



# iSOLUS

## Integrated Security Management



### Overview

Security threat in sensitive work premises is largely connected with human entry in different profiles at the installation. Effective Security Management in a large enterprise with multiple locations is a challenging task and even more challenging where thousands of Employees receive several visitors including vendors, contractors and VIP customers at times. Security administrators need an efficient system such that first time system registering and repeat usage thereafter is quicker for valid people while unauthorised entry is reduced to null so that productivity is maximised without compromising on security.

iSOLUS an integrated security management platform which manages security effectively, and utilises web browser interface to enable convenience of use in a multi location environment. It generates intelligent and informed timely alerts for administrators not only within software but on mobile devices too like smart phones to enable quicker response in emergency situations. It makes life easier for administrators, more secure for employees, and more productive for the company.

System is capable of integrating with other sub-systems such as IP Surveillance, Command Center, Elevator, HRMS, Payroll, so that vital alerts generated by system can be investigated and responded without any time loss.



### System Architecture

Designed for Mid to Large Enterprises, iSOLUS is architected on most advanced .NET platform with an Object Oriented approach enabling rapid deployment of desired business specific functions or features. While system treats each functional entity such as Control devices, Doors, Users, Location etc as an Object for an easy association or disassociation, this approach makes otherwise complex role assignment method quicker and easier. For example, a location head associated with location specific doors, employees and approval processes gets automatic dissociation and reassociation to other in case of locational transfer.

iSOLUS uses Industry standard IT components for deployment so that its easier to scale and maintain. iSOLUS is designed in a modular fashion along with a base module to manage connected devices like controllers and readers along with user management and then different application specific sub modules like Access Control, Time Attendance, Visitor Management, Contract workmen Management, Club or Locker management etc.



## Communicator

Communicator is a bridge between field devices and application database; this transmits data from software to field devices and vice versa. It manages and controls the controller's transactions with applications, while saving the transactions to database in real time. It also maintains real time connection status for devices and triggers alerts in the event of connection loss.

Use of Communicator allows the applications to interact with field devices and maintain real time connection; without allowing any failure, through use of Failover Mechanism as explained below.

## Push Mechanism

DAC series control panel works on Push Mechanism to push the data to communicator as soon as transactions are received. Controller initiates connection with communicator and pushes the collected field transactions, thus doing away polling delays.

With multiple field devices communicating with central system, the push mechanism ensures fast and stable transactions, unlike the pull mechanism where data transfer speed is a concern.

## Fail Over Mechanism

iSOLUS Server has built in Failover mechanism such that each controllers has capability to configure primary and secondary IPs and stream transactions to secondary IP in case of Primary IP connection fails.

iSOLUS supports Windows cluster environment along with SQL Replication for high availability and redundancy. Thus it maintains absolute control over possibility of failure at multiple levels.

## Third Party Integration

### CCTV

Integration of iSOLUS with CCTV allows you to monitor surveillance in the best possible manner. CCTV recording of every person who has accessed the door or has vandalized it is important, while a lot of other recording is only for records. Our system creates the perfect marriage between prevention and detection.

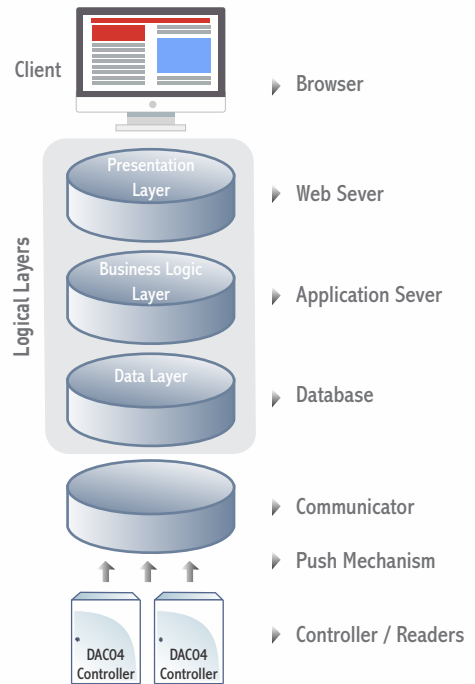
### Active Directory & Single Sign on

Single Sign on is used to ease the work of logging into multiple applications separately. A Single Sign-on will connect to various applications without re-authentication through the portal login credentials. Active Directory Integration allows the user to use the windows credentials to access iSOLUS

