

INTELLIO VIDEO SYSTEM



Installation manual

(Version: 5.8)

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1. Introduction

In this guide, we briefly summarize the steps to be followed, starting from the installation of the first component of the Intellio system and continuing through to the final operational tasks. You can also use this documentation as a checklist when installing any new system. We recommend adhering to the order of the steps. For more detailed information, please refer to the specific documentation associated with each step, *indicated in italics* directly under the chapter headings.

2. Camera installation, IP address and port configuration

01 - Installation, initial settings

Install and set up the cameras. Configure the **cameras with fixed IP** addresses, and open the necessary **ports** between the cameras and the server(s). Use the **Intellio Device Explorer** software on the servers to search for, activate, and set the IP addresses of the Intellio cameras on the network.

In a SITE with multiple servers, ensure that for proper automatic camera detection, all servers in the SITE must be able to reach the cameras.

3. Server and Client installation and setup

01 - Installation, initial settings

If you are using a server or client computer provided by Intellio, the installation of the programs has been completed by Intellio specialists on your behalf, so you only need to perform the specific settings that match your installation environment. To log into the operating system, use the **unique username/password** pair provided **in the documentation that came with the computer**.

Check the **time, time zone, and daylight saving time settings** on both the server and client computer(s).

3.1. Server network speed, IP address, and port check, configuration

The servers supplied by Intellio use dynamic IP address (DHCP) settings. During setup, it is recommended to assign **static IP addresses** to the servers that match the network environment, and refer to the servers by their IP addresses in the server settings.

Check and enable the appropriate **ports** for communication between the cameras, servers, and clients across the entire IT network and devices. By default, communication between the servers and between servers and clients occurs through port **53540**.

Check the **network adapter speeds**; the network connections between servers, clients, and storage devices should have a minimum speed of 1 Gbps.

3.2. Server service and Client program installation

If using your own server computer, download and install the Intellio Video System video management software **Server program**, and enter the **product key** provided at the time of purchase during the installation process, as described in the following chapter.

Download and install the Intellio Video System video management software **Client program** on both the servers and client workstations.

After server installation, check the **firewall settings** as well as the operational status of the server.

3.3. IVS Product Key registration and activation

During the server installation, enter the **IVS product key** provided at the time of purchase. This key allows the server to determine the number of cameras it can manage and the available features.

Remember that you have 15 days from the server installation to **activate the product key**. After 15 days, the unactivated server will suspend its operation until activation is completed. To activate and verify the activation, use the **Intellio Activation Tool**.

4. Connecting to the Server, initial Client settings

01 - Installation, initial settings

After launching the Client program, create a connection to the installed server. Use the **Administrator / admin** credentials to log in to the server. When configuring the connection for the client installed on the server, the easiest way to connect to the server service is by specifying the **localhost** IP address.

Enable **SSL encryption** between the main components of the IVS system.

For detailed instructions on using the client program, refer to the *User Manual*.

5. Setting up Storage Locations and Storage Groups

02 – Storage settings

On each server, create its own storage location and define **Normal Buffer** folders where video recordings and events will be stored. Specify the storage rules for recordings from devices and cameras.

6. Connect more servers - creating SITE / DOMAIN

03 - Connect more servers – Site and Domain configuration

If you want to manage cameras using more than one server due to the number of cameras or server redundancy, install and activate all servers as outlined in the previous steps before registering the cameras. Then, set up the servers' **SITE** configuration, linking the servers together.

Ensure that the servers within a single SITE can communicate with each other (IP, port settings, firewall rules).

If you intend to manage multiple real or virtual Sites within a single integrated system, define the **DOMAIN** relationships between the Sites.

7. Registering devices (Cameras, Audio Sources)

Register the types of devices and cameras listed in the following subsections to the SITE. For each device or camera, ensure you configure and verify at least the following parameters:

- The device/camera name,
- Primary and secondary encoder settings (e.g., bandwidth, FPS, compression mode),
- The secondary video stream for low-resolution display,
- The motion detector that controls recording,
- Desired camera-side and/or server-side detectors.

Only online cameras accessible by the server can be added to the system. Even if the cameras' IP addresses are known, the system will not allow registration until communication with the cameras is successfully established.

If server-side license plate recognition is required for a specific camera, register that camera with the server where the license plate recognition software module and license are installed (see the License Plate Recognition section).

7.1. Adding Intellio Initio cameras

04 - Intellio INITIO cameras

You can find information on managing Intellio INITIO fixed and varifocal cameras, bi-spectral thermal cameras, and PTZ cameras within the IVS system in the specific documentation.

