

# Jacques 650 Series Driver

---



[www.cnlsoftware.com](http://www.cnlsoftware.com)

## Table of Contents

1	Document Versions.....	6
2	Referenced Documents.....	7
3	Glossary.....	7
4	Manufacturer .....	8
5	IPSecurityCenter Versions.....	8
6	Operating Systems .....	8
6.1	Client Side Functionality .....	8
6.2	Server Side Functionality .....	8
7	Models / Firmware Versions.....	9
	Jacques HLI 7.46.....	9
8	Hardware Configurations.....	9
9	Driver Package .....	10
10	Driver Features.....	11
10.1	650 Series Intercom Server .....	11
10.1.1	Properties.....	11
	Serial Number .....	11
	Jacques Tag .....	11
	Heartbeat Timeout Interval .....	11
	Defer Initialization Until Startup Complete Site Event Received .....	11
	Startup Complete Site Event Name .....	11
	Startup Complete Site Event Value.....	11
	Debug Logging.....	11
10.1.2	Methods.....	12
10.1.2.1	Announce call.....	12
10.1.3	Events.....	13
10.1.3.1	Site State Changed .....	13
10.1.3.2	Alarm State Changed .....	13
10.1.3.3	Operation Failed.....	13
10.1.3.4	Call Handler .....	14
10.1.3.5	Call Response .....	14
10.1.3.6	Call Notification.....	15
10.2	650 Series Intercom Slave.....	17
10.2.1	Properties.....	17

Jacques Tag .....	17
IP .....	17
Port.....	17
Parent.....	17
Mode .....	17
Debug Logging.....	17
10.2.2    Methods.....	18
10.2.2.1    Open Door.....	18
10.2.2.2    Activate Relay.....	18
10.2.2.3    Make Call.....	18
10.2.3    Events.....	19
10.2.3.1    Site State Changed .....	19
10.2.3.2    Status Update.....	19
10.2.3.3    Alarm State Changed .....	19
10.2.3.4    Call Handler .....	20
10.2.3.5    Call Response .....	21
10.2.3.6    Call Notification.....	21
10.3    650 Series Intercom Master .....	23
10.3.1    Properties.....	23
Jacques Tag .....	23
Parent.....	23
Mode.....	23
Debug Logging.....	23
10.3.2    Methods.....	24
10.3.2.1    Make Call.....	24
10.3.2.2    End Call.....	24
10.3.2.3    Hold Call .....	24
10.3.2.4    Forward Call .....	25
10.3.2.5    Open Door.....	25
10.3.2.6    Activate Relay.....	26
10.3.2.7    Answer Call.....	26
10.3.2.8    Group Call.....	26
10.3.2.9    Monitor Call .....	27
10.3.3    Events.....	28

10.3.3.1	Status Update.....	28
10.3.3.2	Call Notification.....	28
10.3.3.3	Call Response .....	29
10.3.3.4	Call Handler .....	30
10.3.3.5	Operation Failed.....	30
10.3.3.6	Site State Changed .....	31
10.3.3.7	Alarm State Changed .....	31
10.4	650 Series Intercom Public Address.....	32
10.4.1	Properties.....	32
Jacques Tag .....		32
Parent.....		32
Debug Logging.....		32
10.4.2	Methods.....	32
10.4.3	Events.....	33
10.4.3.1	Status Update.....	33
10.4.3.2	Alarm State Changed .....	33
10.4.3.3	Call Handler .....	33
10.4.3.4	Call Response .....	34
10.4.3.5	Call Notification.....	35
10.5	650 Series Intercom Group .....	37
10.5.1	Properties.....	37
Jacques Tag .....		37
Parent.....		37
Debug Logging.....		37
10.5.2	Methods.....	38
10.5.3	Events.....	39
10.5.3.1	Status Update.....	39
10.5.3.2	Alarm State Changed .....	39
10.5.3.3	Call Handler .....	39
10.5.3.4	Call Response .....	40
10.5.3.5	Call Notification.....	41
11	Installation .....	43
11.1	Prerequisites .....	43
11.1.1	Jacques SDK.....	43

11.1.2	HeidiSQL.....	43
11.2	Driver Installation.....	45
11.2.1	Device Configuration.....	45
11.2.2	Additional Configuration Details.....	45
11.2.3	Driver Compatibility .....	46
12	Development Testing Limitations .....	46
12.1	Forward Call .....	46
13	Known Issues and Limitations.....	46
13.1	Activate Relay.....	46
13.2	Site Events.....	46
13.3	Device Population Troubleshooting.....	47
13.4	Call Handler and Call Response Events .....	47
13.5	Operation Failed Event .....	47
13.6	Site State Change Event .....	47
13.7	Testing and issue resolution .....	47

# 1 Document Versions

Version	Date	Name	Change
1.0	2018-04-23	LG	Document Created.
1.1	2018-11-18	GD	Updates for various fixes.
1.2	2018-12-5	GD	Renamed Tag property to JacquesTag, and added Known Issues And Limitations section.
1.3	2018-12-19	GP	Updated Known Issues and Limitations section and updated Intercom Slave and Intercom Master properties.
1.4	2019-03-15	AM	Update device properties and Issues section on logging levels.
1.5	2019/04/01	AM	Update methods to indicated exposure in IPSC, Correct Driver name.
1.6	2019-04-02	AM	Extended installation details
1.7	2019-04-04	AM	Additional information on Site Events
1.8	2019-04-05	AM	Add known issue on Activate Relay Methods
1.9	2019-11-26	MK	Removed video capability, cleanup

## 2 Referenced Documents

Document	Version	Description
<b>Driver Project Requirements (DDK-PR)</b>	1.0	The Jacques 650 Series Intercom 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 Jacques 650 Series Intercom 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 Jacques 650 Series Intercom Server driver must conform to all requirements in this document detailed in the section: <a href="#">Video</a>

## 3 Glossary

Name	Description
<b>HLI</b>	High Level Interface. A software interface used for communication with the Jacques 650 Series Intercom Server. An instance of a HLI device within the Jacques system represents a connection to a device which communicates with the Jacques Server using this interface (e.g. IPSC).

## 4 Manufacturer

**Name** Jacques



**Website** <http://www.jacques.com.au/>

**Description** Jacques Technologies is a market leader in the innovation, technological design and development of integrated communication systems featuring video and audio intercom, emergency help point and public address systems.

