

# **Security at a Crossroads** A significant opportunity for Qualys

Melissa Fisher, CFO Philippe Courtot, Chairman & CEO Sumedh Thakar, Chief Product Officer Dilip Bachwani, SVP Cloud Platform

INVESTOR & ANALYST PRODUCT LUNCHEON - BLACK HAT - AUG 7th 2019

# Agenda

Security at a Crossroads What makes Qualys Unique Ubiquity Play Cloud Platform Expansion Blending Data Lake, SOAR, SIEMs, EDR and EPP into our Cloud Platform Summary Everything visible. Everything secure. A single cloud platform for IT, security and compliance across all your global IT assets.



Designed from the Ground Up for the Digital Transformation



# Security at a Crossroads

Fueled by cloud technologies, the security industry is on the verge of a massive and accelerated consolidation. We believe the market will coalesce into four distinct segments

> Large Enterprises Public Cloud Providers New Generation of MSSPs OT/IoT environments

Qualys, thanks to its scalable and extensible Cloud Security and Compliance Platform and highly scalable and profitable business model is, we believe, uniquely positioned to address these four market segments and become a major actor in the consolidation of the industry. The digital transformation has created an explosion of new technology and opportunities.

It has left chaos and many gaping security holes in its wake.

Today's plethora of current IT, security and compliance tools create more problems than they solve – delivering diminishing returns.



# Going Back to our Origins – 1999

## **Our Original Mission and Vision**

Apply nascent Internet Technologies (called now SaaS or Cloud) to automate Vulnerability Assessment making it accurate, continuous and scalable.

### 72% F50, 61% F100, 46% F500 and 25% Global 2000



12,200+ customers and active users in 130+ countries



# Where Are We Now?

## Today's Mission and Vision

Unifying IT, Security and Compliance in a single-pane-ofglass-view with 2-second visibility across on-premises, endpoints, cloud(s), containers, web apps, API, mobile and OT/IoT environments Everything visible. Everything secure. A single cloud platform for IT, security and compliance across all your global IT assets.

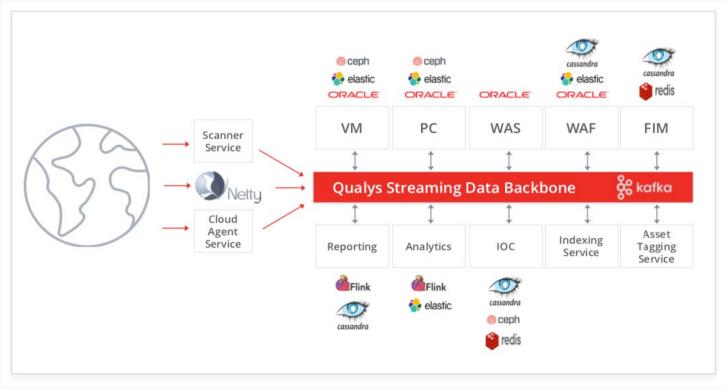


Designed from the Ground Up for the Digital Transformation



# **Extensible Cloud Platform**

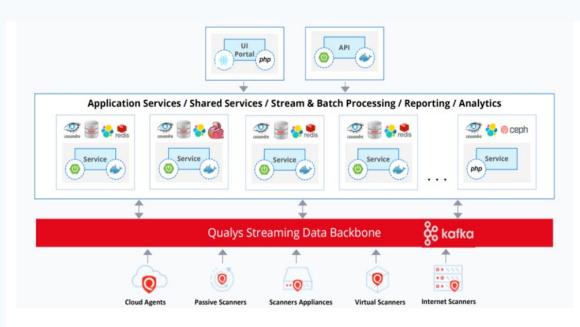
Serves as a Scalable and Cost-Effective Distribution Channel





# State-of-the-Art Microservices Architecture

Sensors, Data Platform, Microservices, DevOps

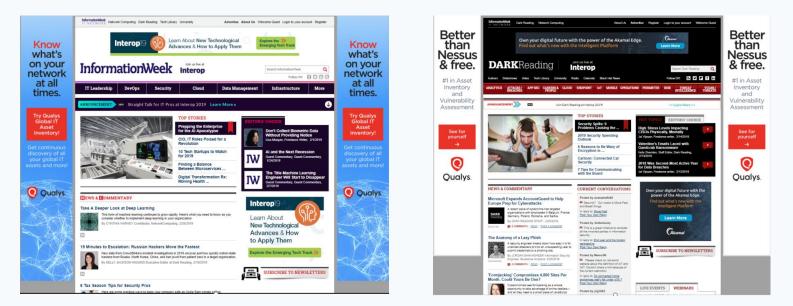


3+ Billion scans/year

3+ Trillion data points indexed on our Elasticsearch clusters

3+ Billion messages per day on our Kafka bus

## **Scalable Go-to-market Strategy** The Platform is the Distribution Channel



Try & Buy Model - Fully Automated Lead-Gen Campaigns



# **Ubiquity Play**

Launch at Black Hat of our Groundbreaking Global IT Discovery and Asset Inventory Apps

Our Global IT Asset Discovery and Inventory are two of the many apps we have running native on our Cloud Platform.

It will come in two versions: free and paid.

### What makes it unique:

- Our Cloud Agents span across on-premises, endpoints, cloud(s), containers and mobile.
- The Asset Inventory App automatically normalizes and categorizes assets.
- Natively integrated with the Discovery App (passive scanning) provides a continuous view of "known and unknown assets" connecting to corporate networks giving **100%** visibility.



# **Highly Leveraged Business Model**

We currently have almost 24 million Cloud Agents installed across onpremises, endpoints, cloud(s), containers and mobile.

Our lightweight Cloud Agents (3Mb) currently spawn **seven services with more to come**.

Once the Cloud Agent is deployed, all the additional services are already available (nothing to install or maintain) and customers can **automatically provision** new services themselves.

As organizations download our Cloud Agent for implementing global IT asset inventory, **we make it frictionless to subscribe** to our paid apps because no additional infrastructure is required.



## **Ubiquity Play** Early Results – Early Success

# 1307 SIGN-UPS IN 3 DAYS

1159 SIGN-UPS New Users 148 SIGN-UPS Existing Users



# **2020 New Services and Platform Expansion**

### Launch of Global IT Asset Inventory, Passive Scanning and IOC 2.0 at Black Hat

Uniquely positioned to **blend** Data Lake, SIEMs, EDR and **EPP on the top of our Cloud Platform -**Q1/Q2 2020 (Beta)







# A New Prescription for Cyber Security

Qualys Global IT Asset Inventory

Black Hat Conference August 2019



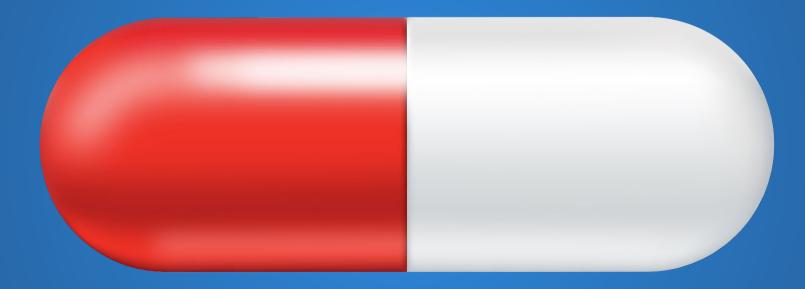








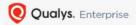
## **IT'S NOT FOR EVERYONE.**

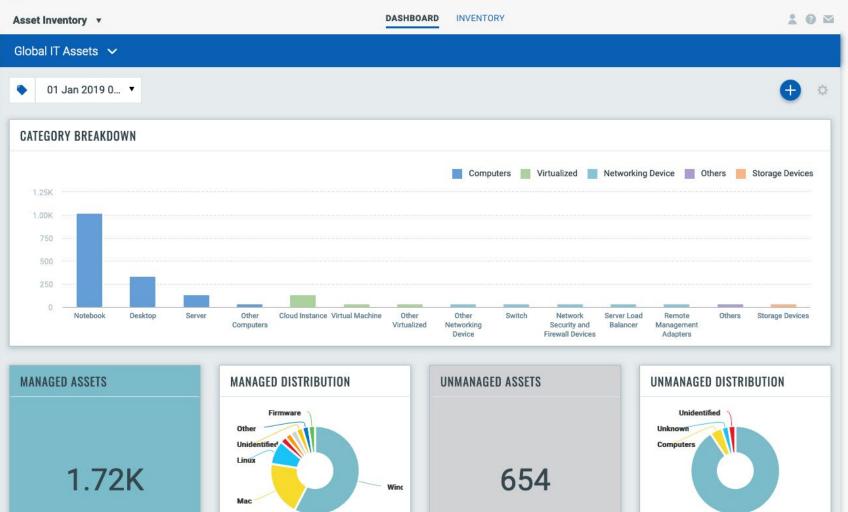


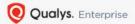


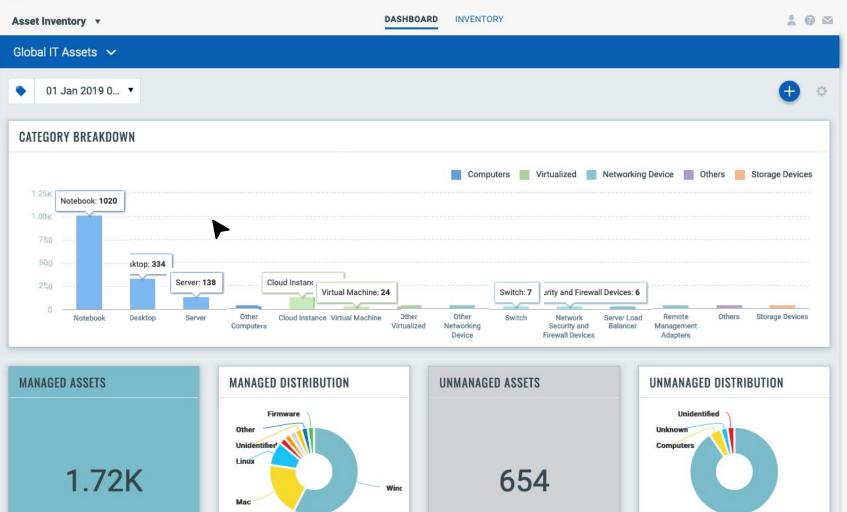
## Side Effects May Include

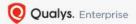
Knowing what's on your global hybrid-IT environment Providing a single source of truth for all your teams Better decision making using enriched data Improving your security and compliance posture Getting that promotion you always wanted **DEMO** Global IT Asset Inventory

