



# HikCentral Professional V1.7.1

Communication Matrix

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Source Device	Source IP Address	Source Port Number	Destination Device	Destination IP Address	Destination Port Number (Listening)	Protocol	Port Description	Destination Port Configurable (Yes/No)	Authentication Mode	Encryption Mode	Enabled by Default (Yes/No)	Version	Special Scenario
<b>Centralized Deployment: System Management Service (SYS)</b>													
Web Client, Control Client	IP address of the PC running the client	1025-65535	SYS Server	SYS Server IP Address	80	HTTP/WebSocket	Used for Web Client & Control Client access in HTTP protocol	Yes	User Name & Password	RSA2048/SHA256/AES256	Yes	All versions	
Web Client, Control Client	IP address of the PC running the client	1025-65535	SYS Server	SYS Server IP Address	443	HTTPS/WebSocket over TLS	Used for Web Client & Control Client access in HTTPS protocol	Yes	User Name & Password	TLS	Yes	V1.1 and later	
Third-Party System	Third-Party System IP	1025-65535	SYS Server	SYS Server IP Address	15300	TCP	Used for receiving generic events.	Yes	None	None	No	V1.1 and later	
Third-Party System	Third-Party System IP	1025-65535	SYS Server	SYS Server IP Address	15300	UDP	Used for receiving generic events.	Yes	None	None	No	V1.1 and later	
Remote Site	Remote Site IP Address	1025-65535	SYS Server	SYS Server IP Address	14200	HTTP/HTTPS	Used for Remote Site registration to the Central System.	Yes	User Name & Password	AES256	No	V1.1 and later	
ISUP Device	ISUP Device IP Address	1025-65535	SYS Server	SYS Server IP Address	7332	TCP	Used for receiving alarm from ISUP devices.	Yes	User Name & Password	SHA256/AES128	Yes	V1.4 and later	
ISUP Device	ISUP Device IP Address	1025-65535	SYS Server	SYS Server IP Address	7334	UDP	Used for receiving alarm from ISUP devices.	Yes	User Name & Password	SHA256/AES128	Yes	V1.4 and later	
ISUP Device	ISUP Device IP Address	1025-65535	SYS Server	SYS Server IP Address	7660	TCP	Used for receiving registration from ISUP devices.	Yes	User Name & Password	SHA256/AES128	Yes	V1.4 and later	
Streaming Server	Streaming Server IP Address	1025-65535	SYS Server	SYS Server IP Address	7661	TCP	Used for getting stream from ISUP device via Streaming Server.	Yes	Security Certificate Authentication	RSA2048/SHA256/AES256	Yes	V1.4 and later	
3rd Party Devices and Hikvision Devices Accessing the System by ONVIF Protocol	ONVIF Device IP Address	1025-65535	SYS Server	SYS Server IP Address	8087 to 8096	TCP	Alarm listen port for third-party devices.	No	User Name & Password	None	No	All versions	Enable these ports on the Firewall when the devices share a LAN with the SYS server.
<b>Distributed Deployment: System Management Service (SYS)</b>													
ADS Server	ADS Server IP Address	1025-65535	SYS Server	SYS Server IP Address	30051	HTTP2.0	Used for communication between SYS and ADS.	Yes	None	None	Yes	V1.4 and later	Used in trusted network.
ADS Server	ADS Server IP Address	1025-65535	SYS Server	SYS Server IP Address	30053	HTTP2.0	Used for communication between SYS and ADS, after encrypted transmission enabled.	Yes	None	None	Yes	V1.4 and later	Used in trusted network.
<b>Distributed Deployment: Application Data Server (ADS)</b>													
SYS Server	SYS Server IP Address	1025-65535	ADS Server	ADS Server IP Address	30052	HTTP2.0	Used for communication between SYS and ADS.	Yes	None	None	Yes	V1.4 and later	Used in trusted network.
SYS Server	SYS Server IP Address	1025-65535	ADS Server	ADS Server IP Address	30054	HTTP2.0	Used for communication between SYS and ADS, after encrypted transmission enabled.	Yes	None	None	Yes	V1.4 and later	Used in trusted network.
SYS Server	SYS Server IP Address	1025-65535	ADS Server	ADS Server IP Address	6208	WebSocket	Listen port for Service Manager.	Yes	None	None	Yes	V1.4 and later	Used in trusted network.
SYS Server	SYS Server IP Address	1025-65535	ADS Server	ADS Server IP Address	8208	WebSocket over TLS	Listen port for Service Manager after encrypted transmission enabled.	Yes	None	None	Yes	V1.4 and later	Used in trusted network.
SYS Server	SYS Server IP Address	1025-65535	ADS Server	ADS Server IP Address	19999	HTTP	Used for communication between SYS's NGINX and ADS.	Yes	None	None	Yes	V1.4 and later	Used in trusted network.
SYS Server	SYS Server IP Address	1025-65535	ADS Server	ADS Server IP Address	19443	HTTPS	Used for communication between SYS's NGINX and ADS.	Yes	None	None	Yes	V1.4 and later	Used in trusted network.
Spare Server	Spare Server IP Address	1025-65535	ADS Server	ADS Server IP Address	5432	TCP	Used for real-time data synchronization between Application Data Server and Application Data Standby Server.	No	User Name & Password	MD5	Yes	V1.4 and later	
<b>Streaming Gateway (SG)</b>													
Web Client, Control Client	IP address of the PC running the client	1025-65535	Streaming Gateway	IP address of the server running Streaming Gateway	554	RTSP	Used for getting stream for live view (real-time streaming port).	Yes	Security Certificate Authentication	RSA2048/AES256	Yes	All versions	
Web Client, Control Client	IP address of the PC running the client	1025-65535	Streaming Gateway	IP address of the server running Streaming Gateway	559	WebSocket	Used for getting stream for Google Chrome, Firefox, or Safari.	Yes	Security Certificate Authentication	RSA2048/AES256	Yes	All versions	
Web Client, Control Client	IP address of the PC running the client	1025-65535	Streaming Gateway	IP address of the server running Streaming Gateway	10000	TCP	Used for getting stream for playback (video file streaming port).	Yes	None	None	Yes	All versions	
ISUP Device	ISUP Device IP Address	1025-65535	Streaming Gateway	IP address of the server running Streaming Gateway	16000	TCP	Used for getting stream from ISUP device via plugin.	Yes	None	None	Yes	V1.4 and later	
SYS Server	SYS Server IP Address	1025-65535	Streaming Gateway	IP address of the server running Streaming Server	6001	SNMP	Used for getting the status of the Streaming Server.	Yes	None	None	Yes	All versions	
SYS Server	SYS Server IP Address	1025-65535	Streaming Gateway	IP address of the server running Streaming Server	6678	HTTPS	Used for editing configuration for Streaming Server.	Yes	None	None	Yes	All versions	
<b>Streaming Server (SMS)</b>													
Web Client, Control Client	IP address of the PC running the client	1025-65535	Streaming Server	IP address of the server running Streaming Server	554	RTSP	Used for Streaming Service to get stream for live view (real-time streaming port).	Yes	Security Certificate Authentication	RSA2048/AES256	Yes	All versions	
Web Client, Control Client	IP address of the PC running the client	1025-65535	Streaming Server	IP address of the server running Streaming Server	559	WebSocket	Used for getting stream for Google Chrome, Firefox, or Safari.	Yes	Security Certificate Authentication	RSA2048/AES256	Yes	All versions	

