

Hearty Welcome



Presentation Agenda

- Matrix COSEC Introduction
- COSEC Solution
 - ✓ Software Solution
 - ✓ Hardware Solution
- COSEC Architecture
- COSEC Key Features
- Applications



Matrix COSEC Introduction



What is COSEC?

- Time-attendance and Access Control System
- Complete Hardware and Software Solution
- Biometric Fingerprint and RFID Card based Reader
- Visitor Management, Employee Self Service, Leave Management, Roster Management and e-Canteen Management
- Comprehensive Solution for SOHO, SMB, SME and Large Enterprises



A Complete Solution with...



Time-attendance

Access Control

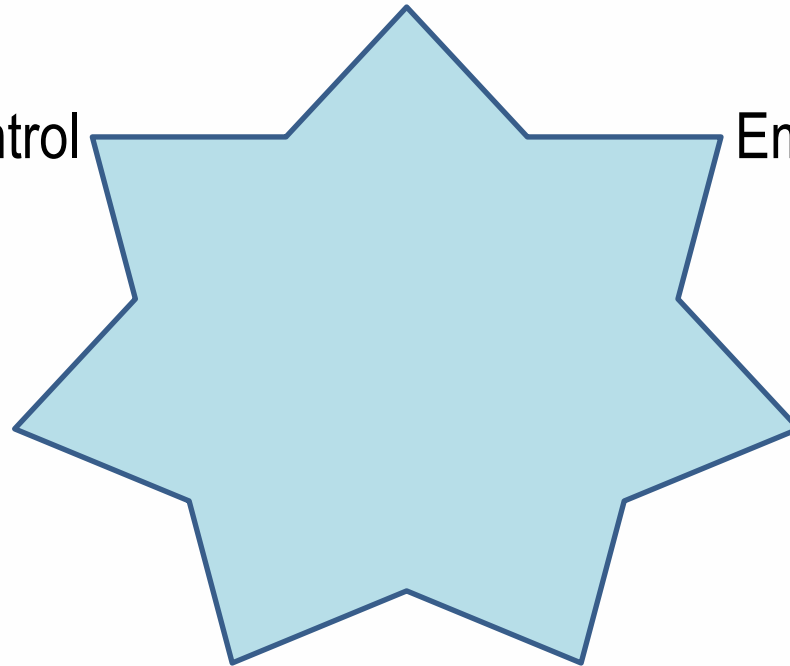
Employee Self Service

Leave Management

Visitor Management

Roster Management

e-Canteen Management



Why COSEC?

- 1 to 10,000 Door Controllers
- 1 to 1 Million Users
- Built-in Controller and Reader
- Built-in Web based Application
- Centralized Monitoring and Control
- USB, Wi-Fi and 3G/GPRS/GSM/CDMA Connectivity
- Pluggable Card Reader Modules
- Centralized Fingerprint Distribution
- 10 Fingerprints Enrolled per User
- Touch Sense Keypad
- Employee Self Service Portal
- Automatic Events Download



COSEC Benefits

- Improve Productivity by Automating Tasks
- Optimization of Working Time
- Fast and Non-intrusive Check-in Process
- Round the Clock Security
- Reduce Cost of Security Personal
- Less Wiring and No Maintenance Cost
- Adapt to Existing IT Infrastructure and HR Policies
- Easily Scalable without Changing Present Infrastructure
- Single Point Control and Monitoring hence Saving Time and Cost



COSEC Scalability

- Ease of Scalability of System without Changing Present Infrastructure and Products
- From 1 Door Controller to 10,000 Door Controllers
- From 1 User to 1 Million Users



COSEC Flexibility

Flexibility at Various Levels

- Architecture - Standalone or Networked
- Connectivity - RS-485, Ethernet, Wi-Fi or 3G/GPRS/GSM/CDMA
- Reader - Card or Fingerprint or Both
- Fingerprint Reader - Optical or Capacitive
- Card Reader - Proximity or Smart Card
- Software - Fully Programmable According to Requirement



COSEC Integration

COSEC can Easily be Integrated with Third Party Products

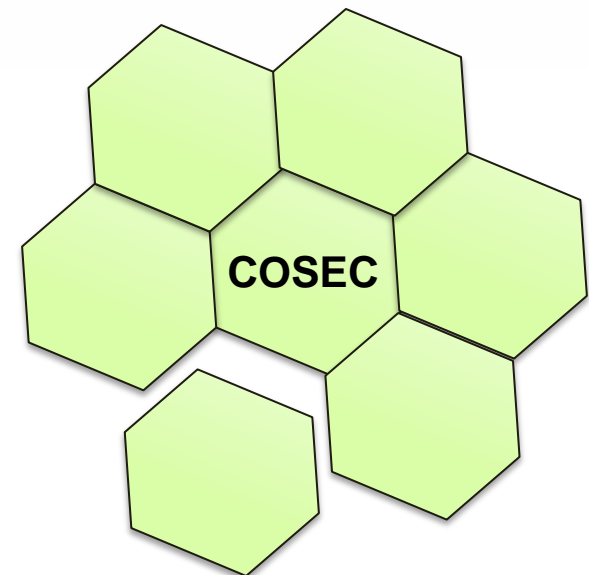
- ERP, HRM, Tally, Active Directory and Payroll
- Digital Video Recorder
- Fire Alarm Panel
- Exit Card Reader and Switch
- Relay and Sensing Devices



COSEC Modularity

COSEC is Fully Modular in Nature

- Gives Flexibility to Chose Module Depending on Requirement
- Pluggable Card Reader Modules
- Software Modules - Access Control, Time-attendance, Leave Management, Visitor Management, Employee Self Service, Roster Management and e-Canteen Management



Target Customers...



Home



Private Offices



Shopping Malls



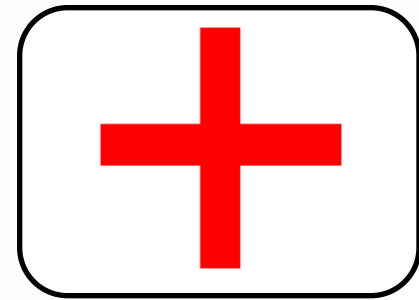
R & D Labs



Clubs



Retail Stores



Health Clinics

Target Customers...



