COSEC

Right People in Right Place at Right Time

The Best of Both Worlds -Time-Attendance and Access Control

Time-Attendance defines productivity of any organization and Access Control defines security of valuable assets. These two areas are inherently human-oriented, complex and challenging to automate.

Productivity of any organization depends on its effectiveness in putting the right people in the right place at the right time. No two organizations have identical attendance and leave policies. Same organization may follow different timings and holidays for its different facilities like head office, factory and branch offices. Various departments like manufacturing, R&D and marketing within an office differ in their timings, grace period and overtime calculations. Further, people working at different levels in the same department need different time attendance and access control flexibility.

Security depends on having right answers to Who, What, Where and When. Defining, controlling and monitoring entries and exits at each site, zone, floor, area and office is necessary for effective security.

It is a herculean task to identify a Time-Attendance and Access Control solution that meets the organization's exact needs and integrates seamlessly with its existing IT/ERP infrastructure.

Presenting Matrix COSEC an adaptive, modular, scalable and function-rich Time-Attendance and Access Control system designed for Small Office Home Office (SOHO), Small and Medium Businesses (SMB), Small and Medium Enterprises (SME) and large Enterprises (LE).

MATRIX

SECURITY SOLUTIONS

HIGHLIGHTS

Comprehensive

Matrix COSEC provides a comprehensive and end-to-end Time-Attendance and Access Control Solution. Matrix product range includes different products such as Door Controllers, Exit Readers, Site Controllers, Enrollment Stations and Application Servers.

Architecture

COSEC is built on layered, distributed processing architecture with intelligent components at each level. At the top is the enterprise-grade, web-enabled application server which controls and manages the entire system through COSEC Panels or direct Door Controllers.

COSEC Panels manage multiple Door Controllers and acts as a local bridge between the Door Controllers and the application server. It is responsible for synchronizing all the Door Controllers, implementing advanced access control features and storing events. The interface could be Ethernet, WiFi, 3G and/or RS485.

Door Controllers and their Readers are the front-end terminals guarding and monitoring the entry and exit points. Readers can read contactless proximity cards, smart cards and fingerprints for identification. Door Controller can monitor and control additional readers, doors and auxiliary input and output ports. COSEC with new architecture assists user to connect geographically distributed sites in a simple way. Without Static IP user can connect up to 1,000 sites and 10,000 DOORs irrespective of distance limitation.

Modularity

Matrix COSEC architecture is modular in nature allowing customers to pick and choose modules relevant to their business. Modules such as Time-Attendance, Access Control, Visitor Management, Employee Self Service and Roster Management can be added later without any disruption to an existing deployment.

Scalability

Matrix COSEC architecture is truly scalable, allowing a customer to start with smaller configuration and expand step-by-step as the organization grows. PANEL can control from 1 to 75 Door Controllers. An enterprise can deploy up to 1,000 such PANELs and 10,000 Door Controllers, managing up to 1Million users distributed over the entire globe.

Flexibility

Matrix COSEC is designed to deliver high level of flexibility at various levels. Interfaces (WiFi, 3G, Ethernet and RS485), Door Controller connectivity with application server (direct or through PANELs), readers (Card, Finger and PIN in any combination), pluggable card personality modules and sensors (Optical and Capacitive) are few examples of flexibility.

Further, the same Controller can be configured for either entry or exit with up to 10 fingers per users. Attendance, Leave and Access Control policies are flexible enough to satisfy the most demanding real-world enterprise needs.

Simplicity

An Ethernet or WiFi/3G based Master-Slave architecture simplifies cabling and installation. Discrepancies of time between multiple Door Controllers running independently are eliminated by synchronizing all the Door Controllers with the central server. Door Controller with built-in touchsense keypad and dot matrix display with backlit makes it easy to operate from Door Controller itself. Moreover administrator can download events or upgrade firmware through USB drive or LAN.

Reliability

COSEC is designed for long term uninterrupted performance. It is designed to work in variant temperature, dust full environment (Touchsense Keypad) and excessive humid conditions. Further, its wired or wireless architecture, battery back-up, SMPS based power supply and battery and mains fail alarm contributes to the reliable performance of the system.

Productivity

Matrix COSEC Time Attendance software facilitate employee-wise shift planning, past adjustments of salaries and an automatic generation of work schedules. Personalized user portal helps employee to get attendance summary, view leave record and apply for leave electronically. With such intelligent, utilitarian and advanced features, COSEC serves to boost productivity of both- an employee and the organization.

Integration

Matrix COSEC is integrated system allowing integration with fire alarm system, video surveillance system, exit readers, sensors and relay devices without any need of external module. Application software can be also integrated with third party payroll, HRM, Tally and ERP software easily.

Technology

Matrix COSEC is built on modern technology platform. On hardware side it employs powerful 32 bit Arm processor and high speed digital signal processing (DSP). COSEC application server is built on Windows platform, with advanced RDBMS (MS SQL, Oracle) and Microsoft .NET technology.

All in all, Matrix COSEC is an ideal Time Attendance and Access Control solution for Private and Government Offices, Banking, Finance, Insurance, Education, Services, IT, Manufacturing, Pharmaceutical, Retail, many others industries as well as Ports, Airports and other Transport agencies.

COSEC KEY DIFFERENTIATORS

- 1 to 10,000 Door Controllers
- 1 to 1Million Users
- Built-in Controller and Reader
- Distributed Architecture
- Built-in Web based Application
- Centralized Monitoring and Control
- Centralized Fingerprint Distribution
- Dual Fingerprint Templates
- Automatic Events Download
- Pluggable Card Reader Modules
- Employee Self Service Portal
- USB, WiFi and 3G Connectivity

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COSEC BUILDING BLOCKS

COSEC PLATFORM

PANEL   PANEL LITE

READER FO   READER FC   READER CA

DOOR FOP   DOOR FOS

DOOR CAP   DOOR CAS
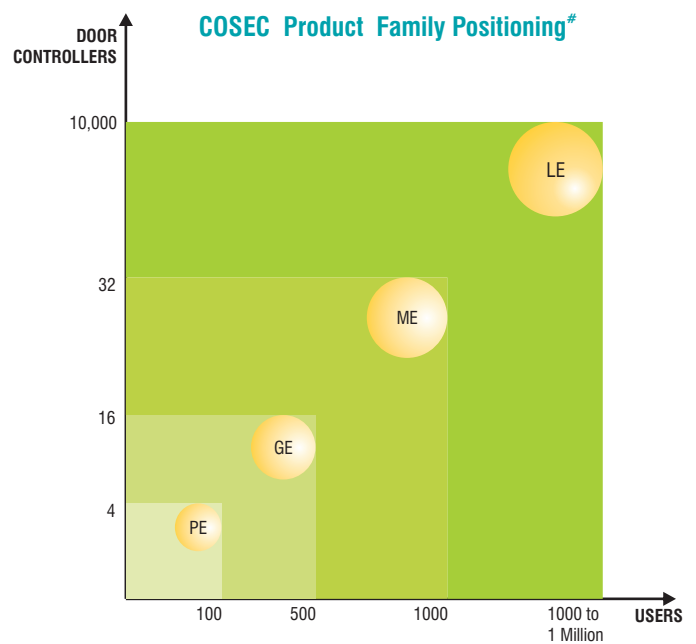
DOOR FCP   DOOR FCS

COSEC Software Module

Admin	Time-Attendance and Leave Management Module
Users	Access Control Module
Devices	Employee Self Service Portal
	Visitor Management Module
	Roster Management Module

