#### Software House

# C•CURE 9000 and iSTAR Port Assignments

This document provides port assignment information for C•CURE 9000 and iSTAR systems. Use this document as a guide when setting up firewall infrastructure.

The port assignments in this document are valid for:

- C•CURE 9000 v2.90 SP5 (and above)
- iSTAR Ultra G2 firmware v6.8.9 (and above)
- iSTAR Ultra family firmware v6.8.0 (and above)
- iSTAR Pro firmware v5.2.x
- iSTAR Edge/eX firmware v6.2.x
- iSTAR Edge G2 firmware.
- C•CURE 9000 integrations.
- C•CURE 9000 SiteServer series

**NOTE:** This document does not list ports used internally by each device. Ports are listed by the device that has the port open. Ensure to check www.swhouse.com for the latest revision of this C•CURE 9000 and iSTAR Port Assignment information document.

**Document number:** 8200-2102-42-E

**July 2024** 



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# **Document revision history**

Revision	Date	Changes
Α	April 2022	Updated for C•CURE v3.0.
В	January 2023	Added additional detail for some ports.
С	January 2023	Updated details for port 27010, 33002, 33003, 33050, 33102, 33103, 33150.
D	May 2023	Updated details for port 2802, 28002, 28016, 28116. New C•CURE IQ, C•CURE Web, and C•CURE Portal table.
E	July 2024	Updated details for port 28002. Added port 68 for iSTAR Ultra.

# C•CURE 9000 Server (victor Application Server)

C•CURE	9000 Serv	er (victor Ap	pplication Server (vA	S))	
Port/ Range	Protocol	Direction	Initiator	Process/ Service	Description
80	TCP	Inbound Listening	Client	IIS for HTTP (inetinfo.exe)	Port for IIS, C•CURE web client. If IIS is installed on a different server, please make sure this Inbound listening port is opened for the IIS server. This port is also used for VideoEdge Administration/Alarm.
443	TCP	Inbound Listening	Client	IIS for HTTPS	Port for IIS, C•CURE web client. If IIS is installed on a different server, please make sure this Inbound listening port is opened for the IIS server.
2800	UDP and TCP	Inbound Listening	iSTAR	Host port for iSTAR driver  (SoftwareHouse.NextGen; iSTAR_DriverService.exe; SoftwareHouse.NextGen.iST, stunnel.exe)	Host port for incoming non-encrypted iSTAR (Pro and Ultra) connections.
2801	TCP	Inbound Listening	iSTAR	iSTAR Fast personnel download host port (SoftwareHouse.NextGen; iSTAR_DriverService.exe; SoftwareHouse.NextGen.iST, stunnel.exe)	HOST port for non-encrypted fast personal download to iSTAR (Pro and Ultra) panels.
2802	TCP	Inbound Listening	iSTAR	Fast image download host port (iSTAR Pro only)  (iSTAR_DriverService.exe)	Location = vAS, Traffic Direction from vAS = inbound, Connection Initiate from iSTAR panels. Non-encrypted image download for iSTAR Pro. This port can be closed if using host-based certificate in TLS 1.3.
2804	TCP	Inbound Listening	iSTAR Ultra (unencrypted or in Ultra SE Pro Mode)	Fast SQLite personal database download (SoftwareHouse.NextGen.iST)	HOST port for unencrypted fast SQLite personal download to iSTAR Ultra and Ultra SE (in Pro Mode) panels.

C•CURE	C•CURE 9000 Server (victor Application Server (vAS))								
Port/ Range	Protocol	Direction	Initiator	Process/ Service	Description				
2816	TCP	Inbound Listening	iSTAR Ultra	Panel uploads personnel database file to host (iSTAR_DriverService.exe)	Host port for unencrypted uploading SQLite personnel database file.				
3000	TCP	Inbound Listening	C•CURE web	HTTP for C•CURE Web  (node JS – local only)	This port is needed if C•CURE web server is installed on the same PC with C•CURE server.				
3001	TCP	Inbound Listening	C•CURE web	HTTPs for C•CURE Web  (node JS – local only)	This port is needed if C•CURE web server is installed on the same PC with C•CURE server.				
5984	TCP	Inbound Listening	C•CURE Web couch DB	HTTP for C•CURE Web DB  (Couch DB – local only)	This port is needed if C•CURE web server is installed on the same PC with C•CURE server.				
7144- 7145	TCP	Inbound Listening	EMC Replistor	EMC Replistor (N/A)	For EMC Replistor failover/redundancy.				
8042- 8045	TCP	Inbound Listening	EMC Autostart	EMC AutoStart (N/A)	For EMC AutoStart failover/redundancy.				
8080	TCP	Inbound Listening	Client	Tomcat6.exe	Communication from Assa Abloy DSR to C•CURE server.				
8085	TCP	Inbound Listening	Client	Auto Update (autoupdate.exe)	C•CURE9000 software Auto Update for clients and SAS from MAS				
8985	TCP	Inbound Listening	iSTAR/vAS	Base address of driver service (iSTAR_DriverService.exe)	location = Server Base for drivers for iSTAR, VideoEdge, Intellex, etc. used to drive communication				
8995	TCP	Inbound Listening	SAS	Installation, upgrade and repair operations on MAS and SAS (SoftwareHouse.CrossFire.S)	Required for SAS to communicate with MAS during install/upgrade. MAS listens, SASs initiates the communication.				
8996	TCP	Inbound Listening	Client	Crossfire service of web client session  (SoftwareHouse.NextGen; iSTAR_DriverService.exe; SoftwareHouse.NextGen.iST, stunnel.exe)	Required for the connection between the legacy C•CURE9000 web client and the Crossfire service of C•CURE9000 server.				
8997	TCP	Inbound Listening	Client	Admin / Monitor Client stream  (SoftwareHouse.NextGen; iSTAR_DriverService.exe; SoftwareHouse.NextGen.iST, stunnel.exe)	Required for the connection between C•CURE9000 Administration client/ C•CURE9000 Monitoring Station client and the Crossfire service of C•CURE9000 server.				

