

# NEC NeoFaceServer

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Device Driver Specification. DYNAMICALLY GENERATED; DO NOT MODIFY.

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## 1 Document Versions

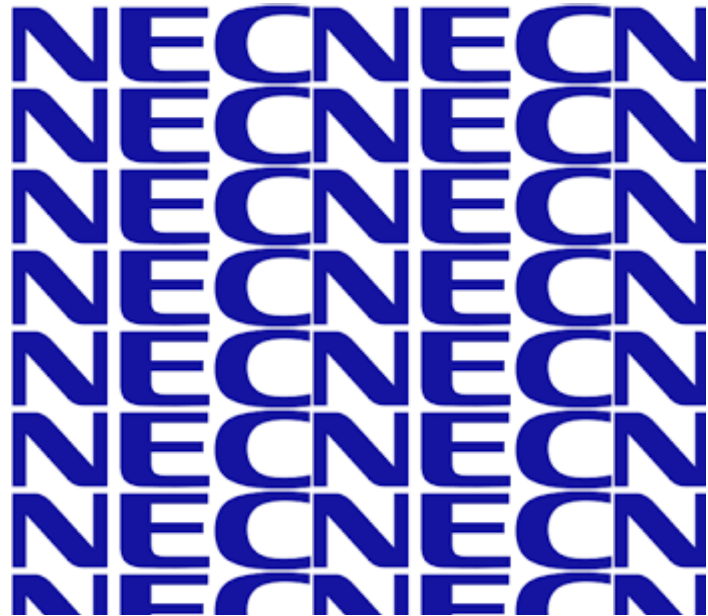
Version	Date	Name	Change
<b>1.0</b>	2017-05-02	JA	Document Created.

## 2 Referenced Documents

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

### 3 Manufacturer

**Name** NEC



**Website** <http://www.nec.com/>

**Description** NEC Corporation is a Japanese multinational provider of information technology (IT) services and products

## 4 IPSECURITYCENTER Versions

The driver must be compatible with the following IPSECURITYCENTER versions:

IPSECURITYCENTER Version	Supported
<b>5.0.0 and above</b>	<input checked="" type="checkbox"/>

## 5 Operating Systems

### 5.1 Client Side Functionality

Operating Systems	Supported
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### 5.2 Server Side Functionality

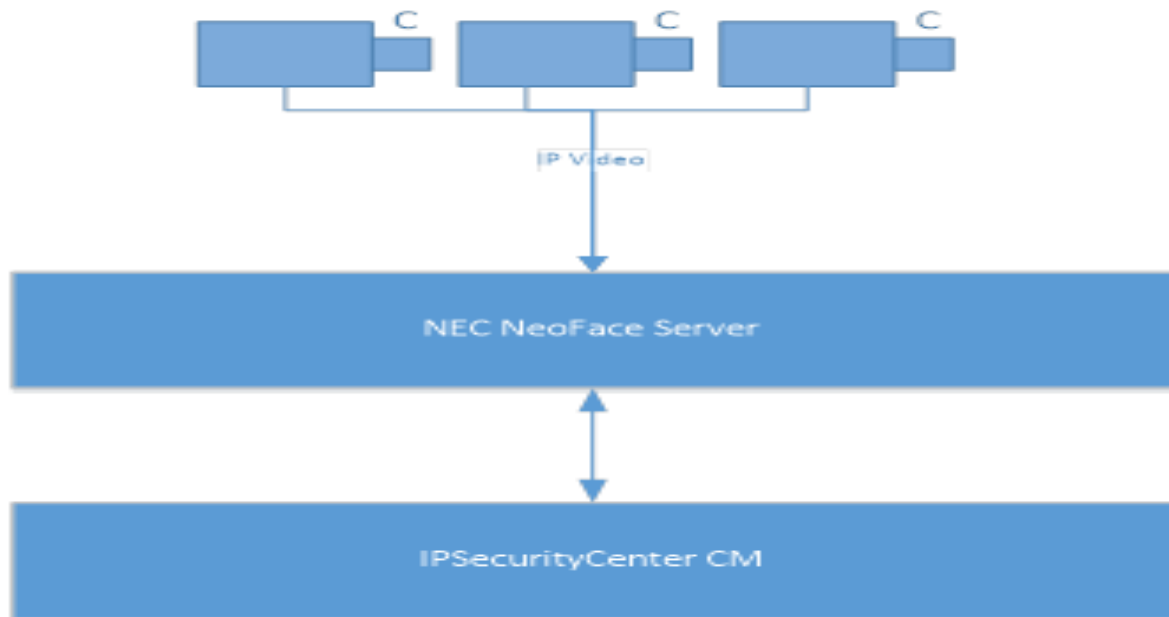
Operating Systems	Supported
Windows Server 2008 R2	<input checked="" type="checkbox"/>
Windows Server 2012	<input checked="" type="checkbox"/>