Corporate Offices



Government
Organisations



Financial Institutes



Large Enterprises



Educational Institutes



Hotels

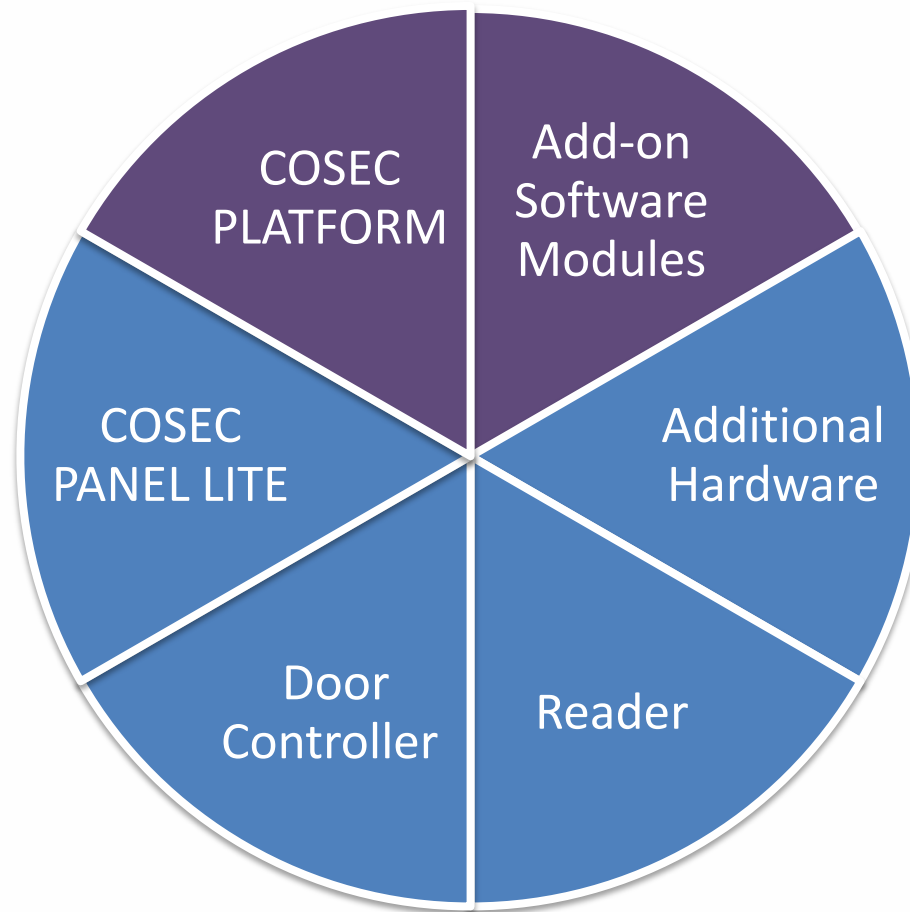




**And Many
More.....**

COSEC Solution



COSEC Solution



-  Software
-  Hardware

COSEC Software Solution



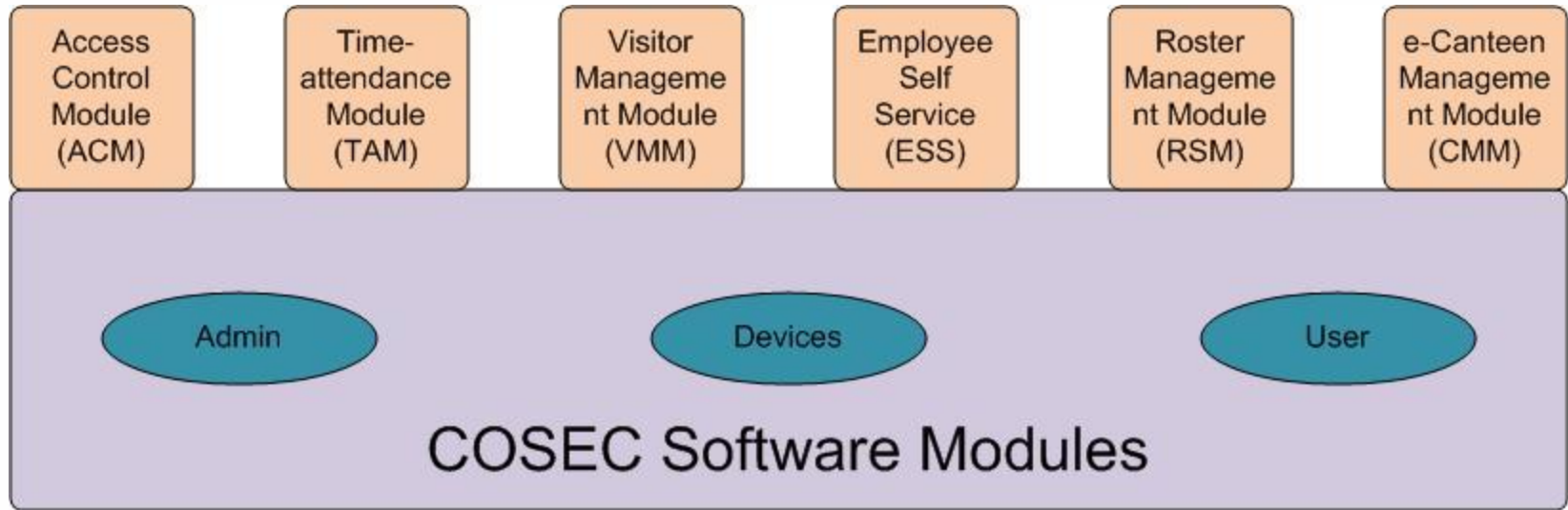
COSEC Application Software



- Complete and Powerful Web based Application Software
- Controls up to 1000 PANEL LITE's and 10,000 Door Controllers
- Manage up to 1 Million Users
- Time-attendance, Access Control, Leave Management, Visitor Management, Employee Self Service, Roster Management and e-Canteen Management
- Integration with ERP, HRM, Active Directory, Tally and Payroll
- Real-time Monitoring and Control
- Comprehensive Reports Generation



COSEC Software Modules



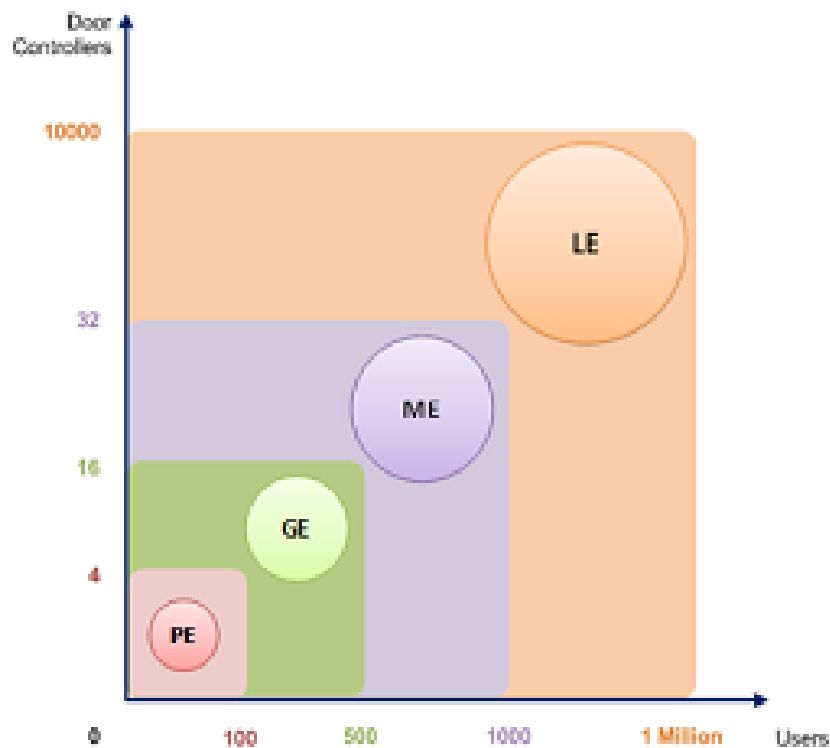
-  Built In
-  Add On

COSEC PLATFORM



- Available with basic Time-attendance and Access Control Features
- 4 PLATFORMs with Different User and Door Controller Capacity
- Compatible with all COSEC Hardware
- Optional Software Modules can be Added Depending on Requirements
- Expandable in Terms of Users

COSEC PLATFORM



PLATFORM	Built-in		Expandable
	Users	Doors	Users
COSEC PE	100	4	NA
COSEC GE	100	16	500
COSEC ME	500	32	1000
COSEC LE	1000	10000	1million

MODULE	USERS	PLATFORMS
COSEC USER 100	100	GE, ME, LE
COSEC LE USER 1000	1000	LE
COSEC LE USER 10000	10000	LE

Admin Module

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



Administrator

User Module

- Perform Human Resource Functions
- Create Full-fledged User Profile
- Maintain User Database
- User Enrollment
- Assign Door Controllers to User



Enrollment Management

- Desktop based Application Software
- Fingerprint and Card Enrollment
- Desktop based Enrollment Station
- Show Image of Finger Print while Enrolling a User
- Show User Finger Print and Card Details
- Fingerprint Verification
- User Photo Browse, Upload and Capture Facility
- User Photo Adjustment



Device Module

- Add New COSEC Hardware and Configure Various Parameters
 - ✓ COSEC PANEL LITE
 - ✓ COSEC Door Controller
- Define Features and Functions

Time-attendance Module (TAM)

- Define Organizational Hierarchy
- Create Various Attendance Related Policies
- Manual Entry and Correction of the Attendance Events
- Attendance Authorization
- Holiday and Shift Schedule Management
- Generate Time-attendance Reports



Benefits of Time-attendance

- Eliminate Human Error in Employee Time Records
- Prevent Buddy Punching and Fraudulent Time Keeping Records
- Significantly Increase Employee and Manager Satisfaction
- Cut Down on Administrative Time and Cost
- Monitor and Analyze Absence to Reduce Impact on Productivity
- Graphical Representation of Attendance for Easy and Fast Interpretation
- Significantly Cut Down on Payroll Processing Time
- Adapt to Existing HR Policies
- Eliminate Payments for Unapproved or Fraudulent Overtime
- Give Employees Self-service Access



Leave Management Module

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



Access Control Module (ACM)

