HikCentral Professional

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)	NAT Mapping Required for Destination Port (Yes/No)	Authentication Mode	Encryption Mode	Enabled by Default (Yes/No)	Version	Special Scenario
HikCentral Professional Management Service														
Web Client, Control Client, Mobile Client	IP address of the PC running the client	1025-65535	SYS	SYS IP Address	80	TCP	Used for Web Client, Control Client, and Mobile Client accessing in HTTP protocol.	Yes	Yes	User Name & Password	RSA2048/SHA256/AES256	Yes	All versions	
Web Client, Control Client, Mobile Client	IP address of the PC running the client	1025-65535	SYS	SYS IP Address	443	TCP	Used for Web Client, Control Client, and Mobile Client accessing in HTTPS protocol.	Yes	Yes	User Name & Password	TLS	Yes	V1.1 and later	
Web Client, Control Client, Mobile Client	IP address of the PC running the client	1025-65536	SYS	SYS IP Address	18001 to 18020	TCP	Used for Web Client, Control Client, and Mobile Client accessing in HTTPS protocol when the the number of people who need attendance is more than 300.	Yes	Yes	User Name & Password	RSA2048/SHA256/AES256 over TLS	Yes	V2.4 and later	
Centralized Deployment: System Management Service (SYS)														
Third-Party System	Third-Party System IP Address	1025-65535	SYS	SYS IP Address	15300	TCP	Used for receiving generic events.	Yes	Yes	None	None	No	V1.1 and later	
Third-Party System	Third-Party System IP Address	1025-65535	SYS	SYS IP Address	15300	UDP	Used for receiving generic events.	Yes	Yes	None	None	No	V1.1 and later	
Third-Party System	Third-Party System IP Address	1025-65535	SYS	SYS IP Address	15310	TCP	Used for receiving generic events.	Yes	Yes	None	None	No	V2.2 and later	
Third-Party System	Third-Party System IP Address	1025-65535	SYS	SYS IP Address	15443	TCP	Used for receiving generic events.	Yes	Yes	None	None	No	V2.2 and later	
Remote Site	Remote Site IP Address	1025-65535	SYS	SYS IP Address	14200	TCP	Used for Remote Site registration to the Central System.	Yes	Yes	User Name & Password	AES256	No	V1.1 and later	
ISUP Device	ISUP Device IP Address	1025-65535	SYS	SYS IP Address	7332	TCP	Used for receiving alarm from ISUP devices.	Yes	Yes	User Name & Password	SHA256/AES128	Yes	V1.4 and later	
ISUP Device	ISUP Device IP Address	1025-65535	SYS	SYS IP Address	7334	UDP	Used for receiving alarm from ISUP devices (Make sure the function of Allow ISUP of Earlier Version is enabled).	Yes	Yes	User Name & Password	SHA256/AES128	No	V1.4 and later	
ISUP Device	ISUP Device IP Address	1025-65535	SYS	SYS IP Address	7660	TCP	Used for receiving registration from ISUP devices.	Yes	Yes	User Name & Password	SHA256/AES128	Yes	V1.4 and later	
ISUP Device	IP Address of ISUP Device	1025-65535	SYS	SYS IP Address	8555	TCP	Used for transferring files with devices and downloading pictures from devices.	Yes	Yes	User Name & Password	SHA256/AES128	Yes	V2.2 and later	
Guidance Terminal	Guidance Terminal IP Address	1025-65535	SYS	SYS IP Address	8686	TCP	Listener port for listening the alarms of guidance terminal.	Yes	Yes	User Name & Password	SHA256/AES128	Yes	V2.1 and later	
Web Client, Control Client, SYS Server (System Management Service), ISUP Device (Encoding Device, Access Control Device, On-Board Device), Nginx	IP address of the PC running the client, SYS Server IP Address, or Device IP Address	1025-65535	SYS	SYS IP Address	6011	TCP	Used for the picture storage.	Yes	Yes	AK & SK	None	Yes	V2.1	The port should be mapped for multi-channel scenes.
