

# Digital Barriers EdgeVIS Server

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Device Driver Specification.

11/9/2017



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## 1 Document Versions

Version	Date	Name	Change
<b>1.0</b>	2017-11-09	MR	Document Created.

## 2 Referenced Documents

Document	Version	Description
<b>Driver Project Requirements (DDK-PR)</b>	1.0	The Digital Barriers EdgeVIS Server driver must conform to all the requirements detailed in this document.
<b>Driver Connection and Online States Requirements (DDK-DC)</b>	1.0	The Digital Barriers EdgeVIS Server driver must conform to all requirements in this document detailed in the section: <a href="#">Device Connection and Online States</a>
<b>Driver Video Requirements (DDK-VID)</b>	1.0	The Digital Barriers EdgeVIS Server driver must conform to all requirements in this document detailed in the section: <a href="#">Video</a>

### 3 Manufacturer

**Name** Digital Barriers



**Website** <https://us.digitalbarriers.com>

**Description** Digital Barriers are world leaders in visually intelligent solutions for the global surveillance, security and safety markets, specializing in zero-latency streaming and analysis of secure video and related intelligence over wireless networks, including cellular, satellite, IP mesh and cloud.

## 4 IPSecurityCenter Versions

The driver must be compatible with the following IPSecurityCenter versions:

