

#### Reader Controller

IAX Series carries IAX-1502 as networked controller that controls up to two readers. IAX-1502 has a small dimension that can be easily installed.

Not only compact in size, IAX-1502 has high performance and able to store up to 1.000.000 credentials in stand-alone mode.

IAX-1502 also has high flexibility and support reader with RFID, magnetic stripe, biometric (finger print, face, and iris), QR Code technologies, and also Bluetooth and NFC technologies.

IAX-1502 controller is also equipped with IA-BUS interface to add input and output access if needed.

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# **Input Output Controller**

In this category, IAX series consists of three controllers that are IAX-1000, IAX-1208, and IAX-1308. IAX-1000 as master controller has network interface capability. These controllers are able to communicate through IA-BUS interface.

Offering flexibility and scalability, one master controller IAX-1000 supports up to eight IAX-1208 controllers to provide 64 inputs. Master controller IAX-1000 can also be attached to eight IAX-1308 controllers to provide 64 outputs. One IAX-1000 can be attached up to eight controllers of IAX-1208 and IAX-1308.













# **General Description**

IAX-1502 is a networked controller to support two readers. Small and compact size of IAX-1502 allows it to be easily installed. IAX-1502 is suitable to control two doors with single reader or to control one door with two readers.

IAX-1502 provides high flexibility and supports reader with RFID, magnetic stripe, biometric (finger print, face, iris), PIN code, QR code technologies, and also Bluetooth and NFC technologies.

IAX-1502 provides 16 GB storage capacity and 1.000.000 credential data in stand-alone mode. In stand-alone mode, controller handles decisions, on the contrary, controller follows decision from software.

One software controls unlimited number of IAX-1502. It makes IAX-1502 systems has scalability from small system consists of several door access up to large system consists of hundreds or thousands door access.

Communication between IAX-1502 and software is secured with AES encryption as standard security system in banking transaction.

IAX-1502 can be attached to eight IAX-1208 to add up to 64 inputs. IAX-1502 can be attached to eight IAX-1308 to add up to 64 outputs.

# **Technical Specification**

#### Input Voltage

12 VDC +/- 10% with 1A max

#### Interface

2 x Wiegand or encrypted series 1 x IA-BUS

#### Output

4 x Relay, Form-C with dry contacts (30 VDC/10A or 250 VAC/10A)

#### Input

7 x Inputs with dry contacts

#### Storage

Up to 1.000.000 credentials per controller Up to 16 GB  $\,$ 

#### Maximum controller

Unlimited

#### Network Interface

10/100 Mbps Ethernet

# **Operating Condition**

Temperature -40°C - 70°C Humidity 10-90% RHNC

#### Dimension

150mm (L) x 120mm (W) x 30mm (H)



# **General Description**

IAX-1000 as master controller has IA-BUS interface to control eight IAX-1208 controllers or eight IAX-1308 controllers.

There is no limitation of numbers IAX-1000 to be managed in one software. This allows IAX-1000 to be implemented in small system to control several inputs, up to large system to control thousands of inputs and outputs.

Communication between IAX-1500 and software is secured with AES encryption as standard security system in banking transaction.

# **Technical Specification**

#### Input Voltage

12 VDC +/- 10% with 1A max

#### Interface

1 x IA-BUS

#### Maximum controller

Unlimited

Attached up to eight IAX-1208 / IAX-1308

#### Network Interface

10/100 Mbps Ethernet

# Operating Condition

Temperature -40°C - 70°C Humidity 10-90% RHNC

#### Dimension

90mm (L) x 85mm (W) x 30mm (H)



# **General Description**

IAX-1208 is a controller with 8 inputs. Input is commonly used as output from sensor. For example a sensor to detect door status wen it is opened or closed.

This controller has a IA-BUS interface to be attached to IAX-1000 or IAX-1502. One IA-BUS interface supports up to 8 controllers.

# **Technical Specification**

#### Input Voltage

12 VDC +/- 10% with 1A max

#### Interface

1 x IA-BUS

#### Input

8 x Inputs with dry contacts

#### Maximum controller

8 controllers for 1 IAX-1000

#### Storage

Up to 1.000.000 credentials per controller Up to 16 GB  $\,$ 

#### Operating Condition

Temperature -40°C - 70°C Humidity 10-90% RHNC

#### Dimension

88mm (L) x 80mm (W) x 30mm (H)



# **Controller for Output**

# **General Description**

IAX-1308 is a controller with 8 outputs with dry contacts. Outputs is commonly used as switch to turn on/off electronic appliances by turning on or off electric circuit. Output with dry contact turns on electric circuit to lock or to unlock door using electric door lock.