## 5 IPSecurityCenter Versions

The driver must be compatible with the following IPSecurityCenter versions:

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

## 6 Operating Systems

### 6.1 Client Side Functionality

Operating Systems	Supported
Windows 7 64 bit	<input checked="" type="checkbox"/>

### 6.2 Server Side Functionality

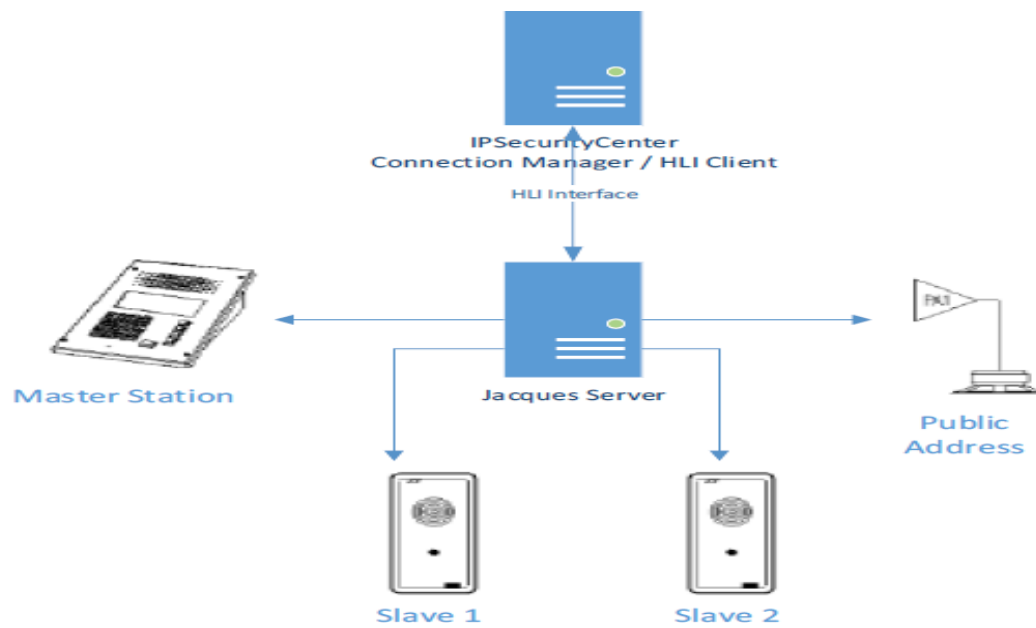
Operating Systems	Supported
Windows Server 2008 R2	<input checked="" type="checkbox"/>
Windows Server 2012	<input checked="" type="checkbox"/>



## 7 Models / Firmware Versions

Model	Versions	SDK
Jacques HLI 7.46	Jacques HLI	7.46

## 8 Hardware Configurations



## 9 Driver Package

The driver package is named:

CNL.IPSecurityCenter.Driver.Jacques.Series650.Version.[BUILD-VERSION].ipsedriver

## 10 Driver Features

### 10.1 650 Series Intercom Server

#### 10.1.1 Properties

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

Name	Type	Description	Default Value & Ranges
<b>Serial Number</b>	string	Serial numbers are strings that represent a unique value stored on the endpoint of a High level interface device.	Default: Min: Max:
<b>Jacques Tag</b>	string	Unique Jacques tag id of HLI	Default: Min: Max:
<b>Heartbeat Timeout Interval</b>	int	If no heartbeat is received within this time interval (in seconds) the device will be considered offline.	Default: 60s Min: Max:
<b>Defer Initialization Until Startup Complete Site Event Received</b>	bool	Whether to wait for a startup complete site event from Jacques after connection before performing further interface initialization. Also see note below.	Default: Min: Max:
<b>Startup Complete Site Event Name</b>	string	The name of the startup complete site event.	Default: Min: Max:
<b>Startup Complete Site Event Value</b>	string	The value of the startup complete site event.	Default: Min: Max:
<b>Debug Logging</b>	Bool	Enable/disable Info/Debug loupe entries	Default: false

It was observed during testing that a race condition existed in the previous connection implementation which led to connection to the Jacques system not establishing reliably (the connection would go online, but some events could not register correctly). The current test kit raises a Site Event with name field of 'startupcomplete' and value field of '1'. Deferring some of the connection logic until this event has been received resolves the problem. However, the Jacques documentation states that the presence of such an event is a per site setting, and cannot be relied upon. The last three properties on the Jacques server device allow for resolution of this race condition if a sufficient message exists within the Jacques deployment. Site events are recorded in

the Loupe log, beginning with “JJJ SiteEvent event received”. A consequence of deferring this initialization is that newly added child devices will not display the correct state until the Jacques Server device has been disabled and then re-enabled.

## 10.1.2 Methods

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

### 10.1.2.1 Announce call

Creates an announcement call to a public address

Returns bool.

**Operator Action:** false

#### Performance

The method must complete within 2 seconds.

#### Parameters

Name	Type	Description	Default Value and Ranges
<b>Announce Tag</b>	string	Tag of the announcement to be made	Default: Min: Max:
<b>Destination TagId</b>	string	Tag of the devices to send announcement to.	Default: Min: Max:

### 10.1.3 Events

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

#### 10.1.3.1 Site State Changed

This event is raised for site specific event distribution.

##### Performance

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

##### Event Properties

Name	Type	Description
Tag Id	string	Id of the device that state is changing.
State	string	State of the device eg OPEN_DOOR

#### 10.1.3.2 Alarm State Changed

This event is raised when the state of an alarm for an endpoint changes

##### Performance

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

##### Event Properties

Name	Type	Description
Alarm code	Enums.AlarmCode	Alarm Code tamper,hardware,buttonstuckmicstest,ewisfault
Alarm Name	string	Name of the triggered alarm.
Alarm State	AlarmState	Indicates the state of the alarm
Alarm State Changed	bool	Indicates that the alarm state has changed

#### 10.1.3.3 Operation Failed

Event raised when an interaction with the Jacques System has failed.

