DDoS attack	Normal	1000
Trojan.VPNFilter	Normal	1000
PHP/MySQL injection	Normal	1000
Others	Normal	1000

Top Spam Receivers

Destination Hits

Destination	Recipient	Hits
10.10.20.14	rajan@zoho.com	384
10.10.20.14	Selvam@zoho.com	281
10.10.20.14	Venkatesh@zoho.com	240
10.10.20.14	saravanan@zoho.com	222
10.10.20.14	kumar@zoho.com	174
Others		1230

Top Security Events

Protocol Group Hits

Protocol Group	Type	Hits
Web	Win	495108
Unassigned	Unassigned	210095
Mail	Mail	19052
Streaming	Streaming	3488
Database Applications	Database Applications	12865
Others		163453
Total		904361

Genere informes detallados sobre las posibles amenazas de seguridad para la red.

Solucioné y resuelva los problemas de seguridad más rápido identificando y analizando logs relacionados con virus.

Obtenga información para identificar y contrarrestar los ataques a la red.

Obtenga información detallada sobre la actividad de spam y controle el spam en toda la red.

# Análisis de tráfico

**Firewall Analyzer**

**Traffic Reports**

**Top Hosts - Sent**

Host	Bytes Sent(MB)
172.21.213.121	395742.4
10.45.0.4	31809.74
FW_MGMT	14868.65
c021546.zohocorp.com	5671.61
172.24.6.191	4018.23

**Top Hosts - Received**

Host	Bytes Rcvd(MB)
10.45.0.4	36191.1
172.21.213.121	7077.97
10.2.20.10	7064.52
192.225.88.132	5232.86
172.24.6.191	4007.14

**Host** **Hits** **% Hits** **Bytes Sent(MB)** **% Bytes Sent**

Host	Hits	% Hits	Bytes Sent(MB)	% Bytes Sent
172.21.213.121	696	0.08	395742.4	86.23
10.45.0.4	41660	4.58	31809.74	6.93
FW_MGMT	24	0	14868.65	3.24
c021546.zohocorp.com	63	0.01	5671.61	1.24
172.24.6.191	1368	0.15	4018.23	0.88

**Top Protocol Groups (Sent+Received)**

Protocol Group	Total Bytes(MB)
Web	495168
Unassigned	213662
Streaming	3562
Name Service	92151
Database Applications	12907
Others	91423

**Top Users (Sent+Received)**

User	Total Bytes(MB)
Shyamala	201461.11
Revathi	175668
Unknown	71485
Deva	515039
ASWIM	414966
Others	258712
Total	510401

**Top Streaming and Chat Sites**

Destination	Bytes Rcvd(MB)
10.11.20.12	28.68
10.11.20.11	21.93
10.11.20.13	19.54
10.18.36.108	0
216.250.16.32	0
Others	2.12

**Protocol Group** **Hits** **% Hits** **Total Bytes(MB)** **% Total Bytes**

Protocol Group	Hits	% Hits	Total Bytes(MB)	% Total Bytes
Web	495168	54.48	509977.57	94.15
Unassigned	213662	23.51	23828.26	4.4
Streaming	3562	0.39	71485	1.32
Name Service	92151	10.14	19137	0.04
Database Applications	12907	1.42	181.63	0.03
Others	91423	10.06	314.36	0.06