Built-in PLATFORM Modules

Optional Modules

COSEC Product Family Positioning#

DOOR CONTROLLERS

10,000

32

16

4

LE

ME

GE

PE

100   500   1000   1000 to 1 Million

USERS

#Refer PLATFORM Selection Guide for More Details

TIME ATTENDANCE

It is very challenging to capture time attendance rules of an organization and automate them. Matrix COSEC meets this objective by offering a superlative range of flexible functions. Shifts and Schedules, Late-In and Early-Out, Overtime, Comp-off, Absenteeism, Multiple Organizations, Past Adjustments, SMS and Email Notifications etc. are some of these rules. Elaborate views and reports are also offered for people working at all different levels.

Multiple Organizations

Each organization has different policies related to time attendance and leave management. This feature permits administrator to create Multiple Organizations and assign it to an employee. It also permits to generate outputs separately for different organizations. Apart from the organization creation, COSEC allows to create multiple branches, departments, sections, designations, grades and categories.

Selectable Entry-Exit Mode on Readers

COSEC provides the flexibility of using the same reader for entry as well as exit and thus eliminates the need of separate exit reader. System will automatically consider user punches for entry and exit depending on system programming.

Late-In/ Early-Out Policy

Matrix COSEC time attendance software is a reliable tool to monitor late-in and early-out entry of each employee based on his shift. HR can create and assign these policies to an employee or a group of employees. Appropriate actions like leave deductions, officials or personal marking etc. can be taken based on late-in and early-out entries of an employee.

Overtime Policy and Authorization

Overtime Policy is a complex process and varies from organization to organization. This software allows calculating overtime on daily or weekly basis and provides option for rounding the values. There is a provision to authorize the overtime from his reporting officer for maintaining proper system.

Compensatory Off (Comp-off) Policy and Authorization

Many organizations provide compensation for extra work to motivate their employees. With Comp-off policy, HR can easily convert overtime working hours in Compensatory Off hours and offer additional leave or encashment options. Reporting officer has the rights to authorize comp-off hours.

Absenteeism Policy

Absenteeism Policy allows HR to define whether week off or holiday is allowed on single side or both sides of the employee's leave period. HR can also define number of days after which an absent user is blocked.

Shifts and Schedules

Shifts and Schedules vary from organization to organization. It is very time consuming for the managers to manually manage workforce effectively and efficiently. COSEC time attendance software is designed after considering this complexity. It allows creating unlimited shifts and up to 99 shift schedules to manage workforce of any type of organization.

Automatic Shift Correction

For organization working in shifts, sometimes employee comes in a different shift instead of his regular shift. In such cases, COSEC time attendance offers an option to correct shift operation automatically and mark his presence for the day.

Holidays and Restricted Holidays

With COSEC software, HR can define holiday schedule for the current year. Software allows 4 holiday schedule groups with maximum of 32 holidays range in each group. Admin can define range of holidays with start and end date. This is very useful feature for schools, colleges etc. where serial holidays or vacations needs to be included in a holiday list. System has the provision to define restricted holiday list which is common for all employees in the organization. Employees can enjoy predefined number of holidays from this list without leave deduction. It is useful especially for the employees who are coming from other regions and don't want to miss their festival.

Manual Entry and Corrections of Entry-Exit Events

Manual Entry is a useful feature when employee is on tour or requires any modification in attendance record. Overtime/comp-off hours, late-in/early-out time, personal or official marking etc can be corrected manually with proper access rights. It provides systematic approach and accurate attendance data to the HR for salary calculation.

Past Adjustments

Many times HR needs to correct employee data like attendance days, overtime hours, working hours and shift allowance after the attendance period is closed. These data are important as it affects employee attendance record and salary calculation. COSEC time attendance software generates past adjustment data automatically and includes it into current month salary calculation data.

Attendance Summary

Attendance Summary comprises essential attributes for the salary calculation. It summarizes various employee data like attendance, leave details, week off and holidays on a single page. Furthermore, organization-wise, department-wise and user defined period-wise Attendance Summary can be generated.

Attendance Periods

COSEC time attendance software provides an option to choose flexible attendance period for salary calculation. It offers month-wise attendance period i.e. 1st July-31st July and user defined date-wise attendance period i.e. 26th March-25th April.

Authorization Hierarchy

Well organized authorization hierarchy in an organization helps managers to manage their workforce effectively and efficiently. System offers 99 reporting groups and each employee can be placed in one of this reporting group. This ensures all the leaves and attendance requests are approved by his reporting officer.

Global Attendance Parameters

Common rules and parameters can be defined at one place and applied to all users with this utility. These includes no. of duplicate punch allowed, auto shift correction, max late-in / early-out allowed time, password security etc. Thus administrator doesn't need to define parameters for each user which saves useful time.

User-wise and Period-wise Option

User-wise policy offers to create different policies and assign to different employees whereas period-wise policy offers to create different policies based on different time periods and assigned to a single employee or a group of employees. This option is available with Late-In, Early-Out, Overtime, Comp-off and Absenteeism policies.

SMS and Email Notification

Admin can assign SMS and Email alerts for various predefined events such as User Events, Leave Application, Approval /Rejection, Monthly Attendance and Missing In/Out Punch. COSEC will send SMS and Email notification to multiple users automatically on the occurrence of any such

events. This feature has a great use in schools, colleges and all type of offices to inform user about their various attendance and leave details and for reducing attendance related issues.

Custom Alerts Utility

The smart feature of COSEC enables user to customize a message of their like and send it across a group of users. It helps organization to send information like gathering, meeting, latest news, changed rules, working on holidays etc. via SMS and Email very quickly.

Views and Reports

Users can view their daily/monthly attendance, leave balance, shifts/schedule and holiday detail. Reporting officers can view these data for an individual or a group of employees. Various filters like employee, date, month and year can be applied. System can generate various master and transaction reports. Master reports are related to the organization, department, category, reporting group etc. whereas transaction reports are related to daily activities like in/out events, shift change, overtime etc and monthly activities like muster roll, salary data, absentee details etc. For easy and fast interpretation, these reports can be presented in the form of various charts.