Web Client, Control Client	IP address of the PC running the client	1025-65535	Streaming Server	IP address of the server running Streaming Server	10000	TCP	Used for Streaming Service to get stream for playback (video file streaming port).	Yes	None	None	Yes	All versions	
ISUP Device	ISUP Device IP Address	1025-65535	Streaming Server	IP address of the server running Streaming Server	16000	TCP	Used for getting stream from ISUP device via plugin.	Yes	None	None	Yes	V1.4 and later	
SYS Server	SYS Server IP Address	1025-65535	Streaming Server	IP address of the server running Streaming Server	6001	SNMP	Used for getting the status of the Streaming Server.	Yes	None	None	Yes	All versions	
SYS Server	SYS Server IP Address	1025-65535	Streaming Server	IP address of the server running Streaming Server	8208	WebSocket over TLS	Listen port for Service Manager after encrypted transmission enabled.	Yes	None	None	Yes	V1.5 and later	
SYS Server	SYS Server IP Address	1025-65535	Streaming Server	IP address of the server running Streaming Server	6678	HTTPS	Used for editing configuration of Streaming Server.	Yes	None	None	Yes	All versions	
<b>SWMS/KPS</b>													
KPS Client	IP address of the PC running the KPS client	1025-65535	KPS Server	IP address of the server running KPS service	8910	HTTP	Used for network keyboard to access the Keyboard Proxy Service.	Yes	User Name & Password	SHA256/AES256	Yes	V1.1 and later	
<b>pStor Cluster Service</b>													
Web Client	IP address of the PC running the client	1025-65535	pStor Cluster Service	IP address of the server running pStor Cluster Service	9012	HTTP	Used for accessing pStor Cluster Service via the web browser such as IE, Chrome, Firefox, etc.	Yes	User Name & Password	RSA	Yes	V1.6 and later	
Web Client, Control Client	IP address of the PC running the client	1025-65535	pStor Cluster Service	IP address of the server running pStor Cluster Service	6300	HTTP	Signaling gateway port used for accessing pStor Cluster Service from SYS server.	Yes	AK & SK	HMAC/SHA256	Yes	V1.6 and later	
<b>OpenAPI</b>													
Third-Party Integration	IP Address of Third-Party Integration	1025-65535	OpenAPI Service	IP address of the PC running OpenAPI Service	443	HTTPS	Used for third-party system accessing OpenAPI.	Yes	AK & SK	SHA256	Yes	V1.5 and later	
SYS Server	SYS Server IP Address	1025-65535	OpenAPI Service	IP address of the PC running OpenAPI Service	8208	WebSocket over TLS	Listen port for Service Manager after encrypted transmission enabled.	Yes	None	None	Yes	V1.5 and later	