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



## 5 Operating Systems

### 5.1 Client Side Functionality

Operating Systems	Supported
Windows 10	<input checked="" type="checkbox"/>

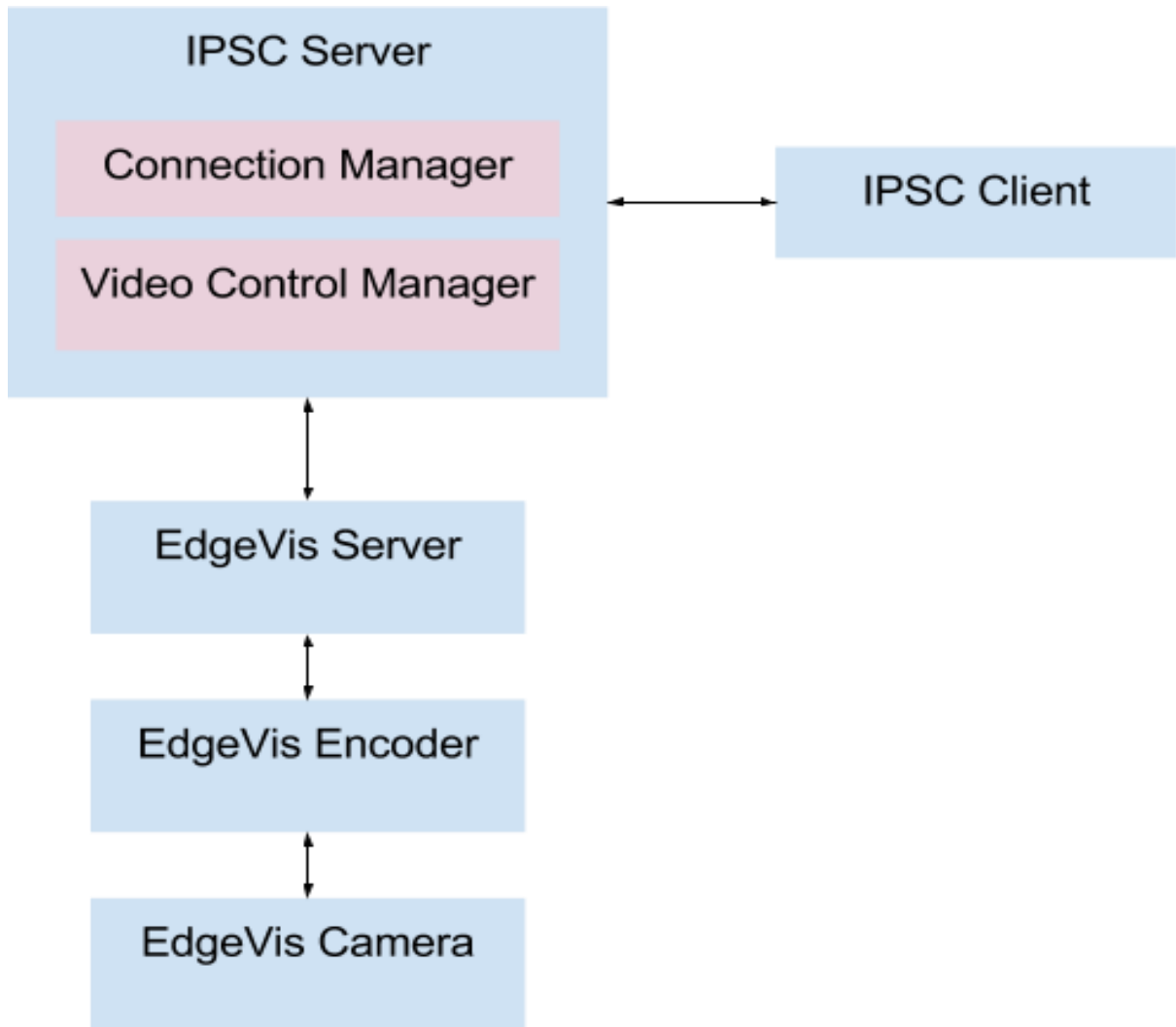
### 5.2 Server Side Functionality

Operating Systems	Supported
Windows 10	<input checked="" type="checkbox"/>

## 6 Models / Firmware Versions

Model	Versions	SDK
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## 7 Hardware Configurations



## 8 Driver Package

The driver package is named: CNL.IPSecurityCenter.Driver.DigitalBarriers.EdgeVIS.[BUILD-VERSION].ipsc

## 9 Driver Features

### 9.1 EdgeVIS 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	
<b>DC1.0 Device Online Status</b>	Sdk/Query Device
<b>DC2.0 Authentication</b>	Basic

## 9.1.2 Video

The full requirements for these features can be found in the [Driver Video Requirements](#).

Feature	
VID1.0 Camera Population	<input checked="" type="checkbox"/> Query Device
VID2.0 Live Video	
VID2.1 Display Live Video	<input checked="" type="checkbox"/>
VID2.2 Snapshot	<input checked="" type="checkbox"/>
VID2.3 PTZ	<input checked="" type="checkbox"/>
VID2.4 Set Preset	<input checked="" type="checkbox"/>
VID2.5 Get Preset	<input checked="" type="checkbox"/>
VID3.0 Recorded Video	
VID3.1 Display Recorded Video	<input checked="" type="checkbox"/>
VID3.2 Seek	<input checked="" type="checkbox"/>
VID3.3 Pause	<input checked="" type="checkbox"/>
VID3.4 Snapshot	<input checked="" type="checkbox"/>
VID3.5 Fast Forward/Rewind	<input checked="" type="checkbox"/> <i>Play Speeds: -2, 0, 1, 2</i>
VID3.6 Slow Motion	<input type="checkbox"/> <i>Play Speeds: 0</i>
VID3.7 Time Bar Population	Query Device
VID4.0 Video Export	<input checked="" type="checkbox"/>
VID5.0 Web Client Support	<input type="checkbox"/>

### 9.1.3 Properties

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

Name	Type	Description	Default Value & Ranges
<b>Encoder Query Frequency</b>	int	Represents how often a status updated is requested for the encoders, in milliseconds.	Default: 10000 Min: 100 Max: int.MaxValue

#### 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 EdgeVIS 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	
<b>DC1.0 Device Online Status</b>	Sdk/Query Device
<b>DC2.0 Authentication</b>	Basic

## 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](#).

## 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](#).

## 9.3 EdgeVIS Encoder

### 9.3.1 Device Connection and Online States

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

Feature	
<b>DC1.0 Device Online Status</b>	Sdk/Query Device
<b>DC2.0 Authentication</b>	Basic

### 9.3.2 Video

This device does not support video.



### 9.3.3 Properties

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

Name	Type	Description	Default Value & Ranges
<b>Signal Strength Threshold</b>	int	An alert will be raised when threshold is below this level (set to 0 for no alerts).	Default: 0 Min: 0 Max: int.MaxValue

### 9.3.4 Methods

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

### 9.3.5 Events

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

#### 9.3.5.1 Signal Strength Alert

Signal Strength below threshold.