Leave Management

Leave Types Creation

Each organization have different work and leave policies with varied parameters. COSEC Leave Management gives wide options to HR to create different leave types like PL, CL, SL, EL, ML, OD etc., with different parameters like balance check enable/disable, paid/unpaid leave, lay off, accumulation, minimum and maximum leaves availed at a time etc.

Organization-wise Leaves

Many organizations have different branches, departments and divisions which needs different leave policies because of their nature of work. Matrix COSEC is the perfect solution for this type of organizations wherein HR can create different leave policies, group them and apply to various organizations. They can also generate organization wise leave reports.

Leave Requests and Approvals

Using leave management module, employees can instantly submit their leave application/cancellation requests and those request are routed to reporting officer's window for the approval. If reporting officer does not respond in predefined time, requests routed to the HR for approval.

Leave Balance

With COSEC application software, employees can view their leave balance for the current year. It starts with opening balance and automatically updated with credited/debited leaves, sanctioned leaves and leave encashment. Software gives facility to HR persons to manually credit or debit leaves for maintaining leave balance.

Leave Accumulation Rules

HR person can define maximum number of leaves that an employee can accumulate in a year. When number of leaves exceeds this limit, he has to use it or encash it.

Leave Balance Carry Forward/Lapse Rules COSEC Leave Management offers the flexibility to carry forward the leave balance to the next year or lapse it at the end of the year. This parameter is defined at the time of leave type creation.

Leave Accounting Period

This feature offers flexibility to HR to calculate Leave Accounting Period user-wise or organization-wise to meet diverse requirements of the organization.

Leave Encashment

HR can define some leaves as encashable leaves. This feature allows HR to provide encashment to a single user or group of users and for selected month and year.

Views and Reports

COSEC Leave Management provides a utility of viewing latest detail of an employee leave status. HR person can generate different reports related to leaves like leave master, leave application, leave encashment, leave credit/debit and leave register.

Integration with ERP/Tally/HRM/Payroll
Export Attendance Data with Programmable Fields

Integration of web based application with 3rd party software can save lots of time and money for any business organization. With export data generation utility, admin can create different templates with programmable data fields which can be exported from the system in different formats like CSV, Text, Excel and XML to ERP, Tally, HRM or Payroll as an input. Moreover, static and database field values can be replaced with user defined values.

Roster Management:

Matrix Roster Management is all about planning, costing and best utilization of the workforce. It is designed to simplify the process to generate and manage employee duty rosters. It offers Roster Plan which shows list of employees and the time and place of work. Moreover, export data fields to XML files makes third party payroll integration easy. Matrix Roster Management saves time and cost significantly by placing right people in right place at right time.

ACCESS CONTROL

The basic objective of any access control is to protect enterprise assets. The range and flexibility of access control features provided by Matrix COSEC helps to achieve this objective. The primary access is controlled on three dimensions User, Zone and Time. This answers the three fundamental questions Who, Where and When. In addition, a range of value-added features like Anti-Pass Back, 2-Person Rule, First-In User, Blocked Users, Door Auto Relock, Guard Tour, Man-Trap and Visitor Management ensure fool-proof security of manpower and material.

Physical Zone

Matrix COSEC physical access zone controls who (User) goes where (Access Zone) and when (Time). Access Zones can be created by dividing organization into various departments like, accounts, production, marketing or IT. Using this feature, employee of one department can be restricted from entering into another department. Sub zones can be created within an Access Zone to further regulate entry.

Zone-wise Card, Finger, PIN

User can enter into a zone by showing his credentials to the reader. Matrix COSEC offers flexibility for selecting credentials like Card, Fingerprint or PIN to access a zone. For higher security administrator can assign combination of two or all three credentials to that zone.

Access Level

Access Level gives privileges to a user to enter into a controlled area. It is assigned to a zone and a user ranging from 01 to 15. If user Access Level is higher or equal than zone Access Level, he is allowed into that particular zone. Different Access Levels can be assigned to a zone for working, break and non-working hours.

Home Zone

Home Zone is a pre-defined area, assigned to a user as a regular work place. System will allow access to home zone without checking

his/her access level during working and break hours. The same user may be restricted from accessing other zone with less access level than the home zone access level.

Visit Zone
Visit Zone is the area where a user needs to visit very often other than his Home Zone. In COSEC, it is possible to provide additional access privileges to a user to visit such a zone without checking his access level.

Time Zone
Time Zone decides when a user group is to be allowed in a particular zone. COSEC employs 99 Time Zones to grant time based access rights to user groups.

VIP Access
A User holding VIP Access has the highest level of access privilege that empowers him to access any controlled area.

Occupancy Control
Occupancy Control is used to control the number of users within a designated area. Maximum number of users in a zone can be defined and when count reaches this limit, system blocks additional user entry. This is useful for facilities like conference room, canteen etc. where limited space is available inside the area.

First-In User Rule
In some organizations, employees or workers are not allowed to enter into certain work areas unless a designated person makes the first entry to ensure higher level of safety and security. With this feature, Matrix COSEC will keep the door locked until the designated first user registers his entry. Once the First-In entry is registered, other users are allowed to enter till the working time of the First-In user is over.

2-Person Rule
Certain sensitive zones contain valuable assets like cash, gold, data, intellectual property, etc. Security of such assets should not be entrusted on any single individual. 2-Person Rule allows entry only when two persons from an authorized group jointly use their access rights within a specified time and thus eliminating possibility of any fraud. COSEC supports 16 such groups with up to 6 Persons in each group.

Man-Trap
Many times two or more doors are arranged in a sequence to regulate traffic or control dust and heat. The second door should open only after the first has closed. Man-Trap offers programmable delay to regulate traffic or flow rate of people. It also prevents any intruder from escaping in hurry.

Guard Tour
Guard Tour feature enables the administrator to keep an eye on the movements of security guards within the organization to ensure it is monitored properly during working and non-working hours or days. Guard has to show his credentials (card or fingerprint) on defined checkpoints at specified time period. This tour can be programmed in such a way that all doors are required to be visited sequentially. Maximum time period to complete a tour can also be defined.

Door Auto Relock
Door Auto Relock is an important security feature for avoiding "tail-gating" of the other person along with authorized user. When user shows his credential to the reader, the door relay is energized for the pre-defined time to allow entry. After this period door relay will automatically deactivated and lock the door to restrict further entry.

Bypass Finger
Many times the fingerprint reader is not able to read the fingerprint image of a particular user because of very low impression of fingerprint or other reasons. Matrix COSEC has an option to bypass fingerprint of such a user and grant access based on other credentials.

Do Not Disturb (DND) Zone
Do Not Disturb Zone feature is useful for meeting rooms, conference halls where persons inside the area do not want to be disturbed by outside people. By declaring any zone as a DND Zone, user's entry can be restricted for predefined time. It is possible to grant access to certain people like VIP, who have a privilege to override the DND.