- Define Various Access Policies
 - ✓ Access Zones
 - ✓ Functional Groups
 - ✓ Time Zone
 - ✓ Access Groups
- Define User-wise Access Rights
- Configure Input and Output Ports and Linking
- Generate Access Reports



Benefits of Access Control

- Higher Security for Organization and Employees
- Protects Enterprise Assets
- Restricts Unauthorized Access
- Eliminates Lock and Key Problems
- Provides Audit Trail
- Complete History Logging
- Monitor Status of Devices throughout a Facility
- Reduce Cost of Security Personnel



Visitor Management Module



- Visitor Pre-Registration
- Visitor Access Rights
- Block Unwanted Visitors
- Maintain Visitor Database
- Visitor Photograph and Document Record
- 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



Cafeteria Management(CMM)



- Define Items, Customize Menu and Menu Schedule
- Item Tracking to Prevent Wastage of Food
- Secure and Speedy Transaction
- Prepaid and Postpaid User Accounts
- Item-wise and Department-wise Report Generation



CANTEEN
MANAGEMENT
SYSTEM

Benefits of e-Canteen Management

- Eliminates Human Error in Accounting and Item Orders
- Increases Efficiency by Reducing Time and Cost of Planning
- Significantly Increases User's Satisfaction by Authenticated Data
- Makes the process Speedy and Secure through Cashless Transactions
- Monitors and Analyzes Food Usage to Prevent Wastage
- Allows Admin to Focus on More Productive Tasks
- Allows Customization and Updating of Menu
- Generates Reports for Easy and Fast Interpretation of Consumption



Roster Management(RSM)

- Placing Right People with the Right Skill in the Right Place at the Right Time
- Complete list of Employees with their Work Time
- Task Assigned Depending on Designation and Qualification
- Allow Planning by Forecasting Requirements of Employees
- Provides Complete Workforce Analysis Reports
- Export Data to Third Party Payroll Software



Benefits of Roster Management



- Workforce Planning
- Managing Cost of Manpower Efficiently
- Improve Overall Productivity of the Organization
- Prevent Work Stoppages as all Duties are Assigned
- Improve Forecasting and Budgeting
- Reduce Administration work



COSEC Software Module Comparison

Software Module→	PLATFORM	ACM	TAM
Common Features			
Web based Management	√	√	√
Import Files	√	√	√
Export Files	√	√	√
Message Board	√	√	√
Activity Log	√	√	√
Back Up and Restore	√	√	√
Holiday Schedule	√	√	√
User Creation	√	√	√
Enrollment	√	√	√
Who's In	√	√	√
Automatic Fingerprint Distribution	√	√	√

COSEC Software Module Comparison

Software Module→	PLATFORM	ACM	TAM
Time-attendance Features			
Leave Creation	X	X	√
Leave Management	X	X	√
Leave Balance	X	X	√
Leave Encashment	X	X	√
Authorization	X	X	√
Leave Carry Forward	X	X	√
Leave Application	X	X	√
Past Adjustment	X	X	√
Group Card Enrollment	X	X	√
Manual Entry and Correction	X	X	√
Shift and Schedule	X	X	√
Integration with Payroll	X	X	√

COSEC Software Module Comparison



Software Module→	PLATFORM	ACM	TAM
Time-attendance Features			
Late-in Policy	X	X	√
Early-out Policy	X	X	√
Overtime Policy	X	X	√
COFF Policy	X	X	√
Absenteeism Policy	X	X	√
Multiple Organization	X	X	√
Branch	X	X	√
Department	X	X	√
Designation	X	X	√
Section	X	X	√
Grade	X	X	√
Category	X	X	√
Reporting Group	X	X	√
Bus Route	X	X	√

COSEC Software Module Comparison



Software Module→	PLATFORM	ACM	TAM
Access Control Features			
Access Group	X	√	X
Access Level	X	√	X
Access Zone	X	√	X
Blocked User	X	√	X
2-Person Rule	X	√	X
First-In User Rule	X	√	X
Home Zone	X	√	X
Visit Zone	X	√	X
Occupancy Control	X	√	X
Do not Disturb	X	√	X
Man-Trap	X	√	X
Anti-Pass Back	X	√	X
Dead-Man Zone	X	√	X

COSEC Software Module Comparison



Software Module→	PLATFORM	ACM	TAM
Access Control Features			
Guard Tour	X	√	X
Duress Detection	X	√	X
VIP Access	X	√	X
Degraded Mode	X	√	X
Facility Code	X	√	X
Additional Security Code	X	√	X
Door Auto Relock	X	√	X
Access Mode	X	√	X
Bypass Finger	X	√	X

COSEC Software Module Comparison

Software Module→	PLATFORM	ACM	TAM
Access Control and Time Attendance Features			
SMS and Email Notification	X	√	√
Special Function Cards	X	√	√
Time Trigger	X	√	√
Time Stamping	X	√	√
Time Zone	X	√	√
Alarm	X	√	√

COSEC Hardware Solution



COSEC Hardware Components



PANEL LITE

- Manage 75 Door Controllers
- 25,000 User Capacity, 1,00,000 Events Storage and Advanced Access Control Features

Door Controllers

50,000 Events Storage, Fingerprint and Card Reader Door Lock, USB, Wi-Fi, Auxiliary Ports, Exit Reader and Exit Switch

Readers

Biometrics Fingerprint and Contactless Card Reader

Additional Hardware

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

COSEC PANEL LITE

COSEC PANEL LITE

- Controls up to 75 Door Controllers
 - ✓ Maximum 75 Door Controllers on Ethernet
 - ✓ Maximum 32 Door Controllers on RS485
- Ethernet, RS-485, Wi-Fi and 3G/GSM/GPRS/CDMA Interface
- 25,000 Users Capacity
- Store 1,00,000 Events in Log
- Supervised Alarm Input Port and Auxiliary Output Relay Contact
- Built-in USB Port
- Audio Visual Indication in terms of LEDs and Buzzer



COSEC PANEL LITE Connectivity



COSEC PANEL LITE



Maximum Door Controllers	75
Maximum Users	25,000
Maximum Door Controllers on Ethernet	75
Maximum Door Controllers on RS-485	32
Events (Offline Storage)	1,00,000
LED Indicators	Power, Status and Alarm
Memory	32MB SDRAM, 32MB Flash
Communication	Ethernet, RS-485, Wi-Fi and 3G
Communication Speed	10/100 Mbps on Ethernet and 115.2 Kbps on RS-485
USB Port	1 (For Wi-Fi, 3G, GPRS, GSM, CDMA, Data Transfer and Firmware Upgradation)
Alarm Input Port	1 (Supervised)