##### Performance

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

##### Event Properties

Name	Type	Description
ErrorMessage	string	Error Message

#### 10.1.3.4 Call Handler

This event contains call information (invite, queued, connect, disconnect, terminate)

##### Performance

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

##### Event Properties

Name	Type	Description
<b>Event</b>	Enums.CallNotify	Enumerated call event: "invite", "connect", "disconnect", "terminate"
<b>Call Id</b>	string	Unique call identifier
<b>Caller Id</b>	string	Dynamically assigned caller identification string.
<b>Actual Tag</b>	string	Actual answering tag.
<b>Zone Tag</b>	string	Tag of the zone where the call is queued.
<b>CallType</b>	Enums.CallType	Enumerated call type: "normal", "monitor", "darmonitor", "darcover", "announce", "group", "groupannounce"
<b>Mode</b>	Enums.TagMode	Mode of tag: "normal", "remote", "isolate"
<b>Originator Name</b>	string	Name details of the originating endpoint.
<b>Originator Tag</b>	string	Tag of the originating endpoint
<b>Endpoint Name</b>	string	Name of the endpoint
<b>Tag</b>	string	Tag Id of end point
<b>Video Receive</b>	string	The video-receive parameter uses the format; ip_address,port

#### 10.1.3.5 Call Response

Call response received for a previous call request

##### Performance

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

##### Event Properties

Name	Type	Description
<b>Event</b>	Enums.CallNotify	Enumerated call event: "request", "connect", "disconnect", "terminate"

<b>Call Id</b>	string	Unique call identifier
<b>Caller Id</b>	string	Dynamically assigned caller identification string.
<b>Actual Name</b>	string	Actual name of the answering tag.
<b>Actual Tag</b>	string	Actual answering tag.
<b>Zone Tag</b>	string	Tag of the zone where the call is queued.
<b>CallType</b>	Enums.CallType	Enumerated call type: "normal", "monitor", "darmonitor", "darcovert", "announce", "group", "groupannounce"
<b>Parent</b>	string	Parent tag ("0" if none).
<b>State</b>	string	State of tag: "online", "offline".
<b>Mode</b>	Enums.TagMode	Mode of tag: "normal", "remote", "isolate"
<b>Originator Name</b>	string	Name details of the originating endpoint.
<b>Originator Tag</b>	string	Tag of the originating endpoint
<b>Name</b>	string	Name of the endpoint
<b>Tag</b>	string	Tag Id of end point

### 10.1.3.6 Call Notification

This event provides notification about a call

#### Performance

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

#### Event Properties

Name	Type	Description
<b>Event</b>	Enums.CallNotify	Enumerated call event: "request", "connect", "disconnect", "terminate"
<b>Call Id</b>	string	Unique call identifier
<b>Caller Id</b>	string	Dynamically assigned caller identification string.
<b>Actual Name</b>	string	Actual name of the answering tag.
<b>Actual Tag</b>	string	Actual answering tag.
<b>Zone Tag</b>	string	Tag of the zone where the call is queued.

<b>Actual State Name</b>	string	Actual state of the endpoint
<b>Actual State Code</b>	Enums.ActualStateCode	Integer code for actual state of the endpoint
<b>CallType</b>	Enums.CallType	Enumerated call type: "normal", "monitor", "darmonitor", "darcovert", "announce", "group", "groupannounce"
<b>Parent Tag</b>	string	Parent tag ("0" if none).
<b>Mode</b>	Enums.TagMode	Mode of tag: "normal", "remote", "isolate"
<b>Originator Name</b>	string	Name details of the originating endpoint.
<b>Originator Tag</b>	string	Tag of the originating endpoint
<b>Endpoint Name</b>	string	Name of the endpoint
<b>Tag</b>	string	Tag Id of end point



## 10.2 650 Series Intercom Slave

### 10.2.1 Properties

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

Name	Type	Description	Default Value & Ranges
<b>Jacques Tag</b>	string	Unique Jacques tag id.	Default: Min: Max:
<b>IP</b>	string	The ip address of the remote endpoint that is transmitting data ( used for video )	Default: Min: Max:
<b>Port</b>	string	unicast = the port on the HLI to which the remote endpoint is transmitting data. Multicast = the multicast port to listen to.	Default: Min: Max:
<b>Parent</b>	string	Parent of this device	Default: Min: Max:
<b>Mode</b>	CNL.IPSecurityCenter.Driver.Jacques.Series650.Enums.DeviceMode	The mode that the device is in (such as Remoted or Isolated). Can be one of the following values: <ul style="list-style-type: none"><li>• Normal</li><li>• Isolated</li><li>• Remoted</li><li>• Unknown</li></ul>	Default: Min: Max:
<b>Debug Logging</b>	Bool	Enable/disable Info/Debug loupe entries	Default: false

## 10.2.2 Methods

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

### 10.2.2.1 Open Door

Opens a door connected to an end point

This method is exposed as an operator action.

Returns bool.

**Operator Action:** true

#### Performance

The method must complete within 2 seconds.

#### Parameters

Name	Type	Description	Default Value and Ranges
N/A			

### 10.2.2.2 Activate Relay

Activates the relay on an end point (See 13.1- See Known Issues)

This method is exposed as an operator action.

Returns bool.

**Operator Action:** true

#### Performance

The method must complete within 2 seconds.

#### Parameters

Name	Type	Description	Default Value and Ranges
N/A			

### 10.2.2.3 Make Call

Creates a call between this device to specified tag.

Returns bool.

**Operator Action:** true

### Performance

The method must complete within 2 seconds.

### Parameters

Name	Type	Description	Default Value and Ranges
N/A			

## 10.2.3 Events

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

### 10.2.3.1 Site State Changed

This event is raised for site specific event distribution.

### Performance

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

### Event Properties

Name	Type	Description
Tag Id	string	Id of the device that state is changing.
State	string	State of the device eg OPEN_DOOR

### 10.2.3.2 Status Update

Status update for the intercom station

### Performance

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

### Event Properties

Name	Type	Description
Tag	string	Tag Id of end point
Name	string	Name of the endpoint
Mode	Enums.TagMode	Mode of tag: "normal", "remote", "isolate"
Event Type	TagNotify	Type of event fired.