C•CURE	C•CURE 9000 Server (victor Application Server (vAS))							
Port/ Range	Protocol	Direction	Initiator	Process/ Service	Description			
8998	HTTP	Inbound Listening	Client	Crossfire service of HTTP client session  (SoftwareHouse.NextGen; iSTAR_DriverService.exe; SoftwareHouse.NextGen.iST, stunnel.exe)	Required for the C•CURE9000 server to listen for HTTP requests for web service connections from the C•CURE legacy Web Client, C•CURE Mobile, and Web Service.			
8999	TCP	Inbound Listening	Client	Crossfire service of TCP client session  (SoftwareHouse.NextGen; iSTAR_DriverService.exe; SoftwareHouse.NextGen.iST, stunnel.exe)	Required for the connection between TCP client session of C•CURE9000 Administration client/ C•CURE9000 Monitoring Station client and the Crossfire service of C•CURE9000 server. Configuration data exchanged between C•CURE client and C•CURE server.			
9090	TCP	Inbound Listening	DSR	CrossFireAssaAbloyDriverService	Communication from C•CURE to DSR server.			
9701	TCP	Inbound Listening	iSTAR Ultra	LightTPD.exe	iSTAR Ultra download firmware.  NOTE: iSTAR Ultra G2 does not use this port. iSTAR Ultra G2 uses panel port 21050 for firmware download.			
27000	TCP	Inbound Listening	vAS	TycoESS License software ((Imgrd.exe, TYCOESS.exe)	Required for the license validation between C•CURE 9000 clients and the license server manager on C•CURE 9000 server.			
27010	TCP	Inbound Listening	vAS	TycoESS – License Vendor Daemon  (TYCOESS.exe, ACVS.Enterprise.Server.Co)	Required for the system feature license validation between C•CURE9000 server and the TycoESS license vendor daemon. Services and applications that utilize TycoESS are vAS, C•CURE9000License.exe, LicenseManager.exe and Crossfire Framework Service.			
28001	TCP	Inbound Listening	iSTAR	iSTAR Driver - iSTAR eX/Edge/Ultra Fast personnel download connection (stunnel.exe)	Location = vAS, traffic direction from vAS = inbound, Connection initiate from encrypted iSTAR panels			
28002	TCP	Inbound Listening	iSTAR	iSTAR Driver - Firmware download and TLS 1.2 host certificate download.  (stunnel.exe)	location = vAS, traffic direction from vAS = inbound, Connection initiate from encrypted iSTAR panels. This port should be opened on host for iSTAR Edge1, eX, Ultra TLS1.2, Encrypted LT, and Ultra G2 TLS1.2.			
28003	TCP	Inbound Listening	iSTAR	iSTAR Driver - iSTAR eX/Edge/Ultra Used by host to accept eX or Edge request for certificate signing (SoftwareHouse.NextGen.iST)	location = vAS, traffic direction from vAS = inbound, Connection initiate from encrypted iSTAR panels.			

C•CURE	C•CURE 9000 Server (victor Application Server (vAS))								
Port/ Range	Protocol	Direction	Initiator	Process/ Service	Description				
28004	TCP	Inbound Listening	iSTAR	iSTAR Driver - Encrypted iSTAR Ultra SQL Lite database download (stunnel.exe)	location = encrypted iSTAR Panels, traffic direction from vAS = outbound, connection initiate from vAS.				
28010	TCP	Inbound Listening	iSTAR	iSTAR Driver - Host port for incoming encrypted iSTAR connections (stunnel.exe)	Port used by Stunnel on server for incoming iSTAR panel connection. Stunnel is the secure encrypted wrapper for communication between C•CURE9000 server and iSTAR panels.				
28016	TCP	Inbound Listening	iSTAR Ultra	iSTAR Driver - Panel uploads personnel database file to host when using TLS 1.2. (stunnel.exe)	Host port for encrypted uploading SQLite personnel database file when using TLS 1.2.				
28110	TCP	Inbound Listening	iSTAR Edge G2 iSTAR Ultra G2	iSTAR Driver – Port for Connection with: iSTAR Edge G2 iSTAR Ultra G2	Port used by Stunnel on server for incoming iSTAR panel connection. Stunnel is the secure encrypted wrapper for communication between C•CURE 9000 server and iSTAR panels.				
28104	TCP	Inbound Listening	iSTAR Edge G2 iSTAR Ultra G2	iSTAR Driver – Fast download port for: iSTAR Edge G2 iSTAR Ultra G2	Host opens the port. Panel connects to this port to receive SQLite personnel DB (i.e. Fast personnel download).				
28013	TCP	Inbound Listening	iSTAR Edge G2 iSTAR Ultra G2	iSTAR Driver – Certificate Sign Request for: iSTAR Edge G2 iSTAR Ultra G2	TLS 1.3 Certificate Sign Request (CSR) port. Host opens the port. Panel sends certificate signing request.				
28116	TCP	Inbound Listening	iSTAR Edge G2 iSTAR Ultra G2	ISTARUltraUploadConnectionG2V6 Panel uploads personnel database file to host using TLS 1.3.	C•CURE port for iSTAR Ultra (f/w v6.9.0 and above), Ultra G2, and Edge G2 to upload personnel database using TLS 1.3.				
33002	TCP	Inbound Listening	iSTAR/Innometriks High Assurance Reader	Stunnel (Innometriks-only)	C•CURE 9000 software supporting communication with Innometriks High Assurance reader. For communication in TLS 1.2.				
33003	TCP	Inbound Listening	iSTAR/Innometriks High Assurance Reader	Stunnel (Innometriks-only)	C•CURE 9000 software supporting data downloads to Innometriks High Assurance reader. For download in TLS 1.2				
33050	TCP	Inbound Listening	iSTAR/Innometriks High Assurance Reader	Stunnel (Innometriks-only)	C•CURE 9000 software supporting the transaction log from Innometriks High Assurance reader. For transaction log in TLS 1.2				
33102	TCP	Inbound Listening	iSTAR/Innometriks High Assurance Reader	Stunnel (Innometriks-only)	C•CURE 9000 software supporting communication with Innometriks High Assurance reader. For communication in TLS 1.3.				

Port/ Range	Protocol	Direction	Initiator	Process/ Service	Description
33103	TCP	Inbound Listening	iSTAR/Innometriks High Assurance Reader	Stunnel (Innometriks-only)	C•CURE 9000 software supporting data downloads to Innometriks High Assurance reader. For download in TLS 1.3.
33150	TCP	Inbound Listening	iSTAR/Innometriks High Assurance Reader	Stunnel (Innometriks-only)	C•CURE 9000 software supporting the transaction log from Innometriks High Assurance reader. For transaction log in TLS 1.3.