This controller has an IA-BUS interface to be attached to master controller IAX-1000 or IAX-1502. One IA-BUS interface supports up to 8 controllers.

# **Technical Specification**

#### Input Voltage

12 VDC +/- 10% with 1A max

#### Interface

1 x IA-BUS

#### Output

8 x Relay, Form-C with dry contacts (30 VDC/10A or 250 VAC/10A)

#### Maximum controller

8 controllers for 1 IAX-1000

#### Network Interface

10/100 Mbps Ethernet

#### **Operating Condition**

Temperature -40°C - 70°C Humidity 10-90% RHNC

#### Dimension

132mm (L) x 99mm (W) x 30mm (H)





# **Networked Access Control Management System**

## **Manage and Control**

L-Intelligent Access is a software to manage and monitor access control system. This software is specifically designed with the latest high end technologies to meet software and access control challenges. L-Intelligent Access features a simple user interface yet versatile, providing complete protection, efficient and cost-effective access control system, and can be customized to meet the most difficult and challenging user needs.

## **Web Based Application**

Designed with the latest standard technology as web based application, L-Intelligence Access user interface only needs web browser to operate. L-Intelligence Access can be accessed from PC desktop, laptop, smart phone, and tablet from various operating system.

As a web based application on a server, maintenance and upgrading L-Intelligence Access can be done easily by upgrading the software on its server. By upgrading L-Intelligence Access on the server, all users will get the updated software automatically.

# Standardized, Sophisticated, and Cost Effective

Intelligent Access Software runs on Microsoft Windows Server (2003, 2008, 2012, 2016, 2019, and 2022) and Microsoft Windows (7, 8, 10, and 11). L-Intelligent Access supports 32-bit and 64-bit version.

Based on user preferences, L-Intelligent Access supports several database : Microsoft SQL Server and Express, Oracle, MySQL, and PostgreSQL.

L-Intelligent Access is also designed for virtualization. This software supports serveral main hypervisors such as VMWare, Microsoft Hyper-V, Oracle Virtualbox, Linux KVM and XEN.

#### **Reliable and Efficient Hardware**

L-Intelligent Access manages several type of access controllers such as:

• IAX Series (IAX-1502, IAX-1000, IAX-1208, IAX-1308 dan IAX-1901).

# **Unlimited Scalability**

L-Intelligent Access provides unlimited scalability, starting from single reader on one door up to thousands readers and door accesses on many branches on different cities or countries.

This software is designed without limitation on number of readers, controllers, users and credentials. L-Intelligent Access scalability is only limited by hardware, operating system, and database.

 Supporting hardware: IAX Series (IAX-1502, IAX-1000, IAX-1208, IAX-1308 and IAX-1901).









- Supporting database : Microsoft SQL Server & Express, Oracle Database, MySQL database and PostgreSQL Database.
- Supporting operating system Microsoft Windows Server (2003, 2008, 2012, 2016, 2019 and 2022), Microsoft Windows (7, 8, 10, and 11) on 32-bit and 64-bit version.
- Support virtualization on hypevisor : VMWare, Microsoft Hyper-V, Linux KVM & XEN.
- Support High Availability mode when runs on virtualization.
- Web based application with one interface using web browser. Compatible web browser: Internet Explorer, Firefox, Chrome, Opera, Safari, and Smart phone web browser: Safari mobile, Android, Chrome mobile, Opera mobile and Internet Explorer mobile.
- Basic access control feature: schedule & holiday, reader & reader group, access level management, credential user and group, credential (card & PIN). Biometric technologies using finger print and face recognition.
- Advance access control feature : area management, real &timed global anti-passback, multi person roles, elevator control, manage and control global I/O binding, live mustering
- Supports high level elevator (smart elevator) : KONE DCS< Schindler PORT, Otis COMPASS, Mitsubishi DOAS, Fujitech DFGS, and ThyssennKrupp DCS.
- Supports HID Mobile ID, stand alone platform, smart dropbox & custom LCD view
- Customized report, filter, and export : Event log, Audit Log and Attendance.



# **Networked Access Control Management Software**

#### **Access Control Advanced Features**

L-Intelligent Access provides tons of advance features :

# Area Management

Allows administrators to configure entrance and exit area for each credential reader in system. With the right area configuration, L-Intelligent Access supports advanced area definition required features such as: anti-passback, multi person roles and mustering view.

