

Hearty Welcome

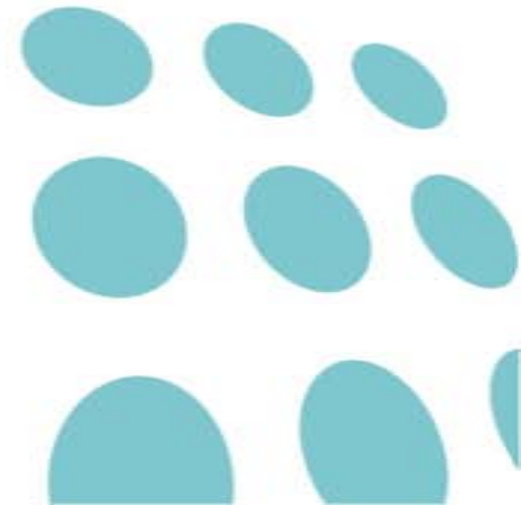


Presentation Agenda

- Time-Attendance and Access Control Introduction
- Matrix COSEC Introduction
- Matrix COSEC Solution Components Design
- Access Control Features
- Applications

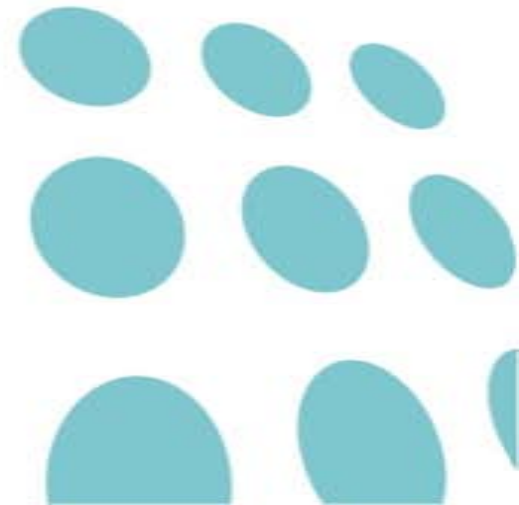


Time-Attendance and Access Control Introduction

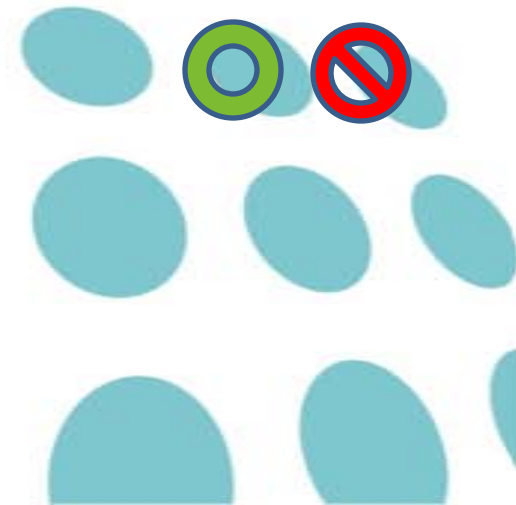
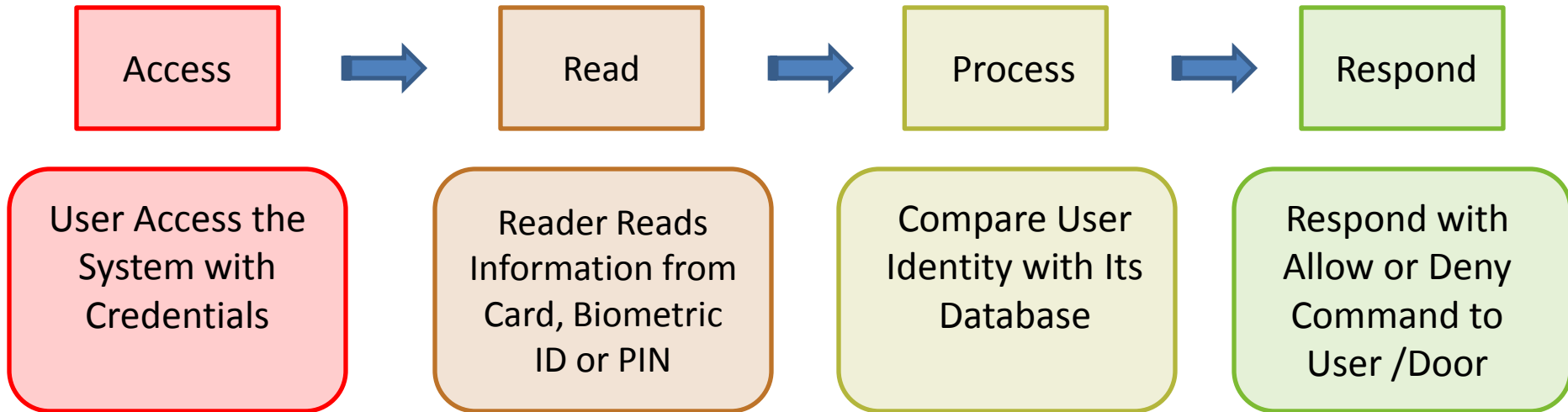


What is Time-Attendance and Access Control System?

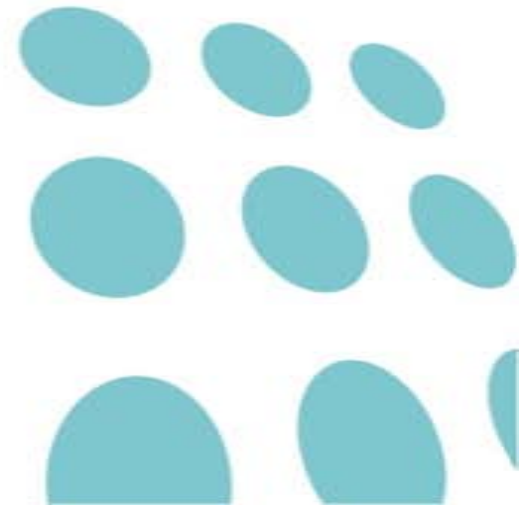
- Prevent Unauthorized Entry
- Round the Clock Security
- Maintain Precise Time and Attendance Record of all Employees
- Employee wise Access Rights
- Accurate and Well Organized Shift Management
- Higher Security in Sensitive Area
- Impressive Visitor Management



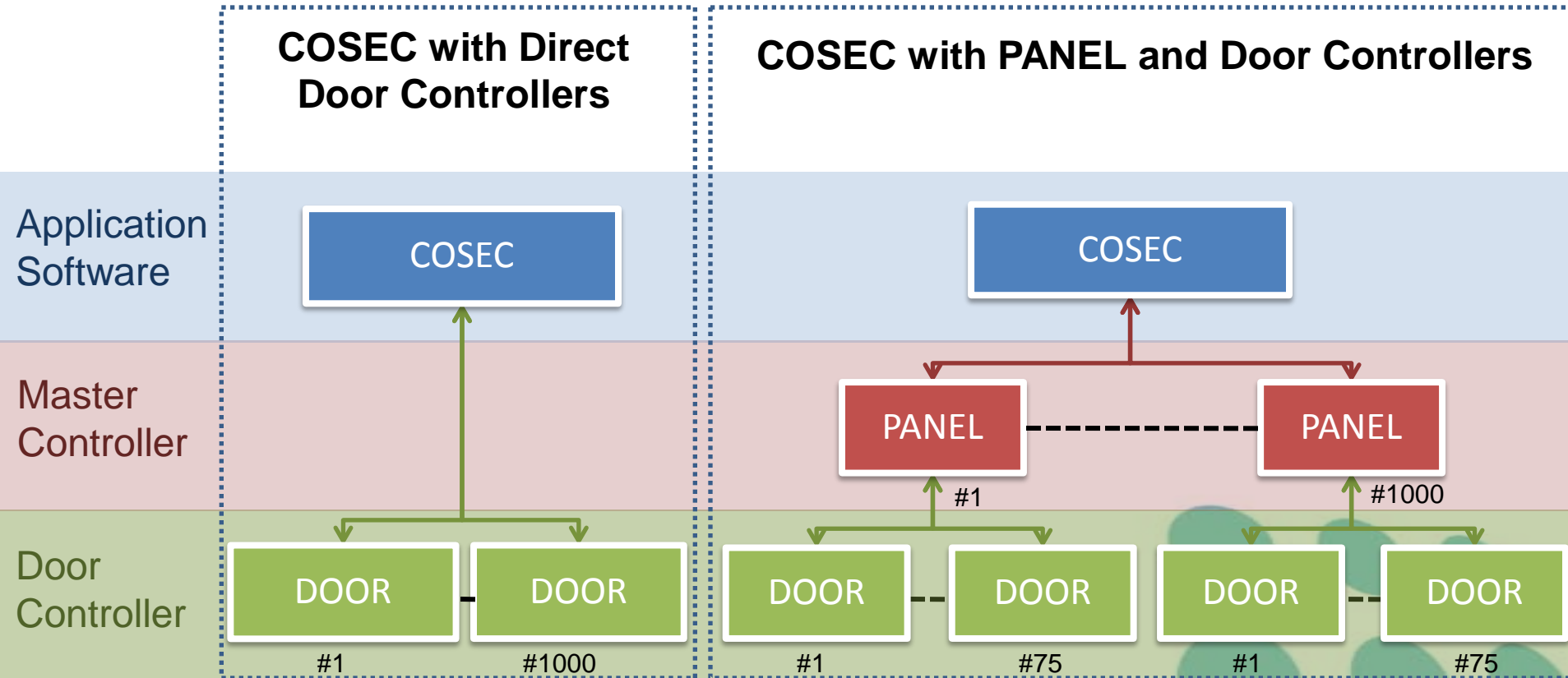
How Access Control System Works?



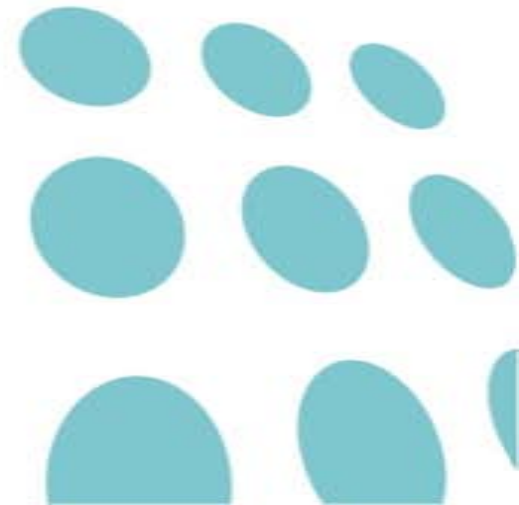
Matrix COSEC Introduction



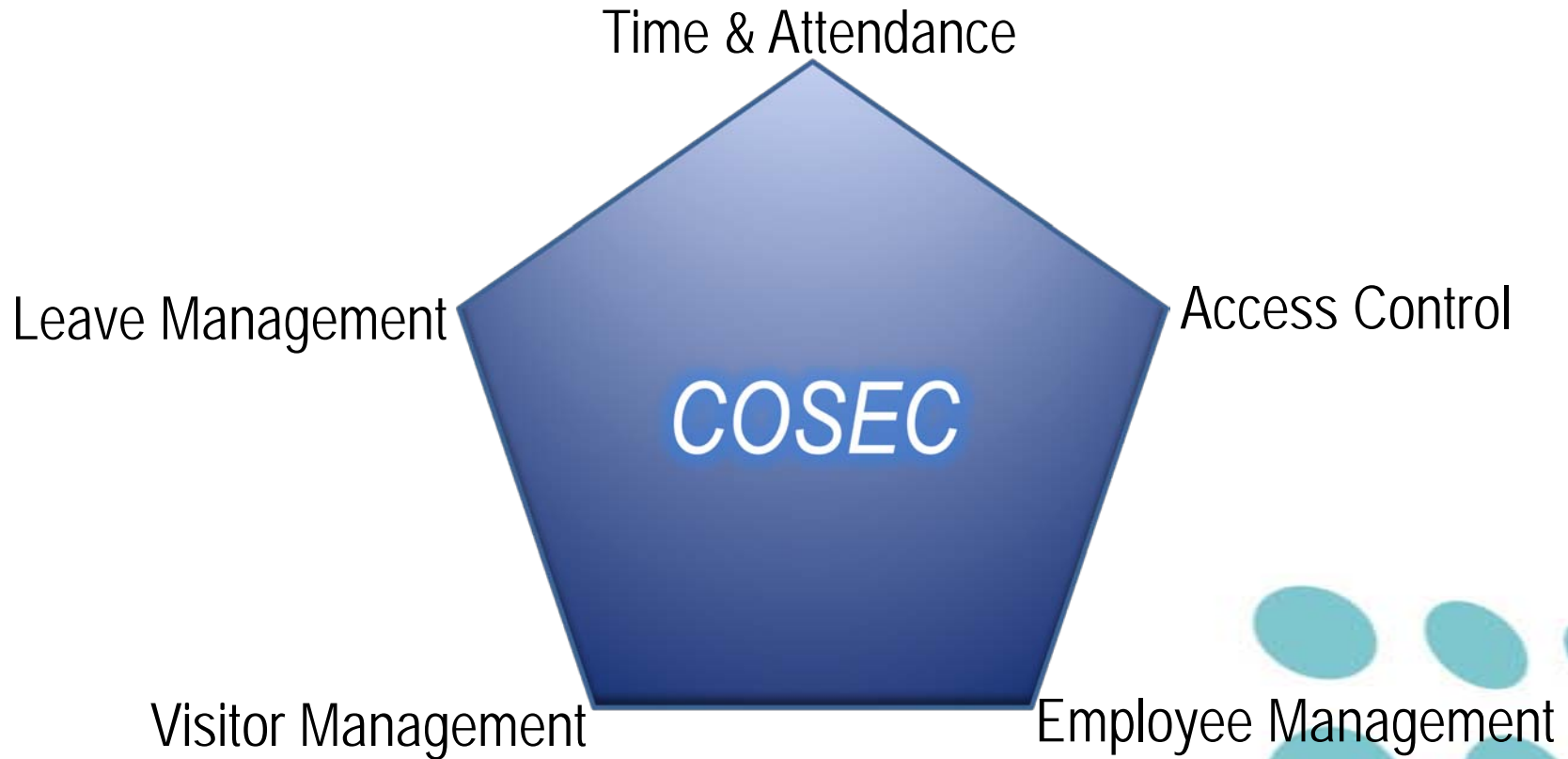
Matrix COSEC Solution



Presenting Matrix C🕒SEC
Right People In Right Place at Right Time



A Complete Solution for...




Why COSEC?