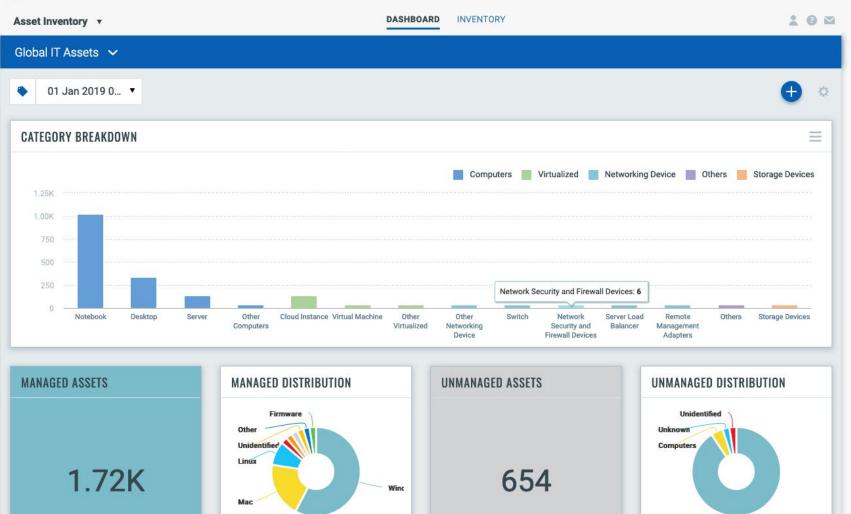


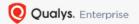


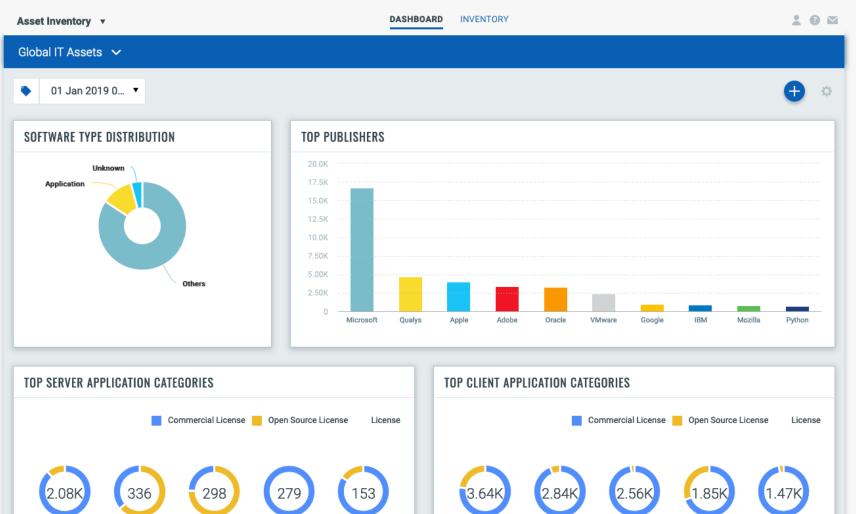


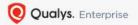


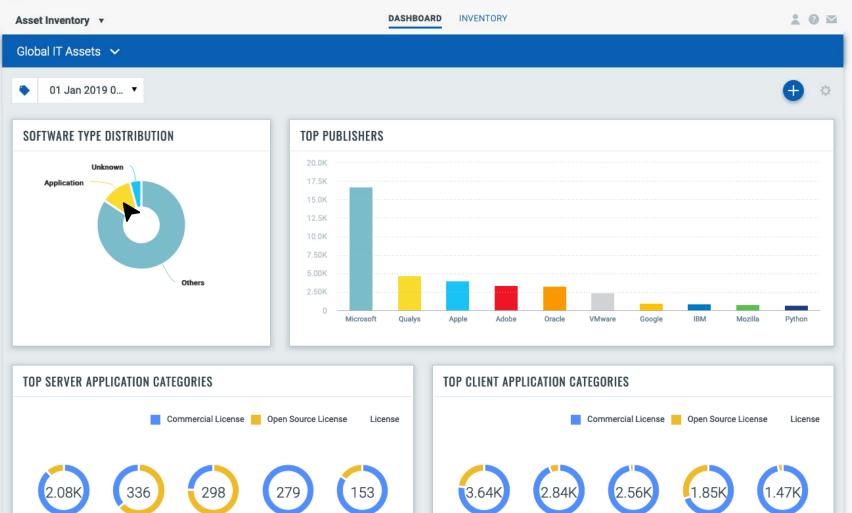


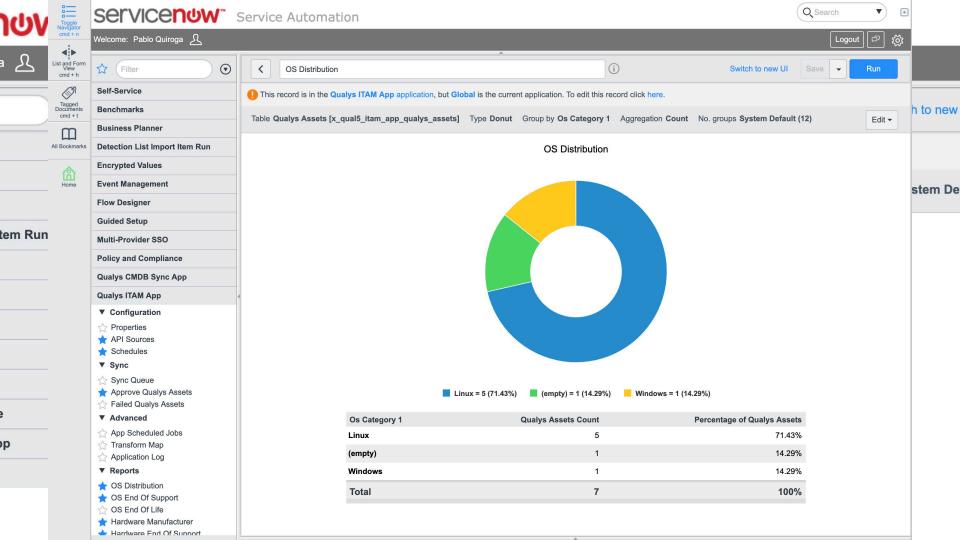










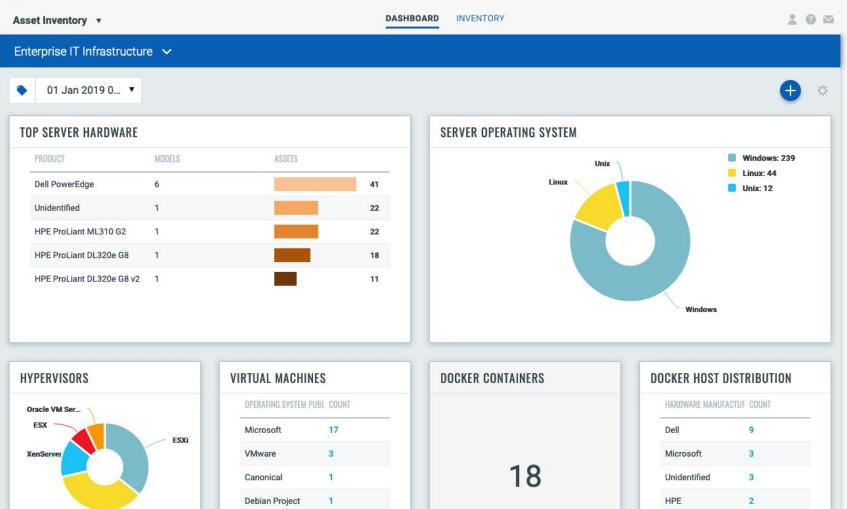


## שש Service Automation

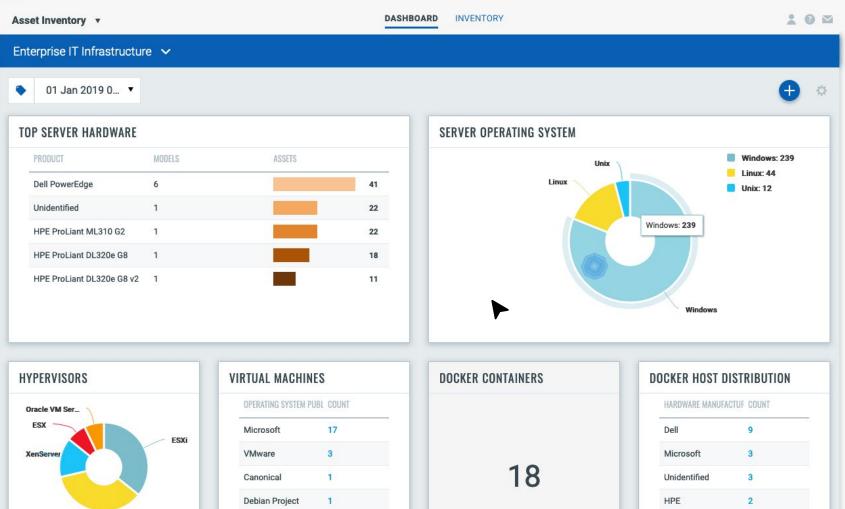
∎ <u>∠</u>	☆ computer X ⊙		Extended - catcentos73s_QA_REN <	S <sup>1</sup>	ک کې Dashboard Form Update	Delete 🛧 🗸
	Configuration ▼ Data Center	Name	catcentos73s_QA_REN	IP Address	192.168.11.63	
	☆ Computer Room ▼ Base Items	BIOS Description	Phoenix Technologies LTD 6.00 09/17/2015	DNS Hostname	catcentos73s_QA_REN	
	★ Computers ☆ Computer Peripherals	BIOS Asset Tag		NetBIOS name	catcentos73s	
	System Web Services			BIOS Serial Number	575f13f0565e	
	▼ Inbound ☆ Computer	CPU Count	- +	DIOS Senai number	575115105058	
tem Run			1	Processor CPU Counts	1	
		Processor speed	2900	Processor Description	Intel(R) Xeon(R)	
		Memory	488	Туре		
		Asset Last Logged On User	root			
	-	Last boot	2018-08-10 00:54:50 選	Asset Most Frequent User	root	
	-	Hardware Serial	2010-00-10 00.34.50	Time Zone	-07:00	
•	-	Number		Last Modified Date	2019-06-17 11:13:52	
р	-	Asset UUID	0699c96e-b08a-4b57-a874- 575f13f0565e			
		Hardware				~
		Hardware Full Name	VMware VMware Virtual Platform	Hardware Product	VMware Virtual Platform	
				Hardware Flouber		

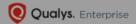
## Obtain in-depth visibility of your assets





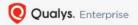






Asset Inventory	,		DASHBOARD INVENTORY		20 🗹
Managed 🗸		Assets Software			
239 Total Assets		<pre>     operatingSystem.category2:`s TOP HARDWARE CATEGORIES     300     150     0     Computers </pre>	Server' and operatingSystem.category1: TOP OP 300 150 Virtualized	`Windows` ERATING SYSTEMS CATEGORIES	01 Jan 2019 0 •
MANUFACTURER	83	Group Assets by : OS Name 🔇 🔻		1-	11 of 11 🚺 🛨 🖒 🗠 🌣
Lenovo	68	CATEGORY	PUBLISHER	NAME	ASSETS
HPE HP	55 17	Windows / Server	Microsoft	Windows Server 2012	49
Unidentified View 1 more	14	Windows / Server	Microsoft	Windows Server 2003	40
TAGS		Windows / Server	Microsoft	Windows Server 2008 R2	37
Cloud Agent Data Center	239 20	Windows / Server	Microsoft	Windows Server 2008	36
Madrid New York	5 5 5	Windows / Server	Microsoft	Windows Server 2016	31
San Francisco	5	Windows / Server	Microsoft	Windows Server 2012 R2	21
		Windows / Server	Microsoft	Windows Server 2003 R2	14
		Windows / Server	Microsoft	Windows Server 2000	5
		Windows / Server	Microsoft	Windows MultiPoint Server 2012	3

3



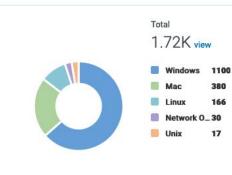
#### Asset Inventory v

٠

### Global IT Assets 🗸

01 Jan 2019 0... 🔻

### OPERATING SYSTEM DISTRIBUTION



TOP CLIENT OPERATING SY	STEM
OPERATING SYSTEM NAME	COUNT
OS X	301
Windows 7	163
Windows 10	83
macOS	78
Windows Vista	69
Windows XP	57
Windows 8	52

DASHBOARD

INVENTORY

#### TOP SERVER OPERATING SYSTEM

OPERATING SYSTEM NAME	COUNT	
Windows Server 2012	49	
Windows Server 2003	40	
Windows Server 2008 R2	37	
Windows Server 2008	36	
Windows Server 2016	31	
Windows Server 2012 R2	21	
Amazon Linux AMI	15	

#### **TOP CLIENT HARDWARE**

PRODUCT	MODELS	ASSETS	
Dell OptiPlex	4		280
Apple MacBook Pro	5		273
Lenovo ThinkPad T440p	6		236
Dell Latitude	3		195

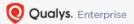
#### **TOP SERVER HARDWARE**

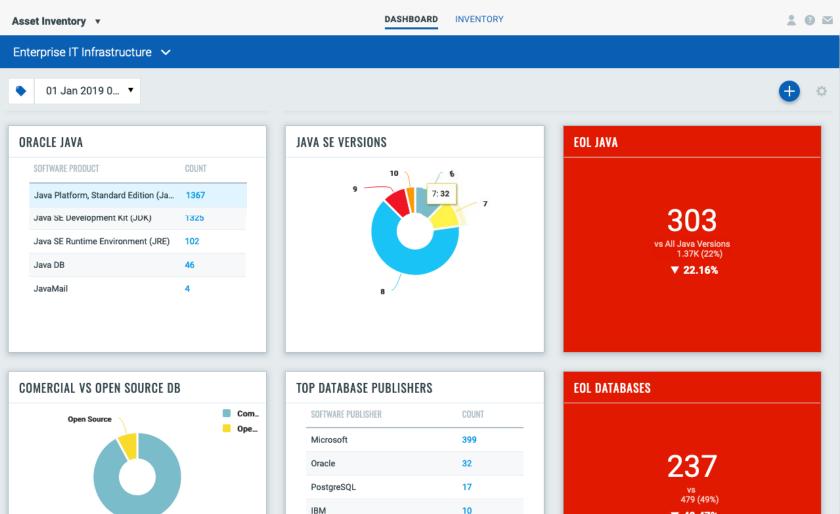
PRODUCT	MODELS	ASSETS	
Dell PowerEdge	6		41
Unidentified	1		22
HPE ProLiant ML310 G2	1		22
HPE ProLiant DL320e G8	1		18

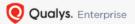
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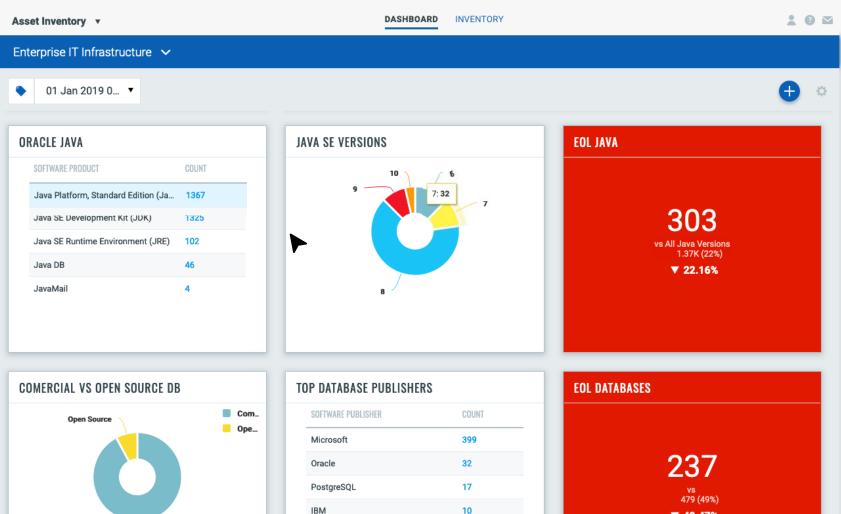
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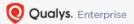
Solve important business problems

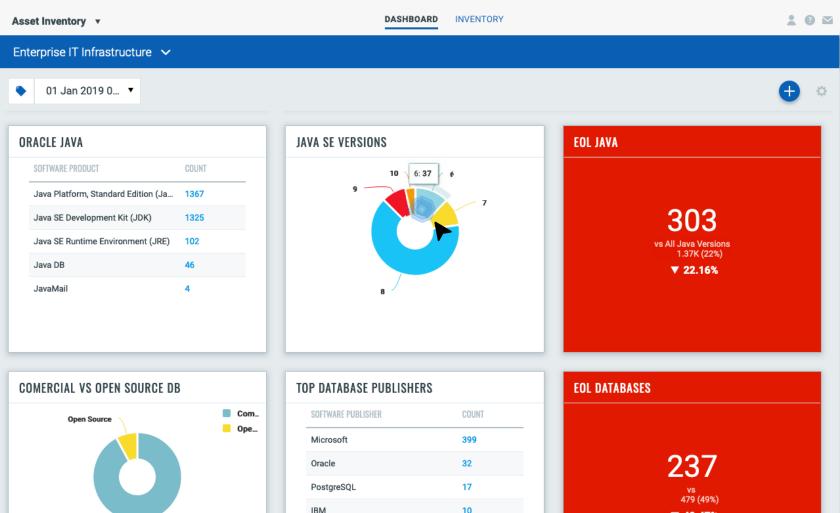


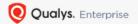










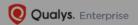


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Asset Inventory	•		DASHBOARD IN	VENTORY		20
Managed 🗸		Assets Software				
		Type: Application V operatingS	ystem.category2:`Server`	and software: ((produc	t: Java Platfɔduc ⊭ <sup>≫</sup> 01	Jan 2019 0 🔻 🔳
37	7	TOP SOFTWARE CATEGORIES		TOP SOFTWARE PUB	ISHERS	
Total Softw	ware	40 20 0		20 ·····	Oracle	
LICENSE		Applica Group Software by ▼	tion De			f9 🚯 ±c 🗠 🌣
Commercial	37	RELEASE	CATEGORY	LICENSE	LIFECYCLE	INSTANCES
PLATFORM 64-Bit	24	Oracle Java Platform, Standard Edi 1.6.0.31 64-Bit	Application Development Framework	Commercial	EOL: Dec 30 2015 EOS: Dec 30 2018	17
		Oracle Java Platform, Standard Edi 1.6.0.29	Application Development Framework	Commercial	EOL: Dec 30 2015 EOS: Dec 30 2018	6
OL/EOS	21	Oracle Java Platform, Standard Edi 1.6.0.14	Application Development Framework	Commercial	EOL: Unknown EOS: Dec 30 2018	4
		Oracle Java Platform, Standard Edi 1.6.0.45 64-Bit	Application Development Framework	Commercial	EOL: Dec 30 2015 EOS: Dec 30 2018	4
		Oracle Java Platform, Standard Edi 1.6.0.191 64-Bit	Application Development Framework	Commercial	EOL: Dec 30 2015 EOS: Dec 30 2018	2
		Oracle Java Platform, Standard Edi 1.6.0.07	Application Development Framework	Commercial	EOL: Unknown EOS: Dec 30 2018	1
		Oracle Java Platform, Standard Edi	Application Development	Commercial	EOL: Dec 30 2015	1

EOS: Dec 30 2018

Framework



1.6.0.171

Asset Inventory	•		DASHBOARD IN	ENTORY		20
Managed 🗸		Assets Software				
		Type: Application <b>v</b> × operatingS	ystem.category2:`Server`	and software: ((product	t: Java Platfoduc ⊭ <sup>7</sup> 01	Jan 2019 0 🔻 🔳
37	7	TOP SOFTWARE CATEGORIES		TOP SOFTWARE PUBLI	SHERS	
Total Softv		40				
		Applicat	tion De		Oracle	
LICENSE		Group Software by 🔻			1 - 9 o	f9 🔝 ± C 🗠 🌣
Commercial	37	RELEASE	CATEGORY	LICENSE	LIFECYCLE	INSTANCES
PLATFORM 64-Bit	24	Oracle Java Platform, Standard Edi 1.6.0.31 64-Bit	Application Development Framework	Commercial	EOL: Dec 30 2015 EOS: Dec 30 2018	17
LIFECYCLE		Oracle Java Platform, Standard Edi 1.6.0.29	Application Development Framework	Commercial	EOL: Dec 30 2015 EOS: Dec 30 2018	б
EOL/EOS	21	Oracle Java Platform, Standard Edi 1.6.0.14	Application Development Framework	Commercial	EOL: Unknown EOS: Dec 30 2018	4
		Oracle Java Platform, Standard Edi 1.6.0.45 64-Bit	Application Development Framework	Commercial	EOL: Dec 30 2015 EOS: Dec 30 2018	4
		Oracle Java Platform, Standard Edi 1.6.0.191 64-Bit	Application Development Framework	Commercial	EOL: Dec 30 2015 EOS: Dec 30 2018	2
		Oracle Java Platform, Standard Edi 1.6.0.07	Application Development Framework	Commercial	EOL: Unknown EOS: Dec 30 2018	1
		Oracle Java Platform, Standard Edi	Application Development	Commercial	EOL: Dec 30 2015	1

EOS: Dec 30 2018

Framework

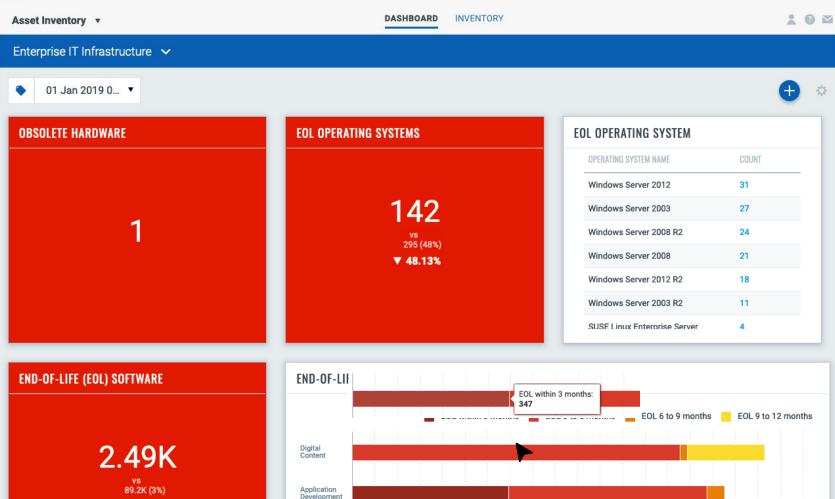


Asset Inventory 🔻			DASHBOARD INVEN	TORY		<b>2</b> 0 M
Managed 🗸		Assets Software				
2 Total Software		Type: Application V X atfoduct: Ja TOP SOFTWARE CATEGORIES 5 0 Applicat	ava Platform) and marketVers	TOP SOFTWARE PUBLISHER		an 2019 0 🔹 🚍
LICENSE Commercial	2	Group Software by RELEASE	CATEGORY	LICENSE	1 - 2 of 2	KD ± C 🗠 🌣 Instances
PLATFORM 64-Bit	1	Oracle Java Platform, Standard Edi 1.6.0.29	Application Development Framework	Commercial	EOL: Dec 30 2015 EOS: Dec 30 2018	1
		Oracle Java Platform, Standard Edi 1.6.0.31 64-Bit	Application Development Framework	Commercial	EOL: Dec 30 2015 EOS: Dec 30 2018	1