#### • Real and Timed Global Anti-Passback

Real Anti-Passback is security mechanism to avoid a single credential entering the same area more than one time without exiting. Timed Anti-passback is a security mechanism to avoid a credential entering the same area more than one time in a certain time interval. Global means the anti-passback mechanism works in several credential readers in the system.

#### Multi Person Roles

Allows administrator to configure area with high level security access that needs two to eight different credential owners to enter the area.

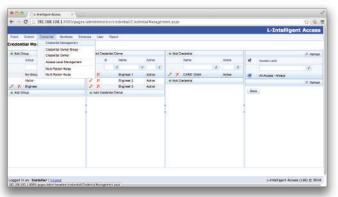
#### • Elevator Control

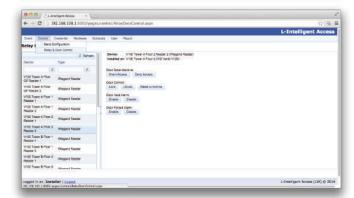
Elevator control is commonly implemented in high rise building such as condominium, apartment, office tower, and hotel. L-Intelligence Access allows administrator to limit accessible floors for elevator access.

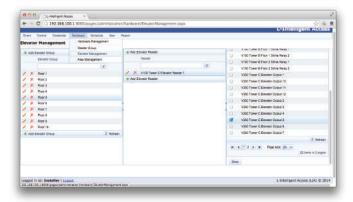
# Manage and Monitor I/O Global

Allows operator to monitor every enter and exit event from all controller in the system. This software allows administrator to configure binding rules from each input, output, event in system to act as configured scenario.











**Networked Access Control Management Software** 

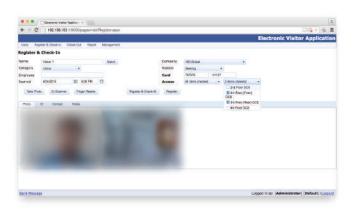
#### **Add-On Module**

L-Intelligence Access has add-on module integrating with visitor and monitoring system.

# • Electronic Visitor Application (EVA)

Electronic Visitor Application is a module of L-Intelligence Access designed with the latest high end technology to electronically register and manage visitor access to authorized area.

Electronic Visitor Application can also run as stand alone module apart from L-Intelligent Access resembling as visitor book in electronic form.





# • L-Visual Integration Platform (VIP)

L-Visual Integration Platform (VIP) is a module of L-Intelligent Access to integrate CCTV system, electronic access control, security alarm system, digital electronic I/O, and analog in one application.

The application can communicate real time with other electronic system in high level network layers using documented protocols, API Interface and software development kit (SDK).









# **Electronic Visitor Application**

**Visitor Management Software** 

## **Manage and Monitor**

In many buildings and properties, visitors still needs to register using hand-written guest book. This method is fast and easy to apply without much effort to educate both receptionist and visitor. However, this method does not offer security, hard to track, and no privacy as guest book can be viewed by anyone.

Electronic Visitor Application is a module of L-Intelligence Access designed with latest high end technology to electronically register and manage visitors access to authorized area.

Electronic Visitor Application can also run as stand alone module apart from L-Intelligent Access resembling as visitor book in electronic form. This software can also run as a module of L-Intelligent Access that allows visitor accessing authorized areas electronically.

# **Web Based Application**

Designed with latest standard web application, EVA user interface only needs a web browser to operate on. Electronic Visitor Application can be accessed from PC desktop, laptop, smart phone, and tablet from various operating system.

Advanced Electronic Visitor Application usage on workstation or Microsoft Windows laptop can be integrated with other devices such as webcam, passport scanner with Optical Character Recognition (OCR), finger print scanner, QR / barcode scanner, and ID printer.

#### Standardized, Sophisticated, and Cost Effective

Electronic Visitor Application runs on Microsoft Windows Server (2003, 2008, 2012, 2016, 2019, and 2022) and Microsoft Windows (7, 8, 10, and 11). L-Intelligent Access supports 32-bit and 64-bit version.

Based on user preferences, L-Intelligent Access supports several database : Microsoft SQL Server and Express, Oracle, MySQL, and PostgreSQL.

# Integration to L-Intelligent Access Control System

Electronic Visitor Application can runs as a module to L-Intelligent Access control system.