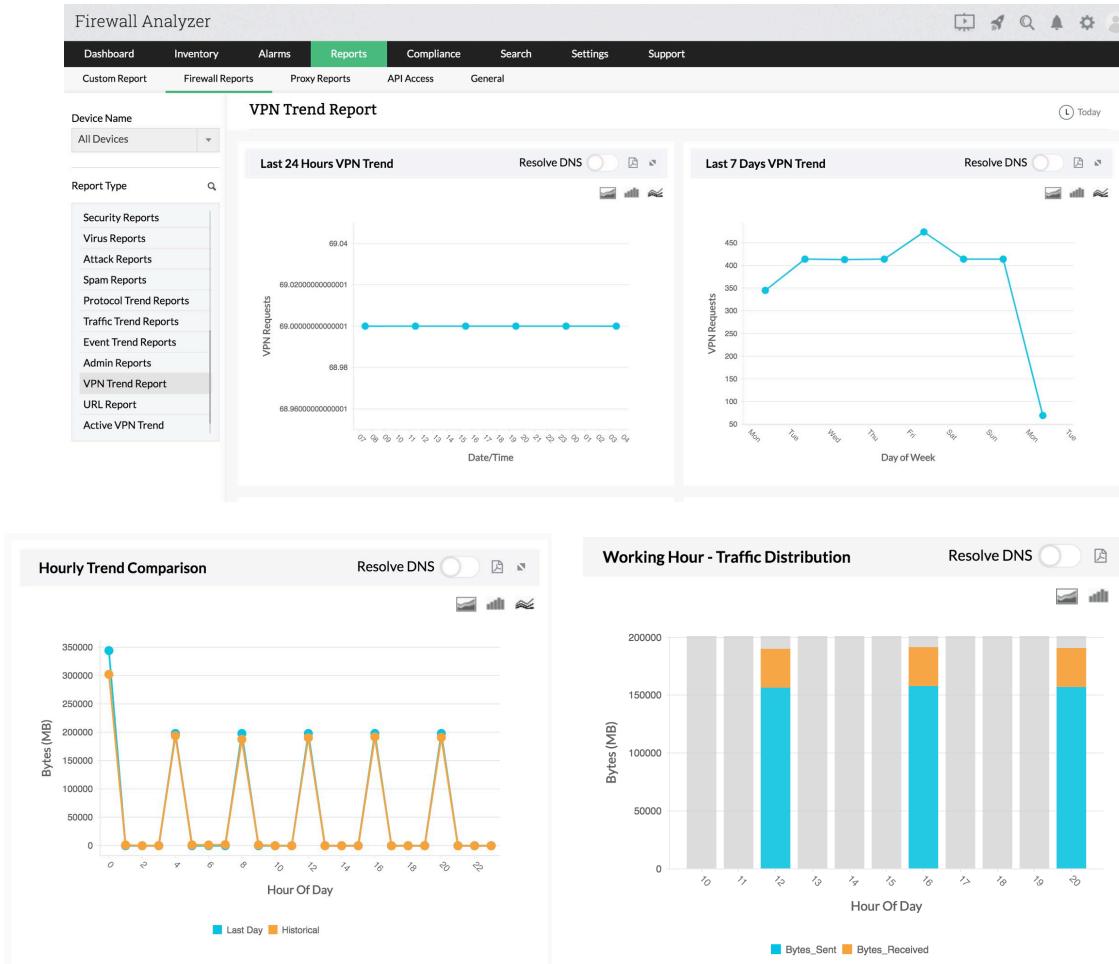
**User** **Hits** **% Hits** **Total Bytes(MB)** **% Total Bytes**

User	Hits	% Hits	Total Bytes(MB)	% Total Bytes
Shyamala	1162	0.27	201943.68	39.57
Revathi	566	0.13	201461.11	39.47
Unknown	175668	39.92	76418.42	14.97
Deva	1777	0.41	515039	1.01
ASWIM	255	0.06	414966	0.81
Others	258712	59.31	212277.74	4.17
Total	436140	100	510401	100

Los informes de tráfico de Firewall Analyzer ayudan a responder las siguientes preguntas

- ¿Quién está enviando, recibiendo el tráfico?
- ¿Cuál host está enviando, recibiendo el tráfico?
- ¿Cuál es la cuota de tráfico de varios grupos de protocolos?
- ¿Cuál es el patrón de gravedad de los eventos debido al tráfico?

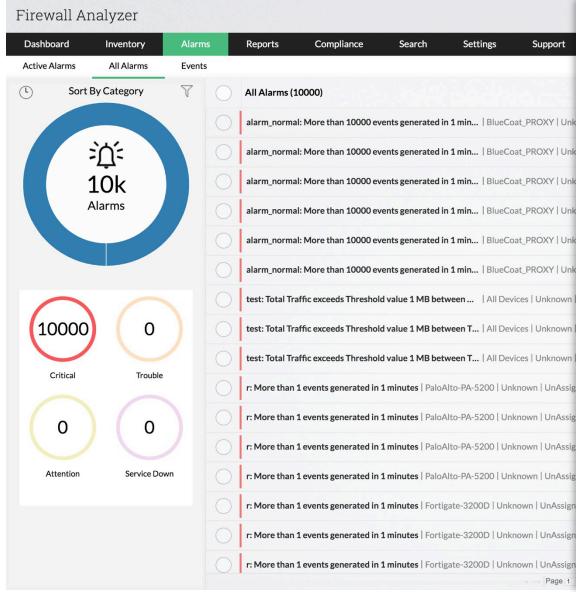
# Análisis de tendencias



Determine la tendencia de uso de ancho de banda máximo en diferentes protocolos y marcas de tiempo.