- Higher Security for Organization and Employees
- Adapts to Existing HR Policies
- Centralized Monitoring and Control
- Maintain Accurate Time-Attendance Record
- Deliver Next Generation Technology
- Higher Reliability
- Easy to Install, Program and Use
- Flexibility and Scalability
- Safe Investment for Future

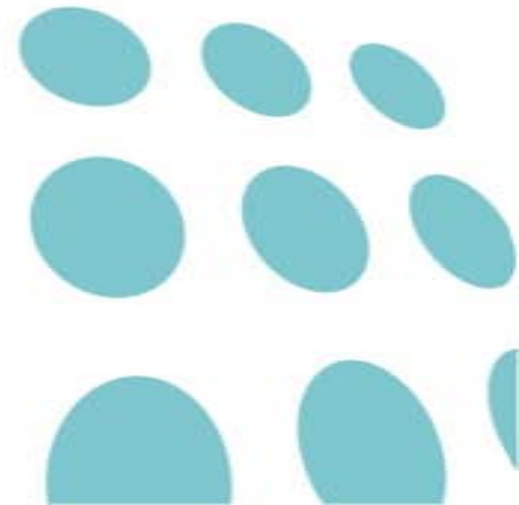


COSEC Benefits

- Optimization of Working Time
 - Minimum Support Required
 - Less Wiring Cost
 - Fast and Non-intrusive Check-in Process
 - Reduce Cost of Security Personal
 - Adapt to any Existing IT Infrastructure
 - Easily Scalable without Changing Present Infrastructure
 - Single Point Control and Monitoring hence Saving Time and Cost
 - Improve Productivity by Automating Tasks
 - Advanced Features and Functionality
- 
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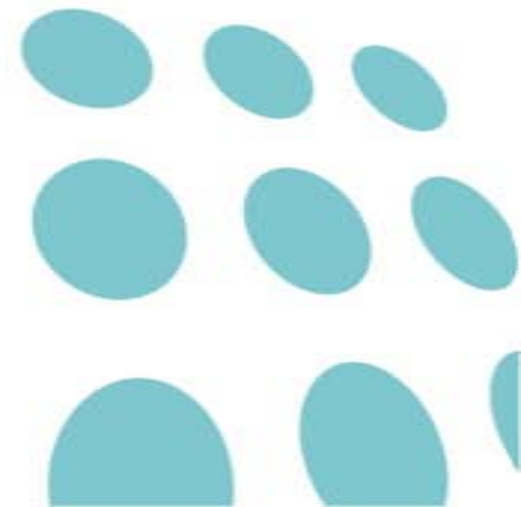
COSEC Functions

- Access Control
- Time-Attendance
- Leave Management
- Visitor Management
- Employee Self Service
- Centralize Controlling and Monitoring
- Built-in Alarm Detection and Management



COSEC USPs

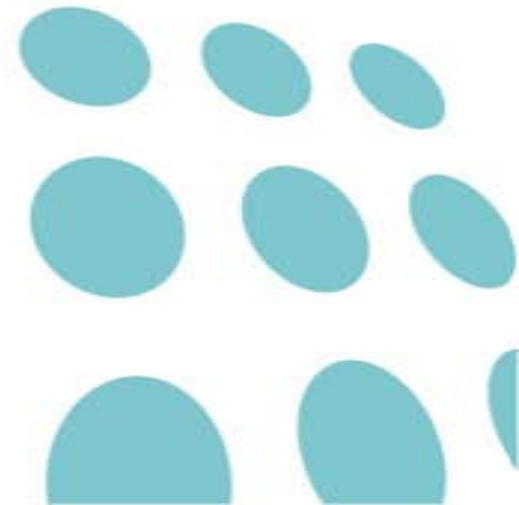
- Solution for Every Organization
 - ✓ Up to 10,000 Doors
 - ✓ Up to 1 Million Users
 - ✓ Easy Scalability without Complexity
- In-Skin Reader with Door Controller
 - ✓ Biometric Fingerprint and Contactless Card Reader
 - ✓ Eliminate Separate Reader Installation
 - ✓ Minimize Cost of Separate Installation
- Various Power Supply Options
 - ✓ PANEL can Supply Power up to 4 DOORs
 - ✓ Adapter based Power Supply for DOOR
 - ✓ Power Supply for Exit Reader, Door Lock from DOOR



COSEC USPs

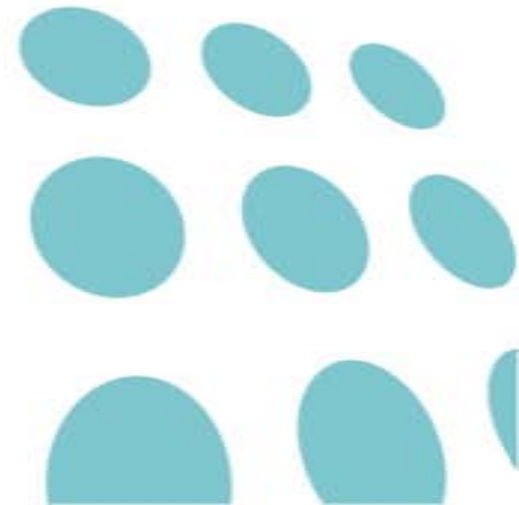
- Ethernet/RS485 based Architecture
 - ✓ Flexible, Scalable and Reliable
 - ✓ Easy to Use and Install
 - ✓ Less Wiring Cost
 - ✓ Minimum Support Required

- Advance Features and Functionalities
 - ✓ Intelligent Security and Time-Attendance Features
 - ✓ Centralized Fingerprint Distribution
 - ✓ Real Time Monitoring and Control
 - ✓ SMS and Email Notification



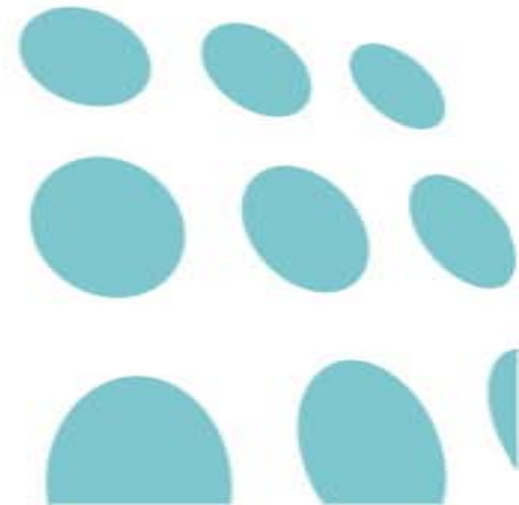
COSEC for Time-Attendance

- Reduce Lateness
- Increase Efficiency
- Reduce Cost of Paper
- Management of Breaks
- Manage Overtime
- Streamline Administration

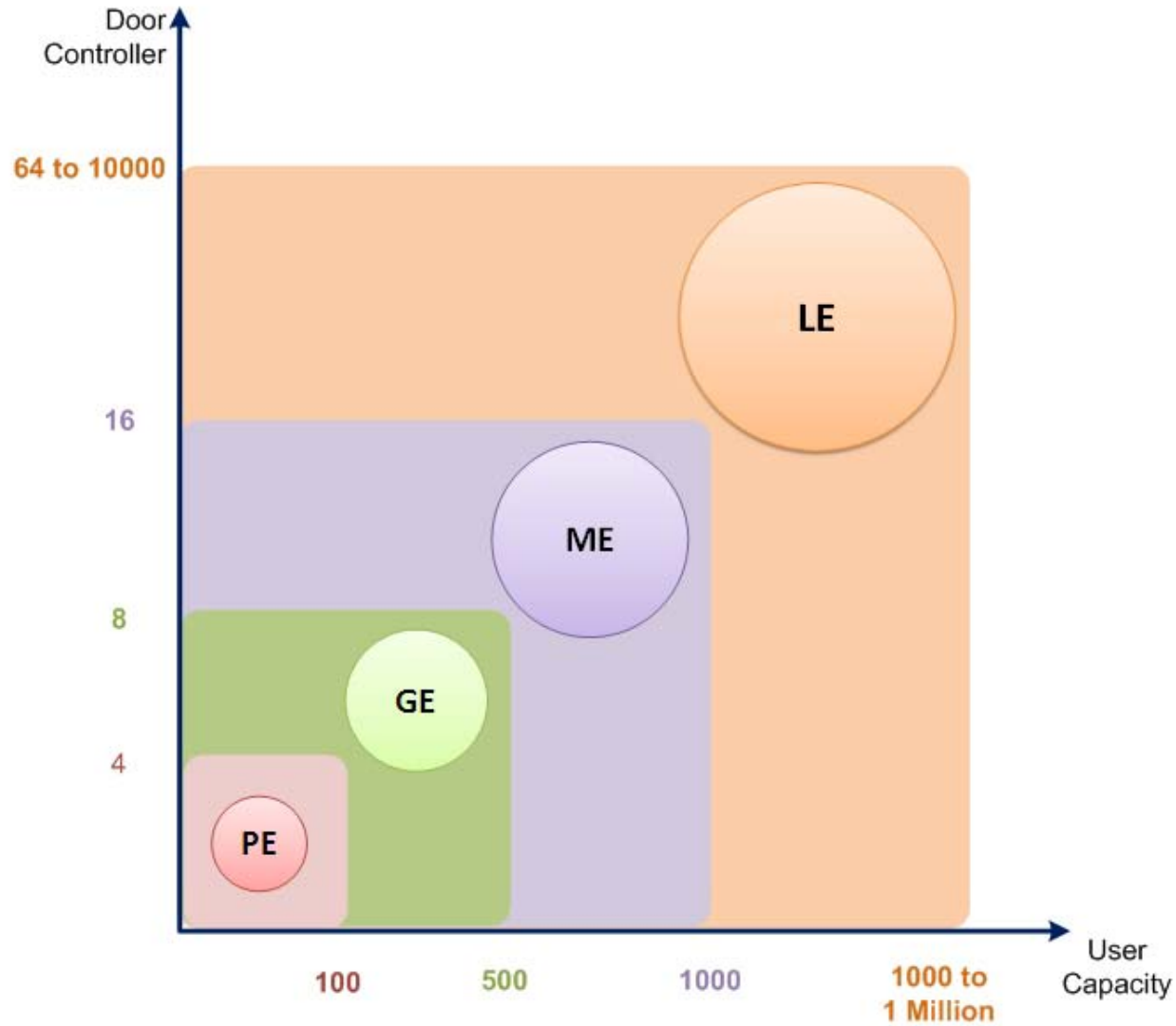


COSEC for Access Control

- Prevent Unauthorized Entry
- Step up Security of the Organisation
- User Wise Access Rights
- User, Zone and Time based Access Control
- Reduce Cost of Security Personal
- Impressive Visitor Management



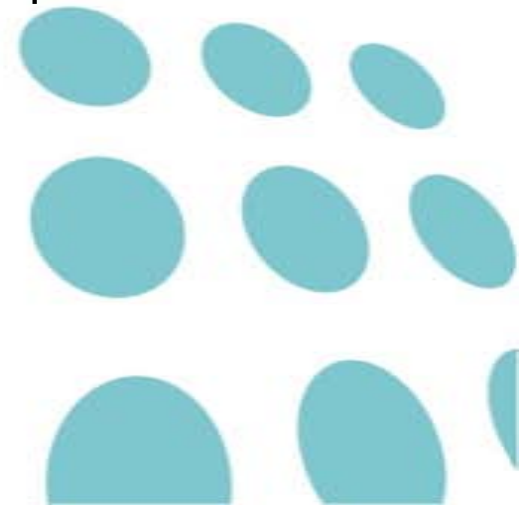
Matrix COSEC Product Family Positioning



Matrix COSEC Product Family Positioning

- COSEC PE-Time-Attendance and Access Control System for SOHO*
- COSEC GE-Time-Attendance and Access Control System for SMB#
- COSEC ME-Time-Attendance and Access Control System for SME^
- COSEC LE-Time-Attendance and Access Control System for Large Enterprises
- All COSEC Door Controllers and Readers are Compatible with above Systems

*SOHO- Small Offices and Home Offices
#SMB- Small and Medium Businesses
^SME- Small and Medium Enterprises



Target Audience.....



Home



Private Offices



Shopping Malls



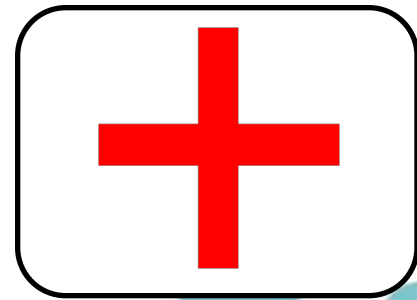
R & D Labs



Clubs



Retail Stores



Health Clinics



Target Audience.....