Anti-Pass Back (APB)
Anti-Pass Back prevents a card holder from passing their card back to a second person to gain entry into the same zone unless the same card is registered for exit after each entry. This feature of COSEC helps organization to maximize security by preventing fraudulent use of card and helps to maintain an accurate record of the number of people in a specific zone and last position of the user. Anti-Pass Back can work in two modes:

(1) Anti-Pass Back Global: In this mode system verifies user's exit marking on all zones before allowing re-entry.
(2) Anti-Pass Back Local: In this mode, system verifies user's exit marking on local zone (same zone of entry) only before allowing re-entry.

COSEC offers two types of Anti Pass Back when APB rule is violated. Hard Anti-Pass Back restricts the entry with log while soft Anti-Pass Back allows the re-entry with log.

Anti-Pass Back-Forgiveness
Forgiveness works in association with Anti-Pass Back. With this feature Anti-Pass Back status automatically reset at midnight and allow the employee to use all his access rights from next day. If an employee leaves premises without registering the exit marking and does not return on the same day, COSEC forgive this and allow entry on the next day.

Blocked Users
Matrix COSEC offers unique feature for putting a user in Blocked Users' list and restricting him from entering into a controlled zone. This user is treated as a deactivated user and all the access privileges he has, will be withdrawn temporarily. However, the user details in database will remain as it is. A user can be blocked because of three reasons: 1) Absentee user- Employee is absent for more than a predefined time period, 2) Consecutive unauthorized attempts to access a zone and 3) Repeated attempts by an authorized user exceeds the number of attempts within a time limit.

Additional Security
Additional Security Code
Duplication or fraudulent use of cards that creates security risk for the organization. COSEC provides enhanced level of security by encoding an additional security code in the card.

Facility Code
Facility code is a unique number string that identifies the organization as a whole and encoded in the cards and Door Controller. On Degraded Mode operation, COSEC allows user to access the zone using this code.

Time Stamping
COSEC offers Time Stamping functionality *via* its integration with DVR. It is a utilitarian feature to restrict proxy punching happening with card or password. The camera connected with DVR takes the snapshot of the person trying to access the DOOR and generates report with photograph. It provides accurate identification and enhances level of security.

Dead-Man Zone

It is essential to track the physical safety of an employee who is working in hazardous environments like railroads, mines, chemical lab etc. Dead-Man Zone makes it compulsory for the employee to confirm his presence at pre-defined intervals. An alarm gets activated if he fails to punch-in on the pre-defined time.

Door Auto Relock

Door Auto Relock is an important security feature for avoiding "tail-gating" of the other person along with authorized user. When user shows his credential to the reader, the door relay is energized for the pre-defined time to allow entry. After this period door relay will automatically deactivated and lock the door to restrict further entry.

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1) Absentee user- Employee is absent for more than a predefined time period,

2) Consecutive unauthorized attempts to access a zone and

3) Repeated attempts by an authorized user exceeds the number of attempts within a time limit.

Group-wise Data Access

Group-wise Data Access provides the access rights in different software modules to wide-ranging groups like organizations, departments, branches etc. Therefore, Admin from each group can program access, attendance and leave policies for their group only. Thus, it provides confidential database management between departments, branches and organizations.

Who's In

Who's In allows administrator to monitor and identify user's present in a zone. It generates the list of users inside any controlled area at that point of time. This feature is very useful during an emergency.

EMPLOYEE SELF SERVICE PORTAL

View Attendance and Leave Status

This portal empowers employees by providing direct web based access to view their attendance summary, attendance events and leave status for a particular day, current month, previous month and users defined periods. These details are presented with colorful marking for easy interpretation. Moreover, employee can check status of applied leaves and leave balance with full details.

View Shift Schedule

This facilitates employee to view their own shift and schedule for current and upcoming months so that he can plan his activity and course of action in advance. This utility greatly helps employees to improve their efficiency by better time management.

Request and Authorize Attendance Workflows

With this utility, employee can request for the authorization of attendance, overtime, Comp-off and personal or official leaves to his reporting officer. This request is reflected on reporting officer's window for authorization. He can approve or reject such requests using the same portal.

Request and Approve Leaves Workflows

Anyone who has applied for leave knows the frustration of filling the paper form and waiting for the approval from the reporting officer's hierarchy. This electronic leave management software removes the burden of paper and enables employee and reporting officer to request and approve leave without any delays using ESS portal.

Message Board

COSEC application software brings the notice board to a virtual location where notice is displayed on the home page of the software and viewable to each login user. This ensures that employees are updated with latest news and events of the organization.

Reporting Officer Self Service

System offers self service portal for reporting officers to manage their team effectively. In addition to all employee facilities, reporting officer can create and manage work schedules, approve and manage leaves, authorize attendance and overtime/comp-off hours, change reporting group of his team members.

VISITOR MANAGEMENT MODULE (VMM)

Visitor Pre-Registration

To speed up the registration process of a visitor, VMM facilitates security officers to register visitors' details in advance and create a pass before the actual visit. Information like personal details, date and time of visit, contact person etc can be stored in the database.

Visitor Pass Creation

COSEC VMM gives an option to produce e-pass or paper pass with access allotted to visitor for defined time period. It carries information like name, address, organization, contact, escort user, host user etc. Moreover, with a single click operation admin can capture or upload photograph of a visitor. VMM also have the facility to keep record of the materials list, ID-Proof and no. of additional visitors.

Visitor Access

Just like a normal employee, VMM has the facility to provide fingerprint and card based access to each visitor. Moreover, administrator can assign different access rights to each visitor to ensure that they can access permitted zones only.

Visitor Escort

VMM provides an option to select an escort with the visitor to ensure higher security of the organization. Door will open only if visitor's credential is shown after escort's credential within specific time period.

Frequent Visitors
Some people such as courier boys, bank officials etc visit the organization regularly. VMM keeps a database of past visitors so that security person does not need to enter the same user details every time to create a pass and get details from the database.

Visitor Watch List and Blocked Visitors
When admin feels that particular visitors should not be allowed to the premises, he can add them to the Visitor Watch List. Moreover, he can block watch listed visitors to withdrawn their access rights to premises.

Visitor Reports
Admin can create various reports such as visitor punch details, visitor access denied, pre-registered visitors, blocked visitors, visitor pass validity and status, expired passes etc. It can be viewed on the web or printed for further actions.

SYSTEM MANAGEMENT

Administration
Login User Creation and Management
In COSEC application software, administrator can create unlimited number of login user accounts with password security. With this account, user can login into the software and access various functions. Administrator can activate or deactivate the user account anytime.

User Roles and Rights
Different roles are required to be used as templates for login users with assigned rights. Three default roles-system administrator, system engineer and system operator are predefined in the system. In COSEC software, unlimited number of login user roles can be created with different access rights assigned to each role.

Forced Password Change
Passwords are critical for ensuring privacy and security of login accounts. With this feature, administrator can define maximum number of days till each user account can sustain with same password. After this time period, users are forced to change the password for their login accounts.