Solucionar los problemas de conexión e identifique los riesgos de seguridad analizando el informe de tendencias de eventos.

Identifique las conexiones VPN activas y los riesgos de seguridad relacionados con la VPN utilizando el informe de tendencias de VPN.



# Otras funciones destacadas

# Informe de VPN y proxy

**Firewall Analyzer**

**Reports** (selected)

**URL Report**

**Top Allowed Categories**

Category	Hits
computer-and-internet	15000
TK-Website	5000
search-engines	4000
streaming-media	3000
Advertising	1000

**Top Denied Categories**

Category	Hits
personal-sites-and-blogs	200
social-networking	100
IPAddress	20
Malicious Websites	10
None	5

**Proxy Virus**

Type	Count
Malware	100
Adware	100

**Top WAN Hosts**

Host	Total Bytes(B)
192.168.1.1	300
192.168.1.2	100
192.168.1.3	100
192.168.1.4	100

**Cache Usage - Cache Code**

CacheCode	Total Bytes(B)
TCP_MISS	300
TCP_REFRESH_HIT	100
TCP_HIT	100
TCP_REFRESH_MISS	100

**Top VPN Users**

User	Duration	Hits	Total Bytes(MB)
192.168.234.6	0 Secs	18	0
Venkatesh	1 Day 21 Hrs	112	0
Raghul	6 Hrs 25 Mins	8	0
Total	2 Days 3 Hrs	138	0

**Top Failed VPN Users**

User	Hits
192.168.234.6	18

**Top VPN Hosts**

Host	Duration	Hits	Total Bytes(MB)
172.21.213.121	696	7077.97	395742.4
1045.0.4	41660	36191.1	31807.74
FW_MGMT	24	0	14866.65
10.22.0.10	534	7064.52	70.15
c021546.zohocorp.com	63	1190.59	5671.61
Others	881336	31239.46	1076158
Total	924313	82763.64	458924.13

**Top VPN Clients**

User	Hits
192.168.234.6	18

Identifique a los usuarios conectados a su VPN, el tráfico que consumen y también los inicios de sesión de VPN fallidos.

Recopile y archive los logs del servidor proxy, analícelos y genere informes útiles con información corporativa de acceso a Internet.

# Informe de inventario

Firewall Analyzer

Dashboard Inventory Alarms Reports Compliance Search Settings Support

No logs > 60mins Flows ok 9

Devices (9) Interfaces (75) Users (60)

Name	License	IP Address	Type	Vendor	Uplink Speed	Downlink Speed	Intranet Setting	SNMP
CheckPoint-R80.1	✓	127.0.0.1	Firewall	Check Point	4 Mbps	5 Mbps	Configured	Not Configured
Zoho-CP-R80.10	✓	127.0.0.1	Firewall	Check Point	1 Mbps	1 Mbps	Not Configured	Not Configured
PaloAlto-PA-5200	✓	127.0.0.1	Firewall	Paloalto	1 Mbps	1 Mbps	Not Configured	Not Configured
CiscoFirepower-F...	✓	127.0.0.1	Firewall	Firepower	1 Mbps	1 Mbps	Not Configured	Not Configured
SophosXG	✓	127.0.0.1	Firewall	Sophos XG	1 Mbps	1 Mbps	Not Configured	Not Configured
Fortigate-3200D	✓	127.0.0.1	Firewall	FortiGate	100 Mbps	100 Mbps	Not Configured	Not Configured
BlueCoat_PROXY	✓	127.0.0.1	Squid	Unknown CLF	1 Mbps	1 Mbps	-	-
Paloalto_Sim	✓	127.0.0.1	Firewall	Paloalto	1 Mbps	1 Mbps	Not Configured	Not Configured
CiscoASA	✓	192.168.102....	Firewall	Cisco	1 Mbps	1 Mbps	Not Configured	Not Configured

Vendor Type Status

Paloalto	2
Check Point	2
Unknown CLF	1
Firepower	1
Sophos XG	1
FortiGate	1
Cisco	1

Obtenga una imagen completa de todo lo que sucede en los firewalls individuales.

Obtenga visibilidad sobre las interfaces que se encuentran en los dispositivos de firewall configurados.

Obtenga un resumen general de todos los usuarios que han accedido a Internet a través de dispositivos de firewall individuales.

Monitoree las reglas y los servicios en la nube a los que se accede con un dispositivo de firewall específico.