### 10.2.3.3 Alarm State Changed

This event is raised when the state of an alarm for an endpoint changes

## Performance

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

## Event Properties

Name	Type	Description
Alarm code	Enums.AlarmCode	Alarm Code tamper,hardware,buttonstuckmictest,ewisfault
Alarm Name	string	Name of the triggered alarm.
Alarm State	AlarmState	Indicates the state of the alarm
Alarm State Changed	bool	Indicates that the alarm state has changed

### 10.2.3.4 Call Handler

This event contains call information (invite, queued, connect, disconnect, terminate)

## Performance

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

## Event Properties

Name	Type	Description
Event	Enums.CallNotify	Enumerated call event: "invite", "connect", "disconnect", "terminate"
Call Id	string	Unique call identifier
Caller Id	string	Dynamically assigned caller identification string.
Actual Tag	string	Actual answering tag.
Zone Tag	string	Tag of the zone where the call is queued.
CallType	Enums.CallType	Enumerated call type: "normal", "monitor", "darmonitor", "darcovert", "announce", "group", "groupannounce"
Mode	Enums.TagMode	Mode of tag: "normal", "remote", "isolate"
Originator Name	string	Name details of the originating endpoint.
Originator Tag	string	Tag of the originating endpoint
Endpoint Name	string	Name of the endpoint
Tag	string	Tag Id of end point

<b>Video Receive</b>	string	The video-receive parameter uses the format; ip_address,port
----------------------	--------	--

### 10.2.3.5 Call Response

Call response received for a previous call request

#### Performance

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

#### Event Properties

Name	Type	Description
<b>Event</b>	Enums.CallNotify	Enumerated call event: "request", "connect", "disconnect", "terminate"
<b>Call Id</b>	string	Unique call identifier
<b>Caller Id</b>	string	Dynamically assigned caller identification string.
<b>Actual Name</b>	string	Actual name of the answering tag.
<b>Actual Tag</b>	string	Actual answering tag.
<b>Zone Tag</b>	string	Tag of the zone where the call is queued.
<b>CallType</b>	Enums.CallType	Enumerated call type: "normal", "monitor", "darmonitor", "darcovert", "announce", "group", "groupannounce"
<b>Parent</b>	string	Parent tag ("0" if none).
<b>State</b>	string	State of tag: "online", "offline".
<b>Mode</b>	Enums.TagMode	Mode of tag: "normal", "remote", "isolate"
<b>Originator Name</b>	string	Name details of the originating endpoint.
<b>Originator Tag</b>	string	Tag of the originating endpoint
<b>Name</b>	string	Name of the endpoint
<b>Tag</b>	string	Tag Id of end point

### 10.2.3.6 Call Notification

This event provides notification about a call

#### Performance

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

#### Event Properties

Name	Type	Description
<b>Event</b>	Enums.CallNotify	Enumerated call event: "request", "connect", "disconnect", "terminate"
<b>Call Id</b>	string	Unique call identifier
<b>Caller Id</b>	string	Dynamically assigned caller identification string.
<b>Actual Name</b>	string	Actual name of the answering tag.
<b>Actual Tag</b>	string	Actual answering tag.
<b>Zone Tag</b>	string	Tag of the zone where the call is queued.
<b>Actual State Name</b>	string	Actual state of the endpoint
<b>Actual State Code</b>	Enums.ActualStateCode	Integer code for actual state of the endpoint
<b>CallType</b>	Enums.CallType	Enumerated call type: "normal", "monitor", "darmonitor", "darcovert", "announce", "group", "groupannounce"
<b>Parent Tag</b>	string	Parent tag ("0" if none).
<b>Mode</b>	Enums.TagMode	Mode of tag: "normal", "remote", "isolate"
<b>Originator Name</b>	string	Name details of the originating endpoint.
<b>Originator Tag</b>	string	Tag of the originating endpoint
<b>Endpoint Name</b>	string	Name of the endpoint
<b>Tag</b>	string	Tag Id of end point

## 10.3 650 Series Intercom Master

### 10.3.1 Properties

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

Name	Type	Description	Default Value & Ranges
<b>Jacques Tag</b>	string	Unique Jacques tag id	Default: Min: Max:
<b>Parent</b>	string	Parent of this device	Default: Min: Max:
<b>Mode</b>	CNL.IPSecurityCenter.Driver.Jacques.Series650.Enums.DeviceMode	The mode that the device is in (such as Remoted or Isolated). Can be one of the following values: <ul style="list-style-type: none"><li>• Normal</li><li>• Isolated</li><li>• Remoted</li><li>• Unknown</li></ul>	Default: Min: Max:
<b>Debug Logging</b>	Bool	Enable/disable Info/Debug loupe entries	Default: false

## 10.3.2 Methods

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

### 10.3.2.1 Make Call

Creates a call between this device to specified tag.

Returns bool.

**Operator Action:** true

#### Performance

The method must complete within 2 seconds.

#### Parameters

Name	Type	Description	Default Value and Ranges
Tag Id	string	Target Tag Id	Default: Min: Max:

### 10.3.2.2 End Call

Terminate a Call between two or more handsets

Returns bool.

**Operator Action:** true

#### Performance

The method must complete within 2 seconds.

#### Parameters

Name	Type	Description	Default Value and Ranges
Call Id	string	Call Id of call to end.	Default: Min: Max:

### 10.3.2.3 Hold Call

Puts a call on hold

Returns bool.



**Operator Action:** true

### Performance

The method must complete within 2 seconds.

### Parameters

Name	Type	Description	Default Value and Ranges
Call Id	string	Call Id of call to be held	Default: Min: Max:

#### *10.3.2.4 Forward Call*

Forwards a call that is in progress to another intercom station

Returns bool.

**Operator Action:** true

### Performance

The method must complete within 2 seconds.

### Parameters

Name	Type	Description	Default Value and Ranges
Tag	string	Tag to forward to,	Default: Min: Max:
Call Id	string	Call Id to forward.	Default: Min: Max:

#### *10.3.2.5 Open Door*

Opens a door connected to an end point

This method is exposed as an operator action.

Returns bool.

**Operator Action:** true

### Performance

The method must complete within 2 seconds.

## Parameters

Name	Type	Description	Default Value and Ranges
N/A			

### *10.3.2.6 Activate Relay*

Activates the relay on an end point (See 13.1- See Known Issues)

This method is exposed as an operator action.

Returns bool.

**Operator Action:** true

#### **Performance**

The method must complete within 2 seconds.

## Parameters

Name	Type	Description	Default Value and Ranges
N/A			

### *10.3.2.7 Answer Call*

Answer new call

Returns bool.

**Operator Action:** true

#### **Performance**

The method must complete within 2 seconds.

## Parameters

Name	Type	Description	Default Value and Ranges
<b>Call Id</b>	string	Call Id of call to be answered	Default: Min: Max:

### *10.3.2.8 Group Call*

Creates a call between this device to specified tag.

Returns bool.

**Operator Action:** true

### Performance

The method must complete within 2 seconds.