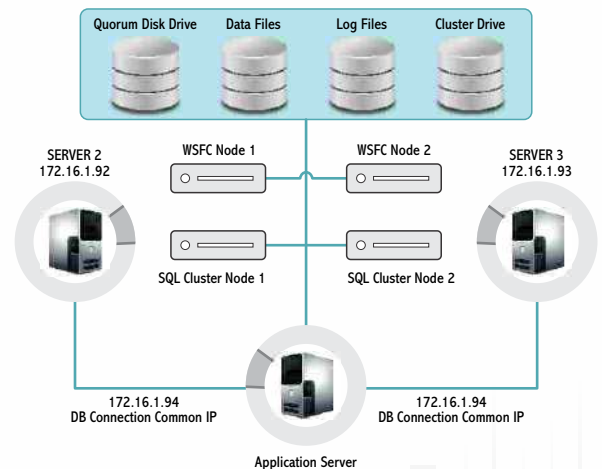
### HRMS & Payroll

HRMS integration helps automatic On-boarding & off-boarding in iSOLUS, also providing the attendance or other transaction to 3rd party applications

## Three Tier Architecture

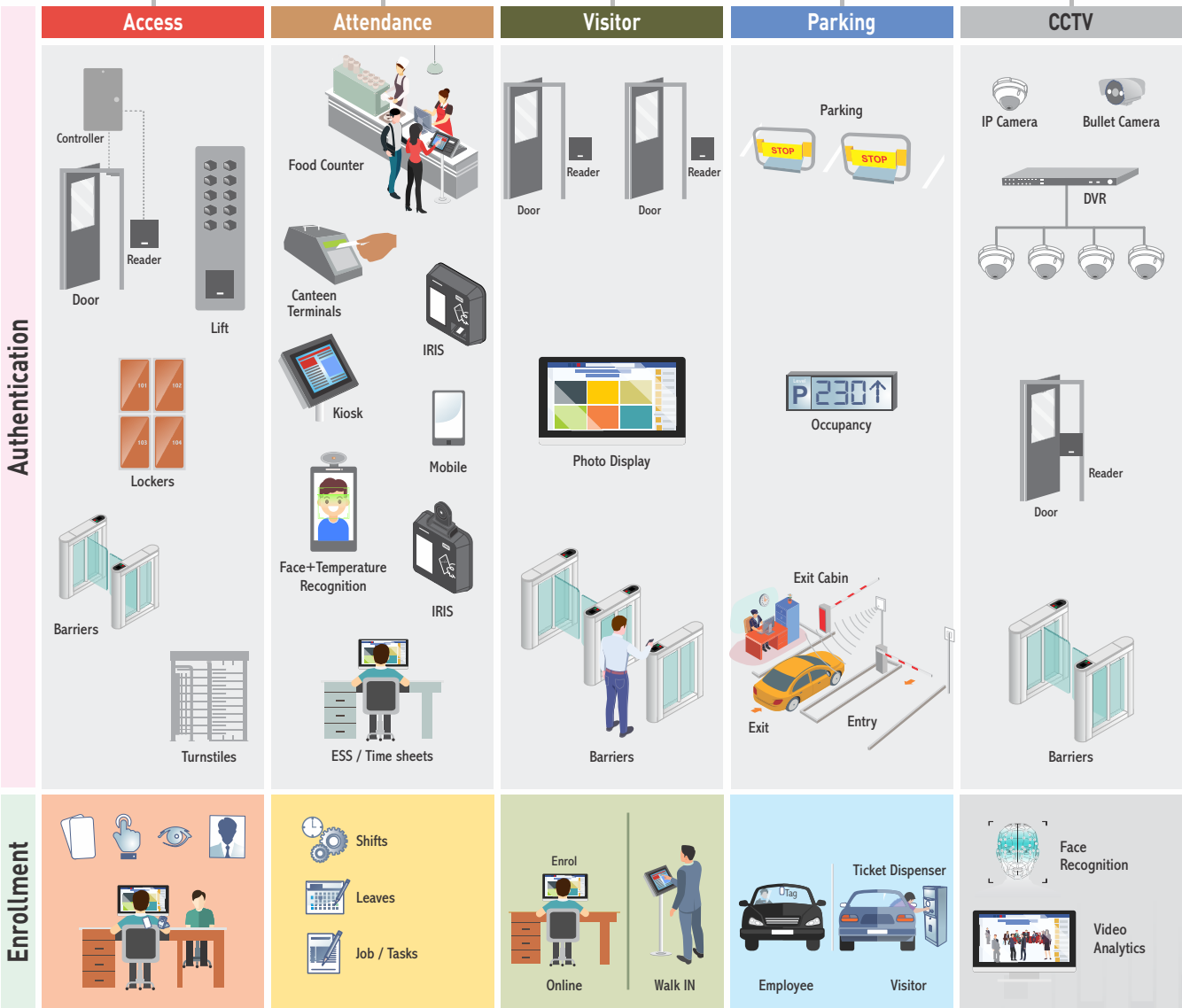
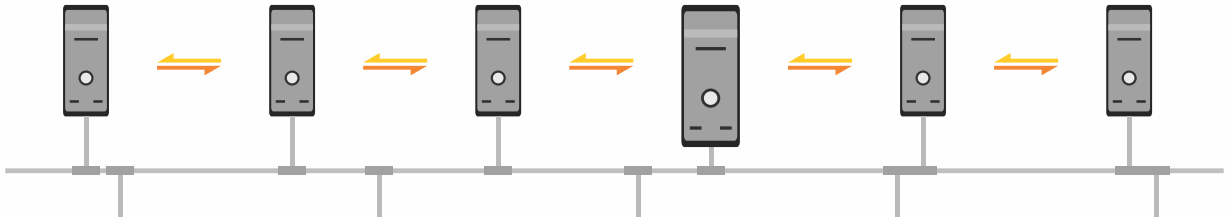


## Window Server 2016 Failover Cluster with SQL Server 2012 Failover Cluster



## System Architecture

Active Directory      HRMS / Payroll      Visitor Management      **iSOLUS**      Video Management      Command & Control



**iSOLUSACCESS**

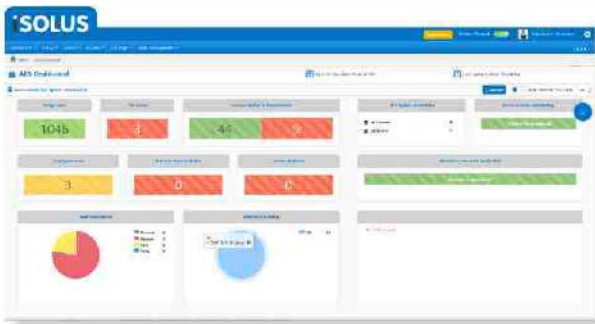
The system provides interactive user and device management, and integrates it with various modules for managing the performance of devices. Access Control Management is the module for designing and managing control over doors' access based on user privileges and company rules.



Our system makes the process easier for you. It fills in comprehensive set of features which can comply with every practical rule of employee/user management, while ensuring that the administrators find simplicity in the entire process.