<sup>\*</sup>Port 33050 is a legacy port and should be closed.

# C•CURE IQ, C•CURE Web, and C•CURE Portal

Port/ Range	Protocol	Direction	Initiator	Process/ Service	Description
3000	TCP	Inbound Listening	C•CURE web	HTTP for C•CURE Web	This is a NodeJS port used for C•CURE Web (prior to v3.0). This port is needed to be opened on the PC where C•CURE Web service is installed. For example, if C•CURE Web service is installed on the same PC with C•CURE server, this port is needed to be opened for the C•CURE server.
3001	TCP	Inbound Listening	C•CURE web	HTTPs for C•CURE Web	This is a NodeJS port using for C•CURE Web (prior to v3.0). This port is needed to be opened on the PC where C•CURE Web service is installed. For example, if C•CURE Web service is installed on the same PC with C•CURE server, this port is needed to be opened for the PC of C•CURE server.
4000	TCP	Inbound Listening	C•CURE IQ	10. 10. 1 2 1 2 2 1 2 2 1 1 2 2 1 1 2 1 1 1 1	
4001	TCP	Inbound Listening	C•CURE IQ	HTTPs for C•CURE IQ	This is a NodeJS port using for C•CURE IQ (v2.90 and later). This port is needed to be opened on the PC where C•CURE web service is installed. For example, if C•CURE web service is installed on the same PC with C•CURE server, this port is needed to be opened for the PC of C•CURE server.

NodeJS	NodeJS (use for legacy C•CURE web, C•CURE IQ, and C•CURE Portal)							
Port/	Protocol	Direction	Initiator	Process/	Description			
Range				Service				
4002	TCP	Inbound	C•CURE	HTTP for	This is a NodeJS port using for C•CURE Portal. This port is needed to be opened on the			
		Listening	Portal	C•CURE	PC where C•CURE web service is installed. For example, if C•CURE web service is			
				Portal	installed on the same PC with C•CURE server, this port is needed to be opened for the PC			
					of C•CURE server.			
4003	TCP	Inbound	C•CURE	HTTPs for	This is a NodeJS port using for C•CURE Portal. This port is needed to be opened on the			
		Listening	Portal	C•CURE	PC where C•CURE web service is installed. For example, if C•CURE web service is			
				Portal	installed on the same PC with C•CURE server, this port is needed to be opened for the PC			
					of C•CURE server.			

# iSTAR Edge/eX

iSTAR E	dge/eX				
Port/ Range	Protocol	Direction	Initiator	Process/ Service	Description
80	TCP	Inbound Listening	Web	HTTP	Web connection used for diagnostic website. Port is closed in FIPS mode and is only necessary for diagnostics.
137	UDP	Inbound Listening	vAS	NetBIOS-NS	NetBIOS Name Service. This is a Windows function and cannot be closed but is not required for iSTAR operation.
138	UDP	Inbound Listening	vAS	NetBIOS-DS	NetBIOS Datagram Service. This is a Windows function and cannot be closed but is not required for iSTAR operation. This port can be blocked using a network firewall.
161	UDP	Inbound Listening	vAS	SNMP	Protocol for collecting and organizing information about managed devices on IP networks and for modifying that information to change device behavior.
1025	UDP	Inbound Listening	vAS	Windows DNS	Windows DNS resolves domain names. This port cannot be closed but is not part of the iSTAR function. This port can be blocked using a network firewall.
1999	TCP	Inbound Listening	iSTAR members, ICU	Configuration	iSTAR port for incoming ICU requests.
2001	UDP	Inbound Listening	ICU	Discovery	iSTAR port for ICU broadcasts.
2008	TCP	Inbound Listening	PC running iWatch	iWATCH	iWATCH connection port. Not open by default, but can be enabled via webpage diagnostic settings.
28003	TCP	Inbound Listening	Encrypted iSTAR members	encryption	Used to accept signed certificate for encryption.
28009	TCP	Inbound Listening	Encrypted iSTAR	Cluster member	iSTAR port for incoming encrypted member requests
1025 - 5000	TCP	Outbound	iSTAR Edge/eX	iSTAR to C•CURE communication	This port number is generated during bootup and is the stunnel communication for C•CURE9000 server [port 28010 (stunnel)]. Stunnel is the secure encrypted wrapper for communication between C•CURE 9000 server and iSTAR panels.

#### **iSTAR Pro**

Dout/	Ductocal	Divoction	luiti at au	Ducasal	Description
Port/ Range	Protocol	Direction	Initiator	Process/ Service	Description
80	TCP	Inbound Listening	Web	HTTP	Web connection used for diagnostic website. Port is closed in FIPS mode. Necessary only for diagnostics.
161	UDP	Inbound Listening	vAS	SNMP	SNMP Protocol for collecting and organizing information about managed devices on IP networks and for modifying that information to change device behavior.
1025	UDP	Inbound Listening	vAS	Windows DNS	Windows DNS. This is a Windows function and cannot be closed but is not required for iSTAR operation. This port can be blocked using a network firewall.
1999	TCP	Inbound Listening	iSTAR members, ICU	Master	iSTAR master port for incoming non-encrypted member connections, plus incoming ICU requests.
2008	TCP	Inbound Listening	PC running iWatch	iWATCH	iWATCH connection port. Not open by default but can be enabled via webpage diagnostic settings.
2001	UDP	Inbound Listening	ICU	Discovery	iSTAR port for ICU broadcasts.
1025 - 5000	TCP	Outbound	iSTAR Pro	iSTAR to C•CURE communication	This port number is generated during bootup.

# iSTAR Ultra, iSTAR Ultra SE, iSTAR Ultra LT

iSTAR Ultra, iSTAR Ultra SE, iSTAR Ultra LT (NOTE: iSTAR Ultra SE Pro Mode does not support encryption.)