Web Client, Control Client, SYS Server (System Management Service), Device (IP Speaker, Digital Signage Terminal, Smart Wall), Nginx, Digital Signage Module, Broadcast Module, Evidence Management Module	IP address of the PC running the client, SYS Server IP Address, or Device IP Address	1025-65535	SYS	SYS IP Address	6203	TCP	Used for the object storage.	Yes	Yes	AK & SK	None	Yes	V2.1	
Streaming Server	Streaming Server IP Address	1025-65535	SYS	SYS IP Address	7661	TCP	Used for getting stream from ISUP device via Streaming Server.	Yes	Yes	Security Certificate Authentication	RSA2048/SHA256/AES256	Yes	V1.4 and later	
Streaming Server	Streaming Server IP Address	1025-65535	SYS	SYS IP Address	7662	TCP	Signaling port for getting information of IP speakers.	Yes	Yes	Security Certificate Authentication	AES256	No	V2.1	
Streaming Server	IP Address of Streaming Server	1025-65535	SYS	SYS IP Address	7664	TCP	Used for transferring audio files between the streaming server and the platform.	No	No	Security Certificate Authentication	AES256	No	V2.2 and later	
IP speaker accessing via Hikvision private speaker protocol	IP Address of IP speaker accessing via Hikvision private speaker protocol	1025-65535	SYS	SYS IP Address	8877	TCP	Listener port for the registration of IP speakers accessing via Hikvision private speaker protocol.	Yes	Yes	User Name & Password	MD5	No	V2.1	
IP speaker accessing via Hikvision private speaker protocol	IP Address of IP speaker accessing via Hikvision private speaker protocol	1025-65535	SYS	SYS IP Address	10015	TCP	Used for transmitting the audio data of IP speakers accessing via Hikvision private speaker protocol.	Yes	Yes	User Name & Password	MD5	No	V2.1	
pStor Server	pStor Server IP Address	1025-65535	SYS	SYS IP Address	27661	TCP	Used for calling back the ISUP signaling.	No	No	Security Certificate Authentication	RSA2048/SHA256/AES256	No	V2.1	
Digital Signage														
Digital Signage Terminal	IP Address of Digital Signage Terminal	1025-65535	SYS	SYS IP Address	6470	TCP	Used for upgrading digital signage terminals in version 3.1 or below.	Yes	No	User Name & Password	None	No	V2.1	
Digital Signage Terminal	IP Address of Digital Signage Terminal	1025-65535	SYS	SYS IP Address	6471	TCP	Used for releasing programs to digital signage terminals in version 3.1 or below.	Yes	No	User Name & Password	None	No	V2.1	
Digital Signage Terminal	IP Address of Digital Signage Terminal	1025-65535	SYS	SYS IP Address	9980	TCP	Used for uploading materials to the server.	Yes	No	User Name & Password	None	No	V2.0 and later	
3rd Party Device Access Gateway														
3rd Party Devices and Hikvision Devices Accessing the System by Open Network Video Interface Protocol	ONVIF Device IP Address	1025-65535	3rd Party Device Access Gateway	3rd Party Device Access GatewayIP Address	8087	TCP	Alarm listen port for third-party devices.	Yes	No	User Name & Password	None	No	All versions	Enable these ports on the firewall when the devices share a LAN with the SYS.
Streaming Gateway (SG)														
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	TCP	Used for getting stream for live view (real-time streaming port).	Yes	Yes	Security Certificate Authentication	RSA2048/AES256	Yes	All versions	
Web Client	IP address of the PC running the client	1025-65535	Streaming Gateway	IP address of the server running Streaming Gateway	559	TCP	Used for getting stream for Google Chrome, Firefox, or Safari.	Yes	Yes	Security Certificate Authentication	RSA2048/AES256	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	Yes	None	None	No	V1.4 and later	
OpenAPI Client	IP address of the PC running the client	1025-65535	Streaming Gateway	IP address of the server running Streaming Gateway	83	TCP	Used for getting stream for live view, playback (HLS streaming port).	Yes	Yes	Security Certificate Authentication	RSA2048/AES256	Yes	V2.3 and later	
OpenAPI Client	IP address of the PC running the client	1025-65535	Streaming Gateway	IP address of the server running Streaming Gateway	1935	TCP	Used for getting stream for live view (RTMP streaming port).	Yes	Yes	Security Certificate Authentication	RSA2048/AES256	Yes	V2.3 and later	
SYS	SYS IP Address	1025-65535	Streaming Gateway	IP address of the server running Streaming Gateway	6678	TCP	Used for editing configuration for Streaming Server.	Yes	No	Security Certificate Authentication	TLS	Yes	All versions	
ISUP Device	IP Address of ISUP Device	1025-65535	Streaming Gateway	IP address of the server running Streaming Gateway	16001	TCP	Used for uploading audio files by device.	Yes	Yes	None	None	No	V2.1	