### Parameters

Name	Type	Description	Default Value and Ranges
<b>Group Tag Id</b>	string	Tag of the group to call	Default: Min: Max:

### *10.3.2.9 Monitor Call*

It creates a monitor call

Returns bool.

**Operator Action:** false

### Performance

The method must complete within 2 seconds.

### Parameters

Name	Type	Description	Default Value and Ranges
<b>Destination Tag Id</b>	string	Tag of device to monitor	Default: Min: Max:

### 10.3.3 Events

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

#### 10.3.3.1 Status Update

Status update for the intercom station

##### Performance

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

##### Event Properties

Name	Type	Description
Tag	string	Tag Id of end point
Name	string	Name of the endpoint
Mode	Enums.TagMode	Mode of tag: "normal", "remote", "isolate"
Event Type	TagNotify	Type of event fired.

#### 10.3.3.2 Call Notification

This event provides notification about a call

##### Performance

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

##### Event Properties

Name	Type	Description
Event	Enums.CallNotify	Enumerated call event: "request", "connect", "disconnect", "terminate"
Call Id	string	Unique call identifier
Caller Id	string	Dynamically assigned caller identification string.
Actual Name	string	Actual name of the answering tag.
Actual Tag	string	Actual answering tag.
Zone Tag	string	Tag of the zone where the call is queued.
Actual State Name	string	Actual state of the endpoint
Actual State Code	Enums.ActualStateCode	Integer code for actual state of the endpoint
CallType	Enums.CallType	Enumerated call type: "normal", "monitor", "darmonitor", "darcouvert", "announce",

		"group", "groupannounce"
<b>Parent Tag</b>	string	Parent tag ("0" if none).
<b>Mode</b>	Enums.TagMode	Mode of tag: "normal", "remote", "isolate"
<b>Originator Name</b>	string	Name details of the originating endpoint.
<b>Originator Tag</b>	string	Tag of the originating endpoint
<b>Endpoint Name</b>	string	Name of the endpoint
<b>Tag</b>	string	Tag Id of end point

### 10.3.3.3 Call Response

Call response received for a previous call request

#### Performance

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

#### Event Properties

Name	Type	Description
<b>Event</b>	Enums.CallNotify	Enumerated call event: "request", "connect", "disconnect", "terminate"
<b>Call Id</b>	string	Unique call identifier
<b>Caller Id</b>	string	Dynamically assigned caller identification string.
<b>Actual Name</b>	string	Actual name of the answering tag.
<b>Actual Tag</b>	string	Actual answering tag.
<b>Zone Tag</b>	string	Tag of the zone where the call is queued.
<b>CallType</b>	Enums.CallType	Enumerated call type: "normal", "monitor", "darmonitor", "darcover", "announce", "group", "groupannounce"
<b>Parent</b>	string	Parent tag ("0" if none).
<b>State</b>	string	State of tag: "online", "offline".
<b>Mode</b>	Enums.TagMode	Mode of tag: "normal", "remote", "isolate"
<b>Originator Name</b>	string	Name details of the originating endpoint.
<b>Originator Tag</b>	string	Tag of the originating endpoint
<b>Name</b>	string	Name of the endpoint

<b>Tag</b>	string	Tag Id of end point
------------	--------	---------------------

#### 10.3.3.4 Call Handler

This event contains call information (invite, queued, connect, disconnect, terminate)

#### Performance

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

#### Event Properties

Name	Type	Description
<b>Event</b>	Enums.CallNotify	Enumerated call event: "invite", "connect", "disconnect", "terminate"
<b>Call Id</b>	string	Unique call identifier
<b>Caller Id</b>	string	Dynamically assigned caller identification string.
<b>Actual Tag</b>	string	Actual answering tag.
<b>Zone Tag</b>	string	Tag of the zone where the call is queued.
<b>CallType</b>	Enums.CallType	Enumerated call type: "normal", "monitor", "darmonitor", "darcover", "announce", "group", "groupannounce"
<b>Mode</b>	Enums.TagMode	Mode of tag: "normal", "remote", "isolate"
<b>Originator Name</b>	string	Name details of the originating endpoint.
<b>Originator Tag</b>	string	Tag of the originating endpoint
<b>Endpoint Name</b>	string	Name of the endpoint
<b>Tag</b>	string	Tag Id of end point
<b>Video Receive</b>	string	The video-receive parameter uses the format; ip_address,port

#### 10.3.3.5 Operation Failed

Event raised when an interaction with the Jacques System has failed.

#### Performance

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

#### Event Properties

Name	Type	Description
------	------	-------------

<b>ErrorMessage</b>	string	Error Message
---------------------	--------	---------------

### 10.3.3.6 Site State Changed

This event is raised for site specific event distribution.

#### Performance

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

#### Event Properties

Name	Type	Description
<b>Tag Id</b>	string	Id of the device that state is changing.
<b>State</b>	string	State of the device eg OPEN_DOOR

### 10.3.3.7 Alarm State Changed

This event is raised when the state of an alarm for an endpoint changes

#### Performance

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

#### Event Properties

Name	Type	Description
<b>Alarm code</b>	Enums.AlarmCode	Alarm Code tamper,hardware,buttonstuckmicstest,ewisfault
<b>Alarm Name</b>	string	Name of the triggered alarm.
<b>Alarm State</b>	AlarmState	Indicates the state of the alarm
<b>Alarm State Changed</b>	bool	Indicates that the alarm state has changed

## 10.4 650 Series Intercom Public Address

### 10.4.1 Properties

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

Name	Type	Description	Default Value & Ranges
<b>Jacques Tag</b>	string	Unique Jacques tag id.	Default: Min: Max:
<b>Parent</b>	string	Parent of this device	Default: Min: Max:
<b>Debug Logging</b>	Bool	Enable/disable Info/Debug loupe entries	Default: false

### 10.4.2 Methods

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

This device implements no specific methods.



### 10.4.3 Events

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

#### 10.4.3.1 Status Update

Status update for the intercom station

##### Performance

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

##### Event Properties

Name	Type	Description
Tag	string	Tag Id of end point
Name	string	Name of the endpoint
Mode	Enums.TagMode	Mode of tag: "normal", "remote", "isolate"
Event Type	TagNotify	Type of event fired.

