## FIX OF VULNERABILITY CVE-2021-44228

This is only affected for appliance version 3.3.0 or higher.



**THOMSON REUTERS®** 

## Step 1: Stop HighQ Appliance Service

• Open services as an administrator and stop HighQAppliance service.

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Services (Local)	C Services (Local)	-					
	HighQAppliance	Name		Description	Status	Startup Type	Log On As
		C Healing Station Client			Running	Automatic	Local System
	Stop the service	Chab Charliston		HighO Applance	Romina	Manual	Local System
	Restart the service	A HighOAppilanceInstaller	Start	HighOAppliance Installer	Contraction of the local distance of the loc	Manual	Local System
		Human Interface Device S	Stop	Activates and maintains the use of hot buttons o	Running	Manual (Tripp	Local System
	Description:	A HV Host Service	Davier	Provides an interface for the Hyper-V hypervisor		Menual (Trigg-	Local System
	HighQ Appliance	hvbrid201 RestAssured		11 11		Manual	Local System
		A hybrid2duster1	Resume	-DLOG_PATH=D:/logs/-Xmx6144m-Xms2048m.or_		Manual	Local System
		hybrid2duster2	Restart	-DLOG_PATH=D\lags\hybrid2_duster2\-Xmx6144_		Manual	Local System
		A Hyper-V Data Exchange S	All Tasks	Provides a mechanism to exchange data between		Manual (Trigg_	Local System
		Hyper-V Guest Service Int		Provides an interface for the Hyper-V host to inte		Manual (Trigg_	Local System
		A Hyper-V Guest Shutdown	Refresh	Provides a mechanism to shut down the operatin		Manual (Trigg_	Local System
		Hyper-V Heartbeat Servic	Properties	Monitors the state of this virtual machine by rep_		Manual (Trigg_	Local System
		A Hyper-V PowerShell Direc		Provides a mechanism to manage virtual machin		Manual (Trigg_	Local System
		Apper-V Remote Desktop	nelp	Provides a platform for communication between _		Manual (Trigg_	Local System
		Hyper-V Time Synchronization	on Service	Synchronizes the system time of this virtual mach		Manual (Trigg_	Local Service
		Hyper-V Volume Shadow Co	py Requestor	Coordinates the communications that are require		Manual (Trigg_	Local System
		IKE and AuthIP IPsec Keying	Modules	The IKEEXT service hosts the Internet Key Exchan	Running	Automatic (Tri	Local System
		🖏 iManage Update Manager S	ervice	iManage Update Manager Service	Running	Automatic	Local System
		Intel(R) Audio Service			Running	Automatic	Local System
		Intel(R) Capability Licensing	Service TCP IP Interface	Version: 1.62.321.1		Manual	Local System
		Content Protection H	DCP Service	Intel(R) Content Protection HDCP Service - enable	Running	Automatic (Tri_	Local System
		Content Protection H	ECI Service	Intel(R) Content Protection HECI Service - enables	Running	Manual	Local System
		Control (R) Dynamic Application	Loader Host Interface Service	Intel(R) Dynamic Application Loader Host Interfac	Running	Automatic	Local System
		intel(R) Dynamic Platform an	d Thermal Framework service	Intel(R) Dynamic Platform and Thermal Framewor	Running	Automatic	Local System
		Command (R) Graphics Command (	Center Service	Service for Intel(R) Graphics Command Center	Running	Automatic	Local System
		Chintel(R) HD Graphics Control	Panel Service	Service for Intel(R) HD Graphics Control Panel	Running	Automatic	Local System
		Intel(R) Management and Se	ourity Application Local Managem.	Intel(R) Management and Security Application Lo.,	Running	Automatic	Local System
		Intel(R) Optane(TM) Memory	Service	Enables amazing system performance and respo		Manual	Local System
		Intel(R) Storage Middleware	Service	RPC endpoint service which allows communicatio	Running	Automatic	Local System
		Intel(R) TPM Provisioning Se	rvice	Version: 1.62321.1		Automatic	Local System
		Internet Connection Sharing	(ICS)	Provides network address translation, addressing,		Manual (Trigg_	Local System
		Ca IP Helper		Provides tunnel connectivity using IPv6 transition	Running	Automatic	Local System