Special Function Cards
Entering code number every time for routine functions is a tedious process for the user. In Matrix COSEC, administrator can assign Special Function Cards against various predefined functions. User has to show the Special Function Card followed by his credential to access special functions. With these cards, user can access various functions like late in, early out, lunch in/out, overtime, enrollment, etc. Administrator can assign up to four cards against each function.

Centralized Management
COSEC provides an easy way to deploy security applications, define and distribute attendance policies and monitor the system from a central place. This software is powerful enough to handle up to 1000 PANELs, 10,000 Door Controllers and 1Million users without compromising the performance.

Default Configurations
It is easier for the admin if some pre-defined configurations are available in the system. COSEC application software is pre-loaded with default configurations so that the system starts working immediately after the installation.

Disable Passive Users
Matrix COSEC makes it compulsory for the users to login at least once within a predefined time period to keep the account active. When this feature is enabled, system checks user status every time he logs into the system. If the successful last login is beyond the predefined period, then the user will be blocked from further access.

Degraded Operation
In the event of system crash or communication failure between Door Controller and PANEL, employees should be allowed access to a zone to ensure smooth operation of the organization. On occurrence of such incidents, COSEC scales down its security level and degrades its operation. It identifies a user with fingerprint or a card with Facility Code, without verifying access rights and allows them to access the facilities. Events are stored in Door Controller's memory and when system gets back to its normal mode of operation, stored events will be transferred to the PANEL.

COSEC Installation Wizard
The COSEC Installation Wizard makes software installation quick and easy without much user intervention. With a single click, wizard automatically installs all required programs in few minutes. It also gives facility for custom installation, full installation and uninstall of the software.

File Formats
System can generate various reports of time attendance, access control, user information, system configuration, events transaction etc. It can be exported in different file formats like Excel, Word, XML, RPT, PDF and CSV for further action and record keeping.

Mass Assignment
With Mass assignment of DOORs and PANELs to a single or group of users simultaneously reduces time by eliminating need of separate assignment of DOOR or PANEL to a user or group of users.

SMS and Email Notification
Admin can assign SMS and Email alerts for various predefined events such as User Events, Leave Application, Approval/ Rejection, Monthly Attendance and Missing In/Out Punch. COSEC will send SMS and Email notification to multiple users automatically on the occurrence of any such events. This feature has a great use in schools, colleges and all type of offices to inform user about their various attendance and leave details and for reducing attendance related issues.

Custom Alerts Utility
The smart feature of COSEC enables user to customize a message of their like and send it across a group of users. It helps organization to send information like gathering, meeting, latest news, changed rules, working on holidays etc. via SMS and Email very quickly.

Auto Screen Refresh Utility
COSEC offers Automatic Refresh of monitoring screen without user intervention. This will pull latest transactions and status updates of DOOR, PANEL, Alarms and Input-output group linking etc. Data transfer between DOOR and PLATFORM is optimized in such a way that it improves screen response time.

Web API
Matrix has developed user friendly Web based application interface to integrate COSEC with third party Payroll, Tally, ERP or HRM software automatically. Admin can easily add or edit users, assign or revoke devices, request and receive the access or attendance events etc. from third party software. Whenever any change is made in either software, Web API will update the same data in other software which reduces the efforts by eliminating duplicate entries.

Enrollment
User Creation and Management
COSEC Software simplifies the employee data management for the HR Department. HR person can create new user with various personal and organization details. Personal

information like identification, contact details, photograph, PF No etc and organization-wise information like attendance policy, shifts and schedules, access rights etc. are recorded electronically in the database. HR can view and edit this information and generate required reports.

User Enrollment
COSEC facilitates HR to enroll user's credentials like fingerprint, card or PIN. He can enroll credentials through COSEC application software, special function card, Door Controller's keypad or from the enrollment station.

Group Card Enrollment
COSEC offers easy and convenient method to enroll cards in a Group. Administrator can assign a set of cards to group of users simultaneously. It automates the enrollment process by eliminating card holder queuing for enrollment.

Delete Credentials
Administrator can easily delete the existing user's credentials like fingerprint or card from the database using COSEC application software, special function card or Door Controller's keypad.

Centralized Fingerprint Distribution
Matrix COSEC comes with a unique feature for distributing fingerprint template automatically on each Door Controller connected with the COSEC server. This eliminates the need of separate enrollment of fingerprint on each Door Controller and reduces administrative complexity.

Fingerprint Verification
With Fingerprint Verification facility, administrator can check user's presence in COSEC database by placing finger on the enrollment station. If it matches, system will show user's photograph, designation, user ID, etc. A very useful feature to identify criminals, patients, students etc. from the available records promptly.

Dual Fingerprint Templates
COSEC offers a unique feature of storing a copy of fingerprint image in the database during enrollment. Out of two templates, one will be stored as it is and another will keeps on changing whenever any change is detected in the user fingerprint. This provides sureness of fingerprint acceptance on the reader.

Monitoring and Control (M&C)
Local and Remote Monitoring and control
Desktop based application offers real time monitoring and control facility to check the system in real time either locally or remotely from a single window. It shows current status of up to 1000 PANELs and 10,000

Door Controllers, alarm input and output ports and generated events. Moreover, an administrator can control alarms, lock or unlock door, enable or disable door sense and other access control features from a single window.

Events Monitoring and Storage
Generated events should be updated in real time in order to maintain accurate time attendance records and for security reasons. With monitoring and control software, events like clock in, clock out, alarm, fault, etc., can be monitored in real time.

Alarms Monitor, ACK and Clear
Alarms play a key role in ensuring security of the organization. Alarms like tamper, mains fail, battery fail etc can be monitored in real time from the software. Moreover these alarms can be acknowledged and cleared from a single location.

Input-Output Ports Status and Control
COSEC software gives facility to link auxiliary input ports and output ports of PANELs and Door Controllers to perform various controlling applications like fire alarm integration, video surveillance etc. Administrator can check the status of all the auxiliary ports connected with PANEL and Door Controller in real time and enable or disable each port separately.

Time Trigger Functionality
With Time Trigger Functionality, admin can control various activities of auxiliary output or output group without any manual intervention. Various functions such as door unlocks, siren activation etc. can be activated on defined time and for defined time duration. COSEC offers such 99 Time Trigger functions.

HARDWARE

Ethernet, WiFi and 3G Connectivity
Featuring Ethernet, WiFi and 3G based connectivity, COSEC Door Controller offers extra flexibility in designing security solution while reducing cost on installation, maintenance and increases system reliability. Compare to conventional access control system, Ethernet, WiFi and 3G enabled systems provide lower cost per door with less wiring using existing network infrastructure.