# Track hardware and software lifecycles and licenses

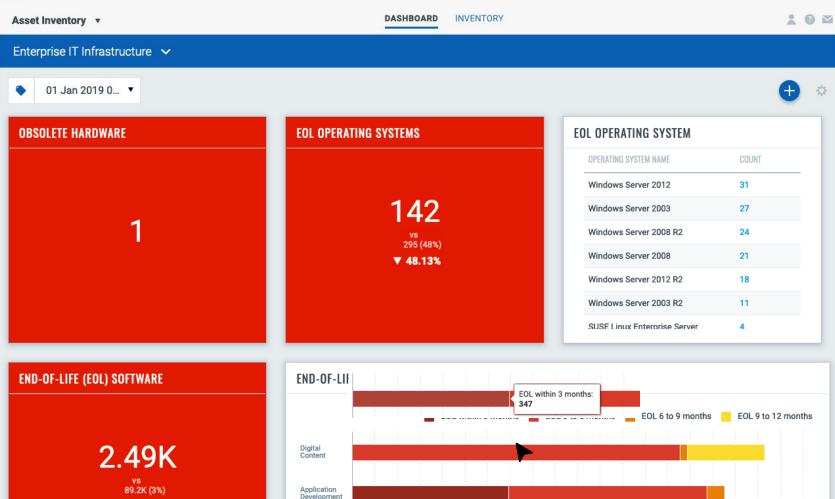


▼ 2.78%

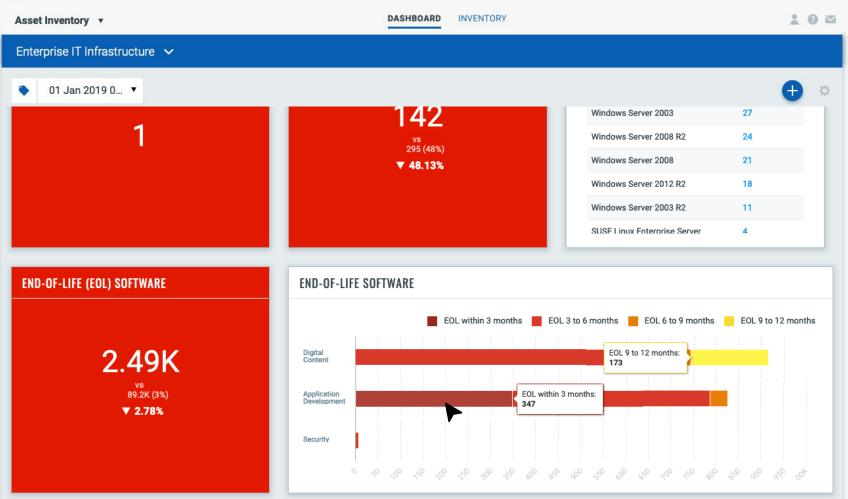




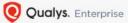
▼ 2.78%

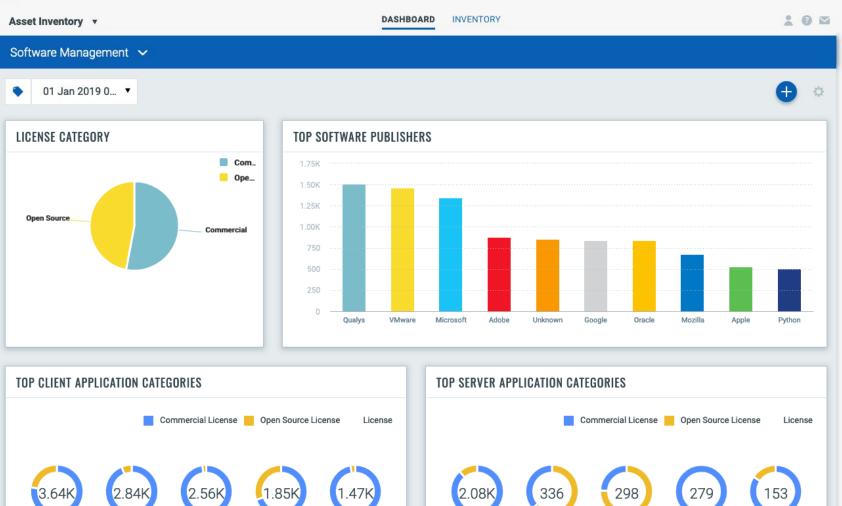


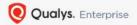


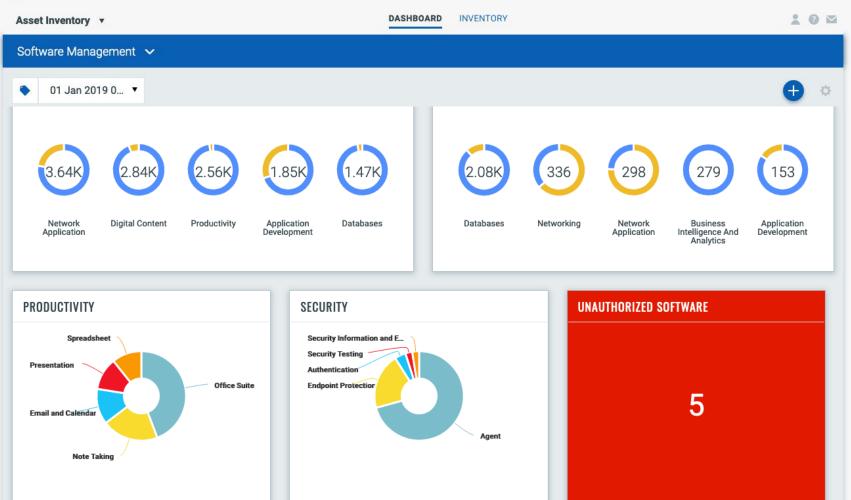


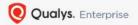
### **Find unauthorized software**

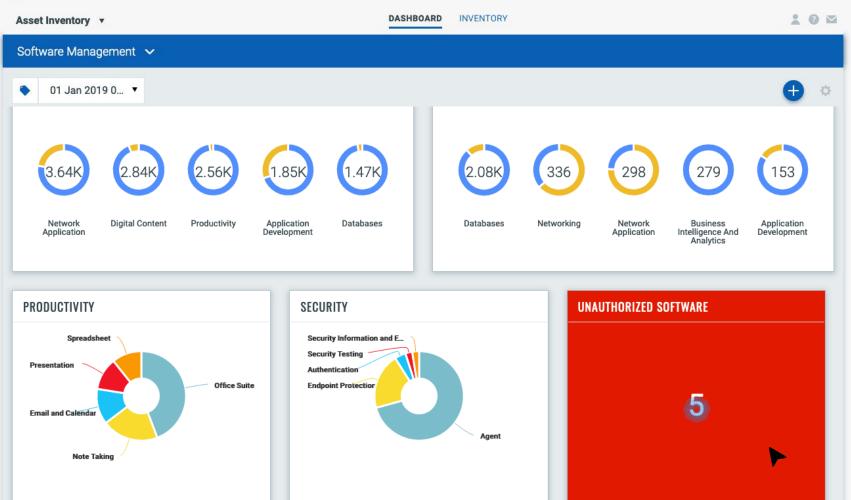












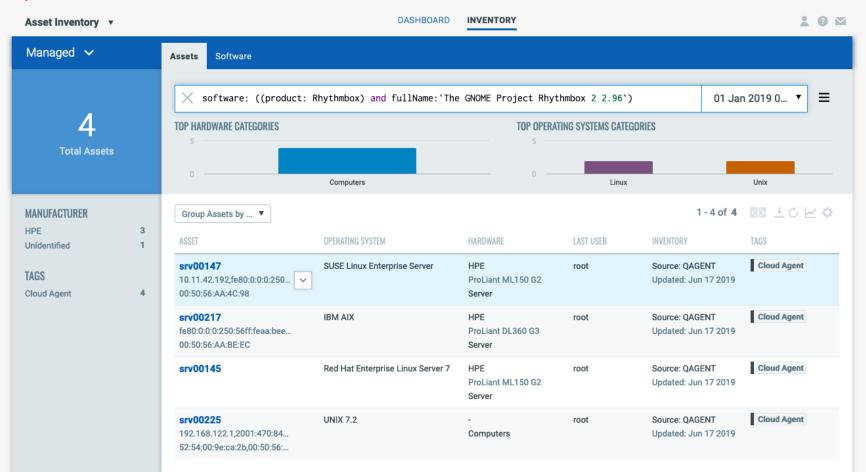


Asset Inventory 🔻		DASHBOARD INV	INTORY		1 O M
Managed 🗸	Assets Software				
_	Type: Application V × software:	(product: Rhythmbox)			01 Jan 2019 0 🔻 🔳
5	TOP SOFTWARE CATEGORIES		* TOP SOFTWARE V	/ERSIONS	
Total Software	5	Content	SQL Server Datab	Version 0.11 Nase Engine	1
LICENSE	Group Software by			1	-2 of 2 🚺 土 C 🗠 🌣
Open Source 5	RELEASE	CATEGORY	LICENSE	LIFECYCLE	INSTANCES
	The GNOME Project Rhythmbox 2.96	Digital Content Computer Game or Entertainment	Open Source	GA: Unknown EOL: Unknown	4
	The GNOME Project Rhythmbox 0.11.6	Digital Content Computer Game or Entertainment	Open Source	GA: Unknown EOL: Unknown	1

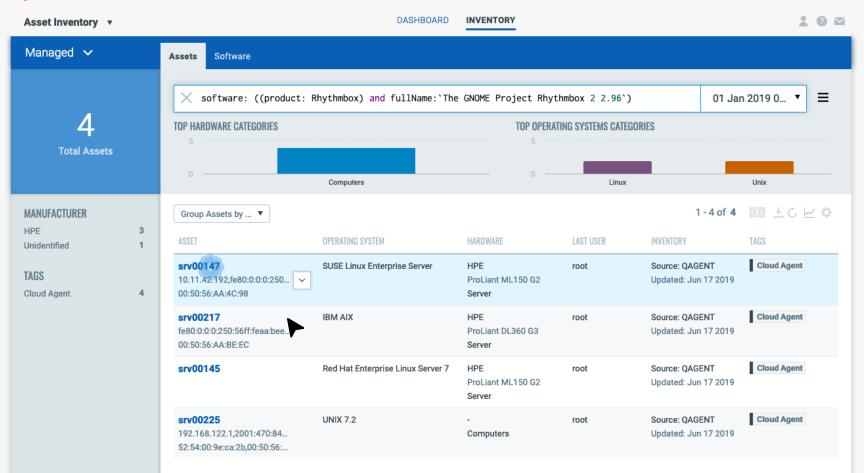


Asset Inventory •		DASHBOARD IN	VENTORY		1 O M
Managed 🗸	Assets Software				
	Type: Application 🔻 🔀 software:	(product: Rhythmbox)			01 Jan 2019 0 🔻 🚍
5	TOP SOFTWARE CATEGORIES		* TOP SOFTWARE V	ERSIONS	
Total Software	0 Digital	Content	SQL Server Datab	Version 0.11 ase Engine	1
LICENSE	Group Software by			1	-2 of 2 🔯 ± G 🗠 🜣
Open Source 5	RELEASE	CATEGORY	LICENSE	LIFECYCLE	INSTANCES
	The GNOME Project Rhythmbox 2.96	Digital Content Computer Game or Entertainme	Open Source ent	GA: Unknown EOL: Unknown	4
	The GNOME Project Rhythmbox 0.11.6	Digital Content Computer Game or Entertainme	Open Source	GA: Unknown EOL: Unknown	1











#### ← Asset Details: srv00147

#### ▼ INVENTORY

#### Asset Summary

System Information Network Information **Open Ports** Installed Software Traffic Summary

Asset Summary

#### ▼ SECURITY

Vulnerabilities **Threat Protection** Patch Management Indication of Compromise Certificates

#### ▼ COMPLIANCE

File Integrity Monitoring Policy Compliance

#### ▼ SENSORS

Agent Summary Passive Scanner Alert Notification



SUSE Linux Enterprise Server 12 11 SP3

#### Identification

DNS Hostname:	srv00147	
FQDN:	srv00147.acme.com	
NetBIOS Name:	9	
IPv4 Addresses:	12.133.1.106	
IPv6 Addresses:	12.133.1.106	
Asset ID :	131707468	
Host ID :	112007447	

#### **Agent Activity**

Last User Login :	root	
Last System Boot :	Apr 16, 2019 11:56 am	
Created On:	Apr 19, 2019 02:28 pm	
Last Checked-In :	Apr 20, 2019 11:34 am	
Last Activity:	Apr 20, 2019 11:34 am	

#### Last Location

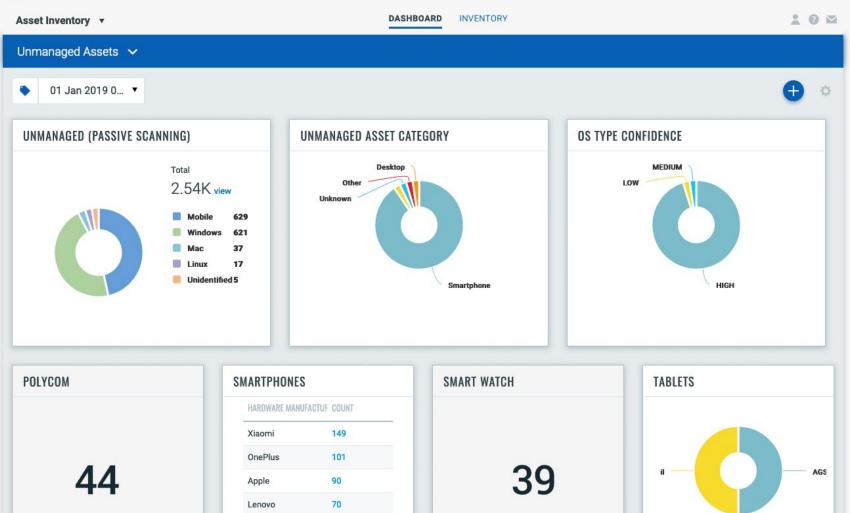


#### Tags Edit

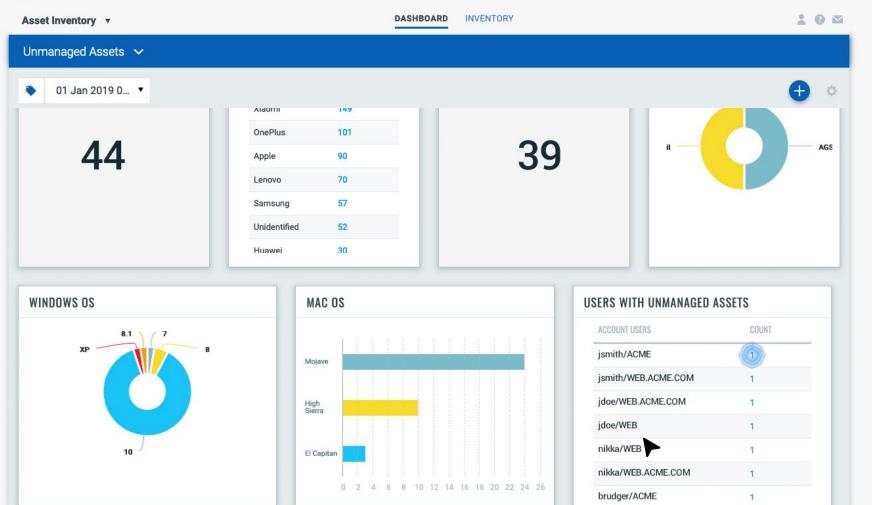
Cloud Agent Data Center

### Identify unknown assets that connect to the network











Asset Inventory 🔻			DASHBOARD	INVENTORY	10 M
Unmanaged 🗸		Assets			
		× 001142-Z381N			Last 30 Days 🔻 🗮
1		TOP HARDWARE CATEGORIES		TOP OPERATING SYSTEMS CATEGORIES	
Total Asset		0	Unidentified	0	Windows
MANUFACTURER		Group Assets by 🔻			1-1of1 🔯 土 C 🖂 🌣
Unidentified	1	ASSET	OPERATING SYSTEM	HARDWARE Notebook LAST USER	INVENTORY
OS CONFIDENCE	1	001142-Z381N	Microsoft Windows 10	Unidentified	Passive Scanner 🛞 First: Jun 19 2019
NETWORK		192.168.251.66, 192.168.249.2 34:41:5d:2a:b9:58			Last: 5 minutes ago