## Step 2: Set JVM Parameter

- Go to appliance installation directory (generally located at D: OR D:\\tools OR C: OR C:\\tools)
- Now go to HighQ appliance tomcat bin directory "..\HighQAppliance\Tomcat\bin\"
- Now open HighQAppliancew.exe with run as administrator as shown in below screen





• Navigate to Java tab and then add new argument -Dlog4j2.formatMsgNoLookups=true at the end, in Java Options: as shown in below screen and click on Apply button

Seneral Log On Logging	Java	Startup	Shutdown	n	
Use default					
D:\tools\ApplianceZip\Z	IPs\R3 5	10\HighO	Appliance \1	omcat\bin	<b>.</b>
Java Classpath:					
D:\tools\ApplianceZip\Z	IPs\R3_5	_10\HighQ	Appliance \1	`omcat\bin	bootstra
5					
Java Options:	ale) & eat -			it tabout	lane a
Java Options: -Djava.io.tmpdir=D:\to -Djava.util.logging.man -Djava.util.logging.conf Dlog4j2.formatMsgNoL	ols \Applia ager =org ig. file =D: ookups=1	nceZip\ZIP J.apache.ju \tools\App true	s\R3_5_10 li.ClassLoa lianceZip\Z	\HighQApp derLogMar IPs\R3_5_	hage 10 \H
Java Options: -Djava.io.tmpdir=D:\tou -Djava.util.logging.man -Djava.util.logging.conf -Dlog4j2.formatMsgNoL Java 9 Options:	ols \Applia ager =org ig. file =D: ookups=1	nceZip\ZIP J.apache.ju \tools\App true	s\R3_5_10 ili.ClassLoa lianceZip\Zi	\HighQApp derLogMar IPs\R.3_5_	lianc hage 10 \H
Java Options: -Djava.io.tmpdir=D:\to -Djava.util.logging.man -Djava.util.logging.conf -Dlog4j2.formatMsgNoL Java 9 Options: add-opens=java.base add-opens=java.base add-opens=java.base	ols \Applia ager =org ig. file =D: colups=1 colups=1 c/java.lan c/java.io= sun.rmi.tr	nceZip\ZIP .apache.ju .\tools\App true ig=ALL-UN ansport=A	s\R3_5_10 di.ClassLoa lianceZip\Zi NAMED MED LL-UNNAM	WighQApp derLogMar IPs\R3_5_ ED	lianc A hage 10 VH
Java Options: -Djava.io.tmpdir=D:\to -Djava.util.logging.man -Djava.util.logging.conf -Dlog4j2.formatMsgNoL Java 9 Options: add-opens=java.base add-opens=java.rmi/s	ols \Applia ager =org ig, file =D: colups = /java.lan e/java.lan sun.rmi.tr	nceZip\ZIP .apache.ju \tools\App true ig=ALL-UN ansport=A	s\R3_5_10 ii.ClassLoa lianceZip\ZI NAMED MED LL-UNNAM	WighQApp derLogMar IPs\R3_5_ ED	lianc A hage 10 \H V
Java Options: -Djava.io.tmpdir=D:\to -Djava.util.logging.man -Djava.util.logging.conf -Dlog4j2.formatMsgNoL Java 9 Options: add-opens=java.base add-opens=java.base add-opens=java.rmi/s Initial memory pool:	ols \Applia ager =org ig. file =D: colups = /java.lan /java.lan /java.io = sun.rmi.tr 128	nceZip\ZIP .apache.ju .tools\App true ig=ALL-UN ansport=A	s\R3_5_10 il.ClassLoa lianceZip\ZI NAMED MED LL-UNNAM	WighQApp derLogMar IPs\R3_5_ ED	lianc A hage 10 \H V
Java Options: -Djava.io.tmpdir=D:\tou -Djava.util.logging.man -Djava.util.logging.conf Ellog4j2.formatMsgNoL Java 9 Options: add-opens=java.base add-opens=java.base add-opens=java.rmi/s Initial memory pool: Maximum memory pool:	ols \Applia ager =org ig. file =D: ookups = /java.lan /java.lan /java.io = sun.rmi.tr 128 256	nceZip\ZIP .apache.ju .tools\App true ig=ALL-UN ansport=A	s\R3_5_10 il.ClassLoa lianceZip\Z NAMED MED LL-UNNAM	WighQApp derLogMar IPs\R3_5_ ED ] MB ] MB	lianc A hage 10 VH

## Step 3: Start HighQ Appliance Service

• Open services as an administrator and start HighQAppliance service.