COSEC Door Controller

COSEC Door Controller



LEDs

Dot Matrix LCD

Touch Sense Keypad

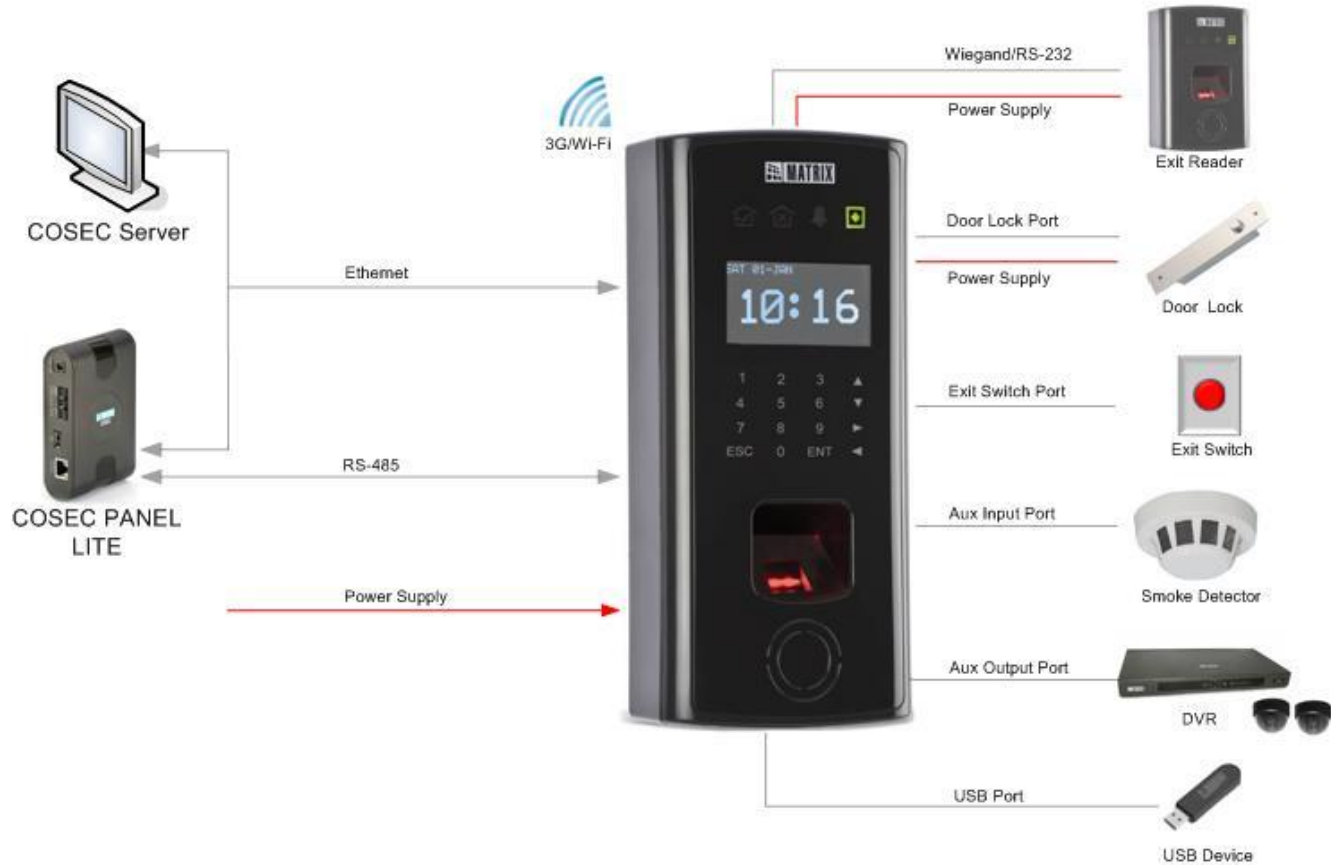
Fingerprint Reader

Card Reader

COSEC Door Controller

- 128×64 Dot Matrix Display with Backlit
- 16 Touch Sense Keys
- Built-in Two Reader Ports (Fingerprint Reader and Card Reader)
- Ethernet, RS-485 and Wi-Fi Interface
- Built-in Auxiliary Input, Auxiliary Output and Relay Port
- USB Port for Data Transfer and 3G Connectivity
- 32-bit Microcontroller
- 128KB SRAM, 512KB Internal Flash+2MB External Flash

Door Connectivity



Premium Door Controller Models



CAP



FOP



FCP



FOW

Premium Models

COSEC Premium Door



	CAP	FOP	FCP	FOW
Credential Support	Card and PIN	Fingerprint, Card and PIN		
Fingerprint Module	No	Optical	Capacitive	Optical
Fingerprint Templates	NA	9600		
LCD (128x64 Dot-Matrix)	Yes			
Touch Sense Keys (16)	Yes			
USB	Yes			
Wi-Fi	No			Yes
Communication	Ethernet & RS-485			Ethernet, Wi-Fi & 3G
Events Buffer	50,000			5,00,000
External Reader	1 Port for Card or Fingerprint Reader			
External Reader Interfaces	RS-232 and Wiegand			
Exit Switch Port	Yes			
Auxiliary Input Port	Yes			
Auxiliary Output Port	Yes			
Tamper Detection	Yes			
LED Indication	4 LEDs (Status, Alarm, Allowed and Denied)			

Time-attendance Terminals



COSEC DOOR CAT



COSEC DOOR FOT

Time-attendance Terminals



	COSEC DOOR CAT	COSEC DOOR FOT
128×64 Dot Matrix LCD	Yes	Yes
16 Touch Sense Keys	Yes	Yes
Fingerprint Module	NA	Optical
Fingerprint Template	NA	9600
Reader Type Support	Card	FP + Card (Proximity)
Communication	Ethernet	
Events Storage	50,000	
USB Port	Yes (Data Transfer and Firmware Upgradation)	
Tamper Detection	Yes	
Buzzer	Yes	
LED	4 LEDs (Allowed, Denied, Alarm and Status)	

COSEC Fingerprint Reader



- Biometric Fingerprint Reader with Optical or Capacitive Sensor Technology
- 9600 Fingerprint Template Storage
- Quick Identification and Verification in less than 1 second
- Stores up to Ten Fingerprints per User
- 500 DPI Resolution



COSEC 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

COSEC Reader

COSEC Reader

Exit Reader

- Fingerprint or Contactless Card Reader
- Wiegand and RS-232 Interface
- Allowed, Denied, Status and Alarm LEDs
- Built-in Buzzer
- Power Supply from COSEC Door

COSEC Additional Hardware

COSEC Enrollment

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



COSEC Card Personality Module

- Pluggable Card Reader Module
- Inserted at the backside of COSEC Door Controllers and COSEC READER CA
- EM PROX
- HID PROX
- HID iCLASS
- Mifare



COSEC CPM

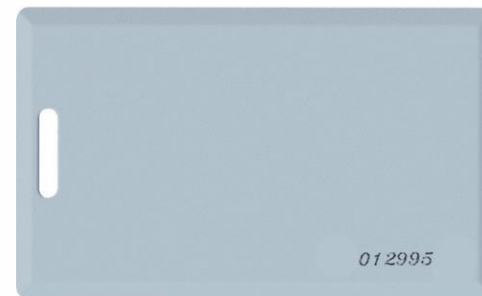
PSBB1 2V

- Power Supply Battery Back-up for the COSEC Door Controllers
- 3.2Ah and 12VDC



RFID Cards

- COSEC Card Reader can Read from Proximity and Smart Cards
- Proximity Cards
 - ✓ EM PROX
 - ✓ HID PROX
- Smart Cards
 - ✓ HID iCLASS
 - ✓ MIFARE
 - ✓ Write Functionality
 - ✓ FP Templates on Smart Cards (1:1 Mode)
 - ✓ Programmable Additional Security Code for Increased Security
 - ✓ Programmable Facility Code



Electronic Lock

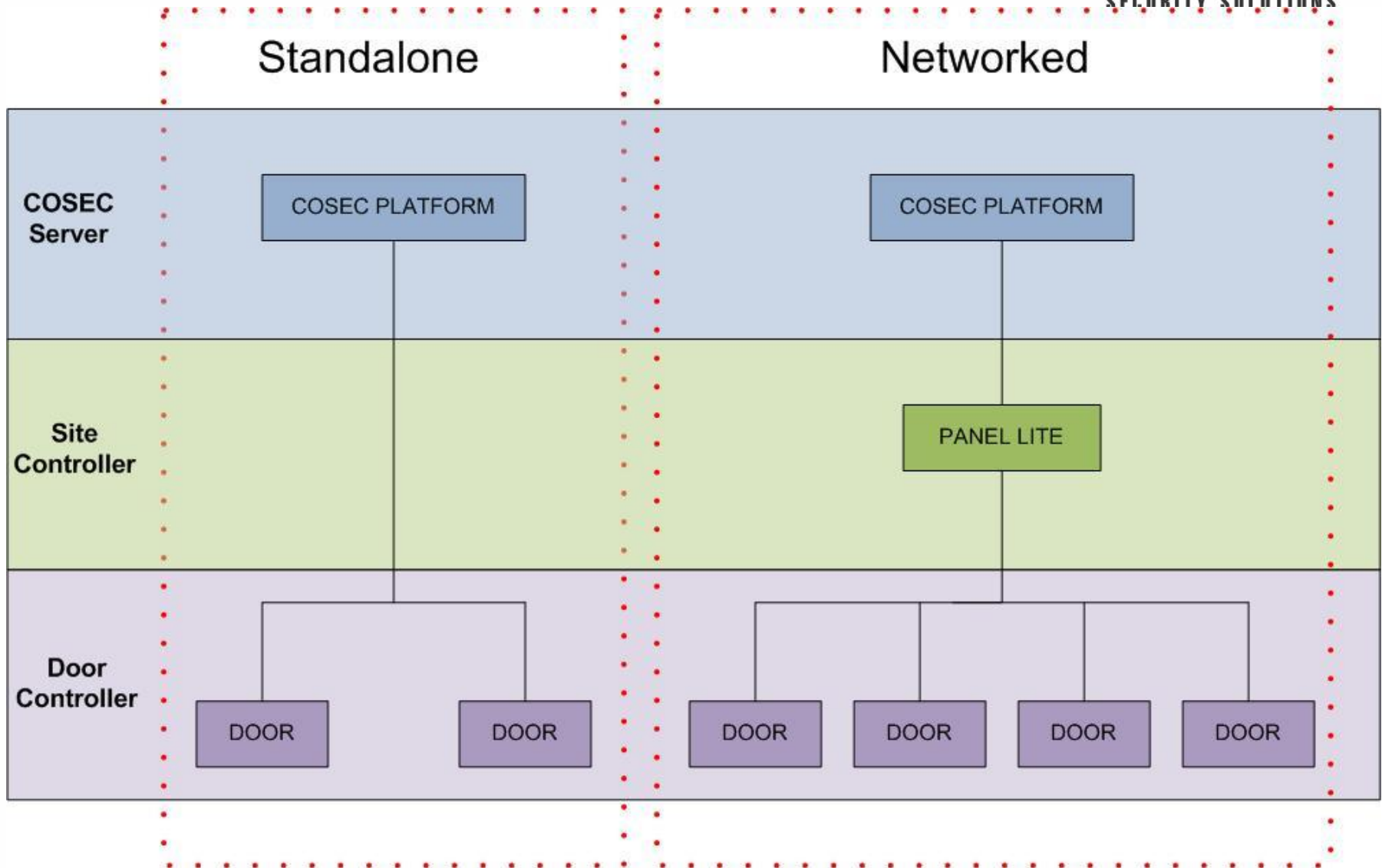
- COSEC Door Controller Supports Various Electronic Locks
 - ✓ Electro Magnetic Lock
 - ✓ Bolt Lock
 - ✓ Strike Lock