CheckPoint-R80.1

Traffic IN (Kbps) Traffic OUT (Kbps)

Min	Max	Min	Max
198.16	1965.46	1243.63	2610.97

Device Summary

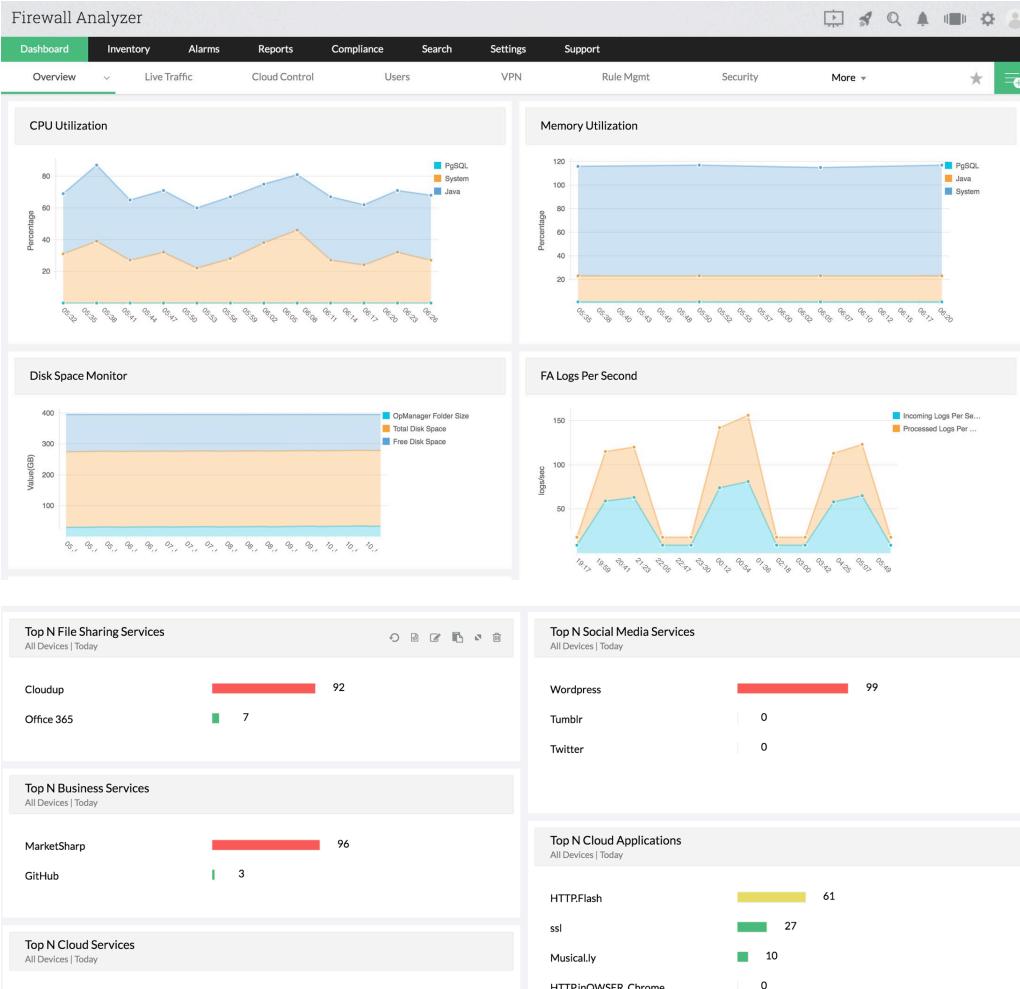
Host Name	CheckPoint-R80.1
IP Address	127.0.0.1
Type	Firewall
Vendor	Check Point
Downlink Speed	5 Mbps
Uplink Speed	4 Mbps
Last Packet Received	Jun 11, 2019 04:02 AM
Status	Managed
Device Rule	Configured
SNMP Settings	Not Configured
Intranet Setting	Configured
Exclude Hosts	Not Configured
Virtual Device	false

Traffic

276.10 Kbps IN (Avg)	1.27 Mbps OUT (Avg)
----------------------	---------------------

5 % Traffic IN (Avg) 32 % Traffic OUT (Avg)