Guest WiFi

1



Asset Inventory 🔻		DASHBOARD INVENTORY	202
Unmanaged 🗸	Assets		
<b>1</b> Total Asset	X 001142-Z381N TOP HARDWARE CATEGORIES 5 0 Unidentified	<b>TOP OPERATING SYS</b>	Last 30 Days  TEMS CATEGORIES Windows
MANUFACTURER Unidentified OS CONFIDENCE NETWORK Guest WiFi	Group Assets by ASSET OPERATING S 001142-Z381N Microsoft 192.168.251.66, 192.168.249.2 34:41:5d:2a:b9:58	YSTEM HARDWARE Notebook Windows 10 Unidentified	1-1 of 1 🕼 土 C 🗠 🌣 LAST USER INVENTORY Passive Scanner 🐲 First: Jun 19 2019 Last: 2 minutes ago



#### ← Asset Details: 113323-T470P

#### ▼ INVENTORY

Asset Summary

System Information

Network Information

**Open Ports** 

Traffic Summary

#### ▼ SENSORS

Passive Scanner

Asset	Summary
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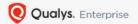


#### Identification

Hostname:	001142-Z381N
FQDN:	001142-Z381N
NetBIOS Name:	
Mac Addresses:	34:41:5d:2a:b9:58
IPv4 Addresses:	192.168.251.66
IPv6 Addresses:	fe80::c418:12cc:2016:68fe
Asset ID:	8a851b01-e8c5-4d56-a833-9225b1afbb0f

#### <sup>©</sup> Activity

July 3, 2019 12:34 pm		
ω.		
Jun 19, 2019 01:43 am		
a minute ago 12:34 pm		
	- Jun 19, 2019 01:43 am	- Jun 19, 2019 01:43 am



#### ← Asset Details: **113323-T470P**

#### ▼ INVENTORY

Asset Summary

System Information

Network Information

**Open Ports** 

Traffic Summary

▼ SENSORS

Passive Scanner

Asset	Summary
-------	---------

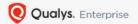


#### Identification

Hostname:	001142-Z381N
FQDN:	001142-Z381N
NetBIOS Name:	
Mac Addresses:	34:41:5d:2a:b9:58
IPv4 Addresses:	192.168.251.66
IPv6 Addresses:	fe80::c418:12cc:2016:68fe
Asset ID :	8a851b01-e8c5-4d56-a833-9225b1afbb0f

#### <sup>©</sup> Activity

Last User Login :	July 3, 2019 12:34 pm	
Last System Boot :	<u>е</u>	
First Seen :	Jun 19, 2019 01:43 am	
Last Seen :	a minute ago 12:34 pm	



#### ← Asset Details: 001142-Z381N

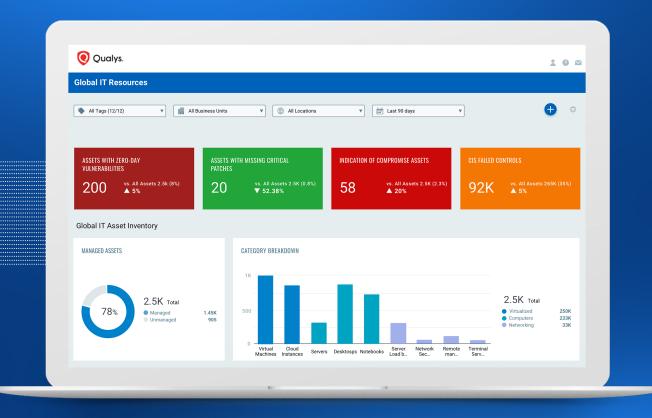
#### ▼ INVENTORY **Traffic Summary** Asset Summary System Information Q Search for traffic details... Network Information **Open Ports** All Client Server Traffic Summary INGRESS TRAFFIC VOLUME Click and drag in the plot area to zoom in EGRESS ▼ SENSORS 238 Passive Scanner MB Jun 24, Jun 25, Jun 26, Jun 27, Jun 28, Jun 29, Jun 30, Jul 01, Jul 02, 17:00 17:00 17:00 17:00 17:00 17:00 17:00 17.00 17:00 **Traffic Details** From: Jun 23, 2019 (12:31) 14<sub>GB</sub> 1<sub>GB</sub> Jul 03, 2019 (12:31) To: **Total Ingress Total Egress Traffic by Family** FAMILY APP/SERVICE **CLIENT/SERVER** INGRESS TOTAL $\leq$ Web Services HTTPs Client 13.49 GB 1.41 GB 14.89 GB Web Services HTTP Client 994.8 MB 8.38 MB 1003.18 MB $\leq$ Unassigned Unassigned Client 8.66 MB 12.49 MB 21.15 MB Web Services Domain Name System (DNS) 5.38 MB 4.51 MB Client 9.89 MB

Web Convises 16 CB

### How is this possible? CLOUD-BASED ARCHITECTURE



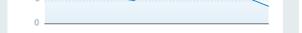




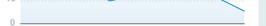


#### **Global IT Resources** Ċ. All Locations 📰 Last 90 days All Tags (12/12) ▼ 圃 All Business Units ▼ ▼ ▼ ASSETS WITH MISSING CRITICAL **CIS FAILED CONTROLS** ASSETS WITH ZERO-DAY INDICATION OF COMPROMISE ASSETS PATCHES **VULNERABILITIES** vs. All Assets 2.5k (8%) vs. All Assets 2.5K (0.8%) vs. All Assets 2.5K (2.3%) 200 20 58 92K ▲ 5% ▼ 52.38% **A** 20% ▲ 5% **Global IT Asset Inventory** MANAGED ASSETS CATEGORY BREAKDOWN 1K 2.5K Total 2.5K Total 78% 500 Virtualized 250K Managed 1.45K Computers 233K Unmanaged 905 Networking 33K 0 Virtual Cloud Server Network Remote Terminal Servers Desktosps Notebooks Machines Instances Load b... Sec... Serv... man...





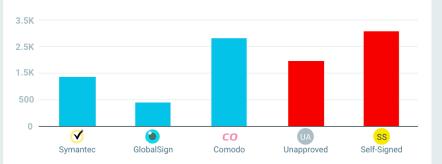




#### EXPIRING CERTIFICATES



#### CERTIFICATES BY ISSUING AUTHORITY

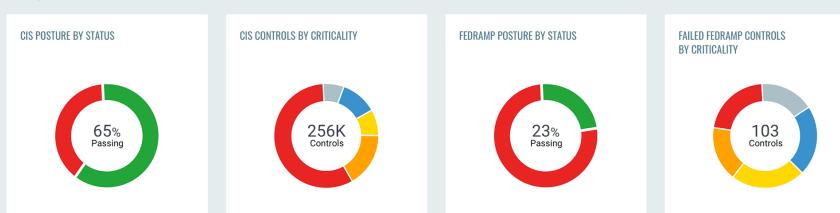




**CERTIFICATES BY GRADE** 



#### Compliance



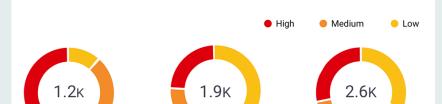


**Cloud & Container Security** 

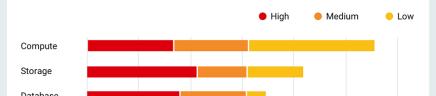


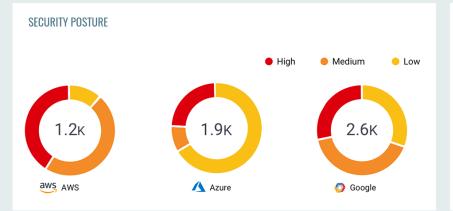


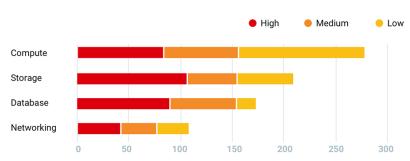
SECURITY POSTURE



CLOUD CATEGORIES BY SEVERITY



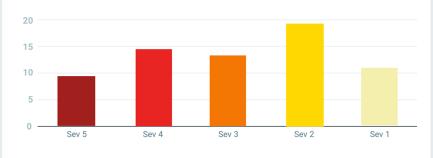




CONTAINER DISTRIBUTION BY STATUS



CONTAINER DISTRIBUTION BY VULNERABILITY SEVERITY



ROGUE CONTAINERS 9 Total

Web Application Security

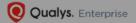
**TOP 5 MOST VULNERABLE APPLICATIONS** 

#### OWASP TOP 10 DETECTIONS

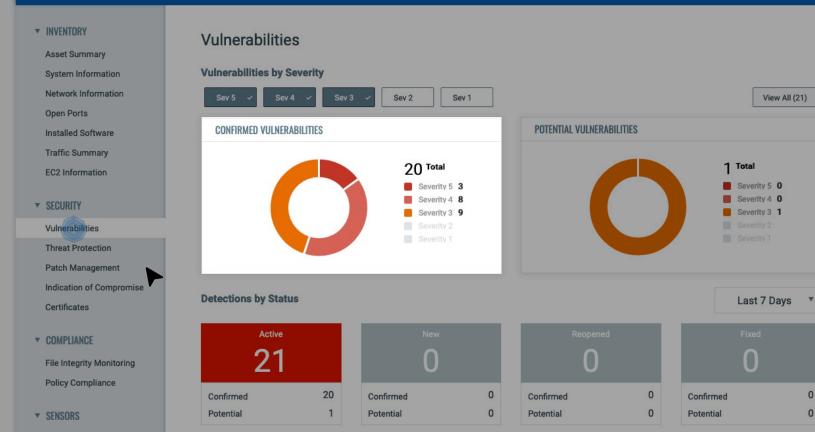
**CLOUD CATEGORIES BY SEVERITY** 

## **DEMO** Responding to a suspicious device





#### ← Asset Details: WIN08R2-CA



0

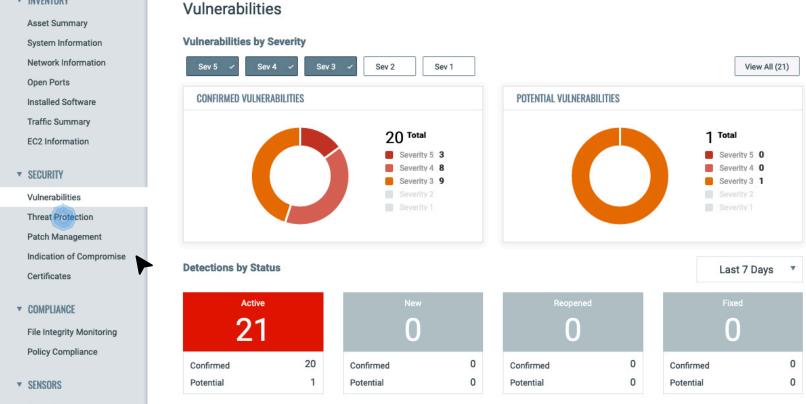
0

Agent Summary **Passive Scanner** Alert Notification



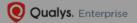
INVENTORY

# ← Asset Details: WIN08R2-CA

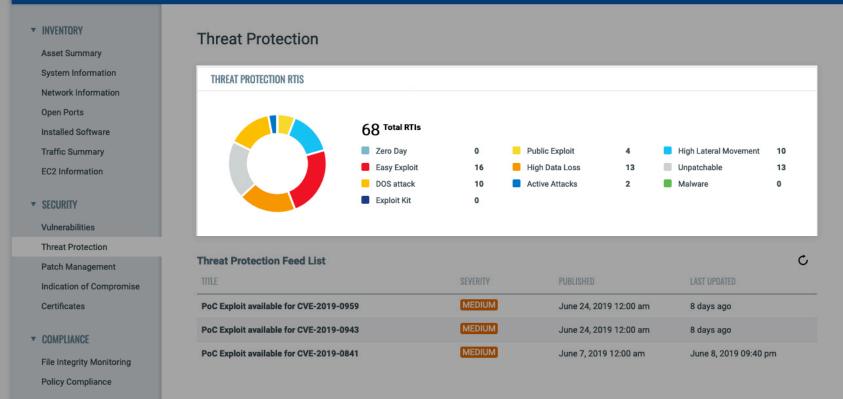


Agent Summary Passive Scanner

Alert Notification



# ← Asset Details: WIN08R2-CA



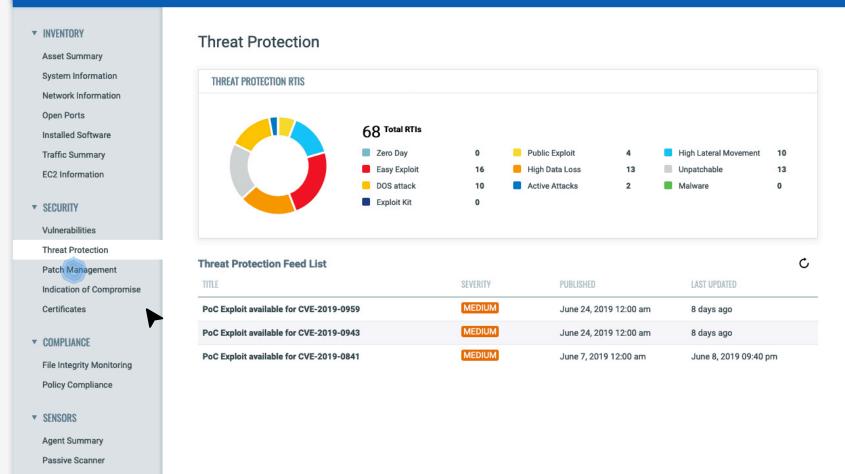
### ▼ SENSORS

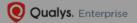
Agent Summary
Passive Scanner
Alert Notification



Alert Notification

# ← Asset Details: WIN08R2-CA





# ← Asset Details: WIN08R2-CA

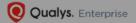




# ← Asset Details: WIN08R2-CA

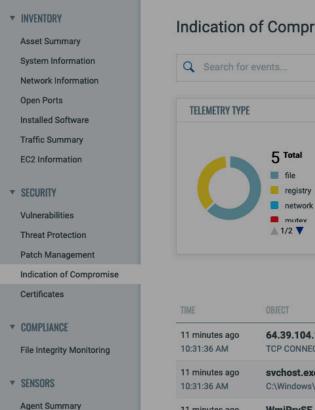


Alert Notification



Passive Scanner Alert Notification

# ← Asset Details: WIN08R2-CA



# Indication of Compromise

8.11K

162

82



8

9

10

▲ 1/2 ▼

9

6

2

### 1-50 of 22604 🚺 🗘 📈

pua

trojan 

7

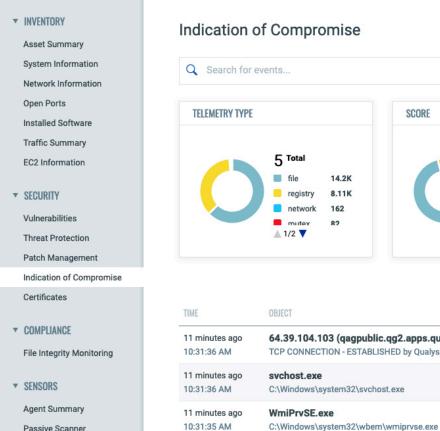
3

TIME	OBJECT	FAMILY	CATEGORY	SCORE
11 minutes ago 10:31:36 AM	64.39.104.103 (qagpublic.qg2.apps.qualys.com TCP CONNECTION - ESTABLISHED by QualysAgent.exe	-	-	-
11 minutes ago 10:31:36 AM	svchost.exe C:\Windows\system32\svchost.exe	-	-	-
11 minutes ago 10:31:35 AM	WmiPrvSE.exe C:\Windows\system32\wbem\wmiprvse.exe	-	-	-
11 minutes ago 10:31:26 AM	QualysAgent.exe C:\Program Files\Qualys\QualysAgent\QualysAgent.exe	-	-	-



Alert Notification

# ← Asset Details: WIN08R2-CA

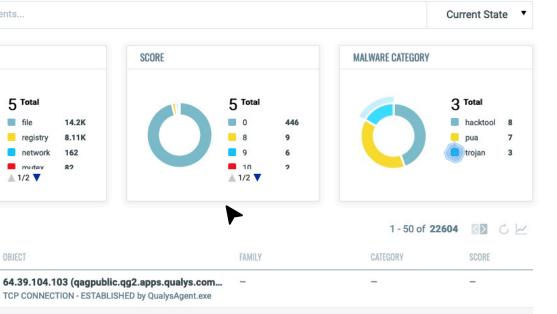


11 minutes ago

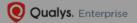
10:31:26 AM

QualysAgent.exe

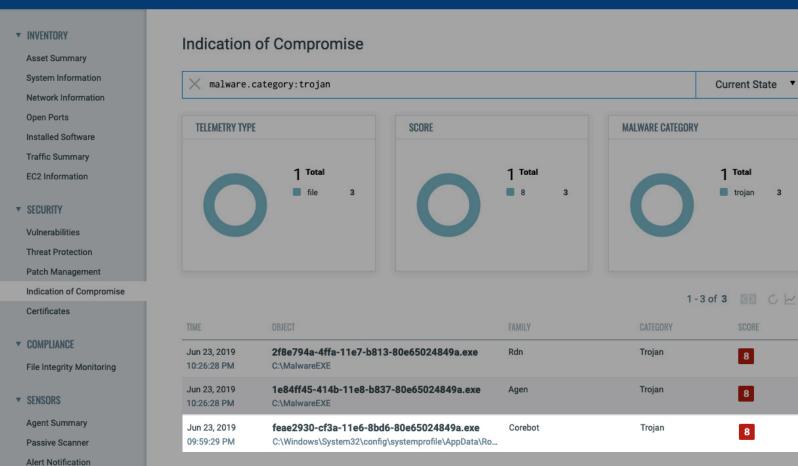
C:\Program Files\Qualys\QualysAgent\QualysAgent.exe