Corporate Offices



Government
Organisations



Financial Institutes



Large Enterprises

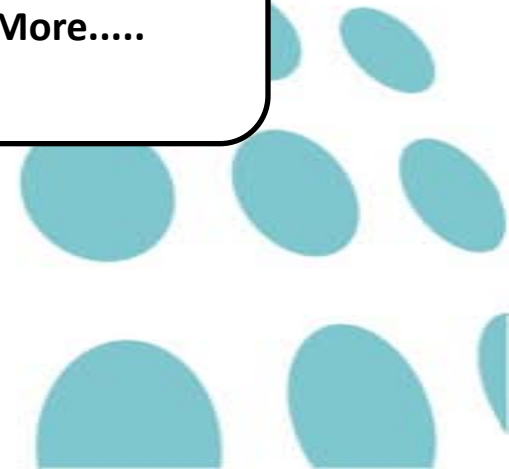


Educational Institutes

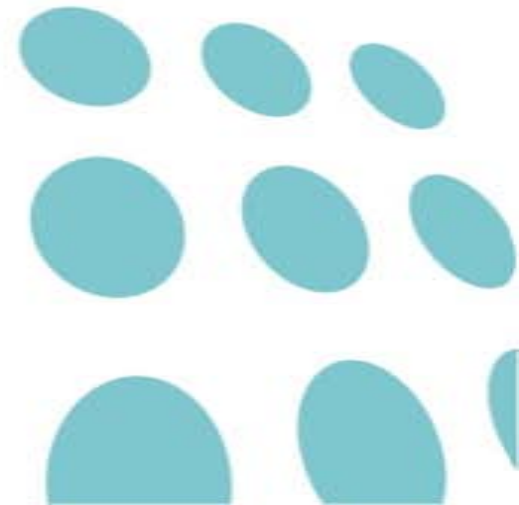


Hotels

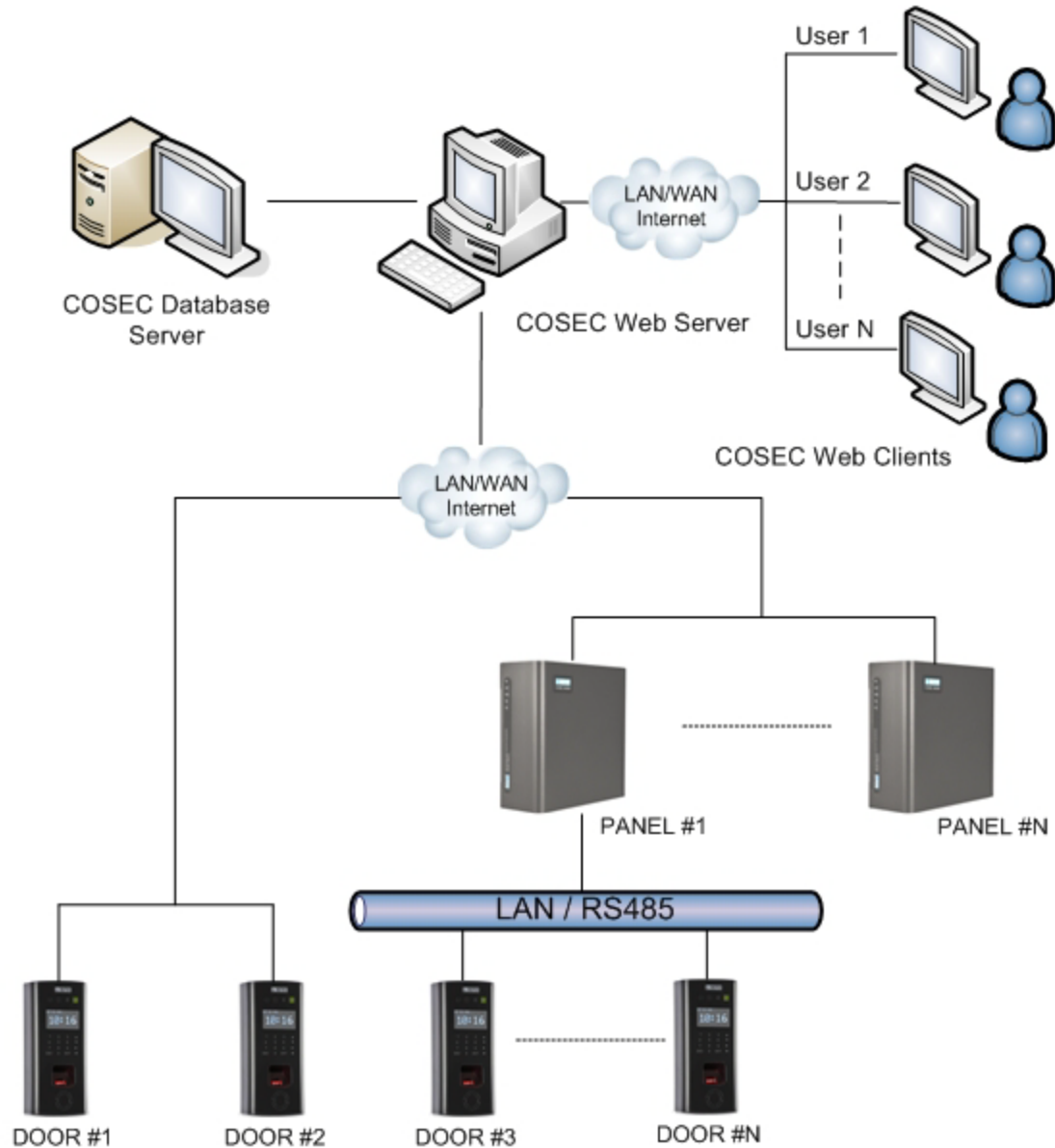
**And Many
More.....**



Matrix COSEC Architecture

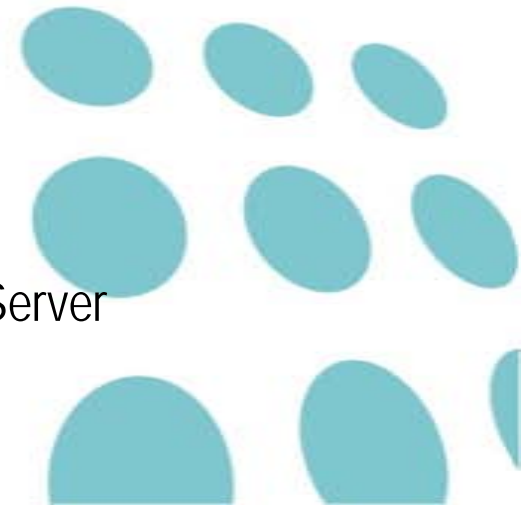


COSEC Layered Architecture

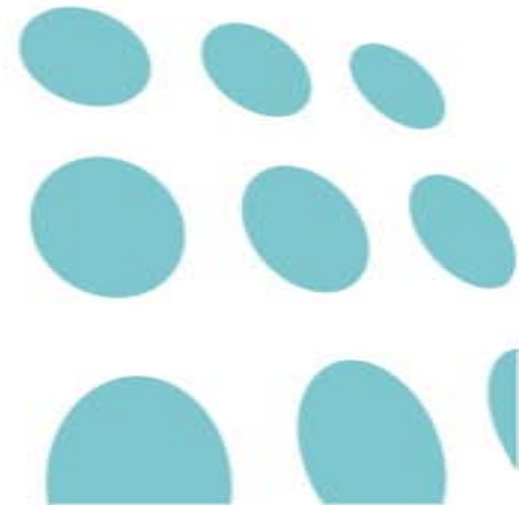


COSEC Network Architecture

- Master-Slave and Standalone Architecture
- COSEC for Master-Slave Architecture
 - ✓ PANEL acts as a Master Controller and Door Controllers Acts as a Slave
 - ✓ PANEL is Connected with COSEC Software
 - ✓ Ethernet and RS485 (Both Active)
 - ✓ Maximum 75 Door Controllers
 - ✓ All 75 Door Controllers on Ethernet
 - ✓ Maximum 32 Door Controllers on RS485
- COSEC for Standalone Architecture
 - ✓ Door Controllers are Directly Connected with COSEC Server



COSEC Solution





Matrix COSEC Solution Components

COSEC PLATFORM

- Time-Attendance, Leave Management and Access Control Application Server

Additional Software Modules

- Visitor Management, Employee Self Service and Enrollment Management Module

PANEL

- Manage Multiple Door Controllers
- 10000 User Capacity, 1,00,000 Events Storage and Advanced Access Control Features

Door Controllers

- 5000 Events Storage, Fingerprint and Card Reader
- Door Lock, Auxiliary Ports, Exit Reader and Exit Switch

Exit Readers

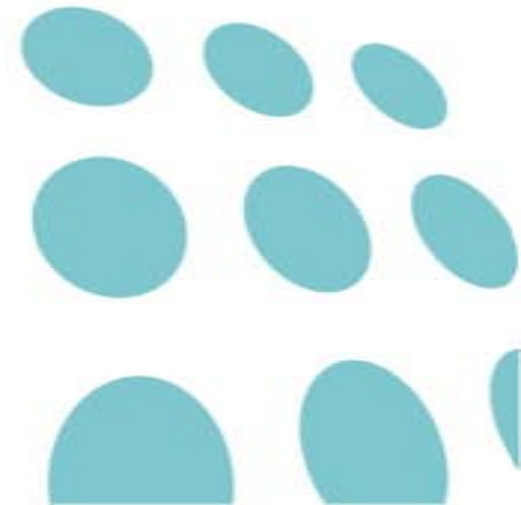
- Biometrics Fingerprint and Contactless Card Reader

Additional Hardware

- Card Personality Module, Power Supply with Battery Backup and Enrollment Station

COSEC Application Software

- Complete and Powerful Access Control Software Package
- Controls up to 1000 PANELS and 10,000 Door Controllers
- Manages up to 1 Million Users
- Real Time Monitoring and Control
- Comprehensive Reports Generation
- Export Reports in Different File Formats
- Integration with ERP, HRM and Payroll
- Modular Architecture



COSEC Software Modules

Administration

Leave Management

Access Control

Time-Attendance

Masters

Visitor Management

Enrollment Management

Employee Self Service

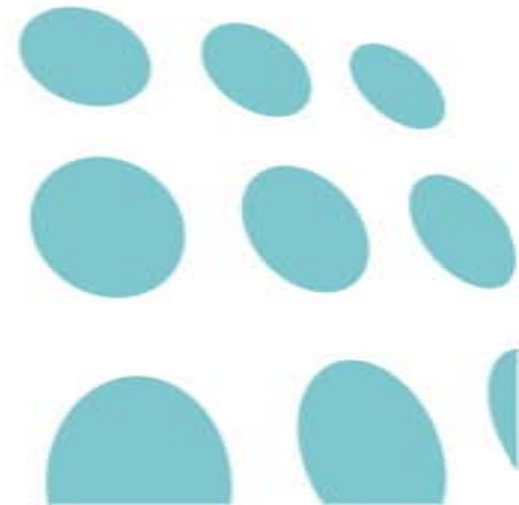
 Built-in

 Optional



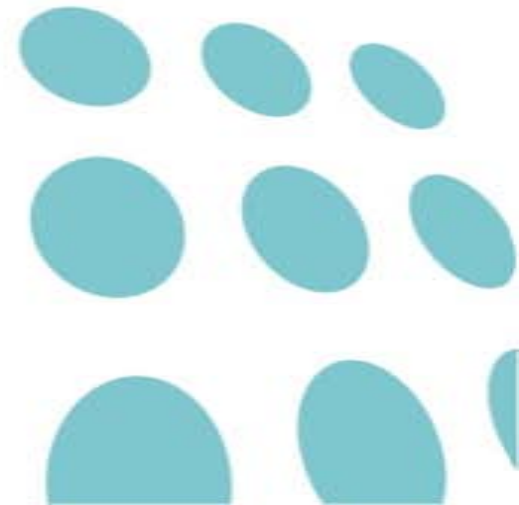
Administration Module

- Perform Administrative Functions
- Creating User Roles for the Organization
- Assigning Role based Access Rights to Users
- Define Various Parameters for all Users
- Export and Import Data
- Backup and Restore Database
- Maintain Software Licensing Information



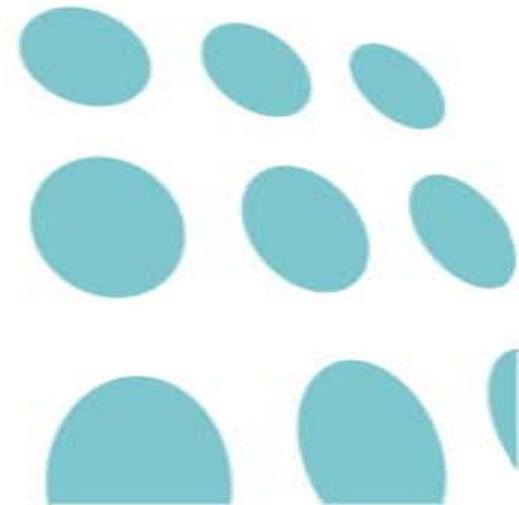
Master Module

- Perform Human Resource Function
- Create Full Fledge User Profile
- Maintain User Database
- Maintain Holiday Schedule
- Assign Attendance, Leave and Access Policies to a User
- Accurate Shift and Schedule Creation



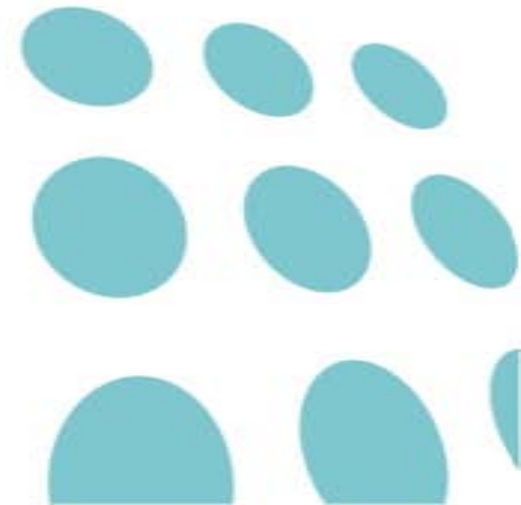
Access Module

- Define Various Access Policies
- Configure Door Controller Parameters
- Configure Network Parameters
- User Enrollment
- Bulk Card Enrollment
- Define Time Trigger Function
- Generate System Configuration Reports



Time-Attendance Module

- Maintain Employee Attendance Record Accurately
- Manage Employee Database
- Manual Entry of User Events
- Keep an Eye on Late Comers & Early Goers
- Automated Shift and Schedule Management
- Monitor Employee Leaves, Overtime, Overstay, Shift ,Schedule etc.
- Generate Time-attendance Reports



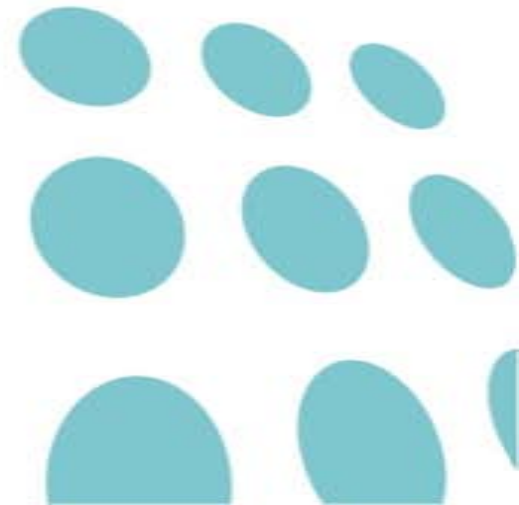
Benefits of Time-attendance Module

- Adjust to Existing HRM Policies
- Reduce Time Required for Shift and Schedule Management
- Do Away with Timecard Preparation, Collection, Filling and Storage
- Significantly Cut Down on Payroll Processing Time
- Identify and Eliminate Time Abuses (Break, Meal, Etc.)
- Productive, Efficient and Profitable Working Environment
- Restrict Unnecessary Overtime and other Exceptions



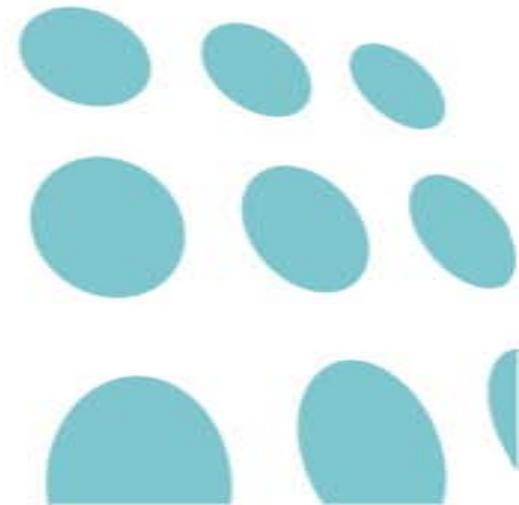
Leave Management Module

- New Leave Creation
- Accurate Leave Balance Management
- Leave Carry Forward and Encash
- Leave Request and Approval
- Automatic Leave Report Generation



Visitor Management Module

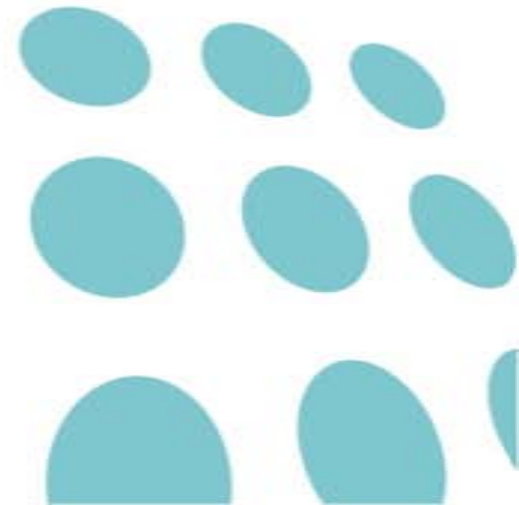
- Visitor Pre-Registration
- Visitor Access Rights
- Block Unwanted Visitors
- Maintain Visitor Database
- Impressive Visitor Management
- Visitor Photograph and Document Scanning
- Visitor Reports





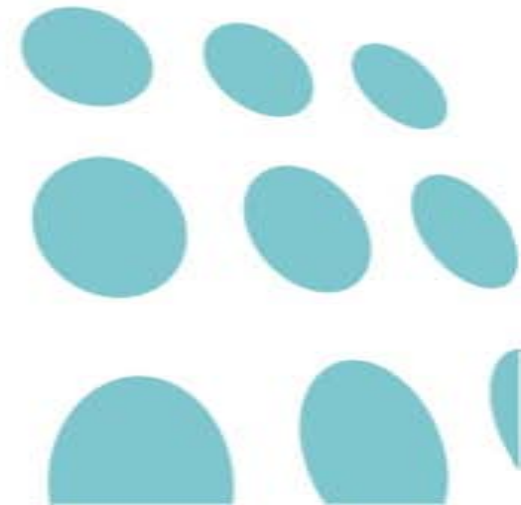
Employee Self Service Portal

- Portal for Employees and Reporting Officers
- Employees can see their Time-attendance and Leave Details
- Leave/Tour Request and Approval
- Attendance Summary for the Month
- Company News/Notice/General Information on Web Page
- Monthly Shift and Schedule