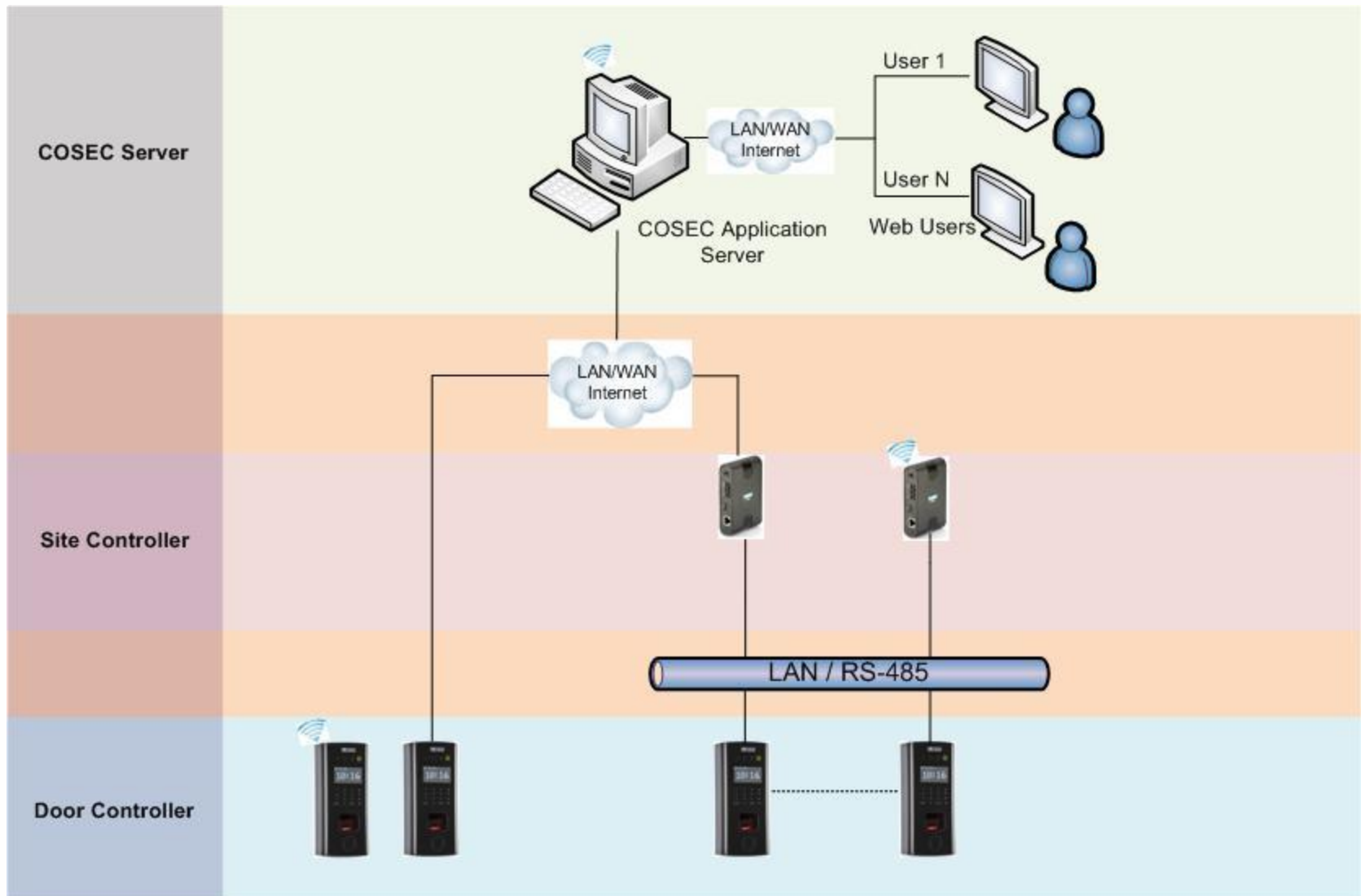
COSEC Architecture



COSEC Layered Architecture



COSEC Layered Architecture



COSEC Layered Architecture

- Master-Slave and Standalone Architecture
- COSEC for Master-Slave Architecture
 - ✓ PANEL LITE as a Master Controller and Door as a Slave Device
 - ✓ PANEL LITE is Connected with COSEC Software
 - ✓ Connectivity between PANEL LITE and Door : Ethernet, RS-485 or Wireless
 - ✓ Connectivity between PANEL LITE and COSEC Server: Ethernet, Wireless
- COSEC for Standalone Architecture
 - ✓ Doors are Directly Connected with COSEC Server
 - ✓ Ethernet, Wi-Fi and 3G/GSM/GPRS/CDMA Connectivity

COSEC Key Features



Unique Hardware Design

- Attractive Vertical Look
- Built-in Controller and Reader
- Touch Sense Keypad and LCD Display
- Screw Less Push Type Connector for Easy Wire Insert
- Pluggable Card Reader Module
- Easy Wall Mounting with Back Plate
- Built-In Tamper Detection

Operations from Door Controller

- Easy Operation from Door Controller with Touch Sense Keypad and Dot Matrix Display
- 16 Touch Sense Numeric and Function Keys
- Functions from Door Controller

Admin/HRD

Enroll
User Profile
Late In
Early Out

Alarm

Panic
Mute
Clear

Attendance

Regular
Break
Overtime
Official
Short Leave

Zone Setting

Do Not Disturb
Dead Man zone
Door Setting
Zone Setting

USB Connectivity

- USB Port for Various Applications
- Connect Memory Stick, Internet Dongle or Wi-Fi Dongle
- Easy Data Transfer from Controller to Server
- Easy Firmware Upgrade of Door Controller and PANEL LITE
- Connect Remote Sites with 3G/2G/GPRS/GSM/CDMA USB Internet Dongle
- No any Physical Connectivity is Required between Door Controller and Server
- Ideal for Remote Applications



Wi-Fi Connectivity

- Simple Connectivity between Controller and Server
- No Wiring is Required
- Real-time Events and Report Generation
- Ideal for Applications where Ethernet is not Possible because of Aesthetic Purpose or Architectural Limitations



Web based Application

- Built-in Web based Application Software
- Program the System and Generate Reports without Location Barriers
- Monitor User Attendance and Access Remotely
- Apply for Leave/Tour and Check Attendance



User Creation with Details

- Create New User with Complete Details
- Edit Existing User Details
- Add User Details Like:
 - ✓ Personal
 - ✓ Contact
 - ✓ Attendance
 - ✓ Access
 - ✓ Photograph
- Assign Door Controllers to Users



Easy Backup and Data Restore

- One Click Backup of System Database
- Helpful in Case of System Crash
- Restore Database Easily from File



Import and Export Data

- Import Data from File and Restore in COSEC Software
- Export Data to ERP, Payroll, Active Directory, Tally and HRM
- Export in Various File Format
 - ✓ Excel
 - ✓ Text
 - ✓ CSV
 - ✓ XML



COSEC Reports and Charts

- Wide Range of Reports and Charts for Diverse Needs of the Organizations
- 100+ Reports and Colorful Charts
- Reports with Month, Day and between Defined Range of days
- Print Report
- Reports of Time-attendance, Access Control, e-Canteen, Roster, Leave, Visitor, User etc.