7.2. Adding ONVIF cameras

05 - ONVIF devices

7.3. Adding EINAR cameras

06 - EINAR cameras

7.4. Adding Hikvision cameras

07 - Hikvision devices

7.5. Adding Hanwha cameras

08 - Hanwha devices

7.6. Adding custom devices, cameras, video streams

09 - Registration and management of custom devices, cameras

Open the specific documentation if you wish to register any of the following types of cameras or video streams:

- Intellio Orio (ILD-3xx), Visus camera (ILD-4xx, -5xx, -8xx)
- Intellio ILC, ILN, ILE devices
- rtsp video/audio stream
- http/mjpeg video stream
- AXIS, Bosch devices
- Multicast UDP stream

8. Setting up the Alarm system

10 - System Detectors and the IVS Alarm System

Define how the server manages **Multi IO modules** and **camera-side input/output contacts**.

If necessary, add **additional system detectors**. It is strongly recommended to include the **Camera Availability Detector** and the **Site State Detector**.

Add **camera-side detectors**:

- For Intellio Initio cameras, detectors can be configured directly in IVS (see ***Intellio INITIO Cameras***).
- Detectors for Orio and Visus cameras can also be managed in IVS (see ***Registration and management of custom devices, cameras***).
- For ONVIF cameras, detectors must be created or enabled via the camera's web interface. However, their signals must also be configured for reception in IVS (see ***ONVIF Devices***).

Add **server-side detectors** if required (see ***Smart Features***).

If additional actions are needed beyond notifying or alerting users—such as sending emails or moving a PTZ camera to a specific preset position - set up the **Detectors – Partitions – Actions alarm process**.

9. Creating and configuring Roles/Users

11 – Users and access roles

Add the necessary users and define their roles. Be sure to change the default settings and securely note the password for the **administrator** user!

10. Configuring remote access

12 – Remote access settings

To access the servers using the Client program, configure unique external port numbers for each server on your internet router. These ports should be forwarded to port **53540** on the respective servers. If you want to access the system via a mobile client using the Intellio Video Gateway service, forward traffic to port **53560**.

11. Special features

11.1. Smart MetaData, SmartSearch, SmartLive, SmartAI

13 – Smart features

Summary of server-side Live detectors and post-event analytics and searches.

11.2. ANPR - License Plate Recognition Installation and Usage

14 - License plate recognition

Configuring and using server-side License Plate Recognition. Connect the Carmen USB key, then download and install the Carmen framework and the appropriate engines. Once Carmen is functioning correctly, configure license plate recognition in the IVS system.

11.3. Installing and using the Mobile Client Application

15 - Mobile Client

Installing and using applications on Android and iOS.

11.4. Configuring and using the Map

16 – Map module

Configuring and using map functions in the Client program.

11.5. RTSP Gateway

17 – RTSP gateway

Retrieving Live camera feeds from the server.

11.6. Management of burglary alarm systems

18 - Management of burglary alarm systems

Receiving status information for Zones, Areas, and other devices, configuring and using controls.

11.7. Intellio Download Gateway

19 - Download Gateway module

If you need to transfer video recordings from one Site to another, install the necessary software components and verify the product keys.

11.8. SDK – connection to External systems

20 - SDK documentation

IVS server connection to 3rd party systems via the Intellio Video SDK.

12. System management, troubleshooting, updates, expansion, backup/restore, documentation

21 – System management

The following steps must be performed regularly:

- Review the **System log** for each server. After installation and maintenance, there should be no active error entries.
- In the System Configuration / Storage page, check the **write speed** for each server. There should be no significant difference between the actual and expected speeds.
- In the System Configuration / Devices page, check the status of the Devices. The registered cameras should show an **online** status.
- Save and store the **configuration settings** in a separate location, independent of the server, after installation and regularly during maintenance.
- Periodically check if a newer server-client version has been released at the links provided in the installation steps. Additionally, regularly update the drivers for the server and client hardware, as well as the software components.

In the System Configuration / Storage page, you can check the **number and size of camera events** in the Summary and Graphs tabs. The displayed graphs can be very helpful in identifying issues such as a misconfigured detector or motion sensor.

The **Performance Monitoring, Status Monitoring**, and Site **Error Reporting** can assist in checking the system's functionality.

Set up a monitoring and notification service for the **server's hardware components** to receive timely alerts about potential issues, such as power supply failures or RAID volume errors. For servers and clients supplied by Intellio, this service is enabled (iDRAC, Intel VPro); you only need to adjust it to fit your network environment.