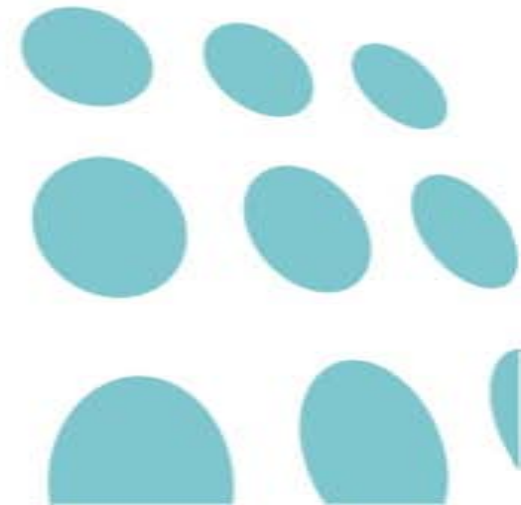
Employee Self Service Portal Benefits

- Develop Transparency in the Organisation
- Reduce Paper Cost
- Improve Productivity by Automating tasks
- Track Employees Attendance by Themselves
- Minimize Attendance and Leave Errors
- Improve Planning Process by Proper Scheduling



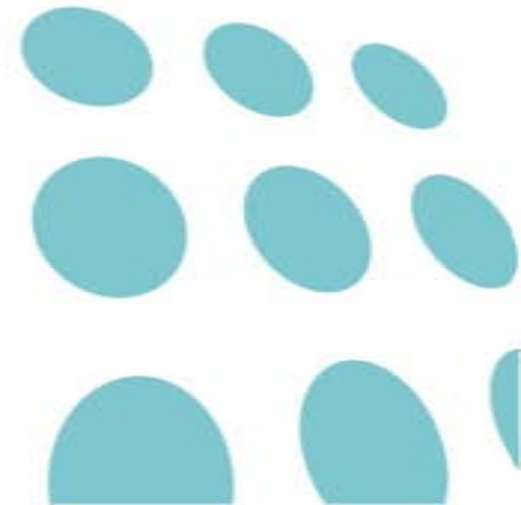
Enrollment Management Module

- Specially Developed for User Enrollment
- Fingerprint and Card Enrollment
- Show Image of Finger Print while Enrolling User
- Show User Finger Print and Card Details
- Fingerprint Verification
- User Photo Browse, Upload and Capture Facility
- User Photo Adjustment

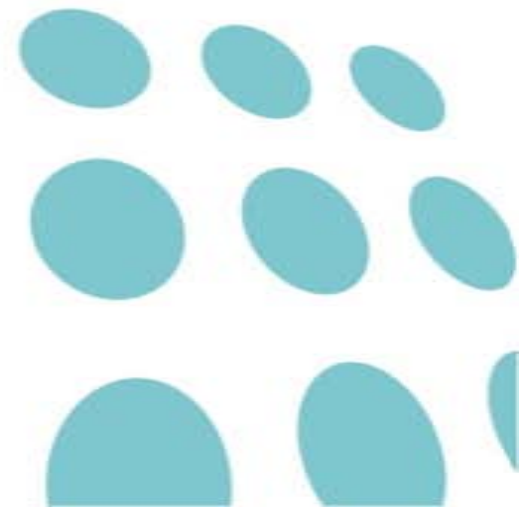


COSEC Live Monitoring Window

- Real Time Event Monitoring and Control
- Live Status of Door Controller and Panel
- Alarm Monitoring and Control
- Firmware Up gradation
- Auxiliary Input and Output Status



COSEC PANEL

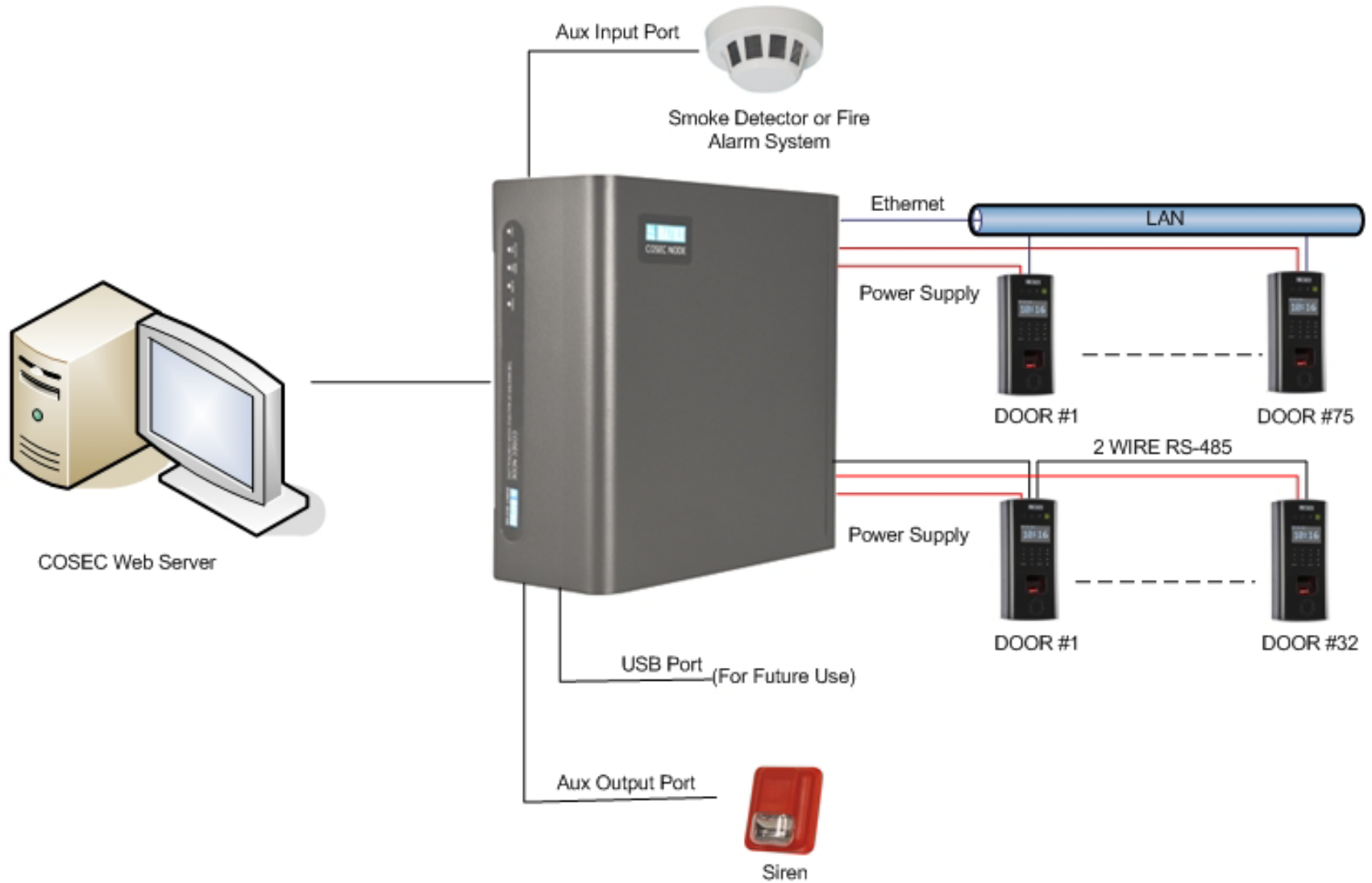


COSEC PANEL

- Supports up to 75 DOORs
 - ✓ Maximum 75 DOORs on Ethernet
 - ✓ Maximum 32 DOORs on RS485
- 10,000 Users Capacity
- Store 1,00,000 Events in Log
- Power Supply for 4 DOORs
- Supervised Alarm Input Port
- Auxiliary Output Relay Contact
- Built-in USB Port
- Audio Visual Indication in terms of LEDs and Buzzer

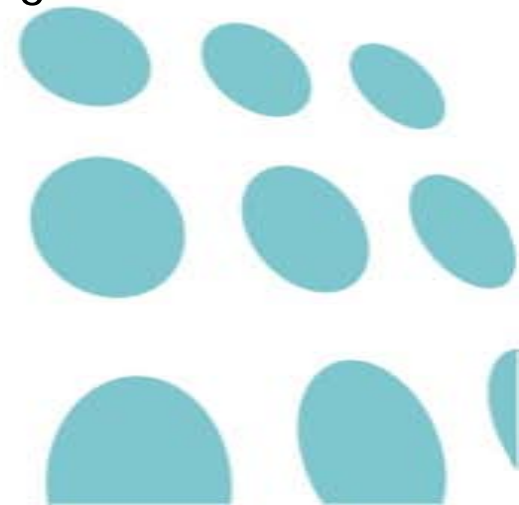


COSEC PANEL



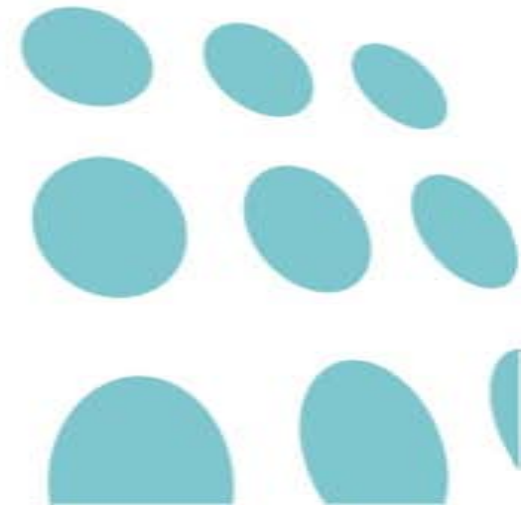
COSEC PANEL

- 32-bit RISC Processor
- 32MB RAM and 32MB Flash Memory
- Ethernet and RS485 Interface (Both Active)
- Built-in Battery Backup Provision
- Centralize FP Template Distribution
- Centralize Configuration, Monitoring and Controlling
- Mains Fail and Battery Fail Indication
- Tamper Detection



When is COSEC PANEL Required?

- More than 500 Users per Door Controller
- Greater than 5000 Local Events Storage
- Additional Access Control Features as Mentioned Below
 - ✓ First-In User
 - ✓ 2-Person Rule
 - ✓ Occupancy Control
 - ✓ Man Trap
 - ✓ Dead-Man Zone
 - ✓ Anti Pass Back
 - ✓ Guard Tour
 - ✓ Do Not Disturb
 - ✓ Time-Zone based Access
 - ✓ Home Zone
 - ✓ Access Level

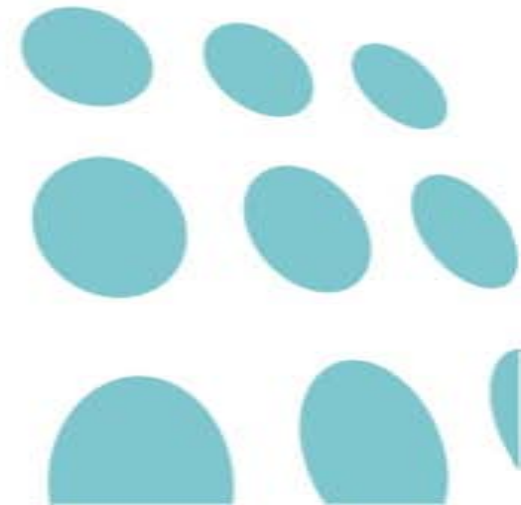


COSEC Door Controller

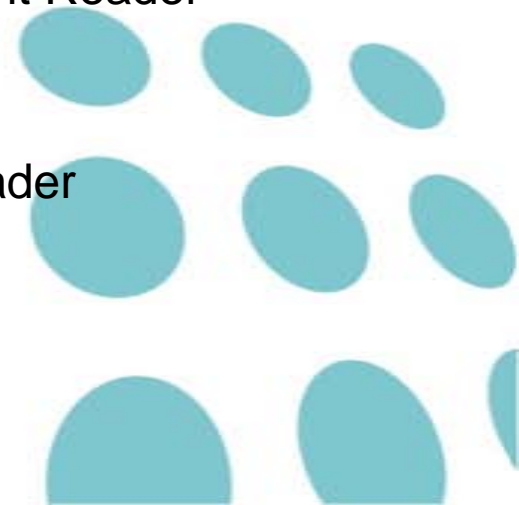


COSEC DOOR

- 16-bit Processor
- 16KB RAM and 256KB+128KB Flash Memory
- 128×64 Dot Matrix Display with Backlight
- 16 Touch Sense Keys
- Built-in Three Reader Ports
 - ✓ Two Internal (Fingerprint Reader and Card Reader)
 - ✓ One External (Fingerprint Reader or Card Reader)
- Ethernet and RS485 Interface (any One Active at a Time)
- Built-in Auxiliary Input and Output Port
- Door Relay Port
- Two Power Supply Options
 - ✓ Adaptor based Local Power Supply
 - ✓ Power Supply from PANEL



COSEC DOOR



COSEC DOOR Interfaces



Door Controller Models



CAS

FOS

FCS

Standard Models

CAP

FOP

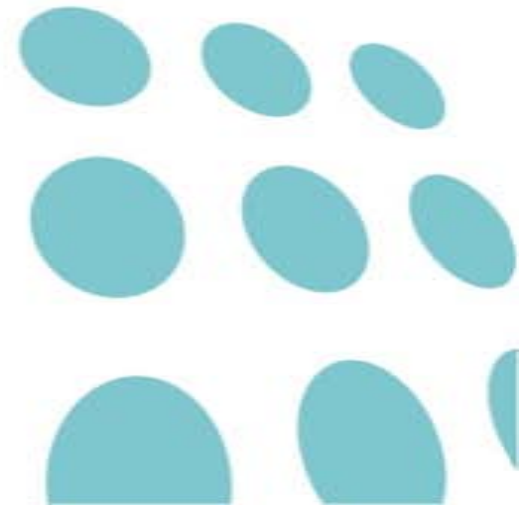
FCP

Premium Models

COSEC DOOR Comparison

	Standard Model			Premium Model		
	CAS	FOS	FCS	CAP	FOP	FCP
128 64 Dot Matrix LCD	-	-	-	Yes	Yes	Yes
16 Touch Sense Keys	-	-	-	Yes	Yes	Yes
Fingerprint Module	NA	Optical	Capacitive	NA	Optical	Capacitive
Fingerprint Template	NA	9600	9600	NA	9600	9600
Reader Type Support	Card	FP+Card	FP+Card	Card	FP+Card	FP+Card
Internal Reader Port	1	2	2	1	2	2
Communication	Ethernet and RS485					
Exit Reader Port	1 (Fingerprint or Card Reader)					
Exit Reader Interface	RS232 or Wiegand					
Exit Switch Interface	Yes					
Door Sense Port	Yes					
Door Relay Port	Yes					
Auxiliary Input Port	Yes					
Auxiliary Output Port	Yes					
Tamper Detection	Yes					
Buzzer	Yes					
LED	4 LEDs (Allowed, Denied, Alarm and Status)					