Supervised Auxiliary Input Ports
Matrix COSEC PANEL and Door Controller provide a highly reliable supervised input port for various control applications. External devices like motion detectors, smoke detectors etc can be connected with this port. It can be programmed and linked with the output port for controlling various applications.

Auxiliary Output Ports
Auxiliary Output Port of COSEC PANEL and Door Controller allows admin to integrate different external systems like fire alarm system, DVR, NVR, boom barrier etc. This Port is also used for controlling various applications like Temperature Control, CCTV, Siren, Strobe etc.

Centralized Power Supply with Battery
Matrix COSEC PANEL offers provision for battery backup to secure the facilities in case of a power break down. This battery backup can supply power to four door controllers. This eliminates the need of local power supply at installation site.

Buzzers and LEDs on Door Controller and PANEL
Alarms play a key role for the organization safety and security. Various alarms are predefined in the system and based on specific conditions, alarms are generated on PANEL and Door Controller to indicate the change in event, breach of access policy or unauthorized access. Both audio and visual indications are provided by means of buzzer and LEDs. These alarms can be monitored, acknowledged, cleared and controlled in real time.

External Reader Interfaces
Matrix COSEC DOOR has a built-in exit reader port where admin can connect either fingerprint reader or card reader via RS232 or wiegand interface to unlock the door and mark attendance. Power to this reader is supplied from the Door Controller directly that eliminates need for separate power supply at the installation site.

Request to Exit (REX) Switch
In many applications only Door Controller is monitoring the door and exit reader is not used. Matrix COSEC has built-in exit switch port to connect push button type switch to unlock the door for exit.
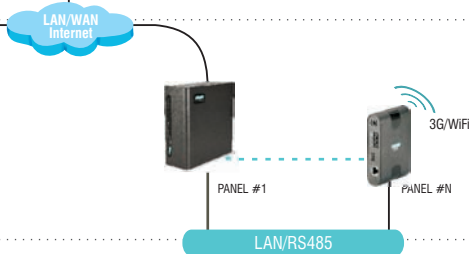
USB for Advanced Utility
For remote location installation or where LAN connectivity is not available, USB port on Door Controller and Panel is useful for easy data storage, data transfer, firmware upgrade and 3G and WiFi connectivity to the server

ARCHITECTURE

COSEC Server

3G/WiFi

User 1

LAN/WAN Internet

COSEC Application Server

User N
Web Users

COSEC Panel

LAN/WAN Internet

PANEL #1

3G/WiFi

PANEL #N

LAN/RS485

COSEC Door Controller

3G/WiFi

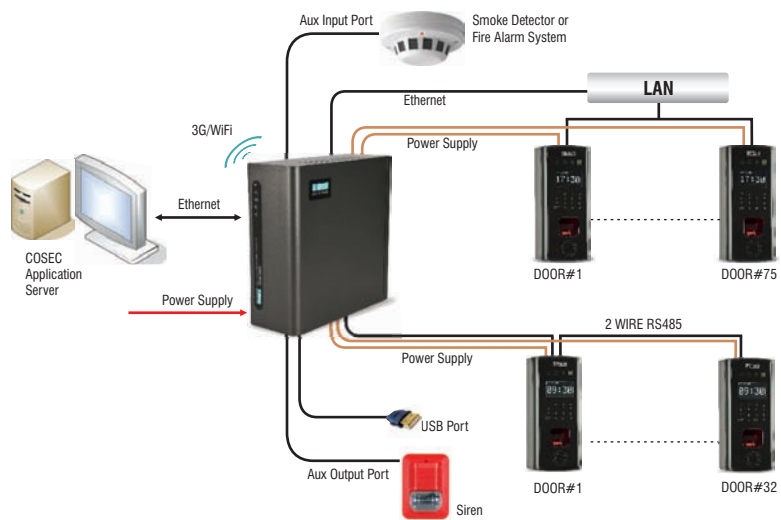DOOR #1   DOOR #2   DOOR #3   DOOR #N
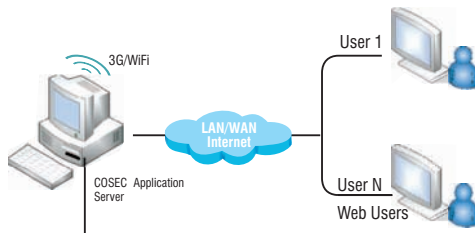
Layered Architecture

COSEC is built on layered architecture with intelligent components at each level. At the top is the enterprise- grade, web-enabled COSEC application server. COSEC PANELs manage multiple Door Controllers and act as a local bridge between the Door Controllers and the COSEC server. Door Controllers are front end terminals to mark the attendance of the employees using fingerprint or card. Door Controllers are connected with application server via below possible ways-

- Directly connected with COSEC server via 3G or WiFi.
- Directly connected with COSEC server via Ethernet.
- Connected with PANEL and PANEL is connected with COSEC server via Ethernet
- Connected with PANEL and PANEL is connected with COSEC server via 3G or WiFi.

PANEL with Interfaces

Matrix COSEC PANEL works as a site controller for up to 75 Door Controllers. It has a built-in power supply, Ethernet, RS485, auxiliary input and output port plus battery backup with charger to power up to 4 Door Controllers. Moreover USB port is useful for easy data storage, data transfer, firmware upgrade and 3G or WiFi connectivity to the server.

Aux Input Port

Smoke Detector or Fire Alarm System

Ethernet

LAN

Power Supply

3G/WiFi

Ethernet

COSEC Application Server

DOOR#1   DOOR#75

Power Supply

2 WIRE RS485

Power Supply

USB Port

Aux Output Port

DOOR#1   DOOR#32

Siren

Wiegand/RS232

Power Supply

Exit Reader

COSEC Server

3G/WiFi

Door Lock Port

Door Lock

Power Supply

Ethernet

17:30

RS485

Exit Switch Port

Exit Switch

COSEC PANEL

Power Supply

Aux Input Port

Smoke Detector or Fire Alarm System

Aux Output Port

DVR

USB Port

USB Device

Door Controller With Interfaces

Matrix COSEC Door Controller is a front end terminal with various interfaces like door lock, exit reader, exit switch, auxiliary input/output, Ethernet, RS485, USB, WiFi and 3G. It can be powered through adaptor, PSBB12V or from COSEC PANEL.

APPLICATIONS TIME-ATTENDANCE

Small Organization Application

Matrix COSEC is an ideal time-attendance solution for all types of business organizations. Fig. shows typical deployment of two direct door controllers located at two different places in small business setup. Head Office door controller and factory door controller are communicating with COSEC application software on WiFi and 3G respectively. They share common time-attendance policies, real time monitoring and centralized management of the system.

