



## **CORPORATE PROFILE**

### **IOTA AUTOMATION**

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## Overview

Iota Automation provides a comprehensive range of Building Management System. With a well defined Objective and a distinct methodology for implementing the same, we have set our focus in select areas. Our strengths in the core areas which we have identified for establishment are detailed hereunder:

We specialize in video surveillance, Intruder Alarm, Fire, smoke, gas detection system, Access Control system and perimeter security.

In a relatively shorter span, we have already made our presence felt in the Industry by bringing some truly big names like Rane group of companies, Chennai.

## Why Iota?

We strongly believe that every business has a unique mission & objectives and unique set of problems. Rather than implementing a solution just because it works well with other companies, we design solution that are appropriate for the (end) client. Adequate care would be taken to ensure that the solutions developed shall work for years to come. Continued adherence to latest advancements in technology and Implementation methodologies allow us to design the solution from scratch and yet be very cost and time effective.

## Our Methodology

Our professional team works with clients, assessing their needs as well as budget and aesthetic considerations to determine which technologies will most effectively meet their unique requirements. We offer complete technical support for all of our products, including system design and site planning, project management, onsite installation, supervision and commissioning, training, documentation, maintenance and warranty and repair.

## Our Team

Our core team, consist of professionals with rich experience in the diversified areas of Buiding Automation Industry.

Our Human Resource Policy is to create a more flexible, effective organization structure that emphasizes open communication, collaboration and creativity that enables our employees to realize their potential and experience, a sense of pride and belonging. We consider our People as the core asset of our company, which will continue to make success possible for us.



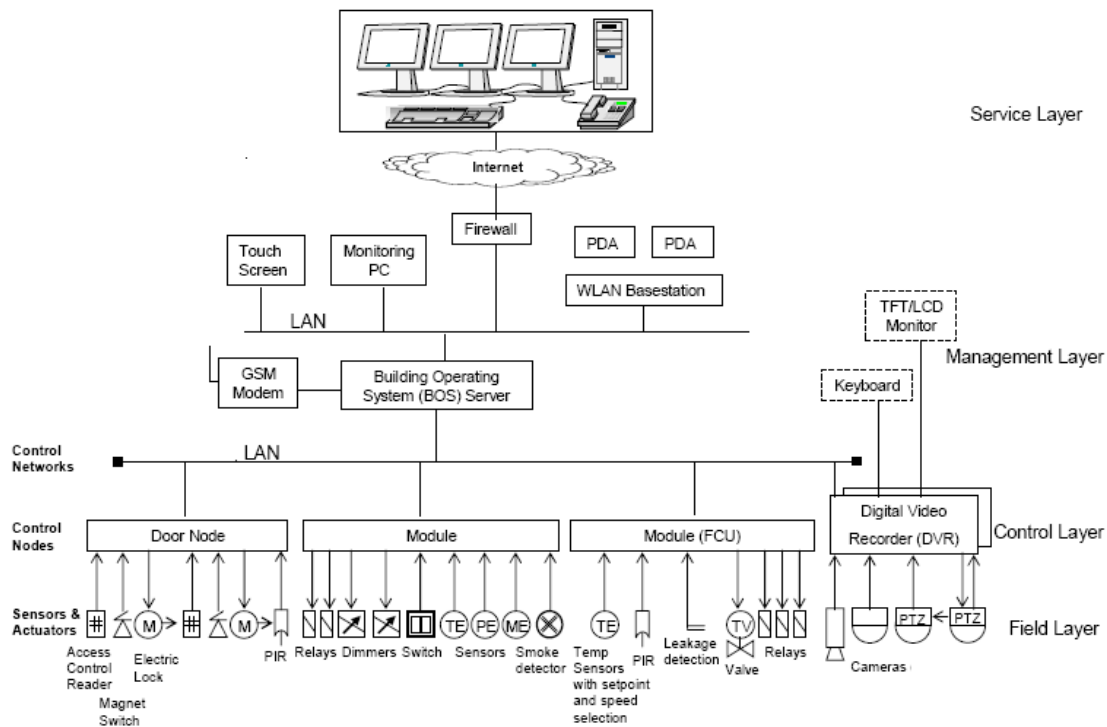
We firmly believe that to emerge and sustain as a market leader we should be a learning organization and we fervently trust training and orientation of personnel, a necessity. The orientation program helps our people, as a team, stay on the cutting edge.