Message Board

- Virtual Notice Board for All Users
- Three Separate Messages: Notice, News and General
- Advanced Editing Options
- Reduce Possibility of Missing any Important Communication



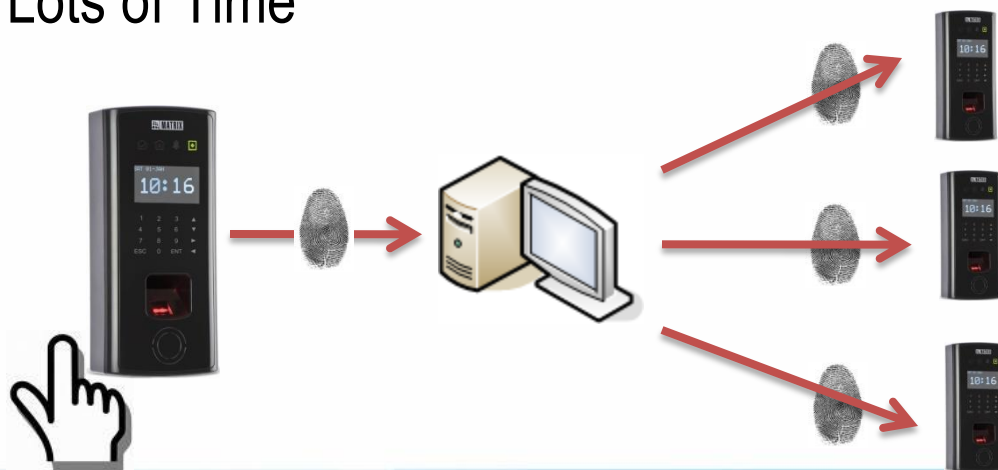
Enrollment

- Enroll New User with Card and Fingerprint
- Enroll Special Function Cards
- Enroll Up to 10 Fingerprints and 2 Cards per User
- Enrollment Initiated from
 - ✓ Directly Door Controller's Key Pad
 - ✓ From Enrollment Station
 - ✓ From Software (Giving Command from Software and Showing Credentials on Door Controller)



Automatic Fingerprint Distribution

- Intelligent and Unique Feature
- Enroll User Fingerprint on One Door Controller
- Software will Distribute Fingerprint Template to all Connected Door Controllers Automatically
- No Need to Enroll Finger on Each Door Controller
- Saves Lots of Time



COSEC Live Monitoring Window

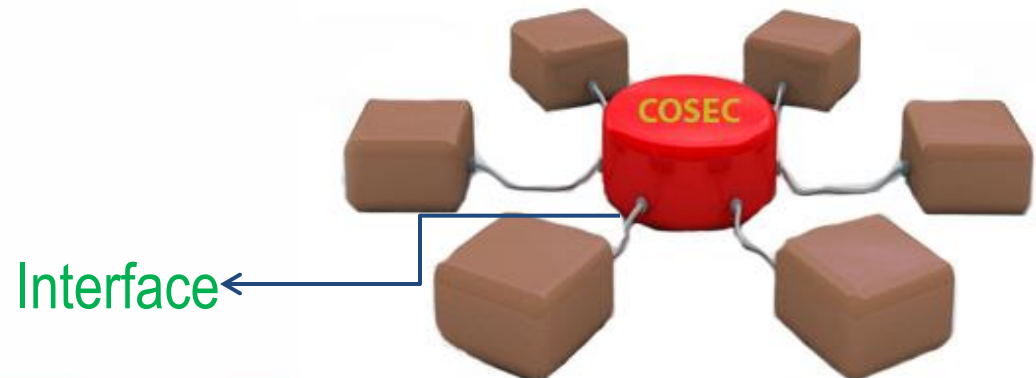
- Real-time Events Monitoring and Control
- Live Status of Door Controllers and PANEL LITE
- Alarm Monitoring and Control
- Firmware Upgradation
- Temporary Deactivate Function/Features
- Auxiliary Input and Output Status
- Automatic Events Download

COSEC Integration



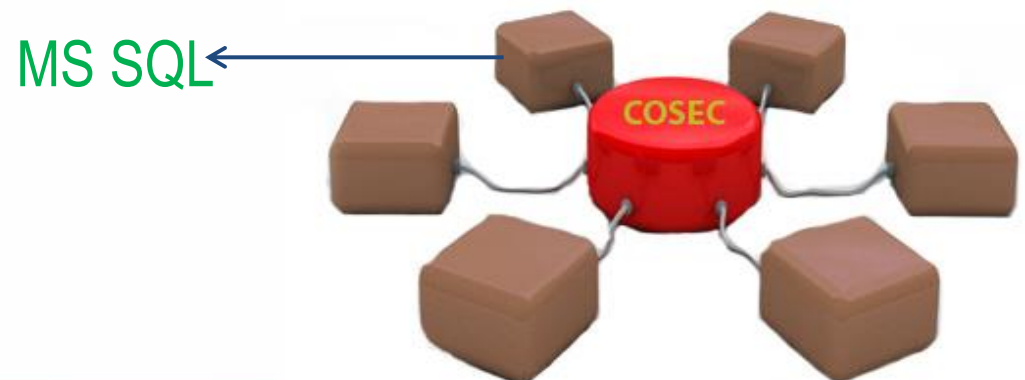
Web API

- Ideal Tool for Payroll/HR Software Integration
- Each Event can be Transferred
- Useful tool for SAP Integration
- Backward Integration Support for User Creation
- Different API possible like:
 - ✓ Add or Delete Device , Assign or Revoke Device
 - ✓ Add User, Daily/Monthly Attendance Events



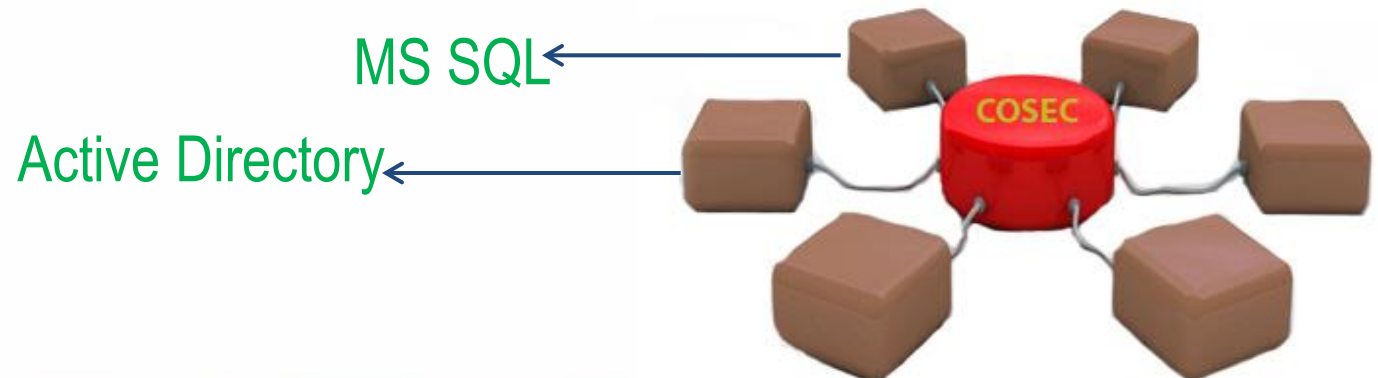
MS SQL Integration

- Useful Integration Tool for Payroll having SQL Database
- Each Event can be Transferred
- Transferring with Field Mapping Facility
- Daily Attendance, Attendance Events, Monthly Attendance Transfer Possible