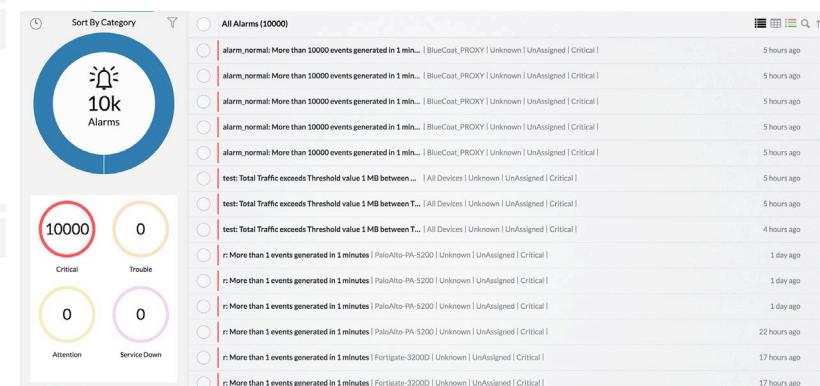
# Dashboard, monitoreo en la nube y alarmas



Obtenga una imagen de alto nivel de todo lo que sucede en su entorno de firewall.

Mantenga un control estricto de todos los servicios en la nube que se ejecutan en su red.

Active alertas basadas en umbrales (tanto de tráfico como de seguridad) y reciba notificaciones directamente en su correo o teléfono.



# Análisis forense de logs e informes personalizados

Firewall Analyzer

Dashboard Inventory Alarms Reports Compliance Search Settings Support

Aggregated Search RAW Search RAW Settings

Available Devices Selected Devices

Search Search

CiscoFirepower-FMC  
Palalto\_Sim  
BlueCoat\_PROXY  
PaloAlto-PA-5200  
Ztev-CP-RRN-1n

How To FAQ

1. How to create a report profile from aggregated search result?  
2. How to create a report profile from raw search result?

Search Type Raw Firewall Logs

Raw VPN Logs Raw Virus/Attack Logs Traffic logs Raw Device Management Logs  
Raw Denied Logs

Criteria

Match all the following Match any of the following

Protocol is HTTP +  
User is Jon - +  
Attack is ARP poisoning - +

Generate

Search Report

Formatted Logs Raw Logs

Date/Time Host User Protocol Destination Virus/Attack Severity Duration Sent Receive

11 Jun 2019, 06:46:33 192.168.1.51 Khrst 972/tcp 31.13.69.203 null Unknown 1Secs 0 KB 0 KB  
11 Jun 2019, 06:46:33 192.168.1.50 John fcp 12.183.124.41 null Unknown 3 Mins 2 Secs 0 KB 4.68 KB  
11 Jun 2019, 06:46:33 192.168.1.49 Patrick mailbox-lm 69.63.178.12 null Unknown 16 Mins 3 Secs 0 KB 4.68 KB

Search Report

Formatted Logs Raw Logs

Paloalto\_Sim\_001801021446TRAFFIC.end.0.192.168.1.42.104.20.25.250.192.168.1.42.104.20.25.250.Rule\_69.Chris.HTTPFlash.vsys1.trust.untrust.lan.wan5.LOG-FWD\_17014.1.720.888.720.888.0x40001c.tcp.allow,4790,961013,652313.17.372.Information Technology,0.384809398.0x0  
Paloalto\_Sim\_001801021446TRAFFIC.end.0.192.168.141.180.179.168.232.192.168.141.180.179.168.232.Rule\_48.Chris.HTTPFlash.vsys1.trust.untrust.lan.wan5.LOG-FWD\_17014.1.375.2,375.2,0x40001c.udp.allow,4790,197176,79519.17.81.Information Technology,0.384809398.0x0

Busque en los logs de Firewall sin procesar para identificar cuál entrada de log causó la actividad de seguridad.

Los logs archivados se pueden importar y los incidentes de seguridad se pueden recopilar buscando en los logs sin procesar.

Genere informes personalizados basados en criterios específicos. Elija los subinformes que desea incluir en el informe personalizado, los parámetros exactos que se incluirán e incluso el diseño del gráfico que se generará.