#### 10.4.3.2 Alarm State Changed

This event is raised when the state of an alarm for an endpoint changes

##### Performance

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

##### Event Properties

Name	Type	Description
Alarm code	Enums.AlarmCode	Alarm Code tamper,hardware,buttonstuckmicstest,ewisfault
Alarm Name	string	Name of the triggered alarm.
Alarm State	AlarmState	Indicates the state of the alarm
Alarm State Changed	bool	Indicates that the alarm state has changed

#### 10.4.3.3 Call Handler

This event contains call information (invite, queued, connect, disconnect, terminate)

##### Performance

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

##### Event Properties

Name	Type	Description
------	------	-------------

<b>Event</b>	Enums.CallNotify	Enumerated call event: "invite", "connect", "disconnect", "terminate"
<b>Call Id</b>	string	Unique call identifier
<b>Caller Id</b>	string	Dynamically assigned caller identification string.
<b>Actual Tag</b>	string	Actual answering tag.
<b>Zone Tag</b>	string	Tag of the zone where the call is queued.
<b>CallType</b>	Enums.CallType	Enumerated call type: "normal", "monitor", "darmonitor", "darcover", "announce", "group", "groupannounce"
<b>Mode</b>	Enums.TagMode	Mode of tag: "normal", "remote", "isolate"
<b>Originator Name</b>	string	Name details of the originating endpoint.
<b>Originator Tag</b>	string	Tag of the originating endpoint
<b>Endpoint Name</b>	string	Name of the endpoint
<b>Tag</b>	string	Tag Id of end point
<b>Video Receive</b>	string	The video-receive parameter uses the format; ip_address,port

#### 10.4.3.4 Call Response

Call response received for a previous call request

#### Performance

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

#### Event Properties

Name	Type	Description
<b>Event</b>	Enums.CallNotify	Enumerated call event: "request", "connect", "disconnect", "terminate"
<b>Call Id</b>	string	Unique call identifier
<b>Caller Id</b>	string	Dynamically assigned caller identification string.
<b>Actual Name</b>	string	Actual name of the answering tag.
<b>Actual Tag</b>	string	Actual answering tag.
<b>Zone Tag</b>	string	Tag of the zone where the call is queued.
<b>CallType</b>	Enums.CallType	Enumerated call type: "normal", "monitor", "darmonitor", "darcover", "announce",

		"group", "groupannounce"
<b>Parent</b>	string	Parent tag ("0" if none).
<b>State</b>	string	State of tag: "online", "offline".
<b>Mode</b>	Enums.TagMode	Mode of tag: "normal", "remote", "isolate"
<b>Originator Name</b>	string	Name details of the originating endpoint.
<b>Originator Tag</b>	string	Tag of the originating endpoint
<b>Name</b>	string	Name of the endpoint
<b>Tag</b>	string	Tag Id of end point

### 10.4.3.5 Call Notification

This event provides notification about a call

#### Performance

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

#### Event Properties

Name	Type	Description
<b>Event</b>	Enums.CallNotify	Enumerated call event: "request", "connect", "disconnect", "terminate"
<b>Call Id</b>	string	Unique call identifier
<b>Caller Id</b>	string	Dynamically assigned caller identification string.
<b>Actual Name</b>	string	Actual name of the answering tag.
<b>Actual Tag</b>	string	Actual answering tag.
<b>Zone Tag</b>	string	Tag of the zone where the call is queued.
<b>Actual State Name</b>	string	Actual state of the endpoint
<b>Actual State Code</b>	Enums.ActualStateCode	Integer code for actual state of the endpoint
<b>CallType</b>	Enums.CallType	Enumerated call type: "normal", "monitor", "darmonitor", "darcovert", "announce", "group", "groupannounce"
<b>Parent Tag</b>	string	Parent tag ("0" if none).
<b>Mode</b>	Enums.TagMode	Mode of tag: "normal", "remote", "isolate"

<b>Originator Name</b>	string	Name details of the originating endpoint.
<b>Originator Tag</b>	string	Tag of the originating endpoint
<b>Endpoint Name</b>	string	Name of the endpoint
<b>Tag</b>	string	Tag Id of end point

## 10.5 650 Series Intercom Group

### 10.5.1 Properties

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

Name	Type	Description	Default Value & Ranges
<b>Jacques Tag</b>	string	Unique Jacques tag id.	Default: Min: Max:
<b>Parent</b>	string	Parent of this device	Default: Min: Max:
<b>Debug Logging</b>	Bool	Enable/disable Info/Debug loupe entries	Default: false

## 10.5.2 Methods

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

This device implements no specific methods.

### 10.5.3 Events

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

#### 10.5.3.1 Status Update

Status update for the intercom station

##### Performance

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

##### Event Properties

Name	Type	Description
Tag	string	Tag Id of end point
Name	string	Name of the endpoint
Mode	Enums.TagMode	Mode of tag: "normal", "remote", "isolate"
Event Type	TagNotify	Type of event fired.

#### 10.5.3.2 Alarm State Changed

This event is raised when the state of an alarm for an endpoint changes

##### Performance

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

##### Event Properties

Name	Type	Description
Alarm code	Enums.AlarmCode	Alarm Code tamper,hardware,buttonstuckmicstest,ewisfault
Alarm Name	string	Name of the triggered alarm.
Alarm State	AlarmState	Indicates the state of the alarm
Alarm State Changed	bool	Indicates that the alarm state has changed

#### 10.5.3.3 Call Handler

This event contains call information (invite, queued, connect, disconnect, terminate)

##### Performance

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

##### Event Properties

Name	Type	Description
------	------	-------------

<b>Event</b>	Enums.CallNotify	Enumerated call event: "invite", "connect", "disconnect", "terminate"
<b>Call Id</b>	string	Unique call identifier
<b>Caller Id</b>	string	Dynamically assigned caller identification string.
<b>Actual Tag</b>	string	Actual answering tag.
<b>Zone Tag</b>	string	Tag of the zone where the call is queued.
<b>CallType</b>	Enums.CallType	Enumerated call type: "normal", "monitor", "darmonitor", "darcover", "announce", "group", "groupannounce"
<b>Mode</b>	Enums.TagMode	Mode of tag: "normal", "remote", "isolate"
<b>Originator Name</b>	string	Name details of the originating endpoint.
<b>Originator Tag</b>	string	Tag of the originating endpoint
<b>Endpoint Name</b>	string	Name of the endpoint
<b>Tag</b>	string	Tag Id of end point
<b>Video Receive</b>	string	The video-receive parameter uses the format; ip_address,port