Port/ Range	Protocol	Direction	Initiator	Process/ Service	Description
68	UDP	Inbound Listening	DHCP server	DHCPC	Obtaining dynamic IP address (DHCP).
161	UDP	Inbound Listening	vAS	SNMP	Protocol for collecting and organizing information about managed devices on IP networks and for modifying that information to change device behavior.
443	TCP	Inbound Listening	Web	HTTPs	Secure web connection used for diagnostic website. Port is closed in FIPS mode. Only necessary for diagnostics.
1999	TCP	Inbound Listening	Non-encrypted iSTAR members, ICU	Master	iSTAR master port for incoming non-encrypted member connections, plus incoming ICU requests.
2001	UDP	Inbound Listening	ICU	Discovery	iSTAR port for ICU to discover iSTAR controllers, and member iSTAR controllers to discover its primary controller. The primary iSTAR controller also uses this port to receive members service requests.
2900	TCP	Inbound Listening	IP-ACM	Communication	iSTAR Ultra GCM listening port for IPACM proprietary encrypted connection.
2901	TCP	Inbound Listening	IP-ACM2	iSTAR IP-ACM	iSTAR Ultra GCM listening port for IPACM2 SSL encrypted connection with default certificate/key.
2902	TCP	Inbound Listening	IP-ACM2	iSTAR IP-ACM	iSTAR Ultra GCM listening port for IPACM2 SSL encrypted connection with default certificate/key.
2910	UDP	Inbound Listening	IP-ACM2	iSTAR IP-ACM	Used for IP-ACM discovery.
28004	TCP	Inbound Listening	C•CURE	iSTAR Ultra signed certificate download port	TLS 1.2 Signed Certificate delivery port. iSTAR Ultra opens the port. Host delivers the signed certificates.
28009	TCP	Inbound Listening	Encrypted iSTAR	iSTAR Member	iSTAR Ultra incoming encrypted member connection port.

#### iSTAR Ultra, iSTAR Ultra SE, iSTAR Ultra LT

(NOTE: iSTAR Ultra SE Pro Mode does not support encryption.)

Port/ Range	Protocol	Direction	Initiator	Process/ Service	Description
21050	TCP	Inbound Listening	C•CURE or web	iSTAR Ultra Firmware download	Secure firmware download.
28014	TCP	Inbound Listening	C•CURE	iSTAR Ultra in TLS 1.3 signed certificate download port	TLS 1.3 Signed Certificate delivery port. iSTAR Ultra opens the port. Host delivers the signed certificates.
33002	TCP	Listening	C•CURE	Innometriks	For communication in TLS 1.2
33003	TCP	Listening	C•CURE	Innometriks	For download in TLS 1.2
33050	TCP	Listening	C•CURE	Innometriks	For transaction log in TLS 1.2
33102	TCP	Listening	C•CURE	Innometriks	For communication in TLS 1.3
33103	TCP	Listening	C•CURE	Innometriks	For download in TLS 1.3
33150	TCP	Listening	C•CURE	Innometriks	For transaction log in TLS 1.3

<sup>\*</sup>Port 33050 is a legacy port and should be closed.

#### **iSTAR Ultra G2**

The iSTAR Ultra G2 can be run using two different modes – Ultra G2 mode and Ultra mode. In Ultra mode, the controller can be unencrypted, or use TLS v1.2 encryption. In Ultra G2 mode, the controller uses TLS v1.3 encryption by default. If using the controller in Ultra mode only, see the <u>iSTAR Ultra, iSTAR Ultra SE, iSTAR Ultra LT table</u> above for port assignment information.

iSTAR (	iSTAR Ultra G2								
Port/ Range	Protocol	Direction	Initiator	Process/ Service	Description				
161	UDP	Inbound Listening	vAS	SNMP	Protocol for collecting and organizing information about managed devices on IP networks and for modifying that information to change device behavior.				

443	TCP	Inbound Listening	Web	HTTPs	Secure web connection.
2001	UDP	Inbound Listening	Cluster master	Communication	iSTAR port for member iSTAR controllers to discover its master controller. The master iSTAR controller also uses this port to receive its members' service requests.
2901	TCP	Inbound Listening	IP-ACM2	iSTAR IP-ACM	iSTAR Ultra G2 GCM listening port for IP-ACM2 SSL encrypted connection with default certificate/key.
2902	TCP	Inbound Listening	IP-ACM2	iSTAR IP-ACM	iSTAR Ultra G2 GCM listening port for IP-ACM2 SSL encrypted connection with default certificate/key.
2910	UDP	Inbound Listening	IP-ACM/IP-ACM2	iSTAR IP-ACM	For IP-ACM discovery.
21050	TCP	Inbound Listening	C•CURE or web	iSTAR Ultra G2 Firmware download	Secure firmware download.
28009	TCP	Inbound Listening	Cluster member	Communication	Master port for incoming encrypted member connection.
28014	TCP	Inbound Listening	C•CURE	iSTAR Ultra G2 signed certificate download port	TLS 1.3 Signed Certificate delivery port. iSTAR Ultra G2 opens the port. Host delivers the signed certificates.
33002	TCP	Listening	C•CURE	Innometriks	For communication in TLS 1.2
33003	TCP	Listening	C•CURE	Innometriks	For download in TLS 1.2
33050	TCP	Listening	C•CURE	Innometriks	For transaction log in TLS 1.2
33102	TCP	Listening	C•CURE	Innometriks	For communication in TLS 1.3
33103	TCP	Listening	C•CURE	Innometriks	For download in TLS 1.3
33150	TCP	Listening	C•CURE	Innometriks	For transaction log in TLS 1.3

<sup>\*</sup>Port 33050 is a legacy port and should be closed.

# iSTAR Edge G2

iST	AR E	dge G2				
Po Rar		Protocol	Direction	Initiator	Process/ Service	Description

161	UDP	Inbound Listening	vAS	SNMP	Protocol for collecting and organizing information about managed devices on IP networks and for modifying that information to change device behavior.
443	TCP	Inbound Listening	Web	HTTPs	Secure web connection.
2001	UDP	Inbound Listening	Cluster master	Communication	Member port to handle autoconfig from master on the same subnet.
21050	TCP	Inbound Listening	C•CURE or web	iSTAR Edge G2 Firmware download	Secure firmware download.
28009	TCP	Inbound Listening	Cluster member	Communication	Master port for incoming encrypted member connection.
28014	TCP	Inbound Listening	C•CURE	iSTAR Edge G2 signed certificate download port	TLS 1.3 Signed Certificate delivery port. iSTAR Edge G2 opens the port. Host delivers the signed certificates.