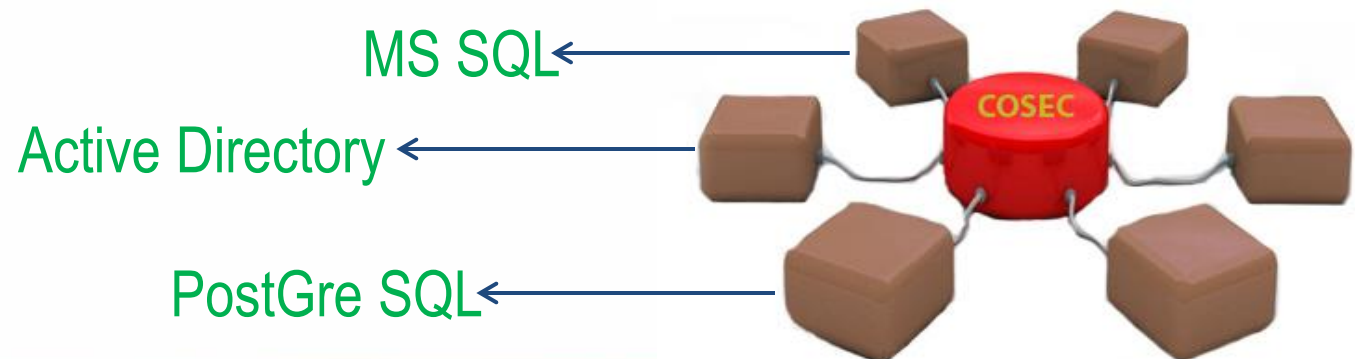
Active Directory Integration

- Active Directory is an Useful Microsoft Windows Server Operating System
- Active Directory is a Database that Keeps Track of all the Users Accounts and Passwords in an Organization from where we can Import User Data in to the Cosec Database



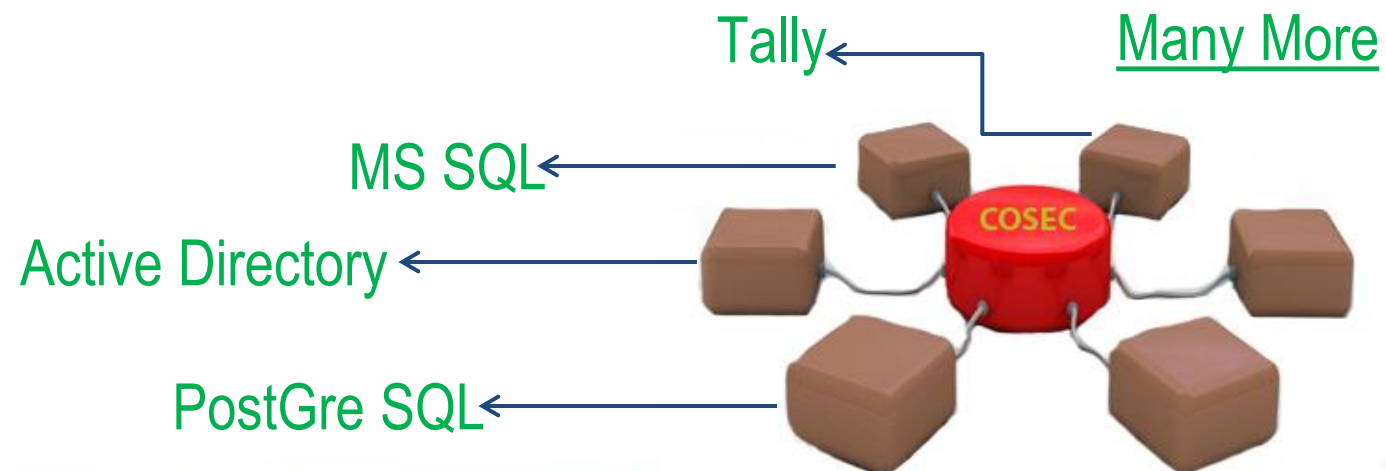
PostGre SQL Integration

- PostGre SQL is a Proprietary SQL for Government Usage Purpose
- PostGre SQL must have Predefined Tables like Devices and Device Log
- Device Table hold the Basic Data like Device ID,MAC & IP. This Table holds Information on Last Ping Time and Last Log Download
- Event Logs for a Particular Device can also be Obtained in Device Log Table






Tally Integration

- Tally is one of the Most Powerful Accounting and Inventory Software
- Importing Attendance Data from COSEC Server into Tally would Allow User to Directly Generate Attendance Vouchers
- Vouchers can be Used to Maintain Employee Accounts.
- Integration through Export Tool with Required File Format by Tally