#### 10.5.3.4 Call Response

Call response received for a previous call request

#### Performance

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

#### Event Properties

Name	Type	Description
<b>Event</b>	Enums.CallNotify	Enumerated call event: "request", "connect", "disconnect", "terminate"
<b>Call Id</b>	string	Unique call identifier
<b>Caller Id</b>	string	Dynamically assigned caller identification string.
<b>Actual Name</b>	string	Actual name of the answering tag.
<b>Actual Tag</b>	string	Actual answering tag.
<b>Zone Tag</b>	string	Tag of the zone where the call is queued.
<b>CallType</b>	Enums.CallType	Enumerated call type: "normal", "monitor", "darmonitor", "darcover", "announce", "group", "groupannounce"



		"group", "groupannounce"
<b>Parent</b>	string	Parent tag ("0" if none).
<b>State</b>	string	State of tag: "online", "offline".
<b>Mode</b>	Enums.TagMode	Mode of tag: "normal", "remote", "isolate"
<b>Originator Name</b>	string	Name details of the originating endpoint.
<b>Originator Tag</b>	string	Tag of the originating endpoint
<b>Name</b>	string	Name of the endpoint
<b>Tag</b>	string	Tag Id of end point

### 10.5.3.5 Call Notification

This event provides notification about a call

#### Performance

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

#### Event Properties

Name	Type	Description
<b>Event</b>	Enums.CallNotify	Enumerated call event: "request", "connect", "disconnect", "terminate"
<b>Call Id</b>	string	Unique call identifier
<b>Caller Id</b>	string	Dynamically assigned caller identification string.
<b>Actual Name</b>	string	Actual name of the answering tag.
<b>Actual Tag</b>	string	Actual answering tag.
<b>Zone Tag</b>	string	Tag of the zone where the call is queued.
<b>Actual State Name</b>	string	Actual state of the endpoint
<b>Actual State Code</b>	Enums.ActualStateCode	Integer code for actual state of the endpoint
<b>CallType</b>	Enums.CallType	Enumerated call type: "normal", "monitor", "darmonitor", "darcovert", "announce", "group", "groupannounce"
<b>Parent Tag</b>	string	Parent tag ("0" if none).
<b>Mode</b>	Enums.TagMode	Mode of tag: "normal", "remote", "isolate"

<b>Originator Name</b>	string	Name details of the originating endpoint.
<b>Originator Tag</b>	string	Tag of the originating endpoint
<b>Endpoint Name</b>	string	Name of the endpoint
<b>Tag</b>	string	Tag Id of end point

# 11 Installation

## 11.1 Prerequisites

### 11.1.1 Jacques SDK

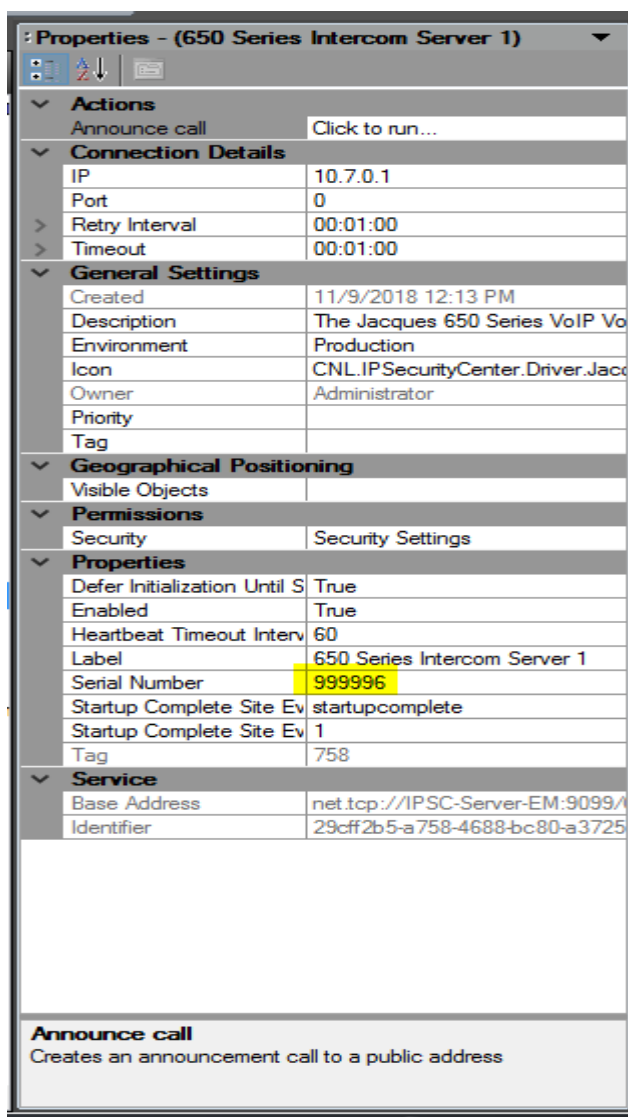
Install the SDK (See 7 above for Version information) on all machines running the following services / software:

- Client
- Connection Manager

### 11.1.2 HeidiSQL

The Jacques system uses a version of 'Hedi SQL'.

In order to connect the Jacques system to IPSC it is necessary to create a unique serial number in the Jacques database. This value is used as the 'Serial number' (example highlighted below) in the device properties for the Jacques Server in IPSC.



To configure this serial number in Jacques, you need to make changes in the Heidi SQL, firstly, add a line to the tag\_device table:

siteconfigDB.tag\_device: 9 rows total

tag	parent	uname	uvalue	model	descriptor	priority	role	cproxy_audio	gproxy_audio
758	0	SerialJEM	999996	HLI	IPSC-JacquesEM2	127	Intercom	(NULL)	9999
500	0	SerialJEM	225289	UAI-PAC	AudioInterface	127	PAController	(NULL)	9999
50	0	SerialJEM	139658	IPM-360G	MASTER	127	Intercom	(NULL)	9999
480	0	SerialJEM	480480	HLI	IPSC-JacquesEM	127	Intercom	(NULL)	9999
202	0	SerialJEM	999990	HLI	IPSC-GD-TEST	127	Intercom	(NULL)	9999
200	0	SerialJEM	999999	HLI	IPSC-JacquesAR	127	Intercom	(NULL)	9999
199	0	SerialJEM	999998	HLI	IPSC-JacquesGD	127	Intercom	(NULL)	9999
101	50	SerialJEM	208081	VSL-351+	Cell 73	127	Intercom	(NULL)	9999
100	50	SerialJEM	198697	VSL-351+	Cell 1	127	Intercom	(NULL)	9999