Multi Location Application

Fig. shows COSEC deployment in a large enterprise having corporate office, manufacturing unit, branch offices and remote sites located at different geographical locations. COSEC application server is installed at corporate office (CO) to manage attendance of all employees centrally. COSEC door controllers at each locations are connected directly or via PANEL with COSEC server using available connectivity (GSM, WiFi or WAN). It records user attendance from fingerprint or card and send it to the COSEC application server in real time. COSEC server processes the user attendance data and sends it to the payroll software or generates reports. Moreover using web application, authorised user can generate the report or configure the system from any location at any time.
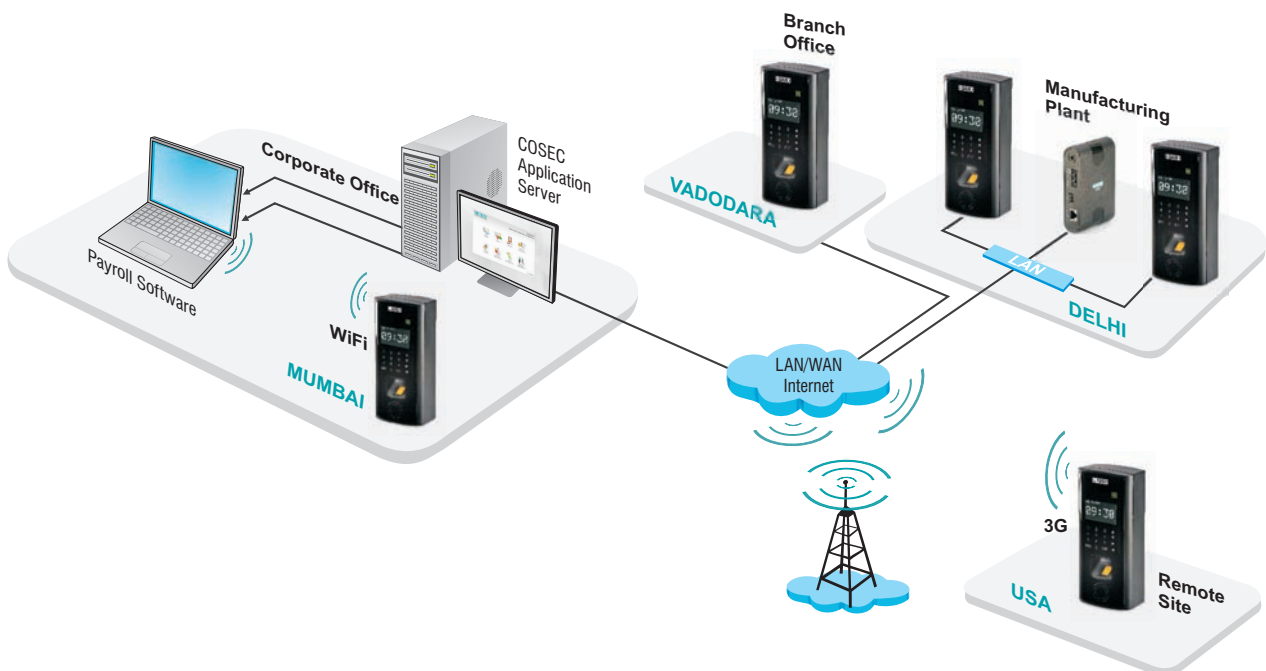
APPLICATIONS ACCESS CONTROL

Campus Application

Fig. shows the COSEC installation in a medium organization campus for access control application. Different Biometric and Card based door controllers are installed at various divisions of the organization and they are centrally connected with PANEL LITE over WiFi. This Complete system is monitored and controlled by COSEC application software. Different Access Control policies such as 2-Person Rule, First-In User, Anti-Pass Back etc. can be applied to each door controller.
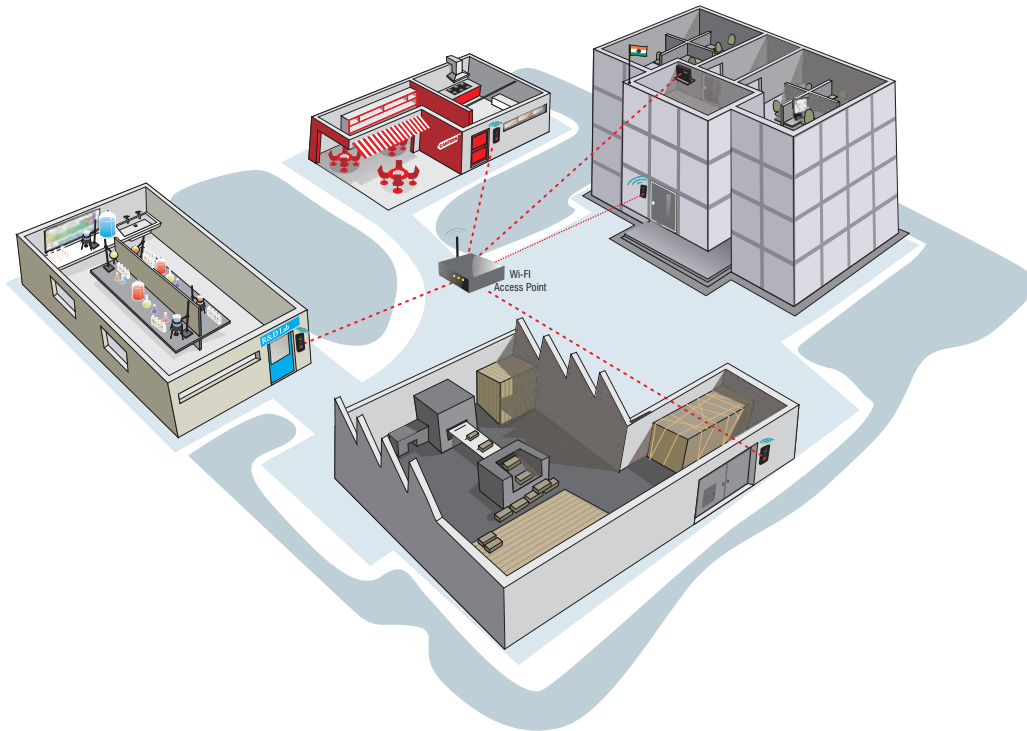
Multi-Floor Application