## 6 Models / Firmware Versions

Model	Versions	SDK
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## 7 Hardware Configurations



## 8 Driver Package

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



## 9 Driver Features

### 9.1 NeoFaceServer

#### 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>	None
<b>DC2.0 Authentication</b>	Basic Authentication

### **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
<b>Local Image Store</b>	string	Folder path containing images locally to IPSecurityCenter	Default: Min: Max:

## 9.1.4 Methods

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

### 9.1.4.1 Enrol

Attempts to enrol a new subject with an image and returns the subject Id.

Returns string.

#### Performance

The method must complete within 2 seconds.

#### Parameters

Name	Type	Description	Default Value and Ranges
<b>Encoded Image</b>	string	An image in Base64 encoded format. Use the FilePicker GUI plugin to create this.	Default: Min: Max:
<b>First Name</b>	string	Subject first name.	Default: Min: Max:
<b>Last Name</b>	string	Subject last name.	Default: Min: Max:
<b>Security Level</b>	int	Security level of the subject.	Default: 0 Min: Max:
<b>Watchlist ID</b>	string	Watch list subject to be associated.	Default: Min: Max:
<b>Notes</b>	string	Subject notes	Default: Min: Max:
<b>File Path</b>	string	Image absolute path (optional)	Default: Min: Max:
<b>Middle Name</b>	string	Subject middle name.	Default: Min: Max:



<b>Company</b>	string	Subject company.	Default: Min: Max:
<b>Contact Number</b>	string	Subject contact number.	Default: Min: Max:
<b>Email</b>	string	Subject email.	Default: Min: Max:
<b>Visiting</b>	string	Subject visiting.	Default: Min: Max:
<b>DOB</b>	string	Subject date of birth.	Default: Min: Max:
<b>Title</b>	string	Subject title.	Default: Min: Max:

#### 9.1.4.2 *GetMatchingFrame*

Get the whole captured frame for the specified

Returns byte[].

##### **Performance**

The method must complete within 2 seconds.

##### **Parameters**

Name	Type	Description	Default Value and Ranges
<b>Match Id</b>	string	MatchID retruned with the FaceRecognized Event	Default: Min: Max:

#### 9.1.4.3 *GetEnrolledImage*

Get the enrolled image

Returns byte[].

##### **Performance**

The method must complete within 2 seconds.

## Parameters

Name	Type	Description	Default Value and Ranges
<b>Enrolled Photo Id</b>	string	EnrolledPhotoId returned with the FaceRecognized Event	Default: Min: Max:
<b>SubjectId</b>	string	Matched Subject Id	Default: Min: Max:

### 9.1.4.4 *GetMatchImage*

Get the matching area of the frame for the specified alarm

Returns byte[].

#### Performance

The method must complete within 2 seconds.

#### Parameters

Name	Type	Description	Default Value and Ranges
<b>Match Id</b>	string	MatchID returned with the FaceRecognized Event	Default: Min: Max:

### 9.1.4.5 *Remove*

Removes a subject from a watch list and raises FaceRemoved event with result.

Returns void.

#### Performance

The method must complete within 2 seconds.

#### Parameters

Name	Type	Description	Default Value and Ranges
<b>Subject ID</b>	string		Default: Min: Max:

#### 9.1.4.6 *Verify Face*

Verifies an uploaded photo against the current watch list and raises verified event with result

Returns void.

#### **Performance**

The method must complete within 2 seconds.

#### **Parameters**

Name	Type	Description	Default Value and Ranges
<b>Encoded Image</b>	string	An image in Base64 encoded format. Use the FilePicker GUI plugin to create this.	Default: Min: Max:
<b>WatchListID</b>	string	Watch list subject to lookup	Default: Min: Max:
<b>FilePath</b>	string	Image absolute path (optional)	Default: Min: Max:

#### 9.1.4.7 *Get Watchlist*

Returns the list of watch lists with an event for each. A watch list has to be submitted when enrolling or removing a subject from a watch list

Returns void.

#### **Performance**

The method must complete within 2 seconds.