Then add 6 lines to the tag\_capabilities table using the same tag as configured in the 'tag\_device' table (in the above example a tag of 758 is used).

siteconfigDB.tag\_capabilities: 37 rows total

tag	capability	sequence	action	tag_regexp
199	Originate	0	Grant	*
199	Hold	0	Grant	*
199	Terminate	0	Grant	*
200	Terminate	0	Grant	*
200	Hold	0	Grant	*
200	Originate	0	Grant	*
200	Announce	0	Grant	*
200	Forward	0	Grant	*
200	Remote	0	Grant	*
201	Originate	0	Grant	*
201	Terminate	0	Grant	*
201	Remote	0	Grant	*
201	Announce	0	Grant	*
480	Originate	0	Grant	*
480	Terminate	0	Grant	*
480	Hold	0	Grant	*
480	Remote	0	Grant	*
480	Forward	0	Grant	*
480	Announce	0	Grant	*
50	Hold	0	Grant	*
50	Terminate	0	Grant	*
50	Originate	0	Grant	*
50	Announce	0	Grant	*
50	Forward	0	Grant	*
50	Remote	0	Grant	*
758	Originate	0	Grant	*
758	Remote	0	Grant	*
758	Terminate	0	Grant	*
758	Hold	0	Grant	*
758	Announce	0	Grant	*
758	Forward	0	Grant	*

A reboot of the Jacques Server is then required for the changes to take effect.

## 11.2 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 Jacques 650 Series Intercom 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.

### 11.2.1 Device Configuration

- Right click in a folder (e.g. Devices) in the System Configuration: **New** → **Device On** → **Server**
- Click **Next** on the introduction
- Select **Jacques** in the **Device Manufacturer** list
- Select **650 Series Intercom Server** in the Available Devices list
- Click **Next** to enter the device details: Enter the Jacques 650 Series Intercom 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. Child devices should populate automatically. For newly created child devices, the Jaques Server device may need to be disabled then reenabled for child device states to populate correctly – See Section 10.1.1 for more information. Manual creation of child devices is not supported.
- There is a known race condition on connection establishment which can cause device issues, including failure to populate child devices. See Section 13.3 and Section 10.1.1 for details of configuring the Server Device to resolve these problems. Only follow these steps if you experience problems with device population.

### 11.2.2 Additional Configuration Details

- **The driver uses the SetProperty function in the HLI API to handle all interactions with the Jacques hardware. This means that all testable functions will only ever return CallNotification events and we use them to maintain information on calls and devices. We have not yet experienced any action with our test kit that return a CallResponse or CallHandler event but we have included handlers in IPSC for these events for complete coverage of Jacques HLI.**
- **To communicate with the Jaques 650-series system server, a HLI device instance needs to be configured within the Jacques system for each connection. This should be entered as a row in the tag\_device table within the siteconfig database. It should be assigned a unique uvalue. This uvalue should be set as the SerialNumber property of the 650 Series Intercom Server device created within IPSC to connect to this HLI instance. For this HLI to function correctly, it should be assigned appropriate permissions (depending on the permissions required) by adding rows to the tag\_capabilities table. If any changes are made to the Jacques server database, the system will need to be restarted for these changes to take effect.**

### 11.2.3 Driver Compatibility

The following devices are known to be incompatible with the Jacques 650 Series Intercom Server.

Model
N/A

## 12 Development Testing Limitations

The following driver features have not been tested against the reference Jacques system:

### 12.1 Forward Call

Forward call has not been tested due to insufficient test kit. Forward call is understood to require two master devices, and only one is available.

## 13 Known Issues and Limitations

### 13.1 Activate Relay

The Active relay command for both Master and slave currently has an issue such that it will activate the relay but there is no capability to release the relay.

This issue will be resolved in the next release of the driver.

### 13.2 Site Events

DAD-1032 – Site Events raised by the Jacques system consist of a name value pair of strings. The driver handling of Site Events from the Jacques system assumes that the value field will always be set to a valid Tag within the Jacques system. This is not always the case. When a Site Event is raised for which the value field does not correspond to a valid system tag, a misleading warning message will be written to the Loupe log stating that the tag was not found. A SiteStateChanged event will be raised to IPSC by the Jacques Server object, with the TagId field set to this value.

The following events cause misleading warnings, as they are parsed as if a corresponding device should be found:

- name:jccpserver-version value: 7.46
- name:master-tag value: 199
- name:model value: HLI
- name:privacy-duration value: 0
- name:startupcomplete value: 1

### 13.3 Device Population Troubleshooting

Due to a race condition (described in Section 10.1.1), it is possible with some systems that devices will not be automatically populated upon enabling the server device. If this happens try the following steps to resolve the issue:

- Disable the server device
- Open the Loupe logs and look for the Startup Complete Site Event – what this is can vary depending on the system.
  - Note that Jacques event appear in the logs beginning with “JJJ SiteEvent event received” and consist of a name value pair.
  - For the hardware used for development purposes, the Startup Complete Site Event had a Name field of ‘startupcomplete’ and Value field of ‘1’.
- Put the name and value for the event into the server device’s Startup Complete Site Event Name and Value fields respectively
- Set the Defer Initialization Until Startup Complete Site Event Received property for the server device to True
- Re-enable the server device
- Devices should now populate automatically

### 13.4 Call Handler and Call Response Events

With the hardware used for development purposes, these events are never raised and instead information relating to the placement of calls are raised within the Call Notification events.

From the Jacques documentation it appears that the Call Handler and Call Response events may be tied to just one of the two API mechanisms provided for placing calls and that the mechanism they are tied to is different from the one used by the driver. If so then these events might never be raised within IPSC.

### 13.5 Operation Failed Event

This event is never raised by the driver as the driver does not implement any way of raising this event. This is a known issue.

### 13.6 Site State Change Event

DAD-1032 – This event is currently only being raised on the Intercom Server with the test hardware used for development purposes. This is a known issue.

### 13.7 Testing and issue resolution

The driver outputs information to a loupe log that can be captured and returned the CNL for analysis and issue resolution.

During normal operation the amount of information sent to this log is limited to warning and error information. If this level of information is insufficient for analysis the on site user may be asked to set the flag ‘Debug logging’ on the devices. This flag instructs the driver to output additional information to the log in the form of Information and debug entries that allow for more detailed analysis.

If this flag is enabled it must be remembered to disable it once suitable logs have been obtained.