



HikCentral Professional V1.5.1

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 |
|--|---|--------------------|--------------------|--|-------------------------------------|--------------------------|--|--|-------------------------------------|-----------------------|-----------------------------|----------------|--|
| Centralized Deployment: System Management Service (SYS) | | | | | | | | | | | | | |
| Client | IP address of the PC running the client | 1025-65535 | SYS Server | SYS Server IP Address | 80 | HTTP/WebSocket | Used for clients access in HTTP protocol | Yes | User Name & Password | RSA2048/SHA256/AES256 | Yes | All versions | |
| Client | IP address of the PC running the client | 1025-65535 | SYS Server | SYS Server IP Address | 443 | HTTPS/WebSocket over TLS | Used for clients access in HTTPS protocol | Yes | User Name & Password | TLS | Yes | V1.1 and later | |
| Third-Party System | Third-Party System IP Address | 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 Address | 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 | 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. |
| Distributed Deployment: System Management Service (SYS) | | | | | | | | | | | | | |
| ADS Server | ADS Server IP Address | 1025-65535 | SYS Server | SYS Server IP Address | 30051 | HTTP 2.0 | 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 | HTTPS 2.0 | Used for communication between SYS and ADS, after encrypted transmission enabled. | Yes | None | None | Yes | V1.4 and later | Used in trusted network. |
| Distributed Deployment: Application Data Server (ADS) | | | | | | | | | | | | | |
| SYS Server | SYS Server IP Address | 1025-65535 | ADS Server | ADS Server IP Address | 30052 | HTTP 2.0 | 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 | HTTPS 2.0 | 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 | |
| Streaming Gateway (SG) | | | | | | | | | | | | | |
| 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 | |
| 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 | |
| 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 | |
| Streaming Server (SMS) | | | | | | | | | | | | | |
| 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 | |
| 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 | |
| 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 | |

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|------------|---|------------|------------------|---|------|-----------|---|-----|----------------------|---------------|-----|----------------|--|
| SYS Server | SYS Server IP Address | 1025-65535 | Streaming Server | IP address of the server running Streaming Server | 8208 | WebSocket | Used for security certificate authentication. | Yes | None | None | Yes | V1.5 and later | |
| SWMS/KPS | | | | | | | | | | | | | |
| 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 | |