Registered visitor via Electronic Visitor Application will get access card and automatically granted access to an authorized area or several authorized areas managed by access control system.

Visitor is also granted access to one or several floors managed by elevator access control system of L-Intelligent Access.

- Web based application user interface with one web browser. Compatible web browser: Internet Explorer, Firefox, Chrome, Opera, Safari, and smart phone web browser: Safari mobile, Android, Chrome mobile, Opera mobile and Internet Exporer mobile.
- Supports operating system Microsoft Windows Server (2003, 2008, 2012, 2016, 2019, and 2022), Microsoft Windows (7,8,10, and 11) on 32-bit and 64-bit versions. Supports database server: Microsoft SQL Server & Express, Oracle Database, MySQL database, and PostgreSQL Database.
- Runs as module to L-Intelligent Access system providing visitor access card. Visitor access card is granted access to one or several areas and floors of elevators automatically.
- Supports passport scanner compatible with TWAIN Optical Character Recognition (OCR) to automatically collect visitor information from identified ID document. List of supported ID document type can be seen on the end of this document.
- Supports standard webcam to take visitor photos in real time. Supports face recognition.
- Allows finger print scanner to collect visitor finger print.
  Supports stand alone platform, QR Code and printer.
- Support USB card reader to read CSN access card (HID Proximity, HID iCLASS, MiFare, and EM). Card Reader is used to accelerate check-in and check-out process.
- Support e-kiosk for visitor's self service to exchange intivation QR code to RFID visitor card.
- One Electronic Visitor Application server and database can supports several PC workstation operated by several receptionists and operators.
- Provides repeating visitor notification for receptionist while registering visitor
- Automatically check out while visiting hour ends. Visiting hour can be managed up to hour and minutes on the same day.
- Provides visitor log and report. Report can be stored as PDF, XLS, and CSV files. Custom reports can be provided if needed.
- Provides scheduler to send several reports through email to serveral emails on daily, weekly, or monthlhy basis.



# **L-Visual Integration Platform**

# **High Level Visual Integration System Software**

## **High Level Integration**

L-Visual Integration Platform (VIP) is a high level software integrating CCTV system, electronic access control, alarm security system, digital and analog electronic I/O in a single application.

This application can communicate real time with other electronic system in high level layer network using documented protocols, API interface, and Software Development Kit (SDK).

# Modular, Standardized, and Cost Effective

VIP is modularly designed to provide third party electronic appliances in the future. The software is built using the latest technology to allow unlimited scalability and meet user complex challenges.

VIP is designed to run on Microsoft Windows in 32-bit and 64-bit version. The software also supports several database servers: Microsoft SQL Server and Express, Oracle database, MySQL database and PostgreSQL database.

This application is designed for virtualization supporting cost effective and support main hypervisor such as VMWare, Microsoft Hyper-V, Oracle Virtualbox, Linux KVM and XEN.

## **Scalability**

VIP can run in stand alone mode. This application can also run on the client server for unlimited scalability.

This application is designed without limitation, VIP supports unlimited number of hardware. VIP is only limited to server, operating system, and database limitation.

#### **Features**

- Map function : Interactive map to provide overview and direct control to all connected electronic devices
- Number of monitor : support many monitors to actively monitor.
- CCTV user interface: integrated interface that allows to view video from several third party CCTV systems: recorder and IP camera.
- Access control user interface : effective user interface to view event produced by access control system and to send commands to access controller.
- Alarm security interface: high end interface to view security alarm system log.
- I/O electronic interface : user friendly interface to manage several inputs from digital and analog electronic system, to send command to several digital outputs.
- Event binding, trigger, and action: Operators are allowed to create scenario based on event connectivity from one system to act on other system.

## **Existing and Supported Third Party System**

#### Supported CCTV system

- Milestone Video Management System
- Pelco Digital Sentry, Endura & VideoXpert
- ONVIF IP Camera is supported directly or via VMS/NVR: ACTi, Aercont Vision, AXIS, Bosch, Dahua, Hikvision, Honeywell, LVision, Panasonic, Samsung, Sony, Vivotech

# **Supported Access Control System**

L-Intelligent Access

# Supported Alarm Security System

- Paradox
- Siemens SPC
- All alarm security panel that supports DTMF ContactID through Universal IP module protocol translator