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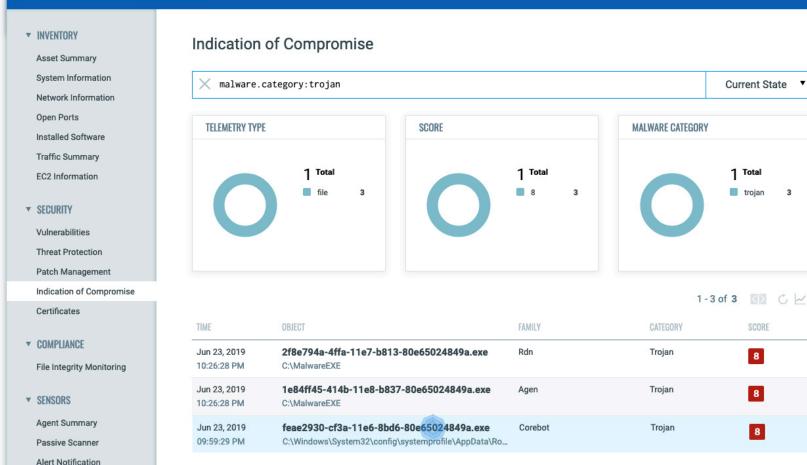


# ← Asset Details: WIN08R2-CA



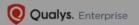


# ← Asset Details: WIN08R2-CA



v

3



# ← Event Details

# 🖹 FILE

File Name:	feae2930-cf3a-11e6-8bd6-80e65024849a.exe
Score:	8

# **EVENT DETAILS**

ID:	
Event Collected Date:	
Object Type:	

F\_07f2b29d-1dee-4375-9a6c-9c7b6044f8e2\_2493761414841144643 Jun 23, 2019 09:59 PM FILE

# FILE DETAILS

File Action:	CREATED		
File Name:	feae2930-cf3a-11e6-8bd6-80e65024849a.exe		
Path:	C:\Windows\System32\config\systemprofile\AppData\Roaming		
Full Path:	th: C:\Windows\System32\config\systemprofile\AppData\Roaming\feae2930-		
	cf3a-11e6-8bd6-80e65024849a.exe		
MD5:	218613f0f1d2780f08e754be9e6f8c64		
SHA256:	a162bb9219a09b302b90bc6f908e117e3fb2c722560336d378fd76a8f22f78f8	Virustotal [2]	

# FILE PROPERTIES

File Size:	207360	Product:
File Created:	Jun 23, 2019 09:36 PM	Company:
File Modified:	Jun 23, 2019 09:10 PM	Copyright:
File Accessed:	Jun 23, 2019 09:36 PM	Description:
		Version:

< Previous		Next >
ASSET DETAILS		
Host Name : WIN08R2-		CA
Platform: WINDOWS		
IPv4:	34.213.7.2	05,172.16.1.74
IPv6:	-	
MALWARE DETAIL	S	
Family:	Corebot	
Category:	Trojan	
Score:	8	



# ← Event Details

# 🖹 FILE

File Name:	
Score:	

8

# EVENT DETAILS

ID: Event Collected Date: Object Type: F\_07f2b29d-1dee-4375-9a6c-9c7b6044f8e2\_2493761414841144643 Jun 23, 2019 09:59 PM FILE

# FILE DETAILS

File Action:	CREATED	
File Name:	feae2930-cf3a-11e6-8bd6-80e65024849a.exe	
Path:	C:\Windows\System32\config\systemprofile\AppData\Roaming	
Full Path:         C:\Windows\System32\config\systemprofile\AppData\Roaming\feae2930-		
	cf3a-11e6-8bd6-80e65024849a.exe	
MD5:	218613f0f1d2780f08e754be9e6f8c64	
SHA256:	a162bb9219a09b302b90bc6f908e117e3fb2c722560336d378fd76a8f22f78f8	Z

feae2930-cf3a-11e6-8bd6-80e65024849a.exe

### FILE PROPERTIES

File Size:	207360
File Created:	Jun 23, 2019 09:36 PM
File Modified:	Jun 23, 2019 09:10 PM
File Accessed:	Jun 23, 2019 09:36 PM

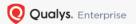
Product:	-
Company:	_
Copyright:	-
Description:	-
Version:	
	Company: Copyright: Description:

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< Pre	ious Next >
ASSET DETAILS	
Host Name :	WIN08R2-CA
Platform :	WINDOWS
IPv4:	34.213.7.205,172.16.1.74
IPv6:	-
MALWARE DETA	ILS
Family:	Corebot
Category:	Trojan
Score:	8

2

60	⊗ 60 engines detected this file		
Community Score	a162bb9219a09b302b90bc6f908e117e3fb2c722560336d378fd76a8f22f78f8 bc93efa3-c907-11e6-bfac-80e65024849a.file peexe		202.5 KB         2019-06-05 23:56:01 UTC           Size         27 days ago
DETECTION	DETAILS RELATIONS BEHAVIOR COMMUNITY		
Acronis	① Suspicious	Ad-Aware	Backdoor.Agent.ABWI
AegisLab	① Trojan.Win32.CoreBot.4!c	AhnLab-V3	() Trojan/Win32.Trickbot.C1620377
Alibaba	① TrojanBanker:Win32/CoreBot.8118bd98	ALYac	() Backdoor.Agent.ABWI
Antiy-AVL	① Trojan[Banker]/Win32.CoreBot	SecureAge APEX	() Malicious
Arcabit	Backdoor.Agent.ABWI	Avast	() Win32:TrickBot-A [Drp]
AVG	() Win32:TrickBot-A [Drp]	Avira (no cloud)	() TR/Dropper.Gen
BitDefender	Backdoor.Agent.ABWI	CAT-QuickHeal	1 Trojan.Mauvaise.SL1
ClamAV	() Win.Trojan.Generic-7803	Comodo	() Malware@#3rspIn4cf2qro
CrowdStrike F	Falcon () Win/malicious_confidence_100% (W)	Cybereason	① Malicious.0f1d27
Cylance	① Unsafe	Cyren	() W32/Trojan.IRTG-0219
DrWeb	() Trojan.DownLoader22.63827	Emsisoft	() Backdoor.Agent.ABWI (B)
		1991	



# $\leftarrow$ Edit: Rule

# **Rule Details**

Provide the following information to create the rule

### **Rule Information**

Rule Name	Required
Notify when Malware is Detected - 2 within 30 mins	

Description	Required
Notify when Malware is Detected - 2 within 30 mins	

### **Rule Query**

ovide a query to match particular source that will trigger the alert Required		
imes indicator.score>4 and operatingsystem.fullname:Windows		
Sample Queries	Test Query	
Trigger Criteria		
Provide the match criteria		
Trigger Criteria	Required	

Ŧ

# $\leftarrow$ Edit: Rule

### **Trigger Criteria**

Provide the match criteria

Trigger Criteria	Required
Time-Window Count Match	▼

### Time-Window Count Match

No Of Matching Events	Required	in R	Required	
2		30	Mins	
Aggregate Alerts		Aggregate	Group	

### Action Settings

Choose an appropriate alert action

# Actions Required

-

### Send Email

Decinient

# $\leftarrow$ Edit: Rule

### 🔽 Send Email

Recipient	Required
ccarlson@qualys.com	
Subject	Required
Agg: Malware Detected on \${asset.hostName} [\${indicate	or.score}] \${malware.famil
Message	Required
Insert token	
Malware Detected on host \${asset.hostName}	
Score: \${indicator.score}	
Filename: \${file.name}	
Path: \${file.fullPath}	
MD5: \${file.hash.md5} SHA256: \${file.hash.sha256}	
Malware Family: \${malware.family}	
Malware Category: \${malware.category}	
EventID: \${event.id}	
	345/5000

-



# ← Event Details

# 🖹 FILE

File Name:	feae2930-cf3a-11e6-8bd6-80e65024849a.exe
Score:	8

# EVENT DETAILS

ID:	
Event Collected Date:	
Object Type:	

F\_07f2b29d-1dee-4375-9a6c-9c7b6044f8e2\_2493761414841144643 Jun 23, 2019 09:59 PM FILE

# FILE DETAILS

File Action:	CREATED	
File Name:	feae2930-cf3a-11e6-8bd6-80e65024849a.exe	
Path:	C:\Windows\System32\config\systemprofile\AppData\Roaming	
Full Path:	C:\Windows\System32\config\systemprofile\AppData\Roaming\feae2930-	
	cf3a-11e6-8bd6-80e65024849a.exe	
MD5:	218613f0f1d2780f08e754be9e6f8c64	
SHA256:	a162bb9219a09b302b90bc6f908e117e3fb2c722560336d378fd76a8f22f78f8	🛛 virustotal [ 🖸

### FILE PROPERTIES

File Size:	207360
File Created:	Jun 23, 2019 09:36 PM
File Modified:	Jun 23, 2019 09:10 PM
File Accessed:	Jun 23, 2019 09:36 PM

Product:	
Company:	
Copyright:	
Description:	
Version:	

< Prev	rious	Next >
ASSET DETAILS		
Host Name :	WIN08R2-CA	
Platform :	WINDOWS	
IPv4:	34.213.7.205,1	72.16.1.74
IPv6:	-	
MALWARE DETA	ILS	
Family:	Corebot	
Category:	Trojan	
Score:	8	



# Manually apply policy Something about what the user will need to know about the fields below. Policies Q Search V REQUIRED Reason Cancel

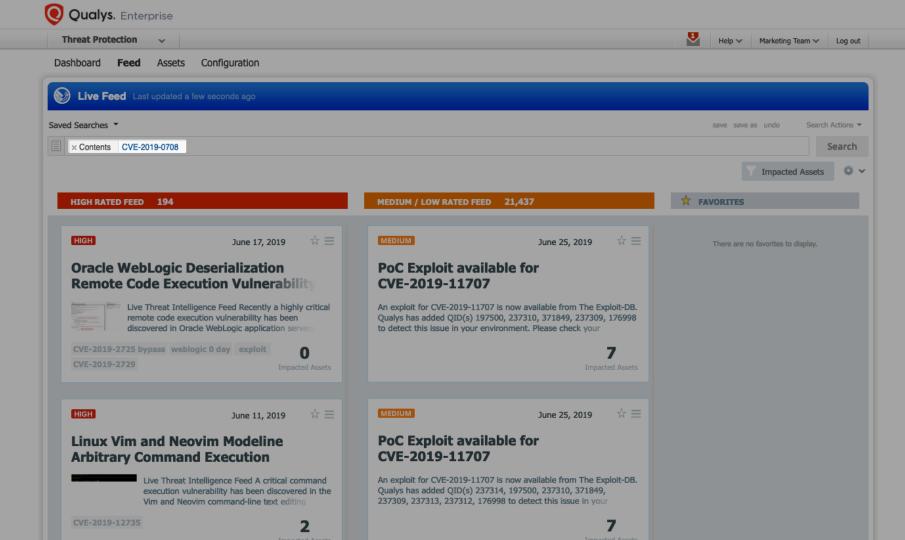
### FILE PROPERTIES

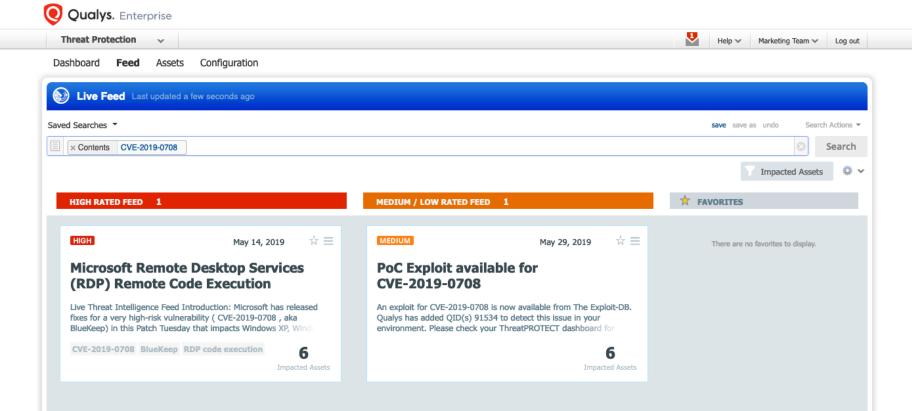
File Size: File Created: File Modified: File Accessed

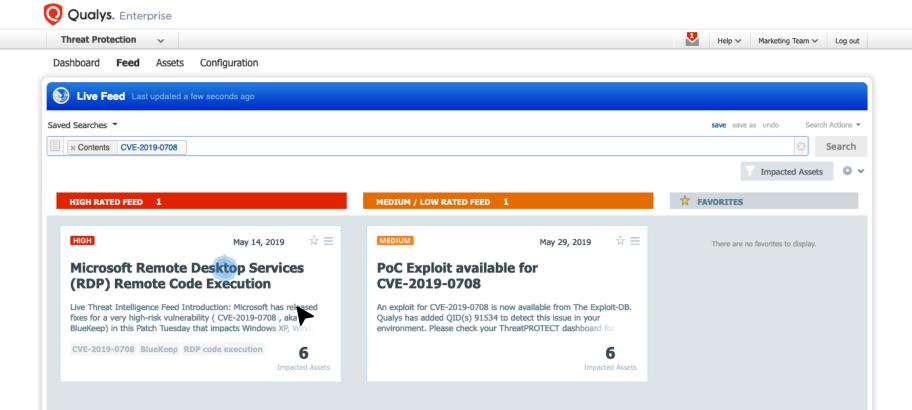


Manually apply policy Something about what the user will need to know about the fields below. Policies A Quarantine policy for vulnerable employee laptops . REQUIRED Reason Cancel

**DEMO** Searching for a critical exploit









# Microsoft Remote Desktop Services (RDP) Remote Code Execution Vulnerability – CVE-2019-0708

Posted by Mandar Jadhav on May 15, 2019

### Introduction:

Microsoft has released fixes for a very high-risk vulnerability (<u>CVE-2019-0708</u>, aka BlueKeep) in this <u>Patch Tuesday</u> that impacts Windows XP, Windows 7, Server 2003, Server 2008, and Server 2008 R2. A critical remote code execution vulnerability exists in the Microsoft Windows systems running Remote Desktop Protocol (RDP). Upon successful exploitation an attacker can gain code execution on the vulnerable systems. An attacker could then install programs; view, change, or delete data; or create new accounts with full user rights. Customers running Windows 8 and Windows 10 are not affected by this vulnerability.

### Vulnerability:

The vulnerability exists in the way that the RDP service component processes incoming requests. Due to which, an attacker could execute arbitrary code on the targeted system.

successful exploitation an attacker can gain code execution on the vulnerable systems. An attacker could then install programs; view, change, or delete data; or create new accounts with full user rights. Customers running Windows 8 and Windows 10 are not affected by this vulnerability.

### Vulnerability:

The vulnerability exists in the way that the RDP service component processes incoming requests. Due to which, an attacker could execute arbitrary code on the targeted system.

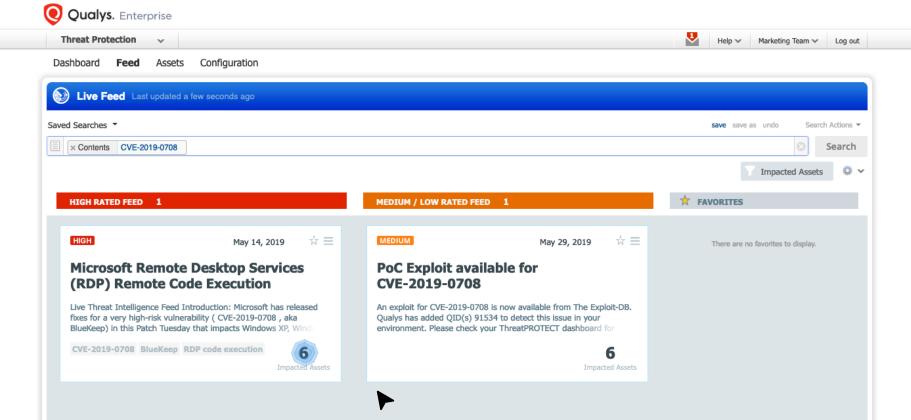
Microsoft has also released further notification related to this vulnerability. The Remote Desktop Protocol (RDP) itself is not vulnerable. This vulnerability is pre-authentication and requires no user interaction, which means the vulnerability can be exploit this vulnerability in a similar fashion as the WannaCry worm. The malware/attack can exploit this vulnerability to propagate from recently infected systems to infect more.