#### iSTAR Ultra Video

Destination Port/ Protocol Direction Initiator Process/ Description									
System	Range	Protocol	Direction	initiator	Service	Description			
VideoEdge	25	TCP	Inbound Listening	Mail server	SMTP	SMTP			
VideoEdge	68	UDP	Inbound Listening	DHCP server	DHCPC	Obtaining dynamic IP address (DHCP).			
iSTAR Ultra Video VideoEdge iSTAR Ultra	80	TCP	Inbound Listening	iUV Web client, VideoEdge web client	HTTP	Web service for the iSTAR diagnostic site, iSTAR Ultra Video site and VideoEdge remote client.			
VideoEdge	123	UDP	Inbound Listening	NTP (time server)	NTP	NTP (time server).			
VideoEdge	161	UDP	Inbound Listening	SNMP manager	SNMP	SNMP			
VideoEdge	162	UDP	Inbound Listening	SNMP manager	SNMP	SNMP Trap			
ISTAR Ultra Video VideoEdge	443	TCP	Inbound Listening	iUV Web client, VideoEdge web client	HTTPS	Protocol for collecting and organizing information about managed devices on IP networks and for modifying that information to change device behavior.			
VideoEdge	554	TCP	Inbound Listening	Camera	RTSP	Camera video streaming connections.			

Destination	Port/	Protocol	Direction	Initiator	Process/	Description
System	Range	Protocol	Direction	IIIIIIatoi	Service	Description
VideoEdge	623	UDP	Inbound Listening	Remote control (should be closed)	RPC	RPC - standard Linux open port.
iSTAR Ultra	1999	TCP	Inbound Listening	Non-encrypted iSTAR members, ICU	Master	iSTAR master port for incoming non- encrypted member connections, plus incoming ICU requests.
iSTAR Ultra	2900	TCP	Inbound Listening	IP-ACM	Communication	Communication between the IP-ACM and iSTAR Ultra family GCM.
iSTAR Ultra	2001	UDP	Inbound Listening	ICU	discovery	iSTAR port for ICU broadcast
iSTAR Ultra	2008	TCP	Inbound Listening	PC running iWatch	iWATCH	iWATCH connection port
iSTAR Ultra	2901	TCP	Inbound Listening	IP-ACM2	Communication	Used for SSL encrypted communication between the IP-ACM2 and iSTAR Ultra family GCM.
iSTAR Ultra	2902	TCP	Inbound Listening	IP-ACM2	Communication	Reserved for enhanced SSL communication between the IP-ACM2 and iSTAR Ultra family GCM.
VideoEdge	3389	TCP	Inbound Listening	RCP client	RDP	XRDP
VideoEdge	55555	TCP	Inbound Listening	Internally Used	Transmit Manager	Transmit manager - not used externally.
VideoEdge	1900	UDP	Inbound Listening	Any	UPnP	UPnP
VideoEdge	1900	SSDP	Inbound Listening	Any	AD discovery	veAutoDiscSSDP - Discovery of devices, close after setup.
VideoEdge	2980	UDP	Inbound Listening	Any	AD discovery	veAutoDiscScan - Discovery of devices, close after setup.
VideoEdge	3702	UDP	Inbound Listening	Web Server/Any	AD discovery	veAutoDiscovery WSDicovery - Discovery of devices, close after setup.
VideoEdge	5353	UDP	Inbound Listening	Any	AD discovery	veAutoDiscMDNS - Discovery of devices, close after setup.
VideoEdge	5432	TCP	Inbound Listening	SQL	Postgresql	Postgresql
VideoEdge	5800-5803	TCP	Inbound Listening	remote unit	VNC	Java-enabled web browser VNC server.
VideoEdge	5900-5903	TCP	Inbound Listening	remote unit	VNC	VNC server

iSTAR Ultra Video	ı					
Destination System	Port/ Range	Protocol	Direction	Initiator	Process/ Service	Description
VideoEdge	8848	UDP	Inbound Listening	Any	AD discovery	veAutodiscoveryADPort - Discovery of devices, close after setup.
VideoEdge	8992	UDP	Inbound Listening	Any	AD discovery	veAutoDiscADScanPort - Discovery of devices, close after setup.
VideoEdge	12345	UDP	Inbound Listening	Any	AD discovery	veAutoDiscADPo - Discovery of devices, close after setup.
iSTAR Ultra	28003	TCP	Inbound Listening	Encrypted iSTAR Ultra members	Certificate signing	Used to accept signing for certificate for encryption.
iSTAR Ultra	28004	TCP	Inbound Listening	C•CURE	Certificate signing	Signed Certificate delivery port. iSTAR Ultra opens the port. Host delivers the signed certificates
iSTAR Ultra	28009	TCP	Inbound Listening	Encrypted iSTAR	iSTAR Member	iSTAR Ultra incoming encrypted member connection port.
VideoEdge Client	32200- 38199	UDP	Outbound	VideoEdge server	victor Client UDP communication	Default VideoEdge UDP port range (for victor client connections).
VideoEdge Client	32200- 38199	UDP	Outbound	VideoEdge server	AD discovery	veAutoDiscMDNS - Discovery of devices, close after setup.
VideoEdge Client	32200- 38199	UDP	Outbound	VideoEdge server	AD discovery	veAutoDiscScan - Discovery of devices, close after setup.
VideoEdge Client	32200- 38199	UDP	Outbound	VideoEdge server	AD discovery	veAutoDiscSSDP - Discovery of devices, close after setup.
VideoEdge Client	32200- 38199	UDP	Outbound	VideoEdge server	UPnP	VideoEdgeupnpn
VideoEdge Client	32200- 38199	UDP	Outbound	VideoEdge server	AD discovery	veAutoDiscSSD - Discovery of devices, close after setup.
VideoEdge Client	32200- 38199	UDP	Outbound	VideoEdge server	AD discovery	veAutoDiscWSDi - Discovery of devices, close after setup.
VideoEdge Client/Camera	6000-7999	UDP	Outbound	VideoEdge server	RTP/RTCP	RTP/RTCP
VideoEdge Client/Camera	9000-9511	UDP	Outbound	VideoEdge server	Multicast	multicast port range

iSTAR Ultra Video								
Destination System	Port/ Range	Protocol	Direction	Initiator	Process/ Service	Description		
Failover NVR	9000-9128	TCP	Outbound	NVR	Remote Transcoding and Failover	Remote Transcoding and Failover		

#### IP-ACM v1

IP-ACM	IP-ACM								
Port/ Range	Protocol	Direction	Initiator	Process/ Service	Description				
80	TCP	Inbound Listening	Web	HTTP	Web connection used for configuration and diagnostics.				

