

ARH Inc Vigilant ANPR Server

Device Driver Specification. DYNAMICALLY GENERATED; DO NOT MODIFY.

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1 Document Versions

Version	Date	Name	Change
1.0	2018-12-17	JA	Document Created.

2 Referenced Documents

Document	Version	Description
Driver Project Requirements (DDK-PR)	1.0	The ARH Inc Vigilant ANPR Server driver must conform to all the requirements detailed in this document.
Driver Connection and Online States Requirements (DDK-DC)	1.0	The ARH Inc Vigilant ANPR Server driver must conform to all requirements in this document detailed in the section: Device Connection and Online States

3 Manufacturer

Name ARH Inc



Website <http://www.arhungary.hu/contright/102/content.html>

Description ARH Inc. develops, manufactures and sells intelligent software and devices that process images within the context of security and traffic control..

4 IPSecurityCenter Versions

The driver must be compatible with the following IPSecurityCenter versions:

IPSecurityCenter Version	Supported
5.2	<input checked="" type="checkbox"/>

5 Operating Systems

5.1 Client Side Functionality

Operating Systems	Supported
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5.2 Server Side Functionality

Operating Systems	Supported
Windows Server 2008 R2	<input checked="" type="checkbox"/>
Windows Server 2012	<input checked="" type="checkbox"/>

6 Models / Firmware Versions

Model	Versions	SDK
Vigilant ANPR		Vigilant API v1.0

7 Hardware Configurations

TODO

**Build configuration diagram
linking servers together.**

(ConfigurationDiagram.png)

8 Driver Package

The driver package is named: `cnl_ipsc_arhinc_vigilantnprserver_[BUILD-VERSION].ipsc`

9 Driver Features

9.1 Vigilant ANPR Server

9.1.1 Device Connection and Online States

The full requirements for these features can be found in the [Device Connection and Online States Requirements](#)

Feature	
DC1.0 Device Online Status	None
DC2.0 Authentication	None

9.1.2 Video

This device does not support video.

9.1.3 Properties

General requirements for properties can be found in [Driver Project Requirements](#).

Name	Type	Description	Default Value & Ranges
Image Storage Location	string	Image storage location	Default: Min: Max:
Database	string	Database name.	Default: Min: Max:
Capture Offline Events	bool	Retrieve events which raised during CM was offline.	Default: false Min: Max:
PGNotification Name	string	Notification name setup in the Postgress trigger	Default: lpr_notify Min: Max:
PGKeepAlive Interval	int	Interval expecting keep alives from Postgres	Default: 5 Min: Max:

9.1.4 Methods

General requirements for methods can be found in [Driver Project Requirements](#).

9.1.5 Events

General requirements for events can be found in [Driver Project Requirements](#).

9.2 Vigilant ANPR Camera

9.2.1 Device Connection and Online States

The full requirements for these features can be found in the [Device Connection and Online States Requirements](#)

Feature	
DC1.0 Device Online Status	None
DC2.0 Authentication	None

9.2.2 Video

This device does not support video.

9.2.3 Properties

General requirements for properties can be found in [Driver Project Requirements](#).

Name	Type	Description	Default Value & Ranges
Camera Name	string	Name of the Camera.	Default: Min: Max:
Camera IP	string	Ip address of the camera.	Default: Min: Max:
Camera Port	int	Camera video stream port.	Default: Min: Max:
Camera Lane Number	string	Lane number in connected DPU.	Default: Min: Max:
Camera Lane Type	string	Represents Entrance or Exit.	Default: Min: Max:
Connected Dpu Ip	string	DPU in which this camera is connected.	Default: Min: Max:
Connected Dpu pPort	string	Connected DPU data can be monitored through web portal using this port.	Default: Min: Max:

9.2.4 Methods

General requirements for methods can be found in [Driver Project Requirements](#).

9.2.5 Events

General requirements for events can be found in [Driver Project Requirements](#).

9.2.5.1 Plate Detected

Raised when a number plate is detected

Performance

The driver must be able to handle 4000 events per hour.