Services (Local)	Services (Local)										
	HighQAppliance	HighQAppliance Description					Startup Type	Log On As			
		C. Healing Station Client	A Healing Station Client		Running	Automatic	Local System				
	Start the service	HighOAppliance		Unis Outrant	iance		Manual	Local System			
		HighOApplianceInstaller	Start		ice Installer		Manual	Local System			
	Description:	Human Interface Device Service	Stop		maintains the use of hot buttons o		Manual (Trigg	Local System			
	HighQ Appliance	A HV Host Service	Pause	ause iterface for the Hyper-V hypervisor		ै	Manual (Trigg	Local System			
		hybrid201_RestAssured	Dagrama				Manual	Local System			
		Apprid2cluster1	Resume		D:/logs/ -Xmx6144m -Xms2048m or		Manual	Local System			
		kybrid2cluster2	Restart	D\logs\hybrid2_cluster2\ -Xmx6144			Manual	Local System			
		Hyper-V Data Exchange Service	All Task	s <sup>3</sup>	chanism to exchange data between		Manual (Trigg	Local System			
		Hyper-V Guest Service Interface	Defeat		terface for the Hyper-V host to inte		Manual (Trigg	Local System			
		🖏 Hyper-V Guest Shutdown Service	Kerresh		chanism to shut down the operatin		Manual (Trigg	Local System			
		Arrow Hyper-V Heartbeat Service	Proper	ties	state of this virtual machine by rep		Manual (Trigg	Local System			
		Hyper-V PowerShell Direct Service	11.14		chanism to manage virtual machin		Manual (Trigg	Local System			
		Arrow Service Desktop Virtualization Service	нер		atform for communication between		Manual (Trigg	Local System			
		Apper-V Time Synchronization Service		Synchronizes the system time of this virtual mach			Manual (Trigg	Local Service			
		🍓 Hyper-V Volume Shadow Copy Requestor		Coordinates the communications that are require The IKEEXT service hosts the Internet Key Exchan			Manual (Trigg	Local System			
		KE and AuthIP IPsec Keying Modules				Running	Automatic (Tri	Local System			
		🤹 iManage Update Manager Service		iManage Up	date Manager Service	Running	Automatic	Local System			
		🤹 Intel(R) Audio Service				Running	Automatic	Local System			
		🤹 Intel(R) Capability Licensing Service TCP IP Interface		Version: 1.62	.321.1		Manual	Local System			
		Content Protection HDCP Service		Intel(R) Cont	tent Protection HDCP Service - enable	Running	Automatic (Tri	Local System			
		Content Protection HECI Service		Intel(R) Content Protection HECI Service - enables		Running	Manual	Local System			
		Gintel(R) Dynamic Application Loader Host Interface Servi Gintel(R) Dynamic Platform and Thermal Framework servi		Intel(R) Dynamic Application Loader Host Interfac Intel(R) Dynamic Platform and Thermal Framewor		Running	Automatic	Local System			
						Running	Automatic	Local System			
	Call Intel(R) Graphics Command Center Service Call Intel(R) HD Graphics Control Panel Service			Service for Intel(R) Graphics Command Center			Automatic	Local System			
				Service for Intel(R) HD Graphics Control Panel		Running	Automatic	Local System			
		Intel(R) Management and Security Application Local N	/anagem	em., Intel(R) Management and Security Application Lo.,		Running	Automatic	Local System			
		Intel(R) Optane(TM) Memory Service		Enables ama	zing system performance and respo		Manual	Local System			
		🖏 Intel(R) Storage Middleware Service		RPC endpoir	nt service which allows communicatio	Running	Automatic	Local System			
		Intel(R) TPM Provisioning Service		Version: 1.62	.321.1		Automatic	Local System			

Note: If appliance is running in cluster mode, perform same steps on both VMs.