#### **Parameters**

Name	Type	Description	Default Value and Ranges
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### 9.1.5 Events

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

#### 9.1.5.1 Face Enrolled

Raised when face enrolment succeeds or fails

##### Performance

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

##### Event Properties

Name	Type	Description
Subject ID	string	ID of the Subject
State	string	Success / Fail
StatusMessage	string	Status Message

#### 9.1.5.2 Face Removed

Raised when face removal succeeds or fails

##### Performance

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

##### Event Properties

Name	Type	Description
Subject ID	string	ID of the Subject
State	string	Success / Fail
StatusMessage	string	Status Message

#### 9.1.5.3 Face Verified

Raised when face verification succeeds or fails

##### Performance

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

##### Event Properties

Name	Type	Description
Subject ID	string	ID of the Subject
State	string	Success / Fail

<b>StatusMessage</b>	string	Status Message
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#### 9.1.5.4 *Watch list*

Raised when face removal succeeds or fails

#### **Performance**

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

#### **Event Properties**

<b>Name</b>	<b>Type</b>	<b>Description</b>
<b>ID</b>	string	ID of the Watch List
<b>Name</b>	string	Name of watch list

## 9.2 NeoFace 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>	None
<b>DC2.0 Authentication</b>	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
<b>Camera ID</b>	string	Unique ID assigned to Camera	Default: Min: Max:
<b>Name</b>	string	Camera Name	Default: Min: Max:
<b>IPAddress</b>	string	Camera IP Address	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 Face Recognized

Raised when an enrolled face is recognized

#### Performance

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

#### Event Properties

Name	Type	Description
Subject Id	string	Subject Id
Enrolment Date	DateTime	Subject Enrolment date.
Company	string	Subject Company
Contact Number	string	Subject Contact Number
Email	string	Subject Email Address
First Name	string	Subject Firstname
Last Name	string	Subject Lastname
Middle Name	string	Subject Middlename
Notes	string	Subject Notes
Title	string	Subject Title
Visiting	string	Subject Visiting
Watchlist	string	Subject Watchlist Name
Matched Image Id	string	Matched Image Id.
EnrolledPhotoId	string	Matched Subject Photo Id
ImageFolder	string	Folder for images of the event
DOB	string	Subject date of birth.

## 10 Installation

### 10.1 Prerequisites

- 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 NEC NeoFaceServer 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

### 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 **NEC** in the **Device Manufacturer** list
- Select **NeoFaceServer** in the Available Devices list
- Click **Next** to enter the device details: Enter the NEC NeoFaceServer hostname or IP address, user name and password
- Click **Next** and **Finish** to add the device.
- Enable the device to bring it online.

#### Additional Configuration Details

- Timestamps of the IPSC events are internally converted into the UTC time.
- The Enroll Image method and Verify Face method on this driver requires an image stored as a Base64 encoded string. This can only be achieved by using the File Picker GUI Plugin control for IPSC. This should be installed on IPSC Clients in the Plugins\ folder.  
(Alternatively, File Path variable can be use for testing purposes)
- LocalImageStore folder should be accessible by IPSC user credentials.
- To retrieve the images generated by the FaceRecognized event,
  - 
  - Use of images stored automatically in following paths,  
*Matching Image* – [Event Parameter : ImageFolder]\MatchingImage.jpg  
*Matching Frame* – [Event Parameter : ImageFolder]\MatchingFrame.jpg  
*Matching Subject* – [Event Parameter : ImageFolder]\EnrolledImage.jpg  
(If ImageFolder property is blank saving images will be skipped)
- Or
- Use GetMatchingImage(),GetMatchingFrame() and GetEnrolledImage() method to retrieve image buffers and render on client GUI using image variables.
- Following Neoface custom fields are used for additional subject information,
  - CustomField6 – Company
  - CustomField7 - Visiting
  - CustomField10 - Email
  - CustomField11 – Contact Number
  - CustomField12 – DOB
- To retrieve face detection history, it is recommended to maintain a custom database within the IPSC. SubjectID returned from the face verification method can be used to query this database to retrieve the face matching history.

## 10.2.2 Known Issues

- Camera Status may not reflect the actual camera status.  
Online status is shows only the availability of the camera in NeoFace Sub system.  
To find the correct camera status, you are recommended to disable and enable the device server.
- NeoFace Processing server is having a port conflict with IPSC server(TCP 5000). When running both systems on the same machine, care has to be taken to stop IPSC server process before starting NeoFace processing service. IPSC server can be start any time after the NeoFace is running.

### 10.2.3 Driver Compatibility

The following devices are known to be incompatible with the NEC NeoFaceServer.

Model
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