Event Properties

Name	Type	Description
Event Id	int	Unique Id of the event.
Plate Category	string	Detected category of the license plate.
Plate City	string	Detected city of the license plate.
Plate Color	string	Colour of the license plate.
PlateNumber	string	Detected number of the license plate.
Plate Size	string	Size of the license plate.
Vehicle Type	string	Detected vehicle type from the license plate.
Path Image Full	string	File path of full size image.
Path Image Cropped	string	File path of cropped image.

10 Installation

10.1 Prerequisites

Install the SDK on all machines running the following services / software:

- None

10.2 Driver Installation

- Start the IPSecurityCenter™ client and any supporting services
- Open the Device Driver Manager from the System Configuration
- Click the ***Install*** button
- Select the ARH Inc Vigilant ANPR Server Driver Package in the Open file dialog
- Wait for the driver to be uploaded

The driver packages should be listed in the Device Driver Manager.

Additional Installation Details

- Issue found when deploying the “Vigilant SDK.dll”. This is a product issue and as a workaround copy the “Vigilant SDK.dll” into the connection manager bin folder.

You can find the “Vigilant SDK.dll” renamed as “Vigilant_SDK.dll” from the following path,
C:\ProgramData\CNL Software\IPSecurityCenter\Connection Manager\<Connection Manager>\Extracted\<Driver Version>\

Typical path where the “Vigilant SDK.dll” should be copied into,
C:\Program Files (x86)\CNL Software\IPSecurityCenter\IPSecurityCenter Connection Managers\<Connection Manager>

10.2.1 Device Configuration

- Right click in a folder (e.g. Devices) in the System Configuration: **New** → **Device On** → **Server**
- Click **Next** on the introduction
- Select **ARH Inc** in the **Device Manufacturer** list
- Select **Vigilant ANPR Server** in the Available Devices list
- Click **Next** to enter the device details: Enter the ARH Inc Vigilant ANPR Server hostname or IP address, the port (use 0 to use the default port), and user name and password if integrated security is not being used.
- Click **Next** and **Finish** to add the device.
- Enable the device to bring it online.

Additional Configuration Details

- 5432 is used as the default port, “postgres” is the default user and default database is “anpr_data”. If any of these values are valid for your site, you can leave the relevant property blank in the device wizard.
- Property “CaptureOfflineEvents” controlling the receiving of historic events and events raised during CM is not online. By default, this is set to false to avoid flooding of events when the server object enables for the first-time. If you need to receive all the historic events from the beginning, set this value to true before enabling the server object first time.
It is recommended to keep the value to false initially and later (after receiving few events) set it to true.
- Keepalive interval property in the server device is used internally to determine loss of the Postgres database connection.
- Since images are generated and saved into the local or UNC path, file management and access right management must be taken care explicitly.

Use of Vigilant simulator for offline Testing [Only for internal testing]

- Follow the instructions given in the <\\filesERVER\SDK\ARH\SSK Vigilant\readme.txt>
- After restoring the database check whether trigger on the cardetails table is available
- Otherwise you can create trigger using following script,
CREATE OR REPLACE FUNCTION cardetails_update_notify() RETURNS trigger AS \$\$
DECLARE
id integer;
BEGIN
IF TG_OP = 'INSERT' THEN
id = NEW.eventid;
ELSE
id = OLD.eventid;
END IF;
PERFORM pg_notify('lpr_notify', TG_OP || ' ' || id);
RETURN NEW;

```
END;  
$$ LANGUAGE plpgsql;
```

```
DROP TRIGGER IF EXISTS cardetails_notify_insert ON cardetails;  
CREATE TRIGGER cardetails_notify_insert AFTER INSERT ON cardetails FOR EACH  
ROW EXECUTE PROCEDURE cardetails_update_notify();
```

- Note that the simulator (DummyVehicleData.exe) needs to be run on the CM machine to retrieve images.

10.2.2 Driver Compatibility

The following devices are known to be incompatible with the ARH Inc Vigilant ANPR Server.

Model