## Our Expertise

### Intelligent Building Management System

#### System Architecture

Intelligent Integrated Building Management System must be implemented as an open and clearly layered solution as presented in the following figure.



Different functionalities (systems) are implemented using distributed control techniques and standard open communication networks.



Intelligent Building Management System (IBMS) is implemented as a fully integrated, open solution. All mechanical and electrical systems are monitored and controlled by smart control nodes.

All systems are functionally integrated. All systems can be connected to a Service Center, which uses remote access to the systems through a standard interface and provides maintenance and security services as specified later in this document.

## **Key Focus Areas**

### **HVAC and Environmental Control**

Cooling (heating) control system keeps the temperature at set point, taking into account the mode of the building (such as office/home/away/etc) and occupancy information, thus changing the set points accordingly.

Air handling control brings fresh air into residence when so needed, taking into account the mode of the building (such as home/away/etc) and prevailing conditions, such as CO2 level and occupancy.

### **Lighting Controls**

Lighting groups are on/off controlled and lights dimmed as follows:

- Using local push buttons (on/off, on/off/up/down, lighting scenes),
- On movement detection,
- Based on illumination level (dusk),
- Time schedules,
- In connection with situations/modes of the building.

### **Consumption Measurements**

Consumptions of water, electricity and cooling energy are measured per building, per area and per system. Meters are connected directly to control network or they can be equipped with pulse outputs which are connected to counter modules which are connected to control network. Consumptions are trended into BMS's database.

### **Access Control**

Access control is implemented with client's preferred readers, control nodes, electronic keys and electronic locks. Users can be classified so that they have access only to the spaces they are allowed to enter according to programmed time zones. The access control system is connected to BMS for full control and reporting, and integrated into GUI. As an option, access control can also have time & attendance and info applications.



## **Video Surveillance**

Camera surveillance is implemented with conventional digital and new IP-cameras. Camera surveillance can be equipped with Digital Video Recording (DVR) server. System shall be integrated to BMS server. Usage can happen both via DVR system's own User Interface Client and the integrated GUI. When equipped with DVR, the system shall record digital images of events caused by intruder alarm system, access control, CCTV or any other facility management system.

## **Fire Alarms**

Fire alarming system is implemented either as

- 1.) Separate system (towers, offices, etc.) in accordance with the civil defense requirements or as
- 2.) Integrated solution (villas) where detectors are connected directly to control nodes (in Control Layer). In both cases alarms are relayed to BMS and shown in the integrated graphical user interfaces. Ventilation is shutdown in the area concerned and its location is indicated.

## **Intruder Alarms**

Intruder alarms are an essential part of the intelligent integrated building management system. Intruder alarm is seamlessly integrated on software level to access control, CCTV/DVR, lighting control and building automation. Granted access disarms the alarm zones automatically. Arming the zones change automatically the mode of the building into away mode.

Intruder alarm system includes cover protection and indoor surveillance. Doors are monitored with magnetic contacts. Movement detection with presence indicators are used for indoor surveillance. In case of burglary the system gives an alarm, which is relayed through BMS to Service Center and to specified mobile phones.

## **Leakage Alarms**

In case of leakage or moisture the system gives an alarm, which is relayed through BMS to Service Center and to specified mobile phones. Service Center checks the alarm and forwards a request to Maintenance Company, if necessary.

## **Energy Savings**

The integrated solution optimizes energy consumption through the following features:

- Need based control of all systems (occupancy, CO2 level, humidity,...)
- Situation based control of all systems (Home/present, away, night,...)
- Schedule based control of all systems
- System / device monitoring, consumption measurement and trending
- Electricity consumptions per building / building part
- Water consumptions per building / building part
- Cooling (heating) energy consumptions per building / building part



## Clientele

- Pondicherry Legislative Assembly
- The Checkers, Chennai
- Taj Connemara, Chennai
- Unitech Associates Private Limited, Chennai
- Palepu Pharma Private Limited, Chennai
- G R Swarnamaligai, Chennai
- Chennai City Police
- Indian Oceanic Garnite Sands Pvt Ltd, Tuticorin
- Fritzmeier Motherson Cabin Engineering Limited, Kanchipuram
- GreanSignal Bio Pharma Pvt Ltd, Gummidipoondi
- TVSnet Technologies Pvt Ltd
- CMS Computers Ltd
- National Thermal Power Corporation

## Partners

- Honeywell – Security Solutions & Home Automation
- Regin, Sweden – Intelligent Building Management System
- Senstar Stellar, Canada – Perimeter Security