**Some Special Benefits:**

- Dynamic Report Feature: Comprehensive Set of Reports which are Dynamic and easy to create/modify/customize as per requirement
- Additional Customized Reports: Access Control is linked to a number of facilities and interconnected report generation eases the workload of administrator
- Any combination of Door Locking mechanism available: Just think of a complex situation of how doors must be managed, and the solution will be there with this system



**iSOLUSALARM**

Graphical user Interface also commonly known as Map view helps responders to locate position of alert or incident on graphical format. Normally Several site specific Map templates are uploaded during implementation along with various system icons to represent different status of objects. DWG Floor plans can be uploaded & all security products like CCTV, Scanners, Entry barriers doors can be marked to view the alarms



**iSOLUSPHOTODISPLAY**

This mainly helps security guards deployed at access points to easy compare stored Photographs Vs Person accessing access. An LCD screen along with PDM installed is placed at convenient place close to access points like flap barrier lane or door access reader.



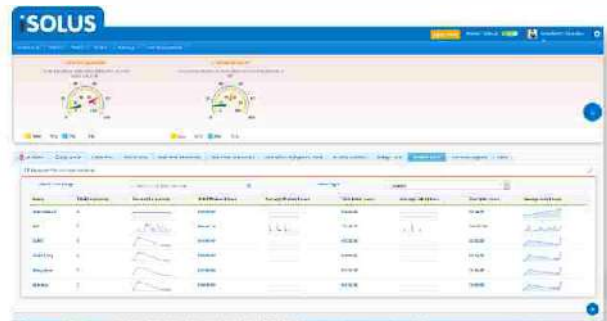
**iSOLUSATTENDANCE**

Management of Employees' Attendance with a combination of multiple shift, advance leave, and employee self service is possible through our innovative attendance module. Calculation of basic payroll with encashment of overtime or incentives can also be managed.



Special benefits include the flexible dynamism in report generation, with well managed features of multiple authorizations. A variety of supplementary reports are also available to suit every possible HR need.

**Attendance - Access Interlock** is unique offering from solus enforces employees to follow attendance punching prior to accessing any door physically, this ensures data correctness for attendance records as there is no room for employees "forgot to punch" excuse.



## iSOLUSVISITORS

Just consider a complex case: you sit in your Office A but want to authorize your visitor (vendor) to be able to visit Facility B without any hassles. But Facility B has got tough security procedures for entry. Solution is simple, use our Visitor Management module which can talk over the cloud to the system installed in Facility B and give Visitor authorization with all needed security checks.



With this visitor management system, one solves every modern need of automating visitor entries and authorization. Approvals of visit over software, Web application for visit permission, automated entries of visitors and related authorization; the process eases numerous workloads for the security staff and more importantly for every employee. Other features include Self Service Kiosks, Integration to Access Control, QR Code based Access



## iSOLUSBADGES

The system allows users to define multiple badge layouts and print badge information directly from the information from cardholders database. It captures the employee or Visitors photograph, pull employee data from employee master from the server, allows the user to design badge layout and assign the badge layouts against different type of users (vendor, contractor, visitor, employee, security guard etc). The application integrates with several Industry standard smart card printer and sends command for badge printing.

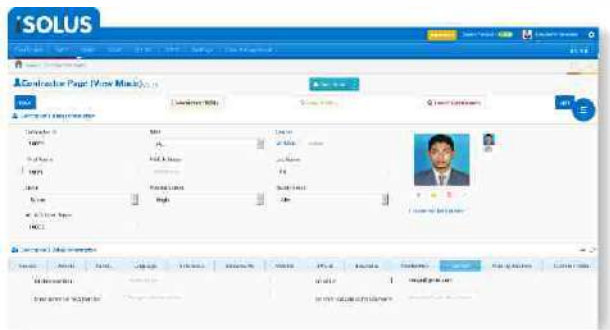


## iSOLUSCONTRACTORS

Temporary employees managed by contractors can be the biggest headache for any enterprise. But is the system is able to give you single click reports on the exact number of workers made available for exact amount of time, by a particular contractor, the worries are minimized.