We are not seeing any increased activity on RDP till now.

### Mitigation:

We request organizations to apply the latest patches from Microsoft to address CVE-2019-0708. Microsoft has also released <u>security updates</u> for unsupported but still widely-used Windows operating systems such as XP and Windows 2003. Qualys customers can scan using **QID:91534** to detect vulnerable assets and refer this <u>blog post</u> for further information.

Customers are also advised to disable RDP service if they are not required or block TCP port 3389 or enable <u>Network</u> <u>Level Authentication</u> (NLA) on systems running supported editions of Windows 7, Windows Server 2008, and Windows Server 2008 R2.





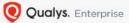
Microsoft Windo...

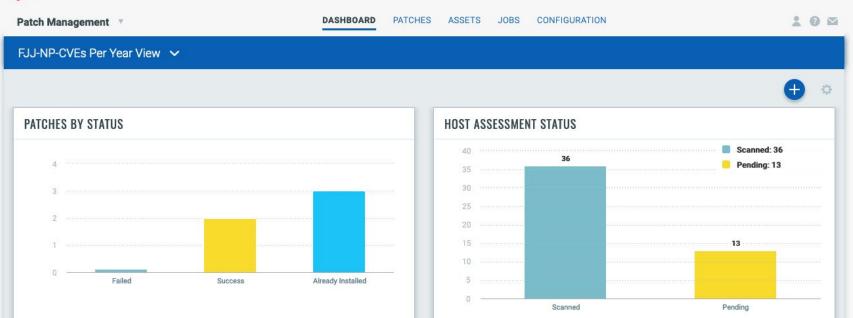
Windows

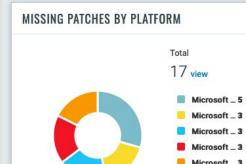
1

1

Vulnerability Management 🔻		DASHBOARD VULN	ERABILITIES SCANS REPORTS REMED	NATION ASSETS	KNOWLEDGEBASI	E USERS	101
Vulnerabilities BE	TA						
		Vulnerability 🔻 🔀 vulnerabi	ilities.vulnerability.cveIds:CVE-2019-(	9708			+
6 Total Assets		Asset Vulnerability	1-6 of 6 🚺 🖒 🔅				
		NAME	OPERATING SYSTEM	LAST LOGGED IN	ACTIVITY	SOURCES	TAGS
LAST LOGGED ON USER		WIN08R2-CA 34.213.7.205, 172.16.1.74	Microsoft Windows Server 2008 R2 Datacen	. Unknown	Scan Complete July 3, 2019	aws.	Regions - US-WEST
.\joel .\fjimenez	1	WIN7-64BIT-AZ 10.0.1.146, 2600:8800:3600:1	Microsoft Windows 7 Ultimate 6.1.7601 Serv.	\fjimenez	Scan Complete July 2, 2019		Scanned in 90-D 21 more
TAGS Scanned in 30-D ScanTimeMin-0-10 Agentless_Tracki Host with > 2 port-135 \$\times\$ 40 more	6 6 6 6	WIN7-32BIT-AZ Unknown IP	Windows	Unknown	Manifest Downloa July 2, 2019		FJJ-Global-Agents
		WIN7-32BIT-AZ 10.0.1.193, 2600:8800:3600:1	Microsoft Windows 7 Ultimate 6.1.7601 Serv.	\joel	Manifest Downloa July 2, 2019		Santosh-TestAsset 21 more
		Winxp-Victim-BU-SD 172.16.2.104	Windows XP Service Pack 3	Unknown	June 26, 2019	?	BU-SanDiego-AG-Gi 22 more
OPERATING SYSTEM		WINXP-BU-SD 172.16.2.112	Windows XP Service Pack 3	Unknown	June 26, 2019	?	Network-Range-XML
Windows XP Serv Microsoft Windo	2 2						



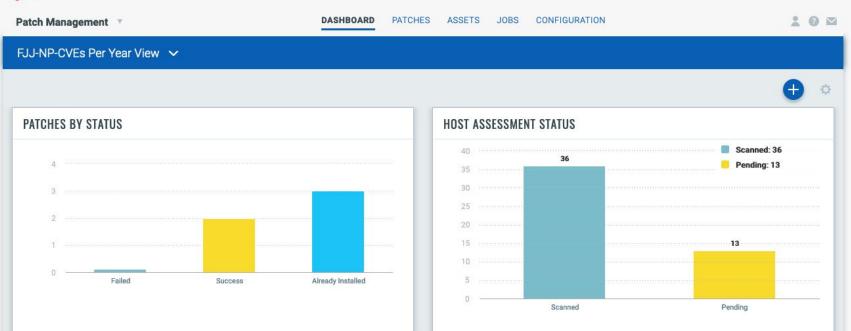


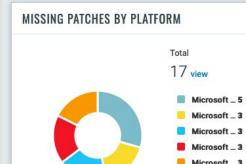


EVE .	COUNT
CVE-2019-0708	6
CVE-2019-0725	6
CVE-2018-12130	6
CVE-2019-0890	6
OVE 0010 0000	

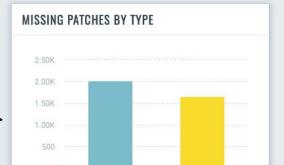
# AISSING PATCHES BY TYPE 2.50K 2.00K 1.50K 500







CVE	COUNT
CVE-2019-0708	6
CVE-2019-0725	6
CVE-2018-12130	6
CVE-2019-0890	6
OVE 0010 0000	





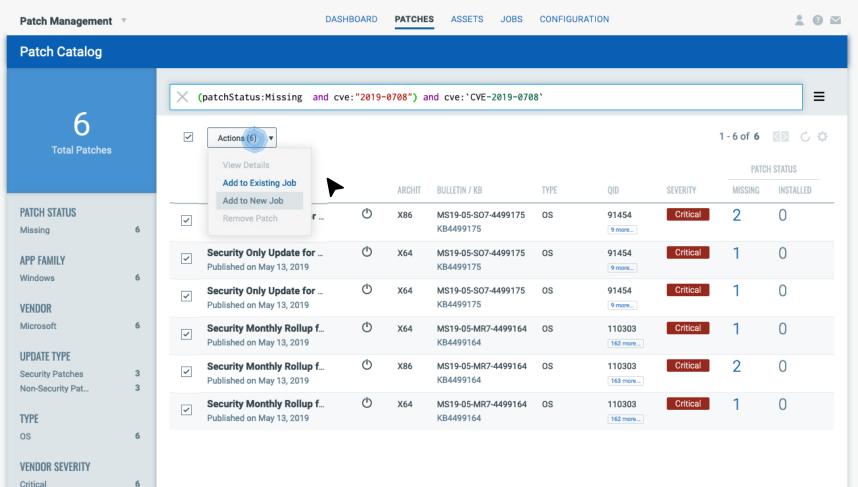
Patch Managemen	t 🔻		DAS	HBOARD	PATCHE	S ASSETS JOBS	CONFIGUR	ATION			20
Patch Catalog											
6		×	(patchStatus:Missing and cv	/e: <mark>"2019</mark> -	0708" <b>)</b> a	nd cve:`CVE-2019-070	8,				=
<b>O</b> Total Patches			Actions (0) V								88 C ¢
			PATCH TITLE		ARCHIT	BULLETIN / KB	TYPE	QID	SEVERITY	MISSING	H STATUS
PATCH STATUS	6	~	Security Only Update for Published on May 13, 2019	Ф	X86	MS19-05-S07-4499175 KB4499175	OS	91454 9 more	Critical	2	0
PP FAMILY	6	~	Security Only Update for Published on May 13, 2019	٢	X64	MS19-05-S07-4499175 KB4499175	OS	91454 9 more	Critical	1	0
ENDOR	6	~	Security Only Update for Published on May 13, 2019	٢	X64	MS19-05-SO7-4499175 KB4499175	OS	91454 9 more	Critical	1	0
Aicrosoft	6	~	Security Monthly Rollup f Published on May 13, 2019	٢	X64	MS19-05-MR7-4499164 KB4499164	OS	110303 162 more	Critical	1	0
IPDATE TYPE Security Patches Ion-Security Pat	3	7	Security Monthly Rollup f Published on May 13, 2019	Φ	X86	MS19-05-MR7-4499164 KB4499164	OS	110303 163 more	Critical	2	0
YPE		~	Security Monthly Rollup f Published on May 13, 2019	٢	X64	MS19-05-MR7-4499164 KB4499164	OS	110303 162 more	Critical	1	0
os Vendor severity	6										

Critical

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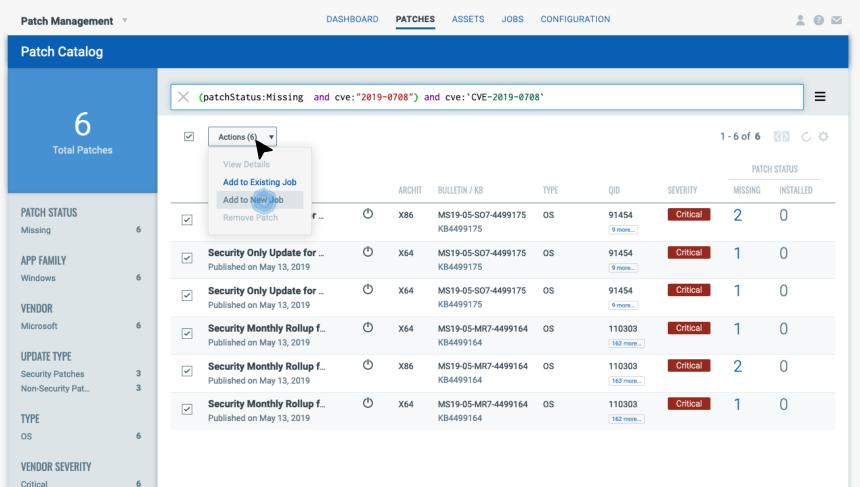
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### STEPS 1/6

9	Basic Information
2	Select Assets

3 Select Patches

4 Schedule

5 Options

6 Confirmation

# **Basic Information**

Create this deployment job by selecting assets and patches to be installed. Also define the deployment schedule and configure message options you want to display as reminders.

Title for your job

Required





### STEPS 1/6



Select Fatch

4 Schedule

5 Options

6 Confirmation

# **Basic Information**

Create this deployment job by selecting assets and patches to be installed. Also define the deployment schedule and configure message options you want to display as reminders.

Title for your job

Required

High Critical - CVE-2019-0708





### STEPS 2/6

Basic Information
 Select Assets
 Select Patches

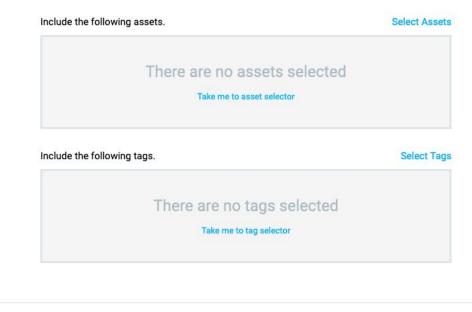
4 Schedule

5 Options

6 Confirmation

# Select Assets

Select the assets you want this job to deploy patches on.







### STEPS 2/6

Basic Information
 Select Assets
 Select Patches

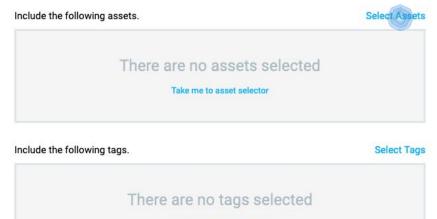
4 Schedule

5 Options

6 Confirmation

# Select Assets

Select the assets you want this job to deploy patches on.



Take me to tag selector

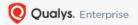


Qualys. Enterprise		Asset Selector		×		
← Create: Deployment Job		ASSET TAGS	ASSETS			
STEPS 2/6	Select Assets	Search for assets		63 Assets		
Basic Information	Select the assets you want thi			1 - 50 of <b>63</b> 🚺 🖒		
2 Select Assets	Include the following assets.	NAME		OPERATING SYSTEM		
3 Select Patches 4 Schedule		Debian9BP-CA-MA		Debian Linux 9.9		
s Options	The	FJJ - RH-CA - EC2		Red Hat Enterprise Linux Server 7.5		
6 Confirmation		FJJ-ACER-TX		Microsoft Windows 10 Home 10.0.15063		
	Include the following tags.	FJJ-AMI1-CA-EC2         FJJ-AMI2-CA-POD2-Docker-EC2         FJJ-AMI2-CA-POD2-Docker/Jenkins-EC2         FJJ-ASUS-Phillip		Amazon Linux 2018.03		
				Amazon Linux 2		
	Th			Amazon Linux 2		
				Microsoft Windows 10 Home		
		FJJ-Ayeishas-Ma	acBook-Pro.local	Mac OS X 10.10.5		
		FJJ-Carmens-MB	BP.Kanguro.local	Mac OS X 10.11.6		
	Cancel Previous	FJJ-KALI-CA-EC2	2	Kali Linux GNU/Linux		
		FJJ-LUIS&Janet-	Texas-Desktop	Microsoft Windows 7 Home Premium		

Qualys. Enterprise		Asset S	elector		×
← Create: Deployment Job		ASS	ET TAGS	ASSETS	
STEPS 2/6	Select Assets	win		8	14 Assets
1 Basic Information	Select the assets you want thi				1 - 14 of 14 🚺 🖒
2 Select Assets	Include the following assets.		NAME		OPERATING SYSTEM
3) Select Patches		~	FJJ-WIN16-CA-J	IENKIN-EC2	Microsoft Windows Server 2016 Datacent
4 Schedule 5 Options	The	~	LL-Win10-HV		Microsoft Windows 10 Pro 10.0.17134 64
6 Confirmation		<b>~</b>	LL-Win10-SRV		Microsoft Windows 10 Pro 10.0.17134 64
	Include the following tags.	<b>~</b>	WIN-2012-MA		Microsoft Windows Server 2012 Standard
		$\checkmark$	WIN16-CA-IOC		Microsoft Windows Server 2016 Datacent
	Th	~	WIN16-CA-SQL1	7	Microsoft Windows Server 2016 Datacent
		$\checkmark$	WIN16-CA-SSM		Microsoft Windows Server 2016 Datacent
		$\checkmark$	WIN7-32BIT		Microsoft Windows 7 Ultimate 6.1.7600 3
		$\checkmark$	WIN7-32BIT-AZ		Microsoft Windows 7 Ultimate 6.1.7601 S
	Cancel Previous	~	WIN7-32BIT-AZ		Windows
		1	WIN7-64BIT-AZ		Microsoft Windows 7 Ultimate 6.1.7601 S

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l n	WIN16-CA-SQL17	Microsoft Windows Server 2016 Datacent
	WIN16-CA-SSM	Microsoft Windows Server 2016 Datacent
	WIN7-32BIT	Microsoft Windows 7 Ultimate 6.1.7600 3
	WIN7-32BIT-AZ	Microsoft Windows 7 Ultimate 6.1.7601 S
Cancel Previous	WIN7-32BIT-AZ	Windows
	WIN7-64BIT-AZ	Microsoft Windows 7 Ultimate 6.1.7601 S
	Win10PRO-CA-MA	Microsoft Windows 10 Pro 10.0.17763 N/
	Win12R2-CA-MA	Microsoft Windows Server 2012 R2 Datac
	Win16-CA-VNC-EC2	Microsoft Windows Server 2016 Datacent
	Select	

Ir	WIN16-CA-SQL17	Microsoft Windows Server 2016 Datacent
	WIN16-CA-SSM	Microsoft Windows Server 2016 Datacent
	WIN7-32BIT	Microsoft Windows 7 Ultimate 6.1.7600 3
	WIN7-32BIT-AZ	Microsoft Windows 7 Ultimate 6.1.7601 S
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	WIN7-64BIT-AZ	Microsoft Windows 7 Ultimate 6.1.7601 S
	Win10PRO-CA-MA	Microsoft Windows 10 Pro 10.0.17763 N/
	Win12R2-CA-MA	Microsoft Windows Server 2012 R2 Datac
	Win16-CA-VNC-EC2	Microsoft Windows Server 2016 Datacent
	Select	



#### STEPS 2/6

Basic Information

2 Select Assets

3 Select Patches

4 Schedule

5 Options

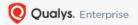
6 Confirmation

#### Select Assets

Select the assets you want this job to deploy patches on.