ISUP Device	IP Address of ISUP Device	1025-65535	Streaming Gateway	IP address of the server running Streaming Gateway	16003	TCP	Broadcasting port for pushing audio	Yes	Yes	None	None	No	V2.2 and later	
Streaming Server (SMS)														
Web Client, Control Client	IP address of the PC running the client	1025-65535	Streaming Server	IP address of the Streaming Server	554	TCP	Used for Streaming Service to get stream for live view (real-time streaming port).	Yes	Yes	Security Certificate Authentication	RSA2048/AES256	Yes	All versions	
Web Client	IP address of the PC running the client	1025-65535	Streaming Server	IP address of the Streaming Server	559	TCP	Used for getting stream for Google Chrome, Firefox, or Safari.	Yes	Yes	Security Certificate Authentication	RSA2048/AES256	Yes	All versions	
ISUP Device	ISUP Device IP Address	1025-65535	Streaming Server	IP address of the Streaming Server	16000	TCP	Used for getting stream from ISUP device via plugin.	Yes	Yes	None	None	No	V1.4 and later	
ISUP Device	IP Address of ISUP Device	1025-65535	Streaming Server	IP address of the server running Streaming Gateway	16001	TCP	Used for uploading audio files by device.	Yes	Yes	None	None	No	V2.1 and later	
ISUP Device	IP Address of ISUP Device	1025-65535	Streaming Server	IP address of the server running Streaming Gateway	16003	TCP	Broadcasting port for pushing audio.	Yes	Yes	None	None	No	V2.2 and later	
SYS	SYS IP Address	1025-65535	Streaming Server	IP address of the Streaming Server	6678	TCP	Used for editing configuration of Streaming Server.	Yes	No: The platform can access the Streaming Server Yes: The platform cannot access the Streaming Server	Security Certificate Authentication	TLS	Yes	All versions	
OpenAPI Client	IP address of the PC running the client	1025-65535	Streaming Server	IP address of the server running Streaming Server	83	TCP	Used for getting stream for live view , play back (HLS streaming port).	YES	YES	Security Certificate Authentication	RSA2048/AES256	Yes	V2.3 and later	
OpenAPI Client	IP address of the PC running the client	1025-65535	Streaming Server	IP address of the server running Streaming Server	1935	TCP	Used for getting stream for live view (RTMP streaming port).	YES	YES	Security Certificate Authentication	RSA2048/AES256	Yes	V2.3 and later	
pStor Service														
N/A	N/A	1025-65535	pStor Server	pStor Server IP Address	6022	TCP	Start listening after installing the pStor server. Used for applying recording schedule.	No	Yes	AK & SK	None	No	V1.4 and later	The port should be mapped for multi-channel scenes.
N/A	N/A	1025-65535	pStor Server	pStor Server IP Address	6027	TCP	Start listening after installing the pStor server. Used for writing video data.	No	Yes	AK & SK	None	No	V1.4 and later	The port should be mapped for multi-channel scenes.
N/A	N/A	1025-65535	pStor Server	pStor Server IP Address	6112	TCP	Start listening after installing the pStor server. Used for uploading data via HTTPS.	No	Yes	AK & SK	SSL	No	V1.4 and later	The port should be mapped for multi-channel scenes.
SYS	SYS IP Address	1025-65535	pStor Server	pStor Server IP Address	6111	TCP	Start listening after installing the pStor server. Redirection port for uploading data via HTTPS.	No	Yes	AK & SK	SSL	No	V1.4 and later	The port should be mapped for multi-channel scenes.
N/A	N/A	1025-65535	pStor Server	pStor Server IP Address	6041	TCP	Start listening after installing the pStor server. Used for uploading data via HTTP.	No	Yes	AK & SK	None	No	V1.4 and later	The port should be mapped for multi-channel scenes.
N/A	N/A	1025-65535	pStor Server	pStor Server IP Address	6011	TCP	Start listening after installing the pStor server. Redirection port for uploading data via HTTP.	No	Yes	AK & SK	None	No	V1.4 and later	The port should be mapped for multi-channel scenes.
N/A	N/A	1025-65535	pStor Server	pStor Server IP Address	6114	TCP	Start listening after installing the pStor server. Used for downloading data via HTTPS.	No	Yes	AK & SK	SSL	No	V1.4 and later	The port should be mapped for multi-channel scenes.
N/A	N/A	1025-65535	pStor Server	pStor Server IP Address	6113	TCP	Start listening after installing the pStor server. Redirection port for downloading data via HTTPS.	No	Yes	AK & SK	SSL	No	V1.4 and later	The port should be mapped for multi-channel scenes.
N/A	N/A	1025-65535	pStor Server	pStor Server IP Address	6040	TCP	Start listening after installing the pStor server. Used for downloading data via HTTP.	No	Yes	AK & SK	None	No	V1.4 and later	The port should be mapped for multi-channel scenes.