COSEC Reader



COSEC Reader Models



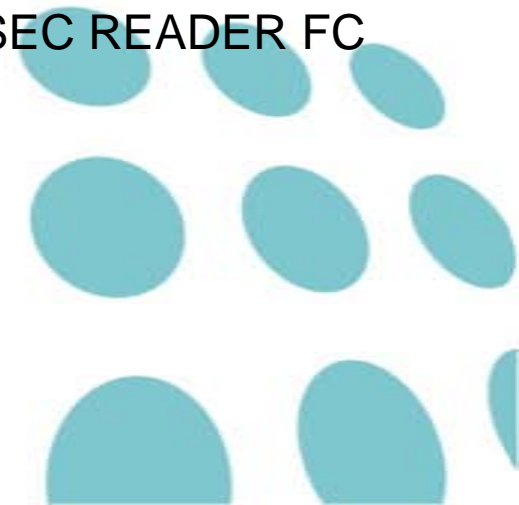
COSEC READER CA



COSEC READER FO



COSEC READER FC



COSEC Reader Models

	COSEC READER		
	CA	FO	FC
Fingerprint Module	NA	Optical	Capacitive
Fingerprint Template	NA	9600	9600
Reader Type Support	Card	FP	FP
Internal Reader Port	1	2	2
Communication	Wiegand or RS232		
Tamper Detection	Yes		
Buzzer	Yes		
LED	4 LEDs (Allowed, Denied, Alarm and Status)		
Power Supply	From Door Controller or Adapter		

COSEC Reader

Exit Reader

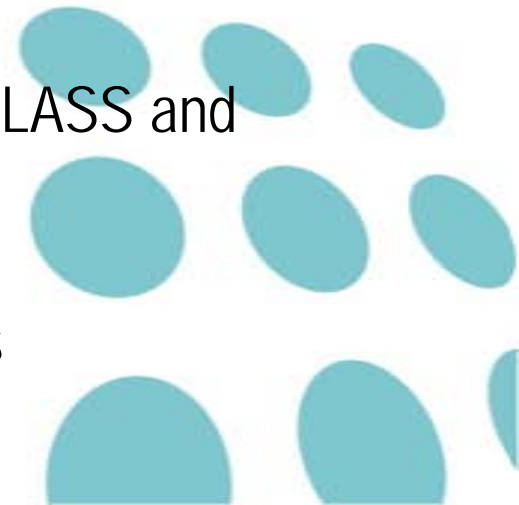
- Fingerprint or Contactless Card Reader
- Wiegand and RS232 Interface
- Allowed, Denied, Status and Alarm LEDs
- Built-in Buzzer
- Power Supply from COSEC DOOR



COSEC Reader Type

Contactless Card Reader

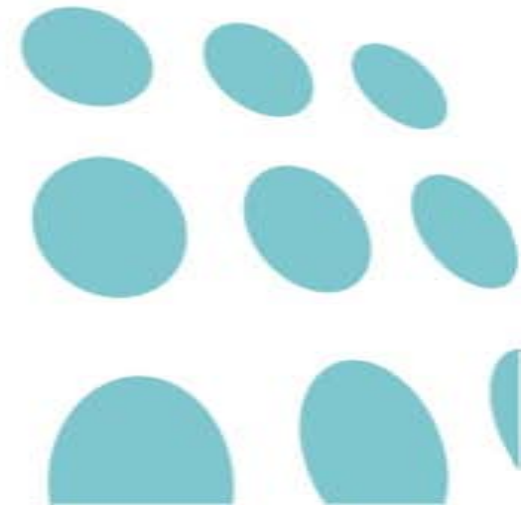
- Contactless Card Technology for Identification
- Proximity Card Reader
 - ✓ LF-125Khz
 - ✓ EM PROX and HID PROX
- Smart Card Reader
 - ✓ HF-13.6Mhz
 - ✓ HID iCLASS and Mifare
- Up to Two Cards per User
- Option to Use any (EM PROX, HID PROX, HID iCLASS and Mifare) Reader Module
- UART and Wiegand Interface for Internal Readers
- RS232 and Wiegand Interface for Exit Reader



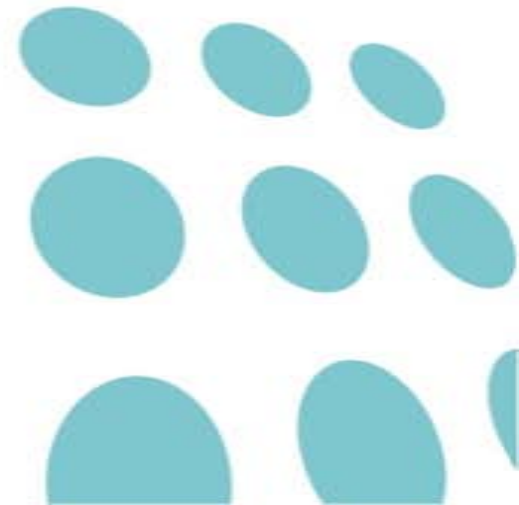
COSEC Reader Type

Fingerprint Reader

- Biometric Fingerprint Reader with Optical or Capacitive Sensor Technology
- 9600 Fingerprint Template Storage in Optical and Capacitive Model
- Quick Identification and Verification in less than 1 second
- Stores up to Ten Fingerprints per User
- UART and Wiegand Interface for Internal Readers
- RS232 Interface for External(Exit) Reader

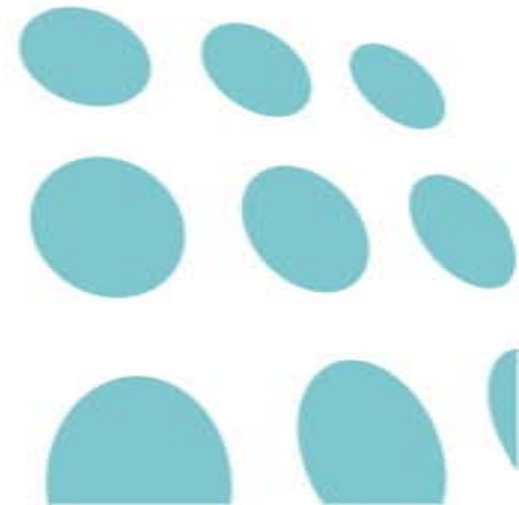


COSEC Additional Hardware



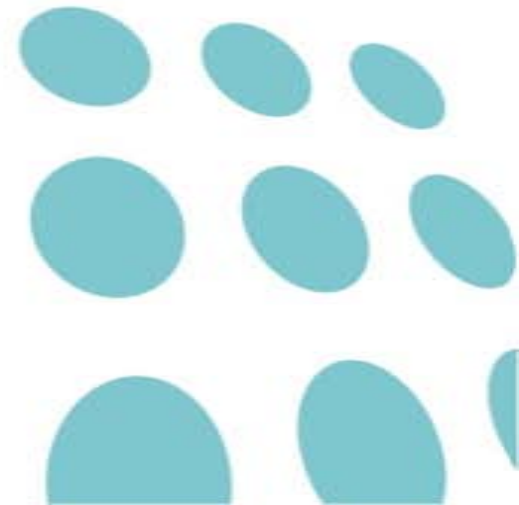
COSEC -Enrollment

- Enrollment Module for Easy User Enrollment
- Card and Finger Enrollment
- Camera for User Photograph
- USB based System Components
- Enrollment Software for Viewing Fingerprint Image Quality



COSEC Card Personality Module

- Enrollment Module for Easy User Enrollment
- Card and Finger Enrollment
- Camera for User Photograph
- USB based System Components
- Enrollment Software for Viewing Fingerprint Image Quality



COSEC-Card

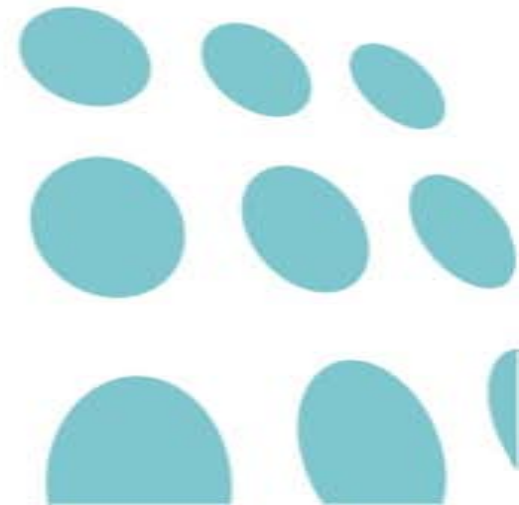
- Proximity Cards
 - ✓ EM PROX
 - ✓ HID PROX

- Smart Cards
 - ✓ HID iCLASS
 - ✓ MIFARE
 - ✓ Write Functionality
 - ✓ Matrix Proprietary Smart Card Key Management
 - ✓ FP Templates on Smart Cards (1:1 Mode)
 - ✓ Programmable Additional Security Code for Increased Security
 - ✓ Programmable Facility Code (Degraded Mode)

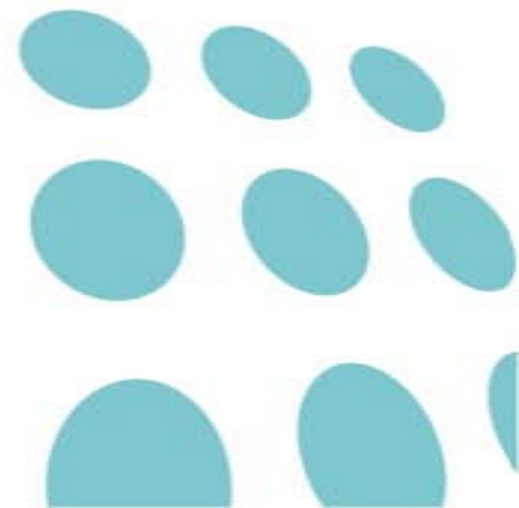


COSEC-Door Lock

- Door Lock
 - ✓ Electro Magnetic Lock
 - ✓ Bolt Lock
 - ✓ Strike Lock



Access Control Features



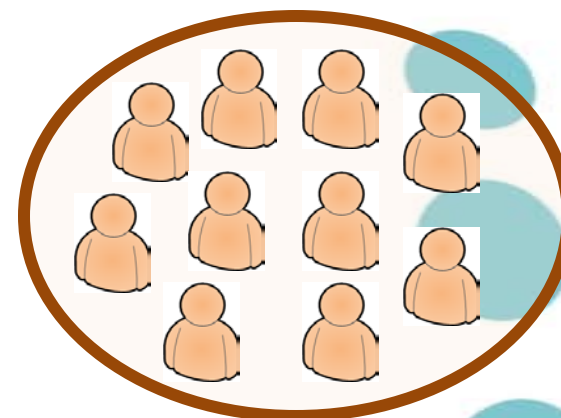
Access Group

- Group of Persons Carrying Similar Work Profile
- Easy to Assign Same Access Policies
- Supports up to 99 Access Groups

Access Group-1

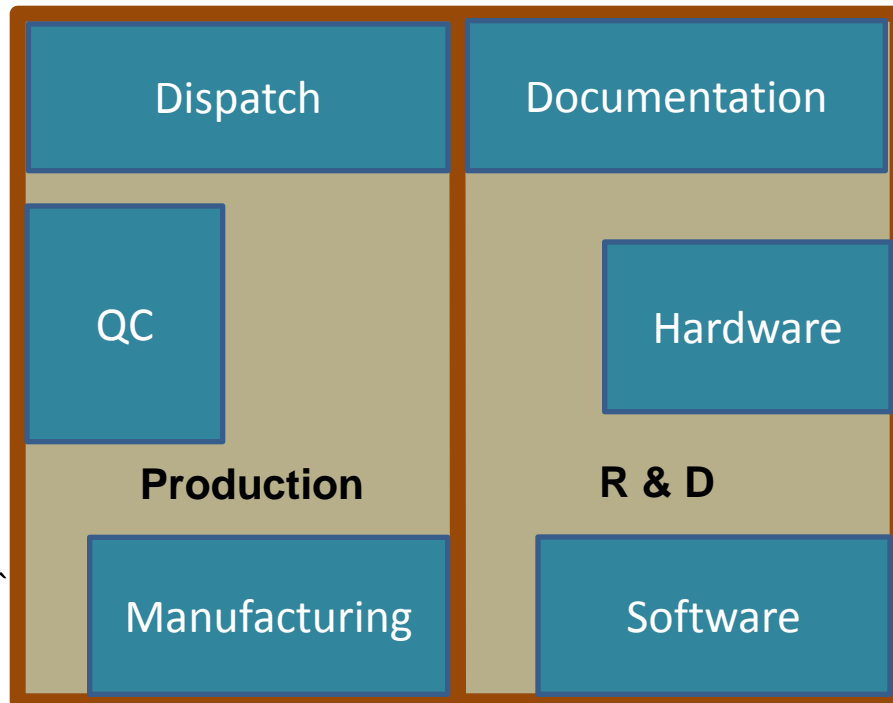




Access Group-2



Access Zone

- Controlled Area to Keep Out Unauthorized Users
- Multiple Zones can be Created on Requirement
- Creation of Sub Zones or Logical Zones Inside a Single Zone
- Various Time based Access Policies can be Assigned to a Zone



 Main Zones
 Sub Zones



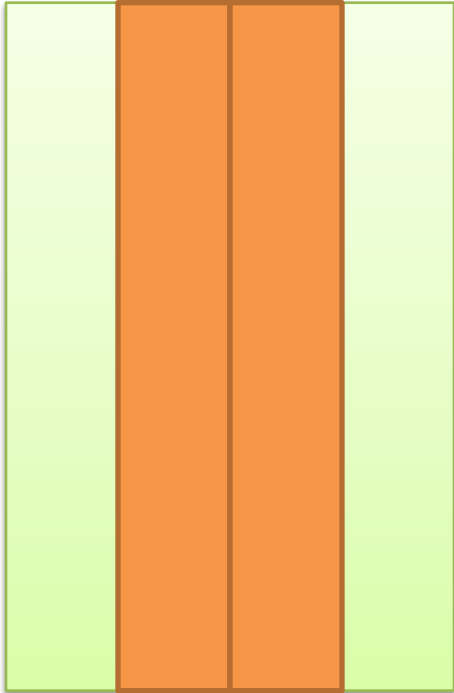
Access Levels

- Give Rights to a User to Enter into a Controlled Area or a Zone
- Up to 15 Access Levels for Zones and Users
- If User Access Level is Higher than or Equal to Zone Access Level, User is Allowed in that Zone
- Different Access Levels During Working Hours, Break Hours and Non-working Hours
- Default Access Level is 8