ELL-WIN16-CA-JE	NK LL-Win10-H	V LL-Win10-SRV WIN-2	012-MA WIN16-CA-IOC
		WIN7-32BIT WIN7-32BI	and the management of the second seco
	8 - <sup>7</sup>	Win12R2-CA-MA Win16	10
nclude the followir	ng tags.		Select Tag
nclude the followin		are no tags selec	Select Tag





#### STEPS 2/6

Basic Information

2 Select Assets

3 Select Patches

4 Schedule

5 Options

6 Confirmation

#### Select Assets

Select the assets you want this job to deploy patches on.

	g assets.	Select Assets
WIN16-CA-SQL17	NK LL-Win10-HV LL-Win10-SRV WIN- WIN16-CA-SSM WIN7-32BIT WIN7-32I Win10PRO-CA-MA Win12R2-CA-MA Win	BIT-AZ WIN7-32BIT-AZ
nclude the followin	g tags.	Select Tag
Iclude the followin	g tags. There are no tags sele	Select Tags





#### STEPS 3/6

- Basic Information
   Select Assets
- Select Patches
- 4 Schedule
- 5 Options
- 6 Confirmation

#### Select Patches

From the available list of patches, choose patches you want to install on the selected assets in this job.

 Available Patches

 Selected Patches (6)
 Remove All

 Security Only Update for Windows 7 and Server 2008 R2: May 14, 2019 (KB4499175 )
 Security Only Update for Windows 7 and Server 2008 R2: May 14, 2019 (KB4499175 )

 Security Only Update for Windows 7 and Server 2008 R2: May 14, 2019 (KB4499175 )
 Security Only Update for Windows 7 and Server 2008 R2: May 14, 2019 (KB4499175 )

 Security Monthly Rollup for Windows 7 and Server 2008 R2: May 14, 2019 (KB4499164)
 Security Monthly Rollup for Windows 7 and Server 2008 R2: May 14, 2019 (KB4499164)

 Security Monthly Rollup for Windows 7 and Server 2008 R2: May 14, 2019 (KB4499164)
 Security Monthly Rollup for Windows 7 and Server 2008 R2: May 14, 2019 (KB4499164)



#### STEPS 3/6

- Basic Information
   Select Assets
- Select Patches
- 4 Schedule
- 5 Options
- 6 Confirmation

#### Select Patches

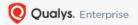
From the available list of patches, choose patches you want to install on the selected assets in this job.

 Available Patches

 Selected Patches (6)
 Remove All

 Security Only Update for Windows 7 and Server 2008 R2: May 14, 2019 (KB4499175 )
 Image: Comparison of C







#### Schedule Deployment

Schedule the deployment job to run on demand or in the future.



**On Demand:** The deployment job will start within the specified patch window (e.g., now + 6 hrs).

Minutes

#### PATCH WINDOW

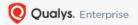
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You can configure a patch window to run the deployment jobs only within a particular time frame.







#### Schedule Deployment

Schedule the deployment job to run on demand or in the future.



**On Demand:** The deployment job will start within the specified patch window (e.g., now + 6 hrs).

Minutes

#### PATCH WINDOW

30

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w.

You can configure a patch window to run the deployment jobs only within a particular time frame.





#### **Deployment and Reboot Communication Options**

Define user (recipient) patch deployment communication and reboot warning messages to encourage and educate user about patch installment and the reboot cycle.

#### Deployment messages

#### **Pre-Deployment**

Display message to users before patch deployment starts. (If no user is logged in, deployment process starts per job schedule)

#### Deployment in Progress

Display message to users while patch Deployment is in progress.

#### Deployment Complete

Display message to users when patch Deployment is complete.

#### Reboot messages

#### Reboot Request

Show message to users indicating that a reboot is required. (If no user is logged in, reboot will start immediately after patch deployment)

#### **Reboot Countdown**

Show countdown message to users after deferment limit is reached.

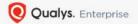


OFF

OFF

OFF

#### OFF



# STEPS 6/6 Basic Information Select Assets Select Patches Schedule Options Confirmation

#### Confirmation

You're all done! Review your selections and click Save. This deployment job will be created and added to your deployment jobs list.

#### Basic Information and Schedule Edit

JOB TITLE:	High Critical - CVE-2019-0708
JOB TYPE:	Install
START DATE:	
START TIME:	200
TIMEZONE:	())
PATCH WINDOW:	30 Minutes



	PATCHES (6)
	Security Only Update for Windows 7 and Server 2008 R2: May 14, 2019 (KB4499175 )
	Security Only Update for Windows 7 and Server 2008 R2: May 14, 2019 (KB4499175 )
	Security Only Update for Windows 7 and Server 2008 R2: May 14, 2019 (KB4499175 )
	Security Monthly Rollup for Windows 7 and Server 2008 R2: May 14, 2019 (KB4499164)
	Security Monthly Rollup for Windows 7 and Server 2008 R2: May 14, 2019 (KB4499164)
	Security Monthly Rollup for Windows 7 and Server 2008 R2: May 14, 2019 (KB4499164)
	Message Options Edit
	No options defined
-	
	Cancel Previous Save



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Patch Management	e		DASHBOARD PATCH	HES ASSETS JOBS CONFIGURA	ATION		10
Jobs	Jobs						
	٩	Search for job	15				=
<b>11</b> Total Jobs		Actions (0)	Create Job			3	1-11 of 11 🚺 C 🌣
		STATUS	NAME	SCHEDULE	PATCHES	ASSETS	TAGS
TATUS		Enabled	ThirdParty APPs Created by quays2fm10 on Jun 2	On-demand	1	49	Cloud Agent
sabled nabled	6 5		OnDemand Created by quays2mi42 on Jun 2	On-demand	7	16	TAGs_FJimenez
CHEDULED		Enabled	*On-Demand - Daily Created by quays2fm10 on Apr 0	Daily, 9:00 PM	28	0	-
n-demand /eekly lonthly	5 2 2		AZ-Phoenix - Monthly Created by quays2fm10 on Apr 0	Every 1st day of the month, 7:30 PM	0	0	-
aily	2		BU-San Diego - Monthly Created by quays2fm10 on Apr 0	Monthly on First Friday, Invalid date	4	0	BU-SanDiego-BU 2 more

JOB TYPE

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Uninstall

	Created by quays2mi42 on Jun 2				
Enabled	*On-Demand - Daily Created by quays2fm10 on Apr 0	Daily, 9:00 PM	28	0	-
	AZ-Phoenix - Monthly Created by quays2fm10 on Apr 0	Every 1st day of the month, 7:30 PM	0	0	-
	BU-San Diego - Monthly Created by quays2fm10 on Apr 0	Monthly on First Friday, Invalid date	4	0	BU-SanDiego-BU 2 more
Enabled	<b>7zip patch</b> Created by quays2mi42 on May 2	On-demand	1	46	Cloud Agent
Enabled	Emergency Patch ! Created by quays2fm10 on Jun 2	On-demand	0	51	Cloud Environments
	*Catchup/Stragglers - Daily Created by quays2fm10 on Apr 0	Daily, 6:30 AM	1	0	-
Enabled	High Critical - CVE-2019-07 Created by quays2fm10 on Jun 2	On-demand	6	13	-

11 Total Jobs

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Q Search for jobs...

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JOB TYPE Install Uninstall

1-11 of 11 🚺 G 🔅 Actions (0) Create Job STATUS NAME PATCHES ASSETS TAGS 1 49 Enabled ThirdParty APPs On-demand Cloud Agent Created by guays2fm10 on Jun 2... 7 16 TAGs\_FJimenez OnDemand On-demand Created by guays2mi42 on Jun 2... 28 0 Enabled \*On-Demand - Daily Daily, 9:00 PM -Created by quays2fm10 on Apr 0... 0 0 **AZ-Phoenix - Monthly** Every 1st day of the month, 7:30 PM Created by guays2fm10 on Apr 0... 0 BU-SanDiego-BU **BU-San Diego - Monthly** Monthly on First Friday, Invalid date 4 Created by quays2fm10 on Apr 0... 2 more... 1 46 Enabled 7zip patch On-demand **Cloud Agent** Created by guays2mi42 on May 2... Enabled 0 51 **Cloud Environments Emergency Patch!** On-demand Created by quays2fm10 on Jun 2... 1 more... 1 0 -\*Catchup/Stragglers - Daily Daily, 6:30 AM Created by guays2fm10 on Apr 0... 13 Enabled High Critical - CVE-2019-07... On-demand 6 \_ Created by quays2fm10 on Jun 2... 0 0 -\*RollBack/Uninstall - Weekly Weekly on Sunday, 12:23 AM Created by guays2fm10 on Apr 0... FJJ-EC2-GDN-AMI2-... AWS EC2 - Weekly Weekly on Sunday, Wednesday, 5:30 PM 0 0 Created by quays2fm10 on Apr 0... 6 more...

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1 1 **Total Jobs** 

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JOB TYPE Install Uninstall

-1-11 of 11 🚺 G 🔅 Actions (1) Create Job STATUS NAME PATCHES ASSETS TAGS 1 49 Enabled ThirdParty APPs On-demand Cloud Agent Created by guays2fm10 on Jun 2... 7 16 TAGs\_FJimenez OnDemand On-demand Created by guays2mi42 on Jun 2... 28 0 Enabled \*On-Demand - Daily Daily, 9:00 PM -Created by quays2fm10 on Apr 0... 0 0 **AZ-Phoenix - Monthly** Every 1st day of the month, 7:30 PM Created by guays2fm10 on Apr 0... 0 BU-SanDiego-BU **BU-San Diego - Monthly** Monthly on First Friday, Invalid date 4 Created by quays2fm10 on Apr 0... 2 more... 1 46 Enabled 7zip patch On-demand **Cloud Agent** Created by guays2mi42 on May 2... Enabled 0 51 **Cloud Environments Emergency Patch!** On-demand Created by quays2fm10 on Jun 2... 1 more... 1 0 -\*Catchup/Stragglers - Daily Daily, 6:30 AM Created by guays2fm10 on Apr 0... 13 High Critical - C 6 Enabled On-demand -Quick Actions V Created by guays2 0 0 \_ \*RollBack/Unins Weekly on Sunday, 12:23 AM View Details Created by quays2 View Progress FJJ-EC2-GDN-AMI2-... AWS EC2 - Weel Weekly on Sunday, Wednesday, 5:30 PM 0 0 Created by quays2 6 more...

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11 Total Jobs Q Search for jobs...

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JOB TYPE Install Uninstall

1-11 of 11 🚺 G 🔅 Actions (1) Create Job STATUS NAME PATCHES ASSETS TAGS 1 49 Enabled ThirdParty APPs On-demand Cloud Agent Created by guays2fm10 on Jun 2... 7 16 TAGs\_FJimenez OnDemand On-demand Created by guays2mi42 on Jun 2... 28 0 Enabled \*On-Demand - Daily Daily, 9:00 PM -Created by quays2fm10 on Apr 0... 0 0 **AZ-Phoenix - Monthly** Every 1st day of the month, 7:30 PM Created by guays2fm10 on Apr 0... 0 BU-SanDiego-BU **BU-San Diego - Monthly** Monthly on First Friday, Invalid date 4 Created by quays2fm10 on Apr 0... 2 more... 1 46 Enabled 7zip patch On-demand **Cloud Agent** Created by guays2mi42 on May 2... Enabled 0 51 **Cloud Environments Emergency Patch!** On-demand Created by quays2fm10 on Jun 2... 1 more... 1 0 -\*Catchup/Stragglers - Daily Daily, 6:30 AM Created by guays2fm10 on Apr 0... 13 High Critical - C 6 Enabled On-demand -Quick Actions 🗸 Created by guays2 0 0 \_ \*RollBack/Unins Weekly on Sunday, 12:23 AM View Details Created by quays2 View Progress 0 FJJ-EC2-GDN-AMI2-... AWS EC2 - Weel Weekly on Sunday, Wednesday, 5:30 PM 0 Edit Created by quays2 6 more...

Delete

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#### ← Job Details: High Critical - CVE-2019-0708

#### VIEW MODE

**Basic Information** 

Assets

Patches

Options



Job status: Enabled



#### High Critical - CVE-2019-0708

Scheduled: On-demand Created on: Jun 28, 2019

#### Identification

- (

Created by:	quays2fm10
Job Type:	Install
Scheduled:	On-demand
Create Date:	Jun 28, 2019
Modify Date:	Jun 28, 2019

#### Job Information

There are 13 assets assigned to this job

6 patches will be deployed with this job

There is 0 delivery option defined

#### Tags

No asset tags selected

# DEMO Security built in Azure – not bolted on

OUALYS-AZURE Home > Security Center - Overview Security Center - Overview Documentation  $\square$   $\times$ Showing subscription 'Portal Backend' **T** Subscriptions **C** What's new © Search (Ctrl+/) GENERAL Policy & compliance Overview Regulatory compliance Subscription coverage Make alert data available to your SIEM Secure score Getting started Fully covered SOC TSP **3** of 12 passed controls You can make Security Center alerts available to a SIEM 0 Events connector 271 OF 625 Partially covered Search TOTAL ISO 27001 5 of 20 passed controls റ Not covered **POLICY & COMPLIANCE** Set up SIEM connector > ٥ Azure CIS 1.1.0 12 of 19 passed controls Review your secure score > . . . 34 Covered resources Coverage Secure score Regulatory compliance **Resource security hygiene** Security policy Resource health by severity Review and improve your secure score Recommendations **RESOURCE SECURITY HYGIENE** High Severity 23 Data & storage resources 10 Compute & apps resources 11 Review and resolve security vulnerabilities to improve your \* Recommendations secure score and secure your workload 18 Medium Severity Compute & apps TOTAL 4 Low Severity S Networking **0** Networking resources 1 Identity & access resources 3 Learn more > **34** Unhealthy resources IoT hubs & resources (Preview) • • 🚡 Data & storage ldentity & access (Preview) Threat protection Security solutions Security alerts by severity Security alerts over time New - Advanced threat protection for Storage accounts ADVANCED CLOUD DEFENSE High Severity High severity Δ 0 0 Security Center can now protect your Storage accounts by Adaptive application controls detecting unusual and potentially harmful attempts to acces 33 Medium Severity Medium severity or exploit Storage accounts. TOTAL 14 14 Ust in time VM access

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Low severity

Learn more >

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➢ Search resources, services, and docs

Low Severity

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16 Attacked resources

hsrinivasan@azure.qu..

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- 🚯 Adaptive network hardening
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- THREAT PROTECTION

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#### hsrinivasan@azure.qu.. Microsoft Azure ➢ Search resources, services, and docs >\_ Ŗ ႏၱာ Ω OUALYS-AZURE Home > Security Center - Overview Security Center - Overview Documentation 🗵 🛛 🗙 Δ Showing subscription 'Portal Backend' **Y** Subscriptions **V** What's new 1.... GENERAL Policy & compliance Overview Regulatory compliance Subscription coverage Make alert data available to your SIEM Secure score Getting started Fully covered SOC TSP 3 of 12 passed controls 0 You can make Security Center alerts available to a SIEM Events connector 271 OF 625 Partially covered Search 5 of 20 passed controls TOTAL ISO 27001 0 Not covered **POLICY & COMPLIANCE** Set up SIEM connector > 0 Review your secure score > Azure CIS 1.1.0 12 of 19 passed controls . . . 1 **34** Covered resources Coverage **1** Secure score Regulatory compliance Resource security hygiene Security policy Resource health by severity Review and improve your secure score Recommendations RESOURCE SECURITY HYGIENE High Severity 23 Data & storage resources 10 Compute & apps resources 11 Review and resolve security vulnerabilities to improve your \* E Recommendations secure score and secure your workload 18 Medium Severity 0 TOTAL Compute & apps 4 Low Severity Networking **0** Networking resources 1 Identity & access resources 3 Learn more > Ô **34** Unhealthy resources IoT hubs & resources (Preview) • • 0 🚡 Data & storage ldentity & access (Preview) Threat protection Security solutions Security alerts by severity Security alerts over time New - Advanced threat protection for Storage accounts ADVANCED CLOUD DEFENSE High Severity High severity 4 0 0 Security Center can now protect your Storage accounts by Adaptive application controls detecting unusual and potentially harmful attempts to acces 33 2 Medium Severity Medium severity or exploit Storage accounts. TOTAL 14 14 < **(-**) Just in time VM access 0 Low Severity Low severity Adaptive network hardening 16 Sun 23 Sun 30 Sun 19 19 Learn more > 16 Attacked resources File Integrity Monitoring

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hsrinivasan@azure.qu... QUALYS-AZURE

Home > Security Center - Recommendations > Vulnerability assessment solution should be installed on your virtual machines

Open

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	ноп	e / Security Center - Rec		ability assessine	int solution sho	ulu be	inst
	Vul	nerability assessm	ent solution shoul	d be install	ed on yo		×
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» Home > Security Center - Recommendations > Vulnerability assessment solution should be installed on your virtual machines