#### IP-ACM v2

IP-ACM2					
Port/ Range	Protocol	Direction	Initiator	Process/ Service	Description
443	TCP	Inbound Listening	Web	HTTPS	Secure Web connection used for configuration and diagnostics.

# **High Assurance/FICAM Readers**

Innometriks									
Destination System	Port/ Range	Protocol	Direction	Initiator	Process/ Service	Description			
ID Server <b>♦</b>	443	TCP	Inbound Listening Outbound	Red Hat sysctl	TLS 1.2 with certificates and HTTPS	Incoming enrollments from Enrollment Client(s) on ID server.			
						PKI updates from the Internet.			
Panel Service*	5002	TCP	Inbound Listening	vAS	InnometriksHA.PanelServer.exe	Single card updates from Panel Service to GCM.			

Panel Service*	5003	TCP	Inbound Listening	vAS	InnometriksHA.PanelServer.exe	Multiple card updates from Panel Service to GCM.
Panel Service*	5050	TCP	Inbound Listening	vAS	InnometriksHA.PanelServer.exe	Multiple card updates from Panel Service to GCM. For logging function.
Enrollment Server	8000	TCP	Inbound Listening	Enrollment Server	InnometriksHA.EnrollmentServer.exe	Incoming enrollments from ID server to C•CURE. User configurable.
Enrollment Server	8001	TCP	Inbound Listening	Enrollment Server	Encryption	Same as above when used with encryption. User configurable.
Panel Service*	33002	TCP	Inbound Listening	vAS	Encryption	Same as 5002 when used with encryption.
Panel Service*	33003	TCP	Inbound Listening	vAS	Encryption	Same as 5003 when used with encryption.
Panel Service*	33050	TCP	Inbound Listening	vAS	Encryption	Same as 5050 when used with encryption.
C•CURE 9000 Server	33102	TCP	Inbound Listening	Innometriks High Assurance Reader	InnometriksCommunicationsG2	C•CURE 9000 software supporting communication with Innometriks High Assurance reader.
C•CURE 9000 Server	33103	TCP	Inbound Listening	Innometriks High Assurance Reader	InnometriksDownloadG2	C•CURE 9000 software supporting data downloads to Innometriks High Assurance reader.
C•CURE 9000 Server	33150	TCP	Inbound Listening	Innometriks High Assurance Reader	InnometriksTransactionLogG2	C•CURE 9000 software supporting the transaction log from Innometriks High Assurance reader.

<sup>\*</sup>Port 5050 and 33050 are legacy ports and should be closed. When encryption is used, port 5002 should only remain open to localhost.

#### **SQL Server**

SQL Server						
Destination System	Port/ Range	Protocol	Direction	Initiator	Process/ Service	Description

<sup>◆</sup>The ID Server is a separate machine from the C•CURE host. This machine is usually located on the same network as the C•CURE machine. Ports shown for Enrollment Server/ID Service are default and can be changed if the configuration is updated appropriately.

SQL Server	1433	TCP	Inbound listening	VAS or other SQL Clients	SQL Server (stunnel.exe)	SQL Server default port used for communication between the C•CURE Application Server and the Database Server. For enterprise system, SAS needs to access both SAS SQL DB and MAS SQL DB. MAS only needs to access MAS SQL DB. Please contact your Database Administrator for the exact ports used.
SQL Server	1434	UDP	Inbound listening	VAS or other SQL Clients	SQL Server Browser (sqlbrowser.exe)	SQL Server Browser Service default port for Dynamic port discovery on the Database Server only if SQL Browsing Services are being used. Please contact your Database Administrator for the exact ports used.

Refer to <a href="https://docs.microsoft.com/en-us/sql/sql-server/install/configure-the-windows-firewall-to-allow-sql-server-access">https://docs.microsoft.com/en-us/sql/sql-server/install/configure-the-windows-firewall-to-allow-sql-server-access</a> for additional SQL Server information.

#### **iSTAR Configuration Utility (ICU)**

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guration updates (this
adcast and
to iSTAR Ultra. not use this port. iSTA

#### C•CURE 9000 SiteServer v2.90

Port/ Range	Protocol	Direction	Action	Description
80	TCP	Inbound	Allow	IIS / VideoEdge NVR Admin/Alarm Port
123	UDP	Inbound	Allow	vAS/C•CURE client time synchronization
123	UDP	Outbound	Allow	vAS/C•CURE client outgoing time synchronization
389	TCP	Inbound	Allow	LDAP
443	TCP	Inbound	Allow	C•CURE Web
554	TCP	Inbound	Allow	VENRLive
1025	UDP	Inbound	Allow	Windows DNS
1025-5000	TCP	Outbound	Allow	iSTAR Edge/eX iSTAR to C•CURE communication
1433	TCP	Inbound	Allow	SQL 1433 TCP
1433	UDP	Inbound	Allow	SQL 1433 UDP
1434	UDP	Inbound	Allow	SQL 1434 UDP
1999	TCP	Inbound	Allow	iSTAR master port for incoming secondary communication
2001	UDP	Inbound	Allow	iSTAR port for ICU broadcasts
2001	TCP	Inbound	Allow	ICU broadcast
2800	TCP	Inbound	Allow	iSTAR host port for iSTAR driver
2800	TCP	Outbound	Allow	iSTAR host port for iSTAR driver out
2800	UDP	Inbound	Allow	iSTAR ICU host port iSTAR driver
2800	UDP	Outbound	Allow	iSTAR ICU host port iSTAR driver out
2801	TCP	Inbound	Allow	iSTAR fast personnel download host port
2802	TCP	Inbound	Allow	iSTAR fast image download host port <b>Note:</b> This is used in unencryption mode and can be closed if the port is not used for firmware image download and if there is no host-based certificate in TLS 1.3.
2803	TCP	Inbound	Allow	iSTAR encryption port (iSTAR Pro only)