##### Performance

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

##### Event Properties

Name	Type	Description
Signal Strength	int	The current signal strength.

#### 9.3.5.2 External Trigger

The alarm input has been triggered.

##### Performance

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

##### Event Properties

Name	Type	Description
Alarm ID	string	The ID of the alarm that has been triggered.
Source	string	The RDC source.
Node ID	string	The ID of the node that triggered the event.
Type	string	The type of thing that triggered the alarm.
Alarm Name	string	The name of the Alarm.
Alarm Text	string	The text associated with the alarm.
Input	string	The input number.

#### 9.3.5.3 Voltage

The Encoder has detected an excessively high/low voltage

##### Performance

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

##### Event Properties

Name	Type	Description
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<b>Voltage</b>	double	The voltage.
<b>Type</b>	string	Describes whether the voltage is high or low.

#### 9.3.5.4 CPU Temperature

The Encoder has detected an excessively high/low CPU temperature

##### Performance

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

##### Event Properties

Name	Type	Description
<b>Temperature</b>	double	The temperature of the CPU.
<b>Type</b>	string	Describes whether the CPU Temperature is high or low.

#### 9.3.5.5 Power Up

The Encoder has powered up.

##### Performance

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

##### Event Properties

Name	Type	Description
<b>Reason</b>	string	The reason for powering up.

#### 9.3.5.6 Alarm

An Alarm rule has been matched and an alarm event raised.

##### Performance

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

##### Event Properties

Name	Type	Description
<b>Alarm ID</b>	string	The ID of the alarm.

#### 9.3.5.7 Scheduled

A scheduled event occurred. This is an event that has been scheduled to trigger (in the same way as an alarm) at a specified time.

##### Performance

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

#### Event Properties

Name	Type	Description
Schedule ID	string	The ID of the schedule.

#### 9.3.5.8 Power Save

A Power Save notification occurs when the Encoder has been woken from Deep Sleep by an alarm trigger and has been configured to notify the server/clients. The Encoder will then send out a notification 2 minutes before it will go back to sleep.

#### Performance

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

#### Event Properties

Name	Type	Description
Time Left	double	The time left before sleeping, in minutes.

#### 9.3.5.9 Alert

The Encoder has started or ended an alert event

#### Performance

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

#### Event Properties

Name	Type	Description
State	string	Describes whether the alert has started or ended.

#### 9.3.5.10 Analytics

The Encoder has triggered the start/end of an analytics event

#### Performance

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

#### Event Properties

Name	Type	Description
State	string	Describes whether analytics have started or ended



## 10 Installation

### 10.1 Prerequisites

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

- Client
- Video Export Server
- Connection Manager

## 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 Digital Barriers EdgeVIS 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:

In order for the driver to work, the system in question must have the Visual C++ Redistributable for Visual Studio 2015 installed, which can be downloaded here: <https://www.microsoft.com/en-gb/download/details.aspx?id=48145>



### 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 **Digital Barriers** in the **Device Manufacturer** list
- Select **EdgeVIS Server** in the Available Devices list
- Click **Next** to enter the device details: Enter the Digital Barriers EdgeVIS 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

None

## 10.2.2 Driver Compatibility

The following devices are known to be incompatible with the Digital Barriers EdgeVIS Server.

Model
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## 10.2.3 Limitations

Cameras do not have their own individual streams: rather, the encoder that they are connected to displays a single stream from a selected camera. If someone requests a camera change, all windows displaying that encoder stream will change (whether the request is made from within IPSC or from another party with access to the encoder).

This is true for all types of streams, including PTZ – if another user is using PTZ or altering PTZ settings / state, users will not be able to control ptz until they release the stream

Similarly, Archive Playback is not a separate function – if archive playback is requested by anyone, that encoder will begin to display archive playback, and all feeds viewing that encoder will be affected.

Video export is currently limited by the sdk – in the sample provided to us, the export service is unavailable in some contexts and unable to pull the files it retrieves in others. Digital Barriers is making updates to their sdk to internally resolve some of these issues.

We were unable to test and therefore unable to implement audio – even using Digital Barriers' sample program, the specific encoder provided for us to play audio samples was not audible.