All reports related to Contract workers and management of the contractors involved can be done through this module. The modules talks with the devices as explained in the technical functionality, and all reports can be gathered in real time.

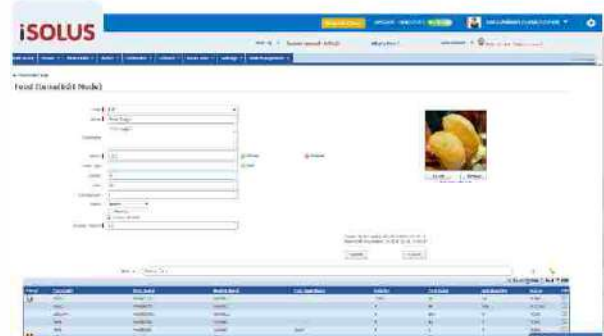


## iSOLUSCANTEEN

Management of Clubs and Canteens, in order to ensure optimized entry and usage of club/canteen facilities by members, is provided by this module. Canteens need to record the number of food plates and items taken by a particular member, and be able to generate the bills on single click, at the end of the required period.

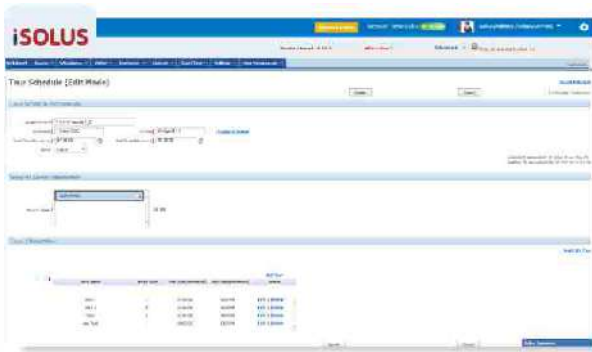


All reports related to such management can be provided by the software designed to integrate with related canteen based hardware. But our specialty is not just limited to automation of canteen/club billing, but also to control of food wastage. Total food wasted and utilized can be monitored using the features given in the module, thus easing the works for canteen managers.



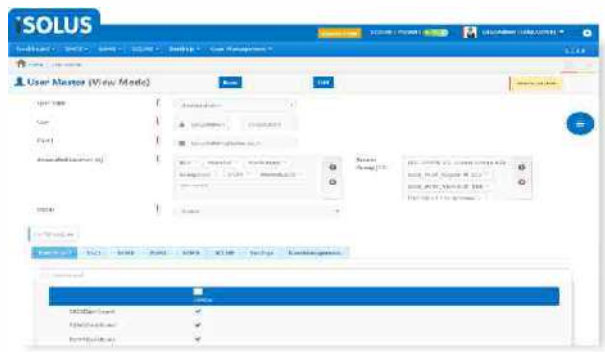
## iSOLUS GUARDTOUR

“Guards should be guarded first” is a well known saying- To have foolproof vigilance and reporting mechanism, iSOLUS allows to conveniently define Security Guard Tours using system configured readers, Guards need to just flash their issued ID cards or biometrics to confirm time bound patrolling. Deviations trigger alerts to supervisors / managers to act, sometime disciplined one need no further efforts to prove their hard work.



## User Management & Audit Log

iSOLUS offers comprehensive user management which allows administrators to create several sub users to do specific tasks without revealing undesired system information. User rights are restricted to add, delete, modify levels to different system fields to different user profiles. Systems also tracks changes occurred in user profiles along with changes done by different system users with date & time stamp on the system as audit log.



## iSOLUS HEADCOUNT

iSOLUS HEADCOUNT uses data visualization techniques to view both real-time and historical trends of employee / visitor traffic to internal sections of establishments. The printable reports are easily accessed and generated with just a few clicks. Various types of charts are available to suit the different users' needs, including line charts, bar charts, pie charts etc. Users can select a range of dates to analyze and compare between different sections.