Home & Security center Reco		nerubinty ussessine	in solution sho	and be	
Vulnerability assessme	nt solution sho	ould be install	ed on yo		×
Filter					_
VIRTUAL MACHINE $\uparrow \downarrow$	SUBSCRIPTION NAME	$\uparrow \downarrow$ state $\uparrow \downarrow$	SEVERITY $\uparrow \downarrow$		
✓ EU1Win	Portal Backend	Open	🔺 Medium		
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✓ Pooja-HDS-2.4linux	Portal Backend	Open	🔺 Medium		
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Home > Security Center - Recommendations > Vulnerability assessment solution should be installed on your virtual machines > Add a Vulnerability Assessment > Add to an existing Vulnerability Assessment

Vulnerability assessment solution should be installed on your v... imes

#### Tilter 🛃 Install on 4 VMs

VIRTUAL MACHINE	$\uparrow_{\downarrow}$	SUBSCRIPTION NAME	$\uparrow_{\downarrow}$	STATE	$\uparrow \downarrow$	SEVERITY 🔍	
✓ EU1Win		Portal Backend		Open		🔺 Medium	
✓ PISwin01		Portal Backend		Open		🔺 Medium	
✓ Pooja-HDS-2.4linu	x	Portal Backend		Open		🔺 Medium	
✓ WindowsPK		Portal Backend		Open		🔺 Medium	

Add a Vu Select an existin	ulnerability Assessment g solution or create a new one	×
+	Create New	>
- Or -		
Use existing	g solution	
0	Qualys, Inc. QualysPoojaPOD01sg	>
Q	Qualys, Inc. QualysVa1	>
0	Qualys, Inc. USPOD3	>
0	Qualys, Inc. QualysP1SG	>
0	Qualys, Inc. EU2	>
0	Qualys, Inc. EU1	>

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Home > Security Center - Recommendations > Vulnerability assessment solution should be installed on your virtual machines > Add a Vulnerability Assessment > Add to an existing Vulnerability Assessment

Vulnerability assessment solution should be installed on your v... imes

#### ▼ Filter 🛃 Install on 4 VMs

	VIRTUAL MACHINE	SUBSCRIPTION NAME $\uparrow \downarrow$	STATE îu	SEVERITY 1
~	EU1Win	Portal Backend	Open	🔺 Medium 🛛
~	PISwin01	Portal Backend	Open	🔺 Medium 🛛
~	Pooja-HDS-2.4linux	Portal Backend	Open	🔺 Medium 🛛
~	WindowsPK	Portal Backend	Open	🔺 Medium 🛛

Add a Vulnerability Assessment Select an existing solution or create a new one Create New + - Or -Use existing solution Qualys, Inc. QualysPoojaPOD01--sg Qualys, Inc. QualysVa1 Qualys, Inc. USPOD3 Qualys, Inc. QualysP1SG Qualys, Inc.  $\overline{\mathbf{O}}$ EU2 Qualys, Inc. Q EU1

Click the OK button in order to use your existing QualysVa1 solution to apply vulnerability assessment capabilities to the selected virtual machines. Note: Once you click the OK button, please wait for the operation to complete.

Add to an existing Vulner...  $\Box$   $\times$ 

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Adaptive network hardening
 File Integrity Monitoring

THREAT PROTECTION

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Home > Security Center - Recommendations > Vulnerabilities should be remediated by a Vulnerability Assessment solution

Vulnerabilities should be remediated by a Vulnerability Ass...  $~\square~ imes~$ 

	NU AFFECTED NU	VENDOR $\uparrow \downarrow$	STATE 14	SEVERI 1
CentOS Security Update for bind	d PISCent01	Qualys	Active	\rm High
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CentOS Security Update for glib	c PISCent01	Qualys	Active	\rm High
CentOS Security Update for jasp	PISCent01	Qualys	Active	\rm High
CentOS Security Update for kerr	n PISCent01	Qualys	Active	\rm High
CentOS Security Update for kerr	n PISCent01	Qualys	Active	\rm High
CentOS Security Update for krb	5 PISCent01	Qualys	Active	\rm High
CentOS Security Update for mar	i PISCent01	Qualys	Active	\rm High
CentOS Security Update for nss	( PISCent01	Qualys	Active	\rm High
CentOS Security Update for nss-	PISCent01	Qualys	Active	\rm High
CentOS Security Update for ope	PISCent01	Qualys	Active	\rm High
CentOS Security Update for pyth	n PISCent01	Qualys	Active	\rm High
CentOS Security Update for sssd	I PISCent01	Qualys	Active	\rm High
CentOS Security Update for wge	et PISCent01	Qualys	Active	\rm High
CentOS Security Update for wpa	PISCent01	Qualys	Active	\rm High
cURL Multiple Security Vulnerab	i PISCent01	Qualys	Active	\rm High
EOL/Obsolete Software: Mozilla	Win10-POD3	Qualys	Active	\rm High
EOL/Obsolete Software: Mozilla	2 Virtual M	Qualys	Active	\rm High
Firefox and SeaMonkey Web Bro	o Win10-POD3	Qualys	Active	\rm High
Firefox and SeaMonkey Web Bro	o 2 Virtual M	Qualys	Active	\rm High

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Vulnerability Assessment solution

»	Home > Security Center - Recomme	ndations > Vul	nerabilities sh	nould be reme	ediated by a V
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:=	VULNERABILITY NAME	AFFECTED *	VENDOR 🔍	STATE 🗘	SEVERI ↑↓
- * -	CentOS Security Update for bind		Qualys	Active	1 High
	CentOS Security Update for binu	PISCent01	Qualys	Active	1 High

CentOS Security Update for bind	PISCent01	Qualys	Active	\rm High
CentOS Security Update for binu	PISCent01	Qualys	Active	\rm High
CentOS Security Update for glibc	PISCent01	Qualys	Active	\rm High
CentOS Security Update for jasp	PISCont01	Qualys	Active	\rm High
CentOS Security Update for kern	PISCent01	Qualys	Active	\rm High
CentOS Security Update for kern	PISCent01	Qualys	Active	\rm High
CentOS Security Update for krb5	PISCent01	Qualys	Active	\rm High
CentOS Security Update for mari	PISCent01	Qualys	Active	\rm High
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CentOS Security Update for nss	PISCent01	Qualys	Active	\rm High
CentOS Security Update for ope	PISCent01	Qualys	Active	\rm High
CentOS Security Update for pyth	PISCent01	Qualys	Active	\rm High
CentOS Security Update for sssd	PISCent01	Qualys	Active	\rm High
CentOS Security Update for wget	PISCent01	Qualys	Active	\rm High
CentOS Security Update for wpa	PISCent01	Qualys	Active	\rm High
cURL Multiple Security Vulnerabi	PISCent01	Qualys	Active	\rm High
EOL/Obsolete Software: Mozilla	Win10-POD3	Qualys	Active	\rm High
EOL/Obsolete Software: Mozilla	2 Virtual M	Qualys	Active	\rm High
Firefox and SeaMonkey Web Bro	Win10-POD3	Qualys	Active	\rm High
Firefox and SeaMonkey Web Bro	2 Virtual M	Qualys	Active	\rm High

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> Home > Security Center - Recommendations > Vulnerabilities should be remediated by a	Vulnerability Assessment solution > Vulnerability found by Qualys							
+ Vulnerabilities should be remediated by a Vulnerability Assess	imes Vulnerability found by Qualys	Π×						
T Filter								
■ = VULNERABILITY NAME <sup>↑</sup> ↓ AFFECTED <sup>↑</sup> ↓ VENDOR <sup>↑</sup> ↓ STATE <sup>↑</sup> ↓ SEVERI <sup>↑</sup> ★ -	VULNERABILITY NAME     CentOS Security Update for bin Update (CESA-2018:3032)       VULNERABILITY ID     256513	utils Security						
CentOS Security Update for bind PISCent01 Qualys Active <b>1</b> High	CVE-2018-7208,CVE-2018-7568							
CentOS Security Update for binu PISCent01 Qualys Active <b>0</b> High	CVE 7569,CVE-2018-7642,CVE-2018 8945,CVE-2018-10372,CVE-201							
CentOS Security Update for glibc PISCent01 Qualys Active <b>0</b> High	2018-10534,CVE-2018-10535,C	VE-2018-13033						
CentOS Security Update for jasp PISCent01 Qualys Active <b>0</b> High	cvss 6.8							
CentOS Security Update for kern PISCent01 Qualys Active <b>0</b> High	SEVERITY I High							
CentOS Security Update for kern PISCent01 Qualys Active • High	CentOS has released security up DESCRIPTION security update to fix the vulner							
CentOS Security Update for krb5 PISCent01 Qualys Active <b>0</b> High	Products: centos 7							
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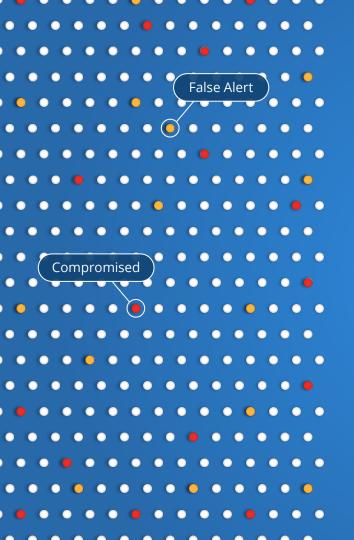
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Summary

Vulnerabilities

Qualys WAS Scan Status		ENABLE AU
Scan ID: 2479352 Scan Status: FINISHED Scan Reference: was/1561998268091.1220381	Scan Name: Freestyle Test_jenkins_build_4_2019-07-01-09-24 Scan Report: <u>Click here to view Scan Report on Qualys Portal</u> Note: Valid credentials for the Qualys UI are required to view the report Target URL: <u>http://10.0.0.171</u>	
Results Summary	Results Stats	
Results Status:SUCCESSFULAuth Status:Not UsedNumber of Requests:681Links Crawled:9Total Duration:1 min 4 s	Vulnerabilities: <u>6</u> Information Gathered: 5 Sensitive Contents: 0	
Vulnerabilities (6)		



# Drastically reducing FALSE ALERTS

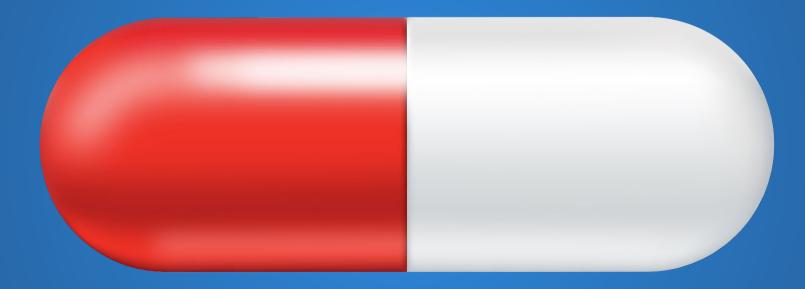
The ability to respond in

# **REAL TIME**

False Alert • • • • • • • • • • • • . . . . . . . . . . . . . . . • • • • • Compromised . 00  $\bullet \bullet \bullet \bullet \bullet \bullet \bullet$ . . . . . . .

We cannot secure **WHAT WE CAN'T SEE OR DON'T KNOW EXISTS.** 







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### **Data Lake and Security Analytics**

# Data Lake and Security Analytics -Goals

Provide a coherent and actionable view of your security posture by breaking down security data silos

Coalesce all data into a centralized highly scalable security data lake

Leverage the strength of Qualys Cloud Platform, Cloud Agent and Apps to build a comprehensive security analytics platform





## Data Lake and Security Analytics -Objectives

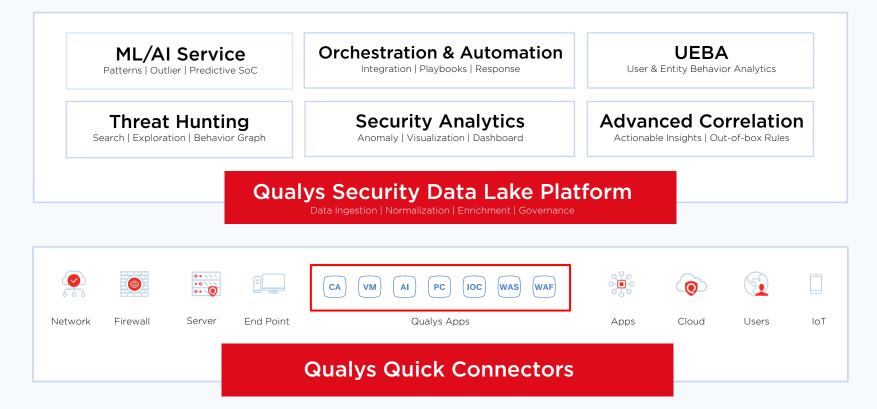
Combine and enrich Qualys generated findings and telemetry with third-party signals (firewall logs, IDS, IPS, user data, threat feeds, etc.) to provide:

- Real-time streaming correlation and analytics solution
- Out-of-band batch analytics to generate unique insights
- Ad-hoc querying and threat hunting on enriched and security aware data sets
- Advanced analytics use cases using machine learning
- Risk based orchestration
- Response and endpoint protection



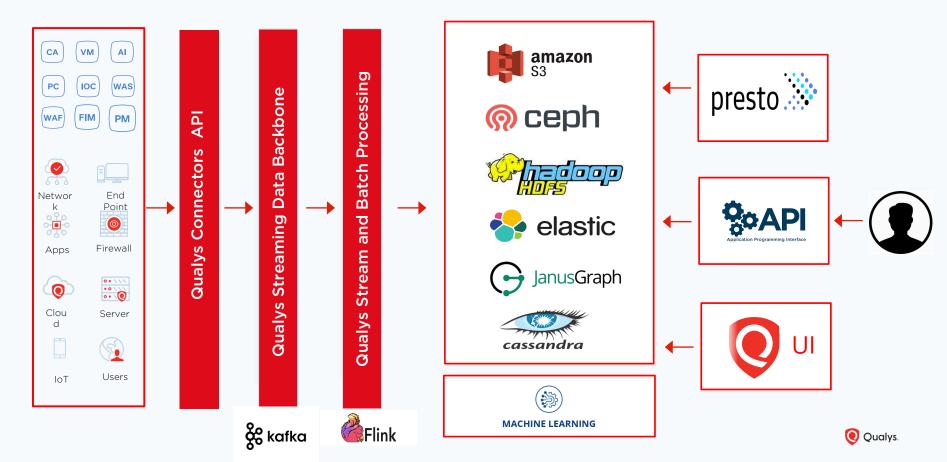


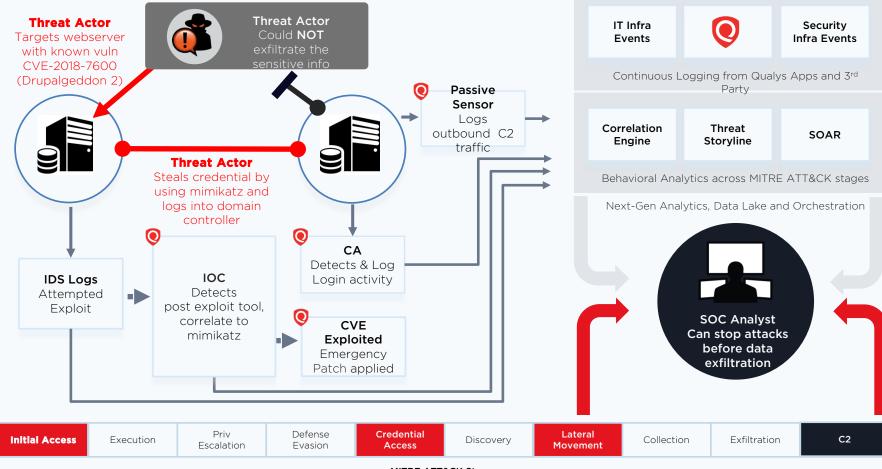
# **Advanced Correlation and Analytics**





### **Correlation and Data Platform Architecture**







### **Accelerated Security Analytics Practice**

- Robust security incident detection and management
- Centralized auditing for compliance
- Comprehensive orchestration
- Detection, protection and response
- Out-of-box and real-time threat hunting and forensic capabilities

... all built on top of a very robust and highly scalable techology platform.





# Summary

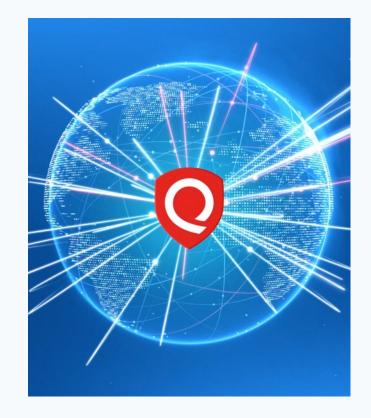
# Bringing a Unique Value Proposition to our Customers and Investors

Global IT Asset Discovery and Inventory as a free service for all

Enabling stack consolidation with 19 apps native on the Qualys Cloud Platform providing a single pane of glass view

Helping build security into their Digital Transformation

A Company Highly Profitable and Built to Last







Qualys. Making the world safer – One app at a time

# Thank You

pcourtot@qualys.com sthakar@qualys.com