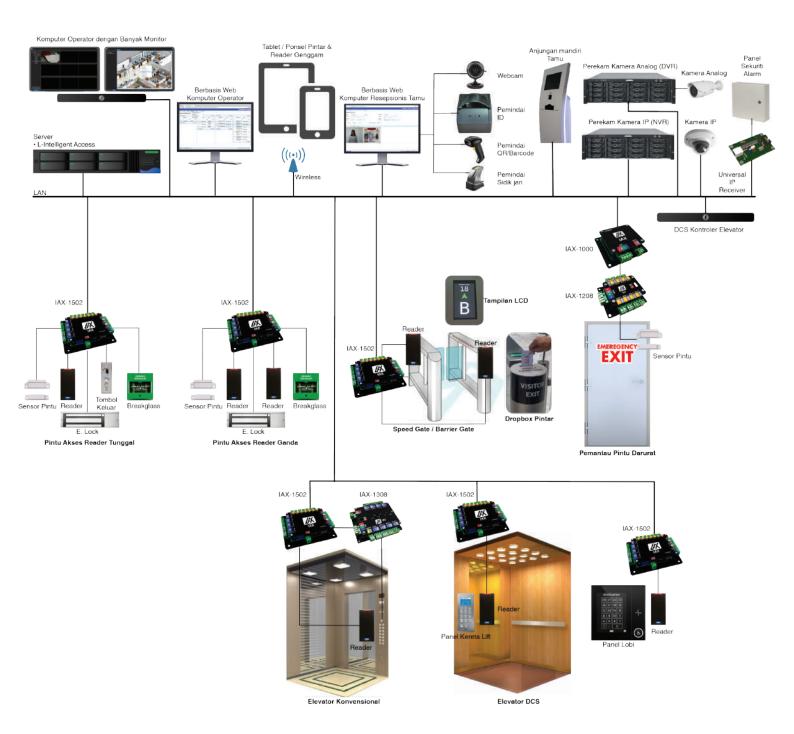
#### Supported I/O Electronic

IAX-1502, IAX-1000, IAX-1208, IAX-1308



# **Connectivity Diagram**

This Connectivity Diagram represents the various common access control configurations, that are currently supported by L-Intelligence Access, including integration with other Electronic Security System equipment such as CCTV systems via L-Visual Integration Platform software (VIP) and also integration with visitor management support system equipment such as webcam, passport scanner, fingerprint, QR via Electronic Visitor Application (EVA) software.





## **Hardware Specification Recommendation**

#### **Small**

Processor: Intel<sup>®</sup> Core<sup>™</sup> i3 2.00 GHz or higher

• Memory (RAM): 4GB or higher

• Operating System: minimum Windows 10 64-bit

• Storage: 500GB or higher

#### Medium

Processor: Intel<sup>®</sup> Core<sup>™</sup> i5 2.00 GHz or higher

• Memory (RAM): 8GB or higher

• Operating System: minimum Windows 10 64-bit

• Storage: 1TB or higher

#### Large

Processor: Intel® Xeon® E5 atau E7 3.00 GHz or higher

· Memory (RAM): 16GB or higher

• Operating System: Windows Server 64-bit

• Storage: 2TB or higher ((RAID array recommended for database)

· High Availability is recommended

#### **Support Hardware**



## **Electronic Visitor Application (EVA)**

# **Receptionist Computer Specification Recommendation**

Processor: Intel<sup>®</sup> Core<sup>™</sup> i3 2.00 GHz or higher

• Memory (RAM): 4GB or higher

• Operating System: minimum Windows 10 64-bit

Storage: 500GB or higher

## **Supported OCR Template**

Surat Ijin Mengemudi (SIM)

• Electronic Surat Ijin Mengemudi (E-SIM)

Kartu Tanda Penduduk (KTP)

• Electronic Kartu Tanda Penduduk (KTP-el)

Paspor

Visa

# L-Visual Integration Platform (VIP)

# **Client Computer Specification Recommendation**

#### Standard

Processor: Intel<sup>®</sup> Core<sup>™</sup> i3 2.00 GHz or higher

Memory (RAM): 4GB or higher

• Operating System: minimum Windows 10 64-bit

• Storage: 500GB or higher

 Graphic processor : DirectX 9 or OpenGL compatible, 256 MB per monitor

#### High

Processor: Intel<sup>®</sup> Core<sup>™</sup> i5 2.00 GHz or higher

• Memory (RAM): 8GB or higher

• Operating System: minimum Windows 10 64-bit

• Storage : 1TB or higher

Graphic processor : DirectX 9 or OpenGL compatible,
 256 MB per monitor