## Dashboard 2.0

The dashboard of the system talks with you. It interacts and allows you to change how it looks depending on what you want to see. It is quintessentially '2.0'. Images, Graphs, and Charts have been designed to feed information to your mind in the easiest and quickest possible manner. One look at the dashboard; and a general understanding of what's going on with various modules is known.



## Email Alerts and Notifications

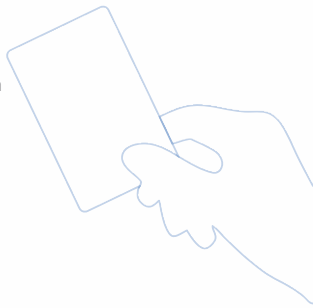
There are various conditions which require notifications to be sent to managers, supervisors, and administrators. Such situations have been studied by us and designed in iSOLUS to allow automated email trigger and notifications. SMS triggers can also be activated.



### FEATURE LIST

#### Access Control

- Multiple Card assignment
- Finger Enrollment & Distribution
- Access Group, Time zones
- Occupancy Control
- Fire alarm Integration
- Alarm Management
- GUI / Map Module
- Photo Display Module
- ID Badge Printing
- Anti Passback (Local & Global)
- User Management
- Audit Trail
- Dynamic Reports
- Report Scheduler
- Audit trail



#### Time Attendance

- Employee Self Service
- Leave Management
- Shift Planning
- Extensive Reporting



#### Visitor Management

- Instant Photo pass
- Mobile verification
- Remote Authorisation / Approval
- Area specific Access authorisation
- Integrated with Access Control
- Visitors Biometric records

#### Canteen Management

- Count of meals
- Extra meal consumption computation
- Automated Report output

#### Contract Workmen

- Listing of individual workmen
- Contractor details
- Claimed Vs Actual Report
- Skill and Experience Tracking



#### Guard Tour

- Multiple Check in Points and tours
- Configurable Time delays
- Automated Report output

**Capture of Transaction :** Field Devices are installed at locations from where data is to be captured. These devices use their inbuilt controllers to capture transactions, and then push those to communicator. The data transfer takes place in real time, individually as well as in bulk, depending on the speed of transactions received.

**Transfer of Transaction to Database :** Communicator transfers the transaction to the central database, which is designed to overcome failures. There is a primary as well as secondary database, where transaction gets stored.

Every transaction is not just saved in the primary database, but is also linked to a secondary database, and the entire process is monitored by the Witness Server. The witness server links the two and connection is not lost even if primary database is unable to connect.

**High Availability or Windows Clustering :** In order to counter failures in one database at a particular location, there is another standby server at another location which mirrors the entire set of transaction in the primary server.

**Communication with Software Application :** The database then communicates with the software application, so that the software is able to generate real time reports of various formats and fulfilling varying requirements. The range of the software application; and its dynamic ability to use the database is explained below.

**Use of State-of-Art Data Encryption Technology :** iSOLUS uses the latest industry standard recommended by AES - 128 Bit encryption on the data flow between the applications and the hardware. This ensures virtually 100% security of all data within the system.



## Integrations



Genetec



icomply

Panasonic

Cognify

FLIR

VIDEONETICS

Infinova

SAP

ORACLE

adrenalin

ramco

HID

KERISYSTEMS  
INCORPORATED

AXIS  
COMMUNICATIONS

KONE

OTIS

## System Specifications

No of Controllers Support	4,096
No of Readers Support	16,384
No of Locks Support	16,384
Card Technology Support	EM , Prox - 125 KHz, 13.56 Mhz, DESFire, Legic
Biometric Technology Support	Finger, Finger Vein, Face, Retina, Iris, Palm, Palm Vein & Handwave
Database Support	MS SQL
Development Platform	.NET, 64 bit Windows Server

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