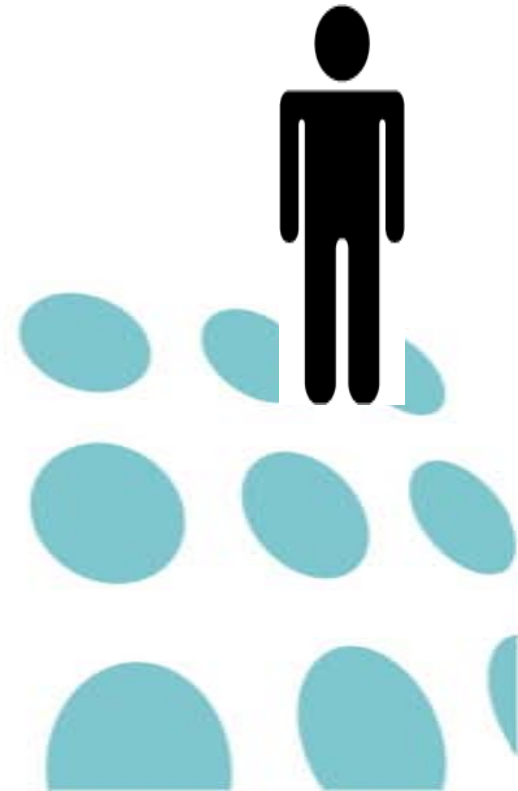


Access Level based Access

Zone Access Level 8

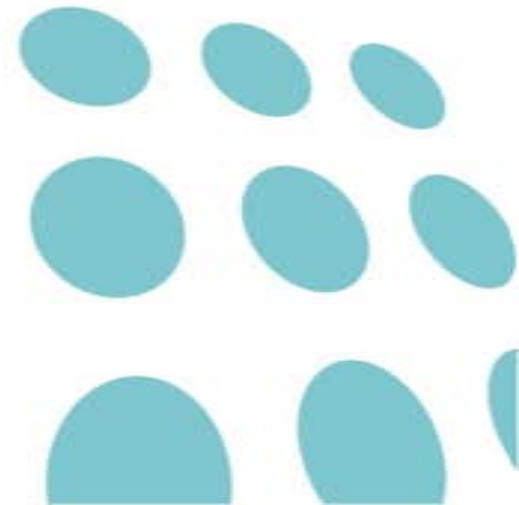


User Access Level =>8



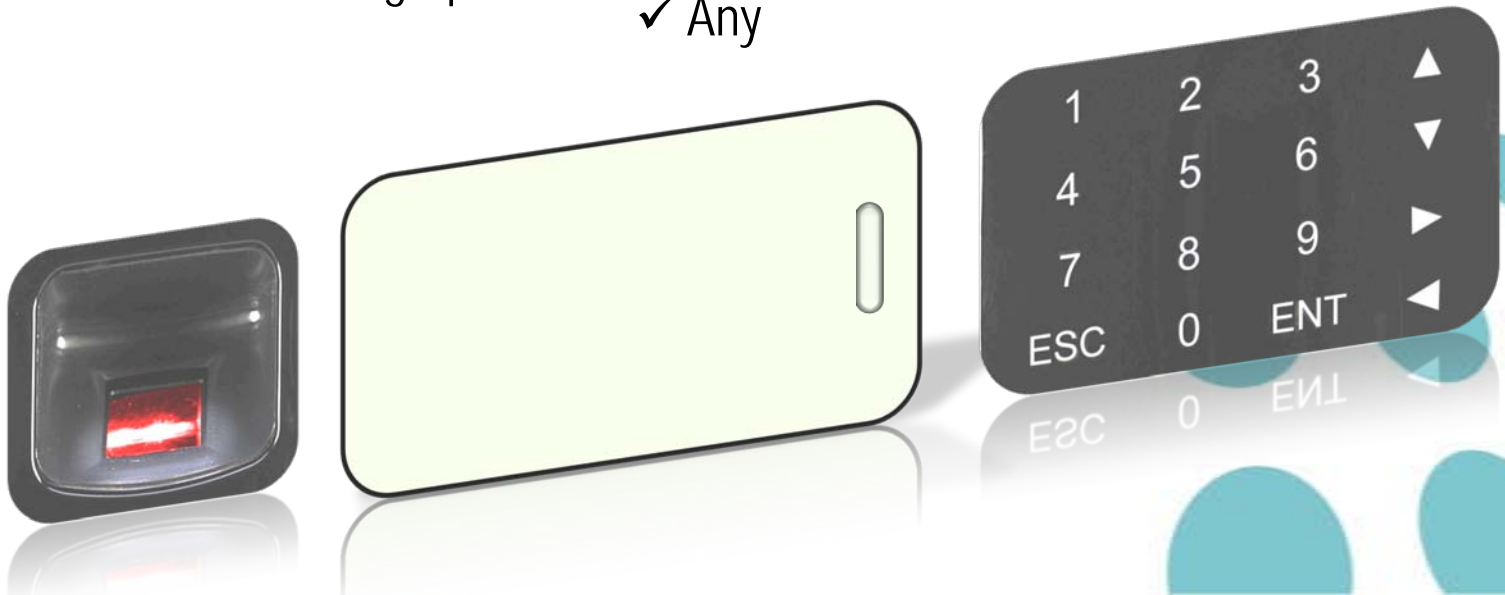
Home Zone

- Pre-defined Area for an User to Work
- Allow User to Access the Zone without Checking his Access Level during Working and Break Hours
- User's Access Level is Checked During Non-Working Hours



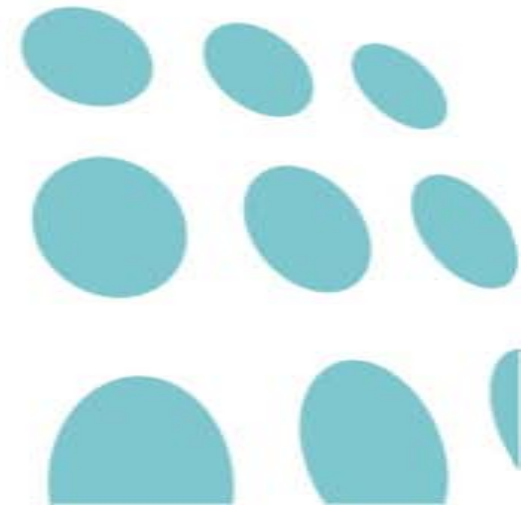
Zone Access Mode

- Various Zone Access Modes to Enable Users to Access a Zone
- Administrator can Select more than One Mode for Higher Security
- Flexibility to Select Zone Access Mode
 - ✓ Card
 - ✓ Fingerprint
 - ✓ PIN + Card + Fingerprint
 - ✓ Card + Fingerprint
 - ✓ Card + PIN
 - ✓ Fingerprint + PIN
 - ✓ Any



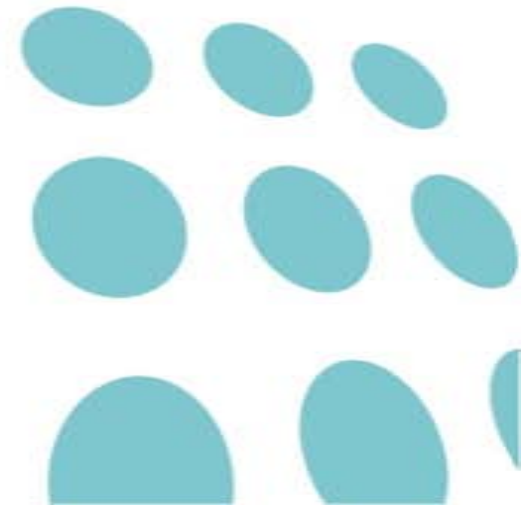
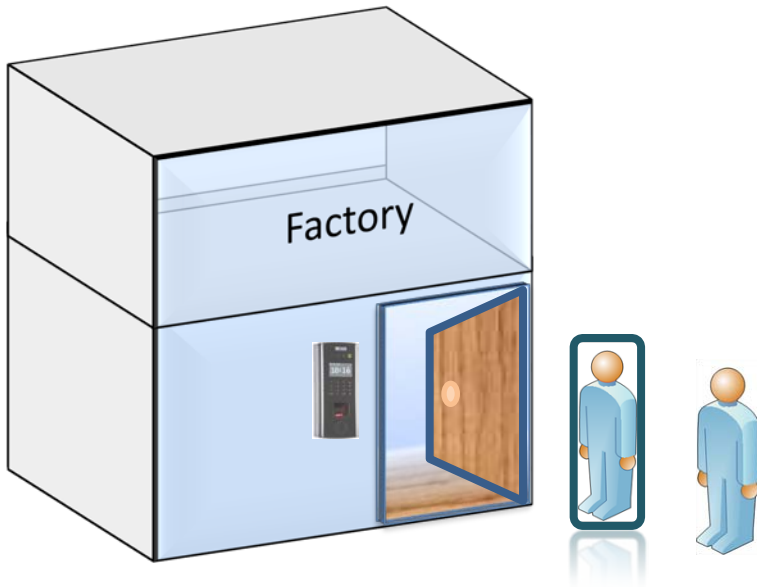
2-Person Access

- Access is Allowed only when Two Authorized Persons Use their Access Rights within a Defined Amount of Time
- Maximum 16 Groups with 6 Users in Each Group
- Useful for High Security Areas like ATM, Record Room, Safe Deposit Vault etc.



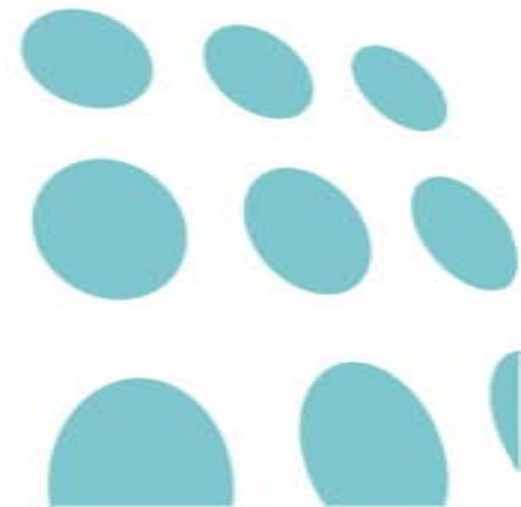
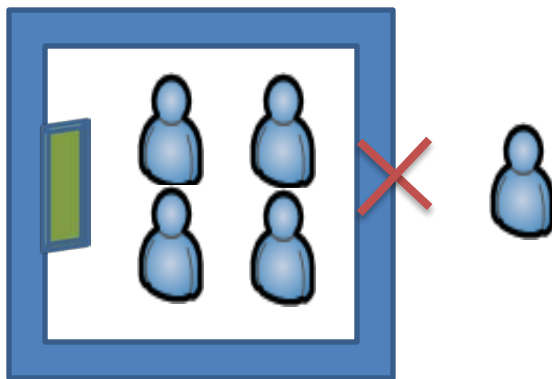
First-in User

- Door Opens Only after Designated Person Make the First Entry
- 4 First-in User Lists with 25 Users in Each List
- Useful for Areas where Supervisor needs to Make First Entry followed by Workers



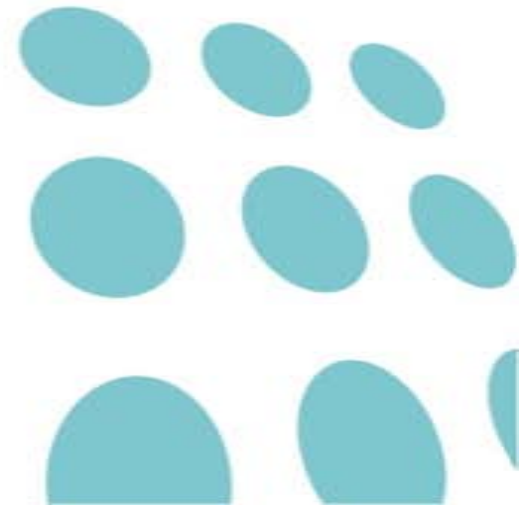
Occupancy Control

- Controls Number of Users in a Controlled Area or a Zone
- Users are Restricted after Pre-defined Number is Reached
- Great Use in Conference Hall, Canteen, Public Hall etc., where Limited Space is Available



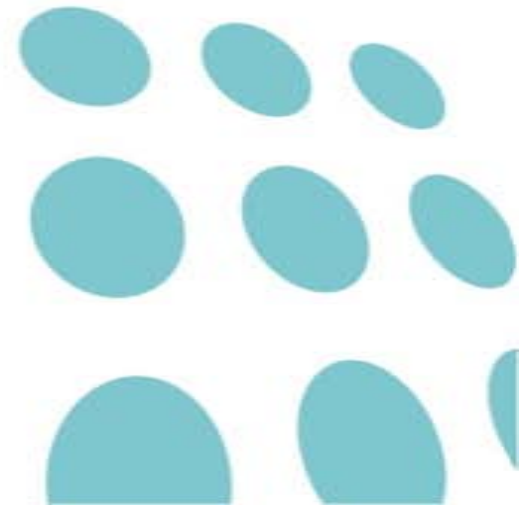
Man-Trap

- Useful for Multiple Doors, Arranged in a Sequence
- Regulate Opening and Closing of Doors
- Second Door will Open only After First Door has Closed
- Manage Traffic and Control Dust and Heat
- Useful to Restrict Intruder from Escaping the Premises Quickly



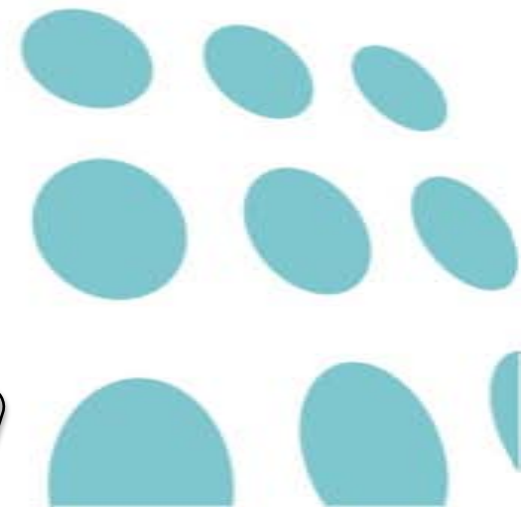
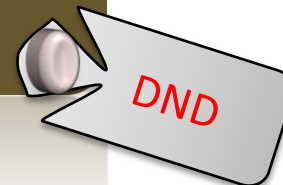
Dead-Man Zone

- Zone or Area where there is a Threat of Person's Physical Safety
- Administrator can Declare any Zone as a Dead-Man Zone
- User has to Show his Identity every time before Expiration of Predefined Time Period
- Once Timer is Expired, Alarm Gets Activated
- Very Useful Feature for Users who are Working in Mines, Chemical Plants, Nuclear Lab etc.