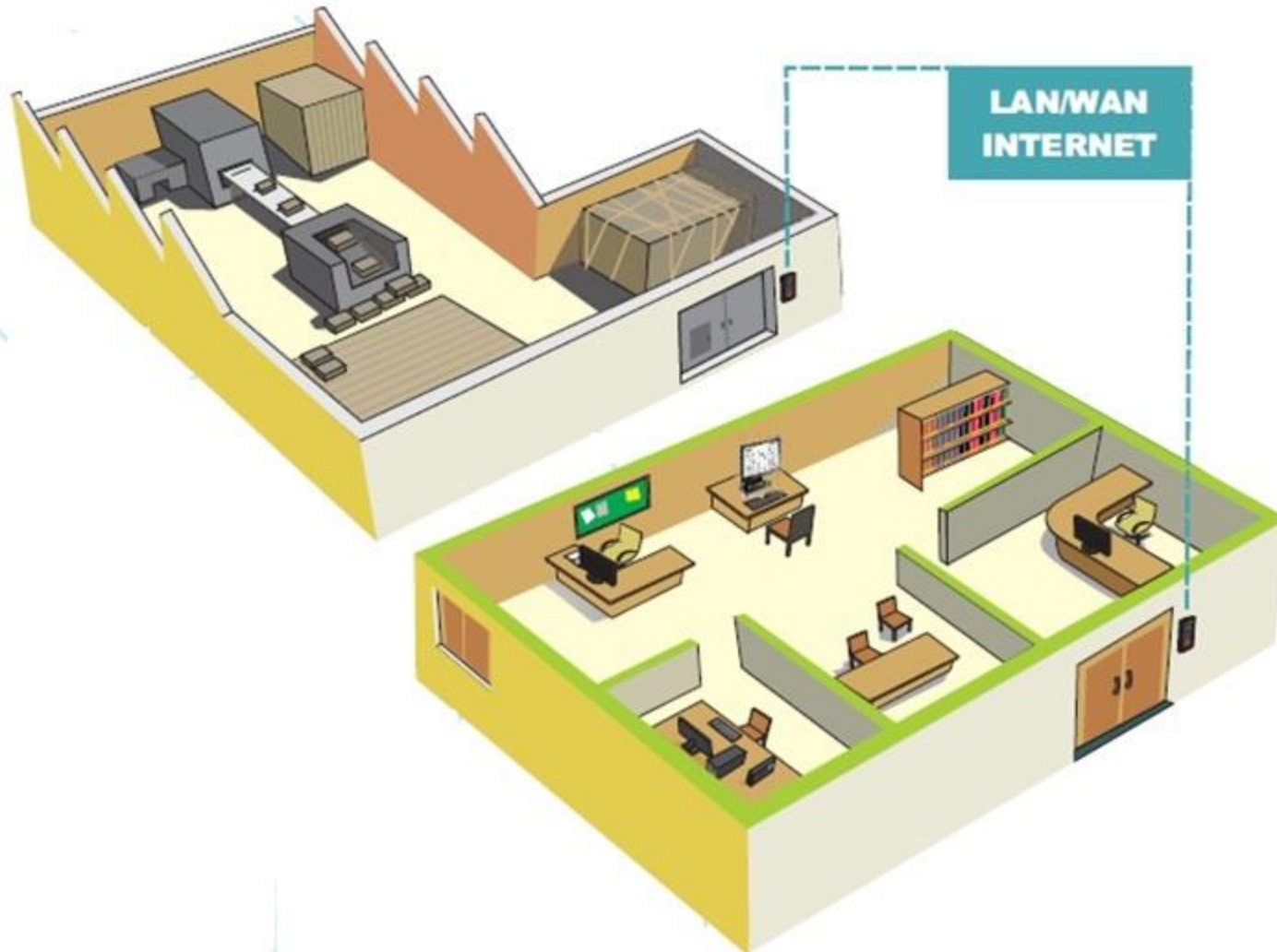
Certifications

CE	
FCC	
RoHS	

Applications



Small Office Application



Campus Application



Head Office

Canteen

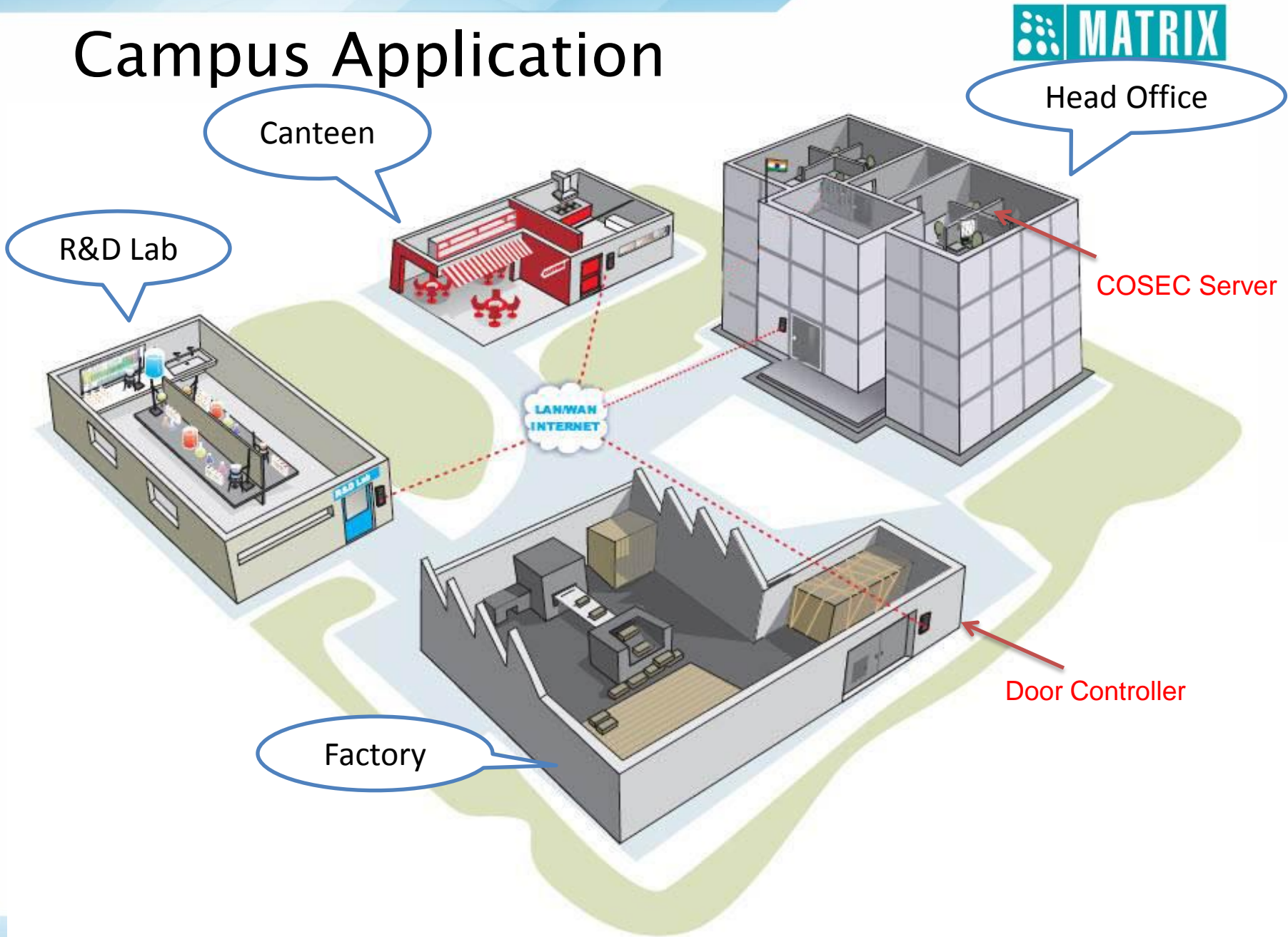
R&D Lab

LAN/WAN
INTERNET

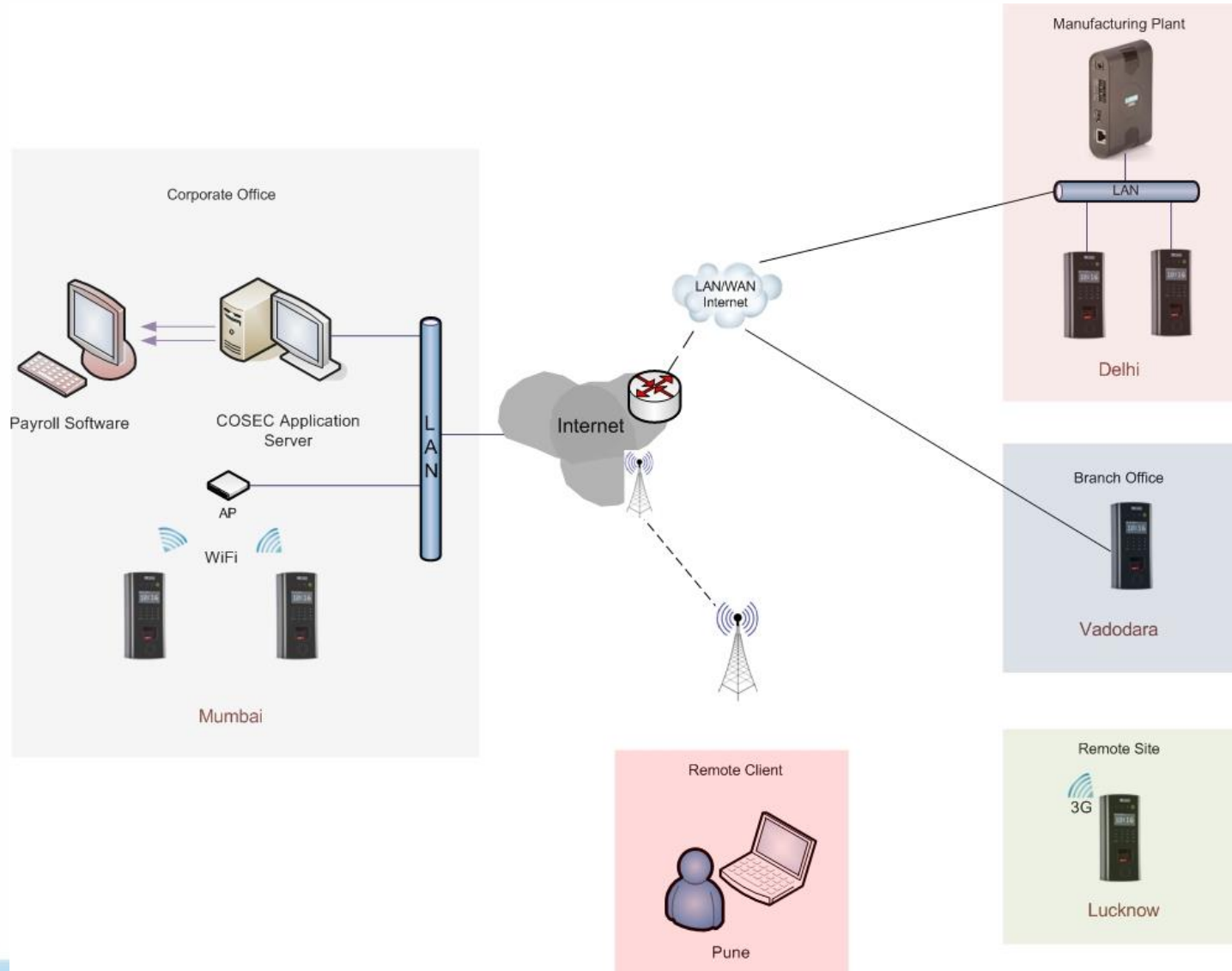
COSEC Server

Door Controller

Factory



Remote Location Application



Thank You

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