SYS	SYS IP Address	1025-65535	pStor Server	pStor Server IP Address	6120	TCP	Start listening after installing the pStor server. Redirection port for downloading data via HTTP.	No	Yes	AK & SK	None	No	V1.4 and later	The port should be mapped for multi-channel scenes.
N/A	N/A	1025-65535	pStor Server	pStor Server IP Address	6045	TCP	Start listening after installing the pStor server. Used for transmitting object data.	No	Yes	AK & SK	None	No	V1.4 and later	The port should be mapped for multi-channel scenes.
N/A	N/A	1025-65535	pStor Server	pStor Server IP Address	6037	TCP	Start listening after installing the pStor server. Used for transmitting video data.	No	Yes	AK & SK	None	No	V1.4 and later	The port should be mapped for multi-channel scenes.
N/A	N/A	1025-65535	pStor Server	pStor Server IP Address	6036	TCP	Start listening after installing the pStor server. Used for transmitting video data.	No	Yes	AK & SK	None	No	V1.4 and later	The port should be mapped for multi-channel scenes.
SYS	SYS IP Address	1025-65535	pStor Server	pStor Server IP Address	6060	TCP	Start listening after installing the pStor server. Used for transmitting web data.	No	Yes	AK & SK	None	No	V1.4 and later	The port should be mapped for multi-channel scenes.
N/A	N/A	1025-65535	pStor Server	pStor Server IP Address	6098	TCP	Start listening after installing the pStor server. Used for playing media data from Stream Media Server.	No	Yes	AK & SK	None	No	V1.4 and later	The port should be mapped for multi-channel scenes.
N/A	N/A	1025-65535	pStor Server	pStor Server IP Address	6042	TCP	Start listening after installing the pStor server. Used for forwarding video data.	No	Yes	AK & SK	None	No	V1.4 and later	The port should be mapped for multi-channel scenes.
N/A	N/A	1025-65535	pStor Server	pStor Server IP Address	6038	TCP	Start listening after installing the pStor server. Used for forwarding video data.	No	Yes	AK & SK	None	No	V1.4 and later	The port should be mapped for multi-channel scenes.
N/A	N/A	1025-65535	pStor Server	pStor Server IP Address	6044	TCP	Start listening after installing the pStor server. Used for forwarding object data.	No	Yes	AK & SK	None	No	V1.4 and later	The port should be mapped for multi-channel scenes.
N/A	N/A	1025-65535	pStor Server	pStor Server IP Address	6039	TCP	Start listening after installing the pStor server. Used for forwarding video data.	No	Yes	AK & SK	None	No	V1.4 and later	The port should be mapped for multi-channel scenes.
N/A	N/A	1025-65535	pStor Server	pStor Server IP Address	6046	TCP	Start listening after installing the pStor server. Used for transmitting RESTful data of object storage.	No	Yes	AK & SK	None	No	V1.4 and later	The port should be mapped for multi-channel scenes.
N/A	N/A	1025-65535	pStor Server	pStor Server IP Address	6201	TCP	Start listening after installing the pStor server. Communication port for object storage.	No	Yes	AK & SK	None	No	V1.4 and later	The port should be mapped for multi-channel scenes.
SYS	SYS IP Address	1025-65535	pStor Server	pStor Server IP Address	6021	TCP	Start listening after installing the pStor server. Used for login.	No	Yes	User Name & Password	None	No	V1.4 and later	The port should be mapped for multi-channel scenes.
pStor Cluster Service														
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	TCP	Start listening after installing the SAC. Used for accessing pStor Cluster Service via the web browser such as IE, Chrome, Firefox, etc.	Yes	No	User Name & Password	RSA	No	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	TCP	Start listening after installing the SAC. Signalling gateway port used for accessing pStor Cluster Service from SYS.	Yes	No	AK & SK	HMAC/SHA256	No	V1.6 and later	
BeeAgent														
SYS Server	SYS Server IP Address	1025-65535	BeeAgent Server in Database	BeeAgent Server IP Address	8208	TCP	Listen port for Service Manager after encrypted transmission enabled.	Yes	No	SK	TLS	Yes	V1.5 and later	
BeeAgent Server In SYS	IP Address of BeeAgent Server In SYS	1025-65535	BeeAgent Server in Database	BeeAgent Server IP Address	9208	TCP	Used for BeeAgent service management in database to communicate with BeeAgent service management in SYS	No	Yes	SK	None	No	V2.2 and later	
Postgres														
SYS Server	SYS Server IP Address	1025-65535	Postgres Server	Postgres Server IP Address	5432	TCP	Access Postgres Server Port	Yes	Yes	User Name & Password	TLS	No	V2.2 and later	