Do Not Disturb(DND) Zone

- User Entry is Restricted in a DND Zone
- Administrator can Declare any Zone as a DND Zone
- Zone Access Level is Changed to Highest
- VIP can Override this Zone
- Useful for Business Meeting, Seminar, Operation Theater etc. where Privacy is Vital



Anti-Pass Back

- Prevent a Card Holder from Passing his Card back to a Second Person to Gain Entry in a Controlled Area
- Card Holder can Make Re-entry only after Exit Mark
- Useful for Maintaining Accurate Record of the Number of People in a Controlled Area
- Two Modes:
 - ✓ Anti-Pass Back Local
System Verifies User's Exit Marking on Local Zone only before Re-entry
 - ✓ Anti-Pass Back Global
System Verifies User's Exit Marking on All Zones before Re-entry
- Two Types:
 - ✓ Hard Anti-Pass Back: Does not Allow User but Keep Log in the System
 - ✓ Soft Anti-Pass Back: Allow User with Log In the System

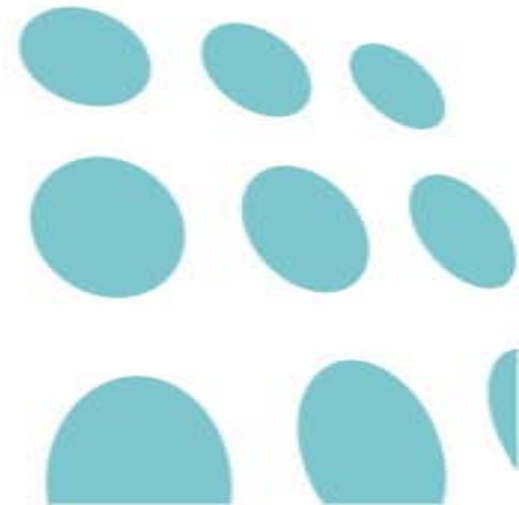
Blocked User

- Blocked Users are Restricted from using their Access Rights
- Access Privileges are Withdrawn Temporarily, but not the Deletion of Identity from the Database
- System Blocks User for
 - ✓ Absentee User
 - ✓ Consecutive Attempts to Access Unauthorized Zone (Programmable)
 - ✓ Consecutive Attempts per Minutes in a Authorized Zone (Programmable)



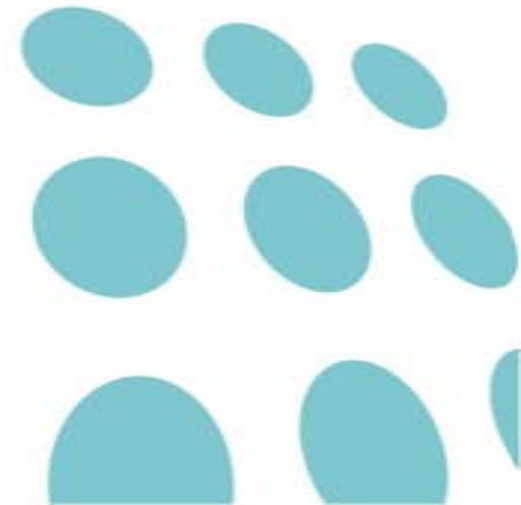
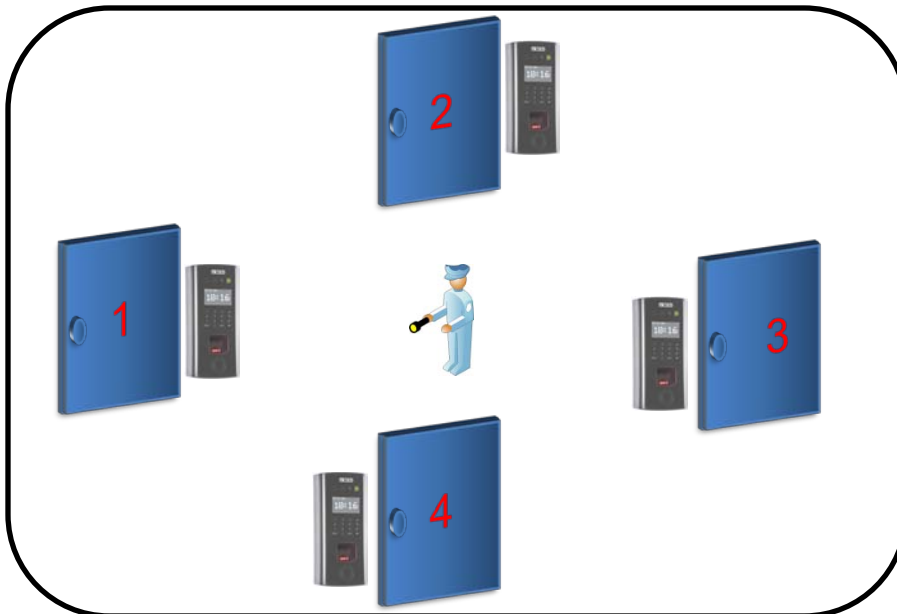
VIP Access

- Empower User to Access any Controlled Area or a Zone
- Any Person Holding VIP Label has Highest Access Level(15)
- Administrator can Assign VIP Access to any User



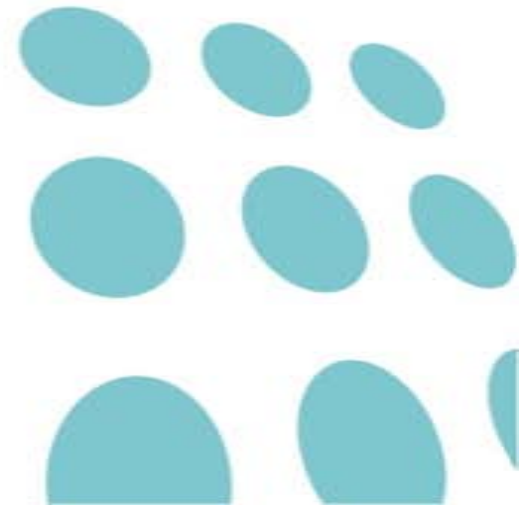
Guard Tour

- Ensures that Security Guard makes Round of the Facility During Non Working Hours
- Guard has to Show his Identity on Various Check Points on Specified Time
- Record can be viewed later by System Administrator
- System can assign up to Four Cards



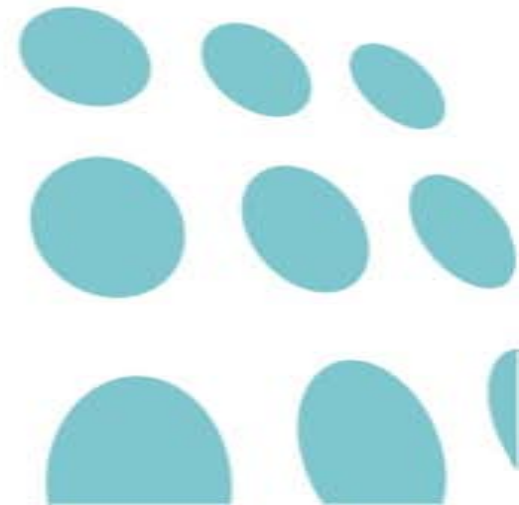
Duress Detection

- Useful Feature when User is Forced to Use his Access Rights Under Threat
- User Need to Dial his Access Code Followed by a Secret Code for Duress Detection
- System Opens the Door and at the Same Time Informs Concerned Person without Giving any Local Alarm
- Great Security Feature



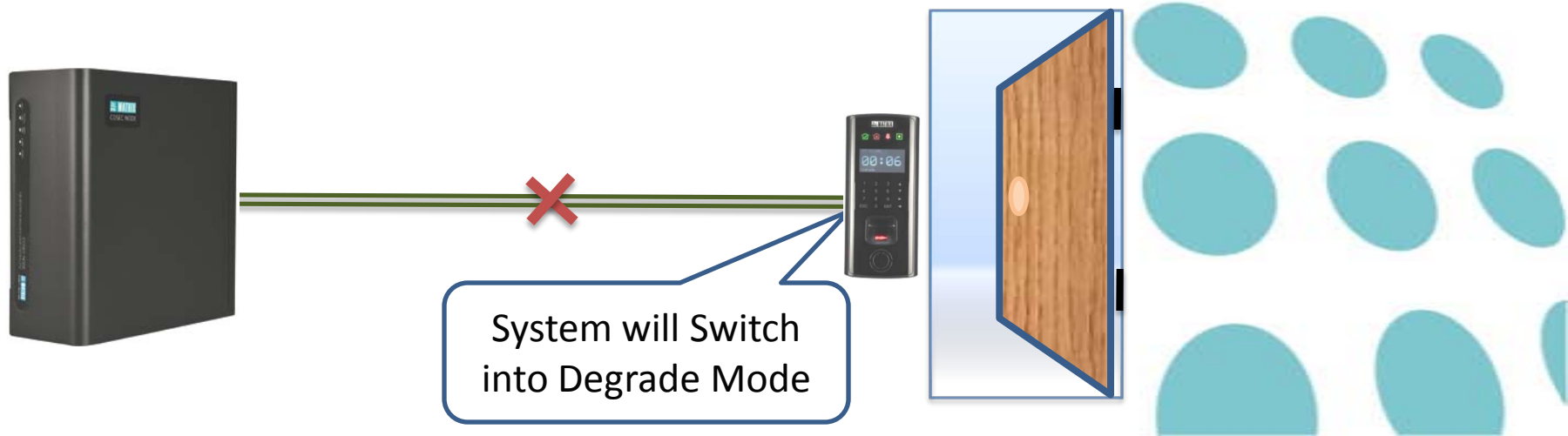
Who's In

- Generate List of Users Inside a Controlled Area at that Particular Time
- Useful in Emergency



Degrade Mode

- System Switch into Degrade Mode when PANEL and DOOR Communication Fails
- System Scales Down its Security Level and Degrades its Operation
- System Allows Users with their Basic Identity Like Facility Code
- Events are Stored in the DOOR
- Events are Transferred to PANEL when System Operation is Restored



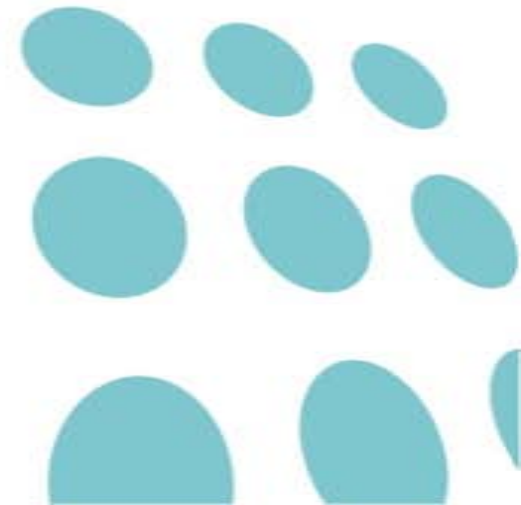
Facility Code

- Unique Number String that is Encoded on Card and on DOOR
- Common Code for Entire Organisation
- System Identify User based on his Basic Identity(Facility Code) and Grant Permission
- Very Useful when System is in a Degraded Mode

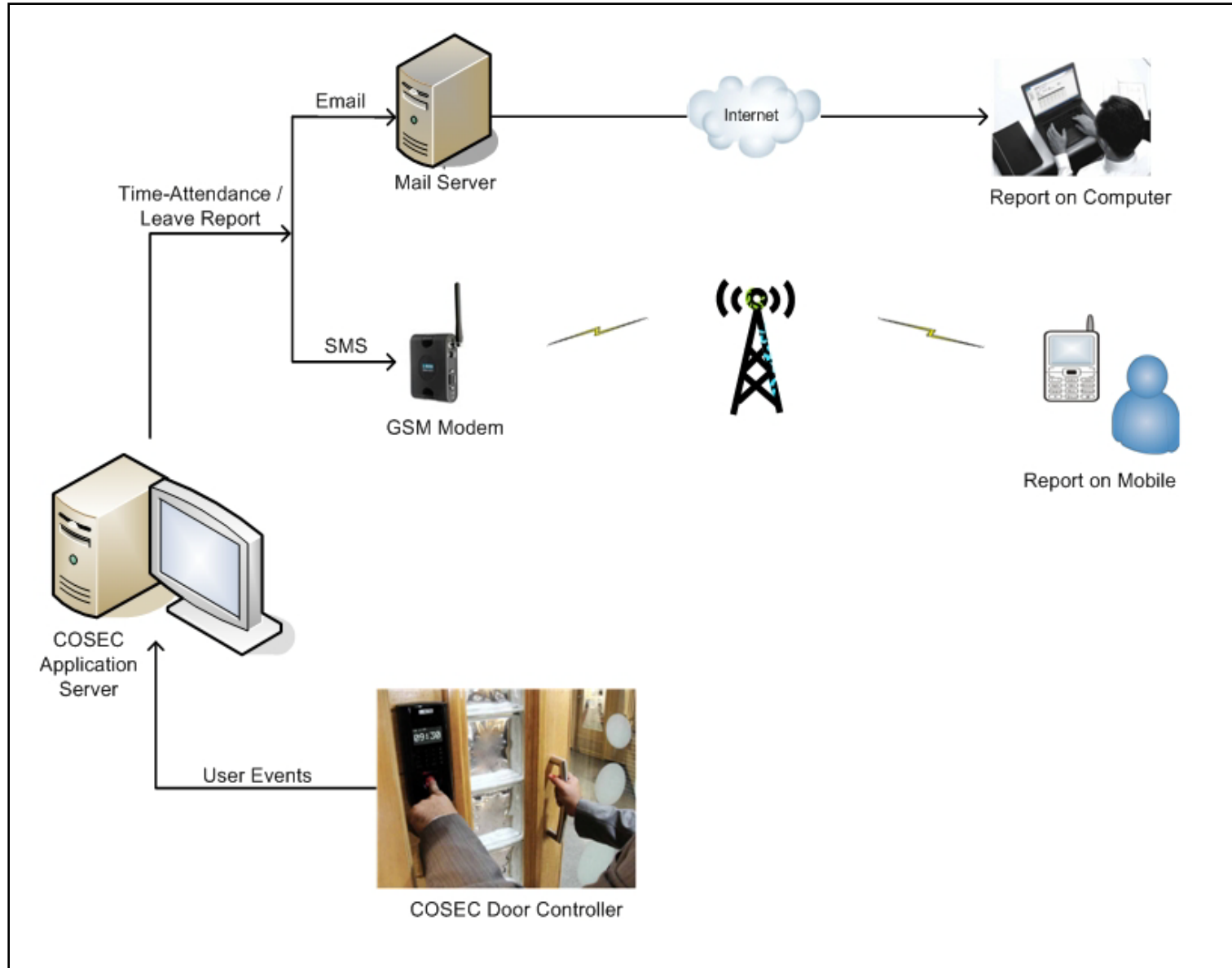


COSEC SMS and Email Alerts

- SMS and Email Notification for the Attendance and Leave Status
- Alerts for the:
 - ✓ User Events
 - ✓ Leave Rejection
 - ✓ Leave Approval
 - ✓ Monthly Attendance
- Automatic and Instant Notification to Multiple Users

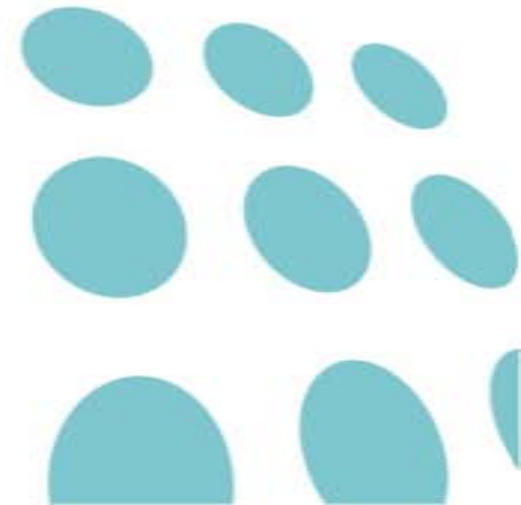
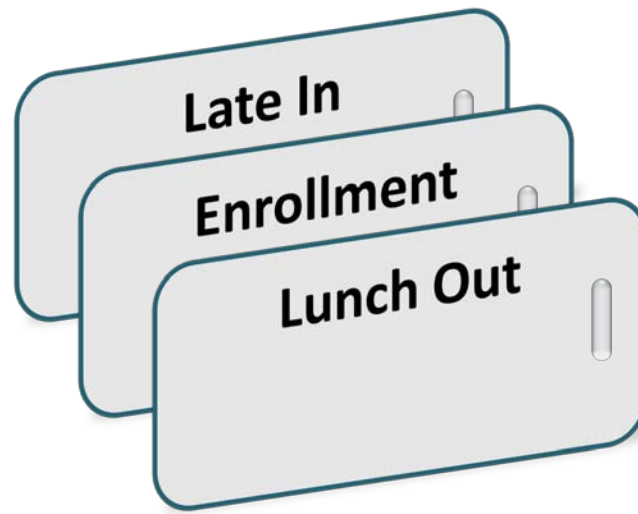