Add Report Type

Report Name Custom VPN Report based on VPN

Display: Graph & Table Graph Table

Graph Settings

Graph Types Stacked Vertical Ba... X-axis VPN Y-axis sum of Total bytes

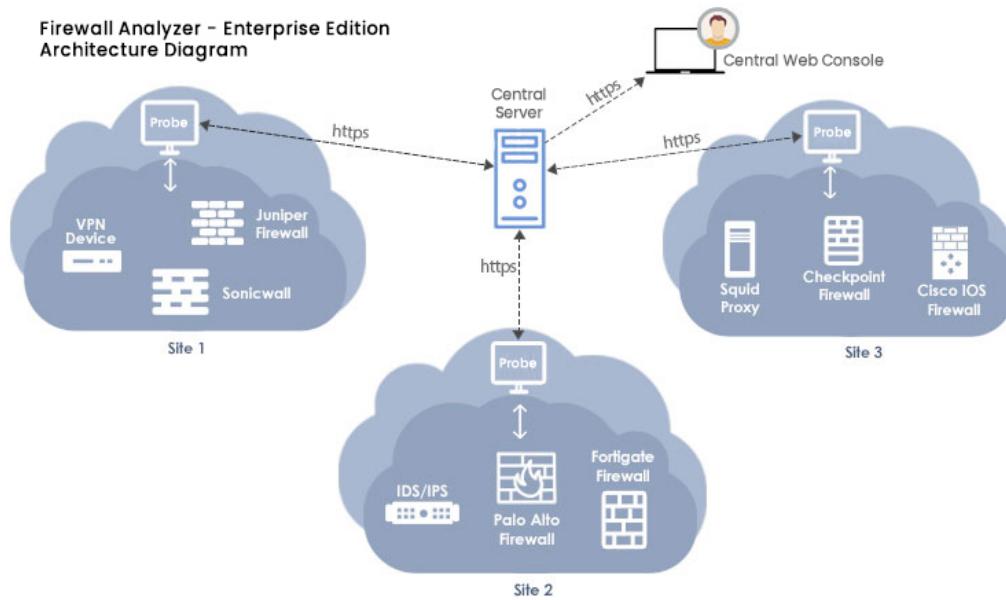
Grouping Criteria User Order by sum of RequestCount

Table Settings

Cancel Ok

# Beneficios de usar Firewall Analyzer

Firewall Analyzer - Enterprise Edition  
Architecture Diagram



## Monitoreo empresarial

Monitoree los firewalls distribuidos geográficamente desde una ubicación centralizada.

Escale fácilmente hasta 1200 dispositivos de seguridad.

# Soporte multi firewall

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Admite más de 50 proveedores de firewall y 200 dispositivos



## Soporte técnico 24\*5

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¡Soporte técnico 24x5 para que los clientes aprovechen al máximo el producto!

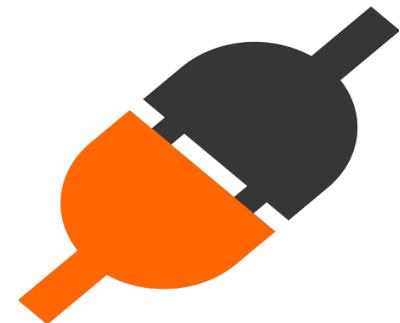


# Se integra perfectamente con toda su infraestructura de red

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## Integracion estrecha con:

- **OpManager:** Monitoreo de redes y servidores
- **NetFlow Analyzer:** Monitoreo del ancho de banda
- **Network Configuration Manager:** Gestión de cumplimiento, configuración y cambios de red
- **OpUtils:** Gestión de puertos de switch y direcciones IP



## ¿Qué nos hace destacar?

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Soporte multi firewall



Alertas de seguridad en  
tiempo real



Informes out-of-the-box



Altamente escalable



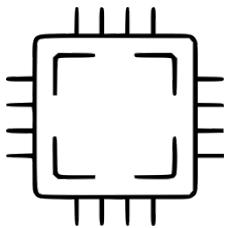
Económico



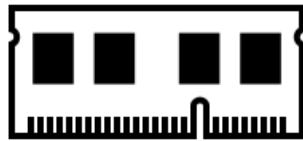
Soporte técnico 24\*5

# Requisitos mínimos del sistema

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Procesador Pentium  
Dual Core de 1 GHZ  
o equivalente



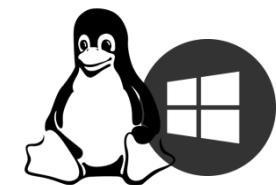
1 GB de RAM



1 GB de  
almacenamiento



PostgreSQL / MSSQL



Windows / Linux

Los requisitos de espacio en disco y tamaño de RAM dependen de la cantidad de dispositivos que se analizan y la cantidad de dispositivos que envían información de log a Firewall Analyzer.

Consulte: <https://www.manageengine.com/latam/firewall/>

# Gracias

*¡Tenga una mejor experiencia de gestión de firewall!*



Contacto:

Para precios y más: [latam-sales@manageengine.com](mailto:latam-sales@manageengine.com)

Para obtener más información, visite: [www.manageengine.com/latam/firewall/](http://www.manageengine.com/latam/firewall/)