2804	TCP	Inbound	Allow	iSTAR Ultra fast SQLite personnel database download.
2816	TCP	Inbound	Allow	iSTAR Ultra panel uploads personnel database file to host.
2900	TCP	Inbound	Allow	iSTAR Ultra to IP-ACM
2910	UDP	Inbound	Allow	IP-ACM
2901	TCP	Inbound	Allow	iSTAR Ultra SSL to IP-ACM 2
2902	TCP	Inbound	Allow	Reserved for enhanced SSL IP-ACM 2 to iSTAR Ultra.
2980	UDP	Inbound	Allow	veAutoDiscScan – Discovery of devices, can close after setup.
3000	TCP	Inbound	Allow	HTTP for C•CURE Web
5000	TCP	Inbound	Allow	Intellex Server
5001	TCP	Inbound	Allow	Intellex Live
5002 / 5050	TCP	Inbound	Allow	Innometriks communication between ID server and iSTAR.
5003	TCP	Inbound	Allow	Intellex Alarm
5432	TCP	Inbound	Allow	VideoEdge Postgresql
5984	TCP	Inbound	Allow	HTTP for C•CURE Web database
6000 – 7999	UDP	Inbound	Allow	VideoEdge UDP Ports
6000 – 7999	UDP	Outbound	Allow	VideoEdge Client/Camera RTP/RTCP
8000	TCP	Inbound	Allow	Innometriks incoming enrollments from C•CURE FICAM client.
8005	TCP	Inbound	Allow	System Trace URI
8006	TCP	Inbound	Allow	Remote hardware interface list URI.
8085	TCP	Inbound	Allow	AutoUpdate
8848	UDP	Inbound	Allow	VideoEdge discovery of devices (can close after setup).
			A.II	Base Address of Driver Service
8985	TCP	Inbound	Allow	Base Address of Driver Service

8995 – 8999	TCP	Outbound	Allow	C•CURE 9000 host
9000 – 9511	UDP	Outbound	Allow	VideoEdge client/camera multicast port range.
9000 – 9128	TCP	Outbound	Allow	NVR remote transcoding and failover.
9701	TCP	Inbound	Allow	iSTAR Ultra download firmware
12345	UDP	Inbound	Allow	VideoEdge discovery of devices (can close after setup).
22609	TCP	Inbound	Allow	VideoEdge HDVR admin/line/alarm port.
27010	UDP	Inbound	Allow	TycoESS License Vendor Daemon.
27000	TCP	Inbound	Allow	TycoESS License Service
28000	TCP	Inbound	Allow	iSTAR host port for iSTAR driver
28001	TCP	Inbound	Allow	iSTAR Edge/Ultra/eX fast download connection.
28002	TCP	Inbound	Allow	iSTAR Edge/Ultra/eX fast image download
28003	TCP	Inbound	Allow	C•CURE 9000 accept iSTAR Edge/Ultra/eX requests for certificate signing.
28004	TCP	Inbound	Allow	iSTAR Edge/Ultra/Ex : Accept a signed certificate
28005	TCP	Inbound	Allow	iSTAR Ultra/eX for connection made to host 2 <sup>nd</sup> IP/name with dual IP configured.
28006	TCP	Inbound	Allow	iSTAR Edge/Ultra/eX for member connection to alternate master.
28007	TCP	Inbound	Allow	iSTAR Edge/Ultra/eX for alternate master host connection.
28008	TCP	Inbound	Allow	iSTAR Edge/Ultra/eX master port for incoming member connections.
28010	TCP	Inbound	Allow	iSTAR Edge/Ultra/eX communication
28016	TCP	Inbound	Allow	Host port for encrypted uploading SQLite personnel database file. Used for TLS 1.2
28110	TCP	Inbound	Allow	encryption mode.  iSTAR driver port for connection with iSTAR Edge G2 and iSTAR Ultra G2.
28104	TCP	Inbound	Allow	iSTAR driver fast download port for iSTAR Edge G2 and iSTAR Ultra G2.
28013	TCP	Inbound	Allow	iSTAR driver certificate sign request for iSTAR Edge G2 and iSTAR Ultra G2.
28116	TCP	Inbound	Allow	C•CURE upload personnel database from panel for use with the iSTAR Edge G2 and iSTAR Ultra G2. Used for TLS 1.3 encryption mode.

32200 – 38199	UDP	Outbound	Allow	Default VideoEdge UDP port range (for victor client connections).
33102	TCP	Inbound	Allow	C•CURE support communication with Innometriks High Assurance reader.
33103	TCP	Inbound	Allow	C•CURE support data downloads to Innometriks High Assurance reader.
33150	TCP	Inbound	Allow	C•CURE support transaction log from Innometriks High Assurance reader.

#### **Other Components**

Destination System	Port/ Range	Protocol	Direction	Initiator	Process/ Service	Description
Stratus everRun® Server	22	TCP	Inbound Listening	Stratus everRun® client	SSH Stratus everRun® Customer Support node access.	This port is open so that the Stratus redundancy solution support can access the system via a collaboration session during a support call.
Stratus everRun® Server	53	UDP	Inbound Listening	Stratus everRun® client	SSH/ Stratus everRun® Active Directory	Connection to the active directory for Stratus everRun redundancy solution.
Stratus everRun® Server	80	TCP	Inbound Listening	Stratus everRun® client	everRun® IIS	Stratus everRun® IIS port (required to be open) for Stratus redundancy solution.
American Dynamics VideoEdge© NVR	80	TCP	Inbound Listening	vAS, VideoEdge© Client	VideoEdge© NVR Admin/Alarm Port	VideoEdge© NVR Admin/Alarm Port.
Dedicated Micro Recorder	80	TCP	Inbound Listening	vAS	Dedicated Micro	Dedicated Micro video recorder
Bosch© Recorder	80	TCP	Inbound Listening	vAS	Bosch© Video	Bosch© video recorder
NTP server	123	UDP	Inbound Listening, Outbound	vAS/C•CURE Client	Network Time Protocol Synchronization.	For network time synchronization.
Stratus everRun® Server	135	UDP	Inbound Listening	Stratus everRun® client	ArcServe® RHA Control service server and the engine server	Used by: RHA for remote installer.