COSEC SMS and Email Alerts



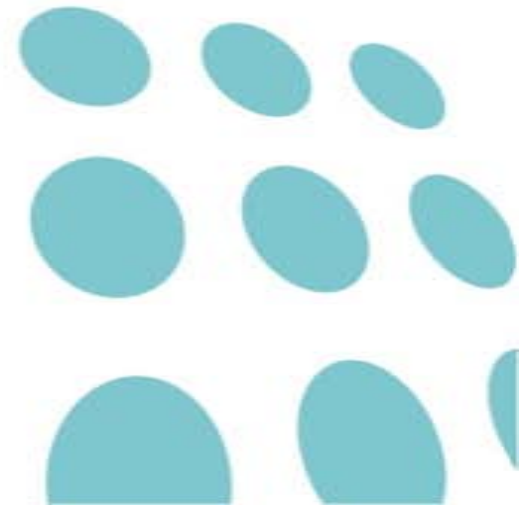
Special Function Cards

- User can Access Various Predefined Functions Quickly with this Cards
- Need not to Dial or Remember Code for Routine Functions
- User has to Show only his Identity after Showing this Card
- Various Functions like late in, Early Out, Lunch In/Out, Overtime, Enrollment etc are Predefined in COSEC
- 38 Predefined Functions with Maximum 4 Cards per Function



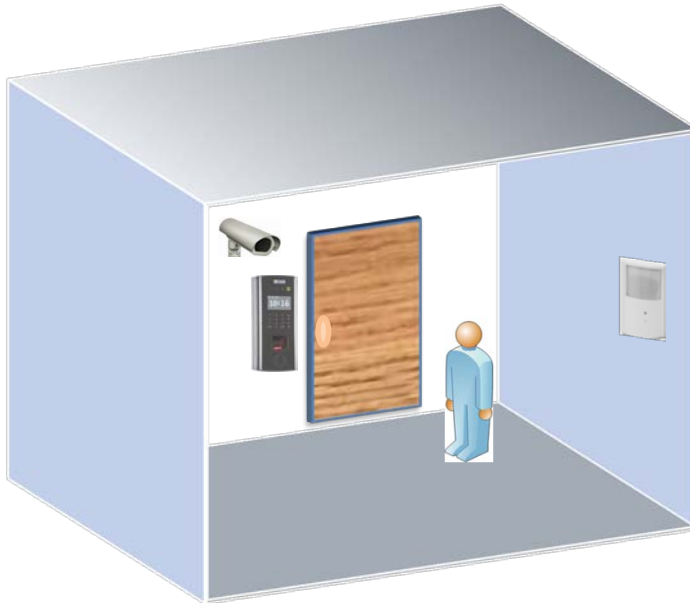
Tamper Detection

- System Generates Alarm when It detects any Tampering with the System
- Available on both PANEL and DOOR
- Generates Alarm on PANEL and DOOR based on Programming
- Can be Disabled Temporarily for Maintenance



Auxiliary Port

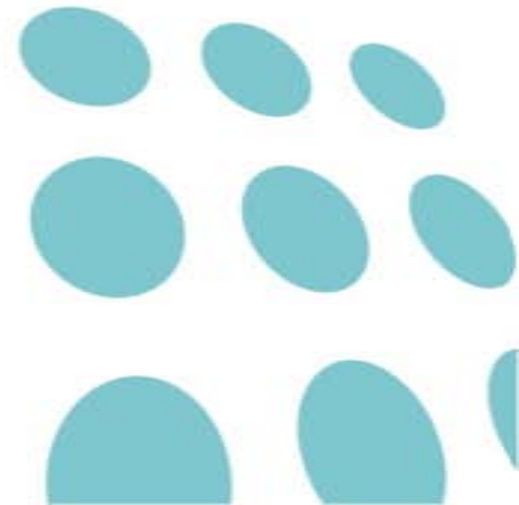
- Input Port for Connecting Smoke Detector, Sensor etc
- Output Port for Connecting Siren, Strobe etc.
- Available on both PANEL and DOOR
- Admin can Program these Ports Depending on Various Applications for example, Camera should Start Recording when any Motion is Detected in the Premises



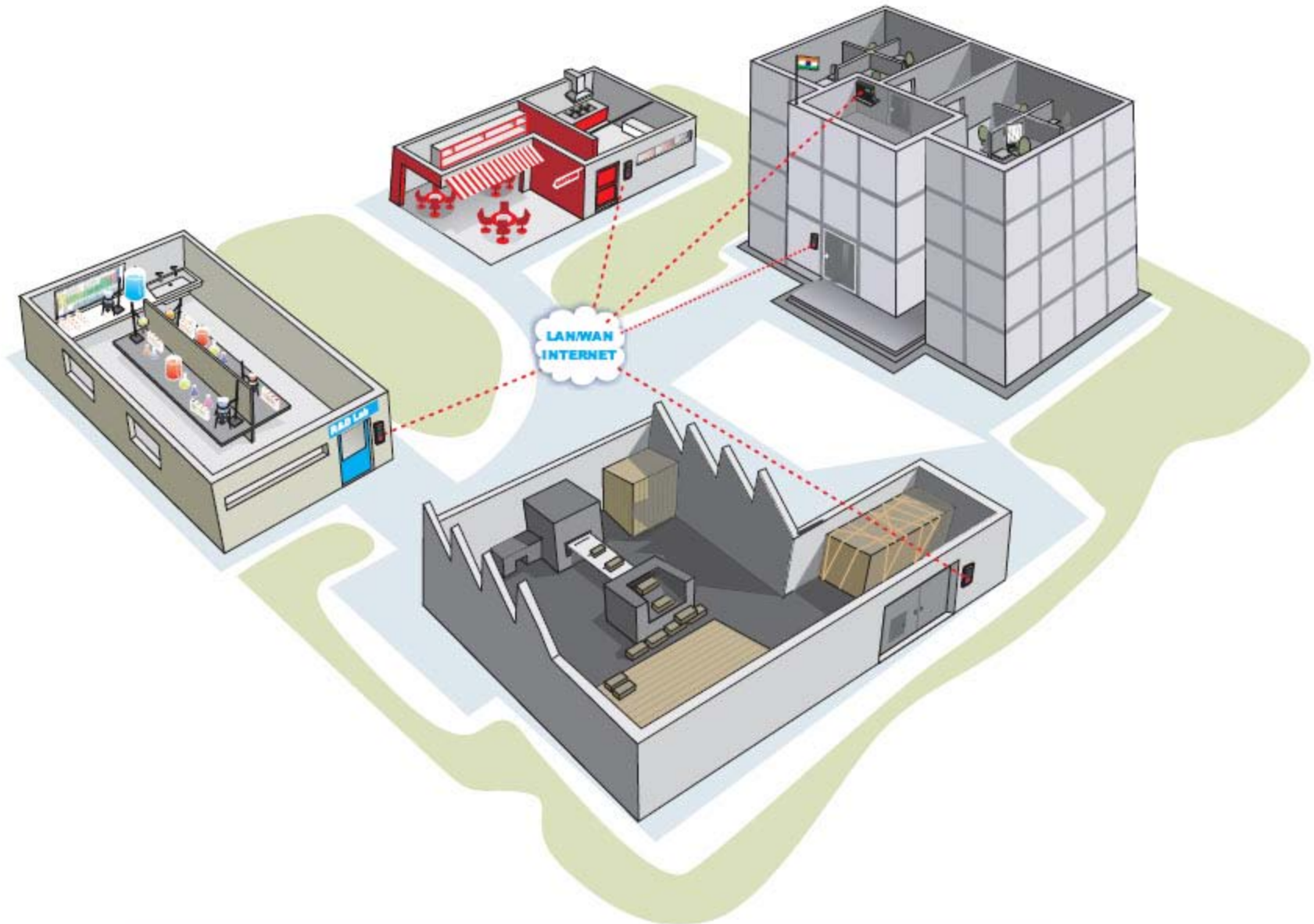
Alarm

- Various Alarms are Programmed in the System and get activated on the Occurrence of Predefined Situations
- Alarms available on both PANEL and DOOR
- Built-in Alarm Detection and Management
- Admin can Control, Acknowledge, Clear and Monitor Alarm in a Real Time
- Various Alarms Like Tamper Alarm, Mains Fail, Battery Fail Alarm etc.
- Audio Visual Indication in terms of LEDs and Buzzer

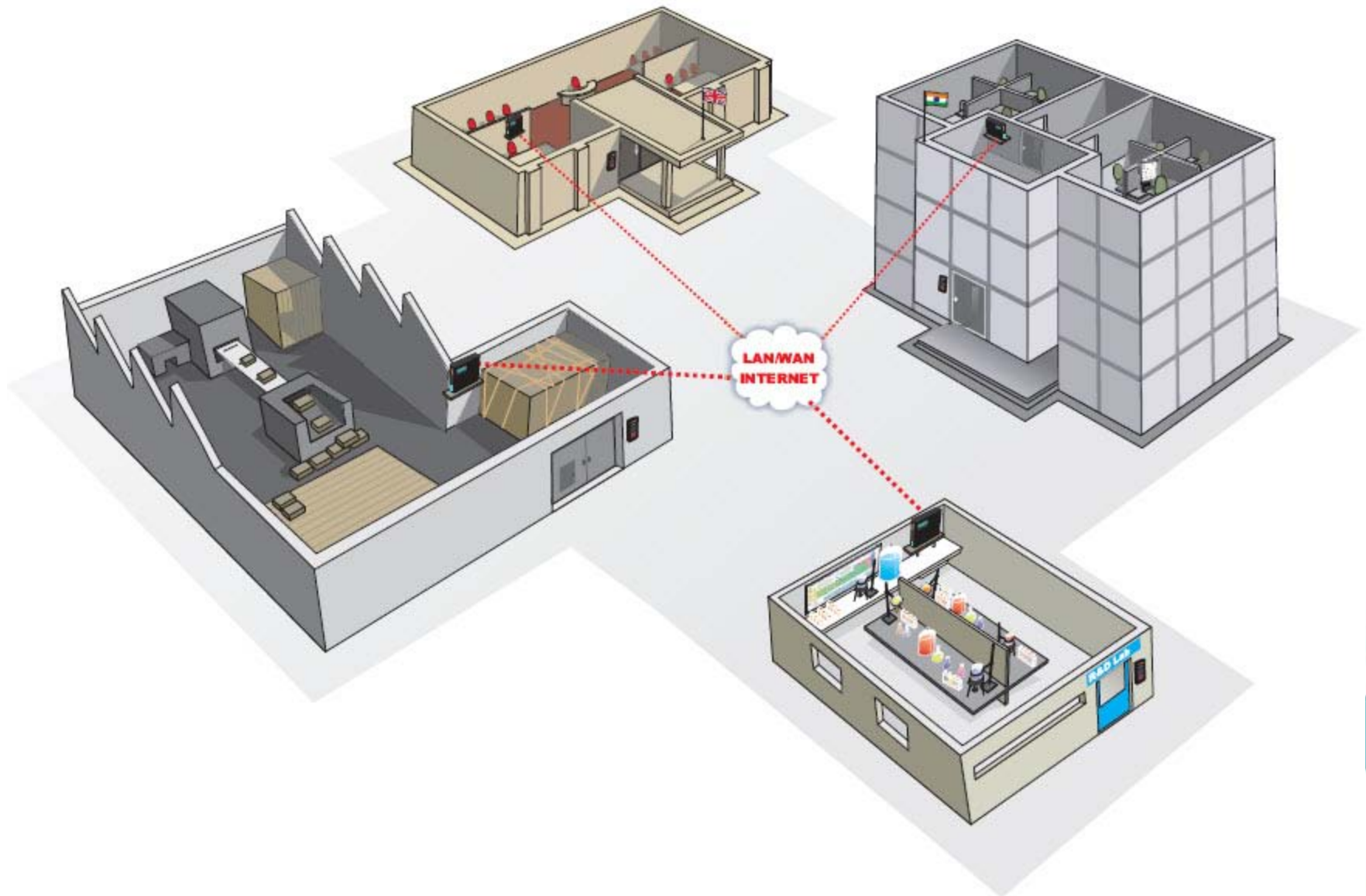
Applications



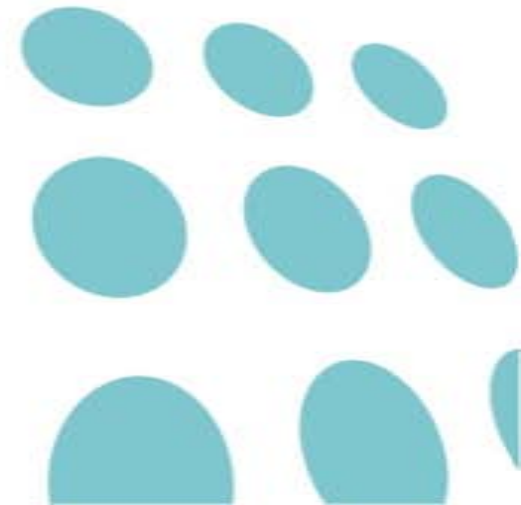
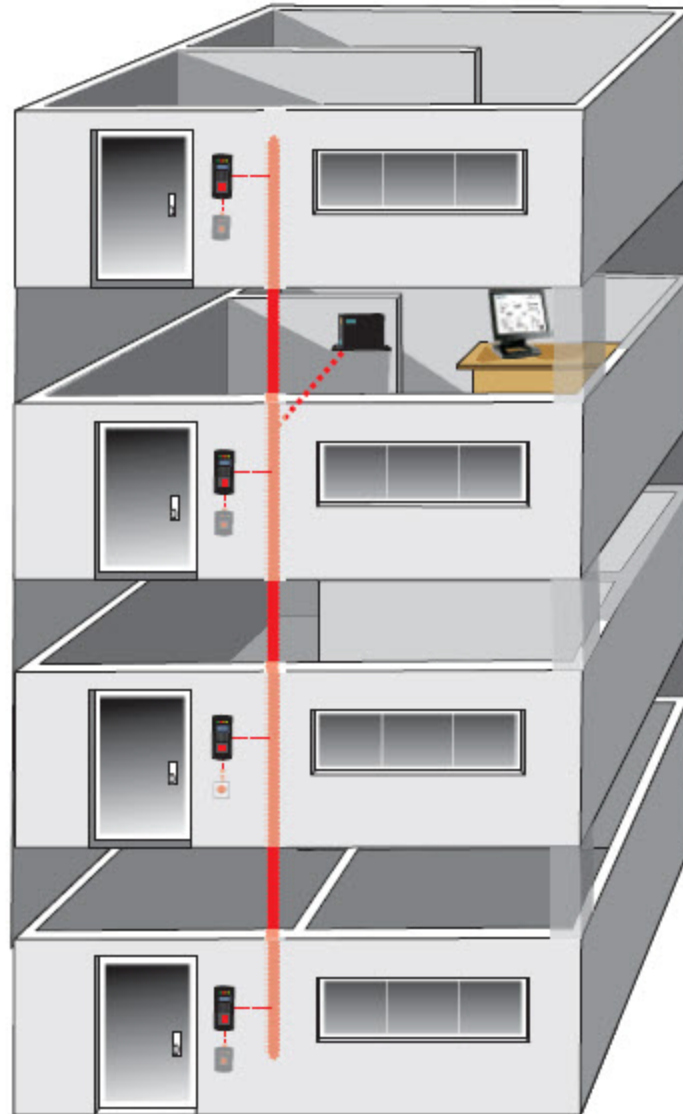
Campus Application



Multi Location Application



COSEC Multi Floor Application



Thank You

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Version: V1R2