ArcServe® server				ArcServe® client		Microsoft EPMAP (End Point Mapper) which is the DCE/RPC locator service used to remotely manage services like DHCP servers for Stratus® redundancy solutions.
Stratus everRun® Server ArcServe® server	137	UDP	Inbound Listening	Stratus everRun® client ArcServe® client	ArcServe® RHA Control service server and the engine server.	NetBIOS Name Service - Windows CIFS/SMB protocol family – used by RHA remote installer. This is for Stratus® redundancy solution.
Stratus everRun® Server ArcServe® server	138	UDP	Inbound Listening	Stratus everRun® client ArcServe® client	ArcServe® RHA Control service server and the engine server.	NetBIOS Datagram Service - Windows CIFS/SMB protocol family – used by RHA remote installer. This is for Stratus® redundancy solution.
LDAP Server	389	TCP	Inbound Listening	vAS, LDAP Clients	LDAP	LDAP which is used to synchronize C•CURE database with other databases (non C•CURE) and facilitates other databases, such as human resources information databases, to download information.
Stratus everRun® Server	443	TCP	Inbound Listening	everRun® Web client	everRun® HTTPS Communications	HTTPS Port for SSL connections with C•CURE Go and Stratus everRun® communication. If IIS is installed on a different server ensure this Inbound listening port is opened for the IIS server. This is for the Stratus® redundancy solution.
VideoEdge© NVR	554	TCP	Inbound Listening	vAS, VideoEdge© Client	RTSP stream	VideoEdge© NVR Live Port
ArcServe® server	1025	TCP	Inbound Listening	ArcServe® client	ArcServe® RHA control service center Windows DNS	Windows active directory port, RHA connects to AD to discover Windows domain configuration/settings and resources to be replicated (Exchange servers, DNS server, etc.).

Sur-Guard	1025	TCP	Inbound Listening	vAS	Sur-Guard	Sur-Guard communication
KONE Elevator	2004-2005	TCP	Inbound Listening	vAS	KONE Elevator	KONE Elevator
Stratus everRun® Server	2188-2189	TCP	Inbound Listening	Stratus everRun® client	everRun® quorum service computers and XenServer hosts	Stratus everRun® redundancy solution quorum service computers and XenServer hosts.
ASSA ABLOY DSR	2571	TCP	Inbound Listening	vAS	CrossFireAssaAbloyDriverService	ASSA ABLOY Lock communication to the DSR.
Commend Intercom server	3001	TCP	Inbound Listening	vAS	Commend Intercom server	Commend Intercom server
DSC PowerSeries	3072	TCP	Inbound Listening	vAS	ITV2	ITV2 – DSC PowerSeries Neo
American Dynamics Intellex Server	5000	TCP	Inbound Listening	vAS	Intellex Base	Intellex Base
American Dynamics Intellex Server	5001	TCP	Inbound Listening	vAS	Intellex Live	Intellex Live
American Dynamics Intellex Server	5003	TCP	Inbound Listening	vAS	Intellex Alarm	Intellex Alarm
Inner Range ISC	5000	TCP	Inbound Listening	vAS	ISC Controller communication	ISC Controller communication, alternative 6000 port. ISC is not supported in C•CURE 9000 v2.30 or later.
Inner Range ISC	5001	TCP	Inbound Listening	vAS	ISC Controller communication	ISC Controller communication, alternative 6001 port. ISC is not supported in C•CURE 9000 v2.30 or later.
TOA server	5001	TCP	Inbound Listening	vAS	TOA	TOA Intercom server

Inner Range ISC	5002	TCP	Inbound Listening	vAS	ISC Controller communication	ISC Controller communication, alternative 6002 port. ISC is not supported in C•CURE 9000 v2.30 or later.
Inner Range ISC	5003	TCP	Inbound Listening	vAS	ISC Controller communication	ISC Controller communication, alternative 6003 port. ISC is not supported in C•CURE 9000 v2.30 or later.
Inner Range ISC	5025	TCP	Inbound Listening	vAS	ISC Point Change Port	ISC Point Change Port. ISC is not supported in C•CURE 9000 v2.30 or later.
Inner Range ISC	5026	TCP	Inbound Listening	vAS	ISC Version Attendance Port	ISC Version Attendance Port. ISC is not supported in C•CURE 9000 v2.30 or later.
Mastermind System	5050	TCP	Inbound Listening	vAS	Mastermind	Mastermind Alarm Management
Stratus everRun® server	5900	TCP	Inbound Listening	Stratus everRun® client	VNC with Linux VMs	Stratus everRun® redundancy solution communication for failover/redundancy.
Bosch	7800	UDP	Inbound Listening	vAS	Bosch	Bosch receiver port
Bosch	7900	UDP	Inbound Listening	vAS	Bosch	Bosch receiver port
Matrix Recorder	8016	TCP	Inbound Listening	vAS	Matrix Video	Matrix video recorder
ThyssenKrupp Elevator	8038-8041	UDP	Inbound Listening	vAS	ThyssenKrupp Elevator	ThyssenKrupp Elevator
Identiv© 3VR Recorder	8080	TCP	Inbound Listening	vAS	Identiv© 3VR	3VR video recorder
Stratus everRun® server	8080-8081	TCP	Inbound Listening	everRun client	Stratus everRun® eAC	Stratus everRun® redundancy solution - eAC communication for failover/redundancy.

ASSA ABLOY DSR	9090	TCP	Inbound Listening	vAS	CrossFireAssaAbloyDriverService	Communication from C•CURE to DSR server.
Lantronix	10001- 10002	TCP	Inbound Listening	DSC serial through Lantronix and Simplex 4100U serial through Lantronix	Serial	DSC serial through Lantronix and Simplex 4100U serial through Lantronix
Honeywell© Galaxy panel	10001 - 10002	TCP	Inbound Listening	vAS	Honeywell© Galaxy	Honeywell Galaxy Panel
HDVR	22609	TCP	Inbound Listening	vAS	HDVR Admin/Line/Alarm Port	HDVR Admin/Line/Alarm Port
Zettler® MZX	47808	UDP	Inbound Listening	vAS	Zettler® MZX	MZX fire detection integration
Otis Elevator	45303, 45307, 45308, 46307, 46308, 47307	UDP	Inbound Listening	vAS	Otis Elevator	Otis Elevator
BACnet controller	47808	TCP	Inbound Listening	vAS	BACnet	BACnet Building Management
Elpas®	1001	TCP	Inbound Listening	vAS	Elpas®	Elpas® real time location
Schindler Elevator	4040, 5050	TCP	Inbound Listening	vAS	Schindler Elevator	Schindler Elevator
CEM Systems CDC Server	30000	TCP	Inbound Listening	vAS	CEM Systems	CEM Systems Access Control
EntraPass Server	8801	TCP	Inbound Listening	vAS	EntraPass	EntraPass Access Control

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