Fig. shows simple installation of COSEC in a multi-floor building for access control. Direct door controllers with exit reader or exit switch installed at each floor to control access of users and visitors with various access control policies. This complete system is monitored and controlled by COSEC software in real time.
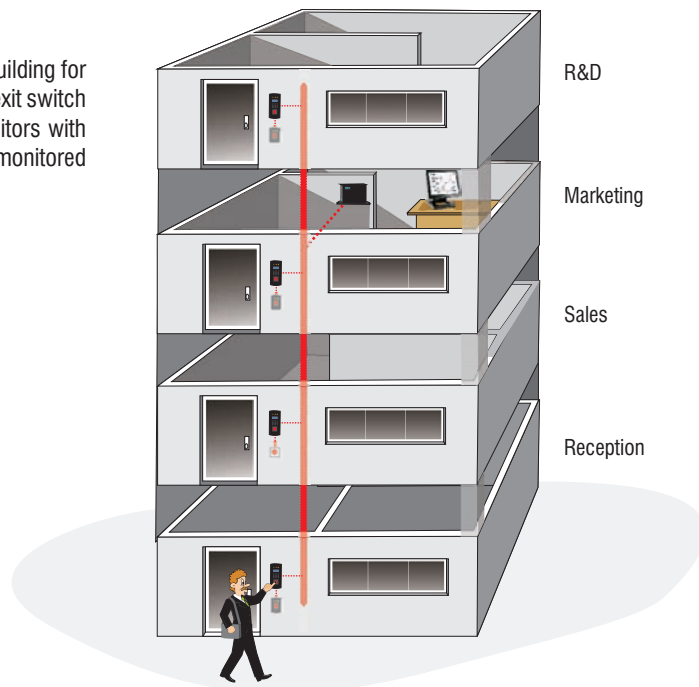
FEATURES LIST

Time Attendance
Attendance
- Multiple Organizations
- Late-In Policies
- Early-Out Policies
- Overtime Policies
- Absenteeism Policies
- Compensatory Off (Comp-OFF) Policies
- Date-wise Policies
- Flexible Timing
- Fix-Timing
- Past Adjustments
- Real Time Processing
- Selectable Periods
- User-wise and Period-wise Option
- Selectable Entry-Exit Mode on Readers
- Attendance with Fingerprint only
- Integration with ERP, Tally and Payroll
- Detail and Summary
- Global Parameters
- Views and Reports

Authorization/Correction
- Attendance
- Compensatory Off (Comp-OFF)
- Early-Out Correction
- Hierarchy
- Late-In Correction
- Overtime
- Manual Entry
- Corrections of Entry-Exit events

Shift Schedule/Holidays
- Automatic Shift Correction
- Multiple Shifts and Schedules
- Plan and View
- Holidays and Restricted Holidays

Leave Management
- Type Creation
- Accounting Periods
- Accumulation Rules
- Balance, Carry Forward/Lapse
- Opening, Credit, Debit
- Encashment
- Organization-wise Leaves
- Requests and Approvals
- Views and Reports

Access Control
Access Control
- 2-Person Rule
- Blocked User
- First-in User Rule
- Do Not Disturb (DND)*
- Occupancy Control
- Guard Tour*
- Fire Alarm Integration

Access Mode
- Card Only
- Finger Only
- Card + Finger
- Card + PIN
- Finger + PIN
- Card + Finger + PIN
- Card or Finger or PIN
- Verification 1:1 or 1: N
- Bypass Finger
- Zone-wise Card, Finger, PIN

Access Policies
- Home Zone*
- Visit Zone*
- Access Levels*
- Physical Zones
- Short Duration
- Time Zones*
- User Groups
- VIP Access
- Dead-Man Zone*

Anti-Pass Back
- Hard/Soft
- Local/Global
- Forgiveness

Door Management
- Door Auto Relock
- Man-Trap (Door Interlock)*

Alarm
- Door Communication
- Door Controller Tamper
- Door Fault
- Door Forced Open
- Door Held Open
- Door Lock Tamper
- Duress Detection
- External Reader Tamper
- Network Fault
- PANEL Battery Fail#
- PANEL Mains Fail#
- PANEL Tamper#
- Zone Monitor (Dead-Man)*
- Monitor, Acknowledge and Clear

Input-Output Ports
- Control
- Linking*
- Status

Time Attendance/Access Control
SMS and Email Alerts for Customized Message
- Missing In/Out
- Monthly Attendance
- Leave/Tour Application
- Leave/Tour Approval
- Leave/Tour Rejection
- User Events-Entry/Exit
- Present/Absent

Blocked Users
- Absentee
- Unauthorized Attempts
- Usage Count

PLATFORM Features
Holidays
- Multiple Schedules
- Restricted
- Range of Holidays

Enroll
- Card
- Bulk Card
- Dual Fingerprint Templates
- Up to 10 Fingers per User
- Fingerprint Verification
- From Door Controller (Menu or Special Cards)
- From Enrollment Station
- Group Card Enrollment
- Upload Photo
- Photo Adjustment while Capture

Date-Time
- Clock Synchronization
- Country-Specific Format
- Daylight Saving Time*
- Fingerprint Verification

Report Formats
- Text and Graphical
- Excel, Word, XML, CSV, RPT, PDF, RTF

User
- Creation and Management
- Delete
- Enroll
- Mass Assignment
- Synchronize

Export
- Access Control Events
- API for Automatic Payroll Integration
- Attendance Events
- Attendance Summary
- Data Templates
- Programmable Fields

Admin
- Message Board
- Audit Trail
- Import Data
- Database Utility
- Installation Wizard
- Backup and Restore
- Default Configurations
- Firmware Upgrade
- Restrict Work-Stations
- Facility Code*

Data Transfer through USB
- Data Storage in USB
- Firmware Upgrade through USB
- Special Function Cards

Architecture
- Centralized Management
- Distributed Processing
- Renewed Communication Architecture
- Web-based Interface
- Date-Time
- Clock Synchronization
- Country-Specific Format
- Daylight Saving Time*

Monitor and Control
- Alarms
- Door Controllers
- Events
- Who's In*
- Input-Output Links*
- Local
- Panel Controllers
- Soft Override *
- Ports Status
- Remote
- Time Trigger Function
- Auto Refresh Screen

Door Controller
- Auxiliary Input Port (Supervised)
- Auxiliary Output Port
- Buzzer and LEDs
- User Name and ID Display
- Touch Sense Keys
- Dot-Matrix LCD
- Duress Detection and Reporting*
- Ethernet, WiFi, 3G and RS485
- External Reader Support
- DVR Integration
- Programmable Entry/Exit
- Request to Exit (REX) Switch
- Tamper Detection
- Degraded Operation*

Panel Controller
- Alarm Input Port (Fire Alarm)
- Auxiliary Output Port
- Battery-Backup#
- USB Port
- 3G/WiFi on USB

Login Policies
- Disable Passive Users
- Forced Password Change
- Multiple Levels and Rights
- Strong Password

Smart Card
- Organization Security Code
- User Profile
- User Templates

Visitor Management
- Access Denied
- Blocked Visitors
- Documents Entry
- Escort
- Expired Passes
- Frequent Visitors
- Identification
- Pass Creation
- Pass Validity
- Pass Status
- Pre-Registration
- Punch Correction
- Punch Details
- Watch List

Employee Self Service
- Attendance Approvals
- Leave Approvals
- Leave Requests
- Plan Shift Schedules
- Reporting Hierarchy
- View Attendance Details
- View Leave Details
- View Shift Schedules
- Visitor Pre-registration

#These features are available With COSEC PANEL *These features are available with COSEC PANEL or COSEC PANEL LITE

TECHNICAL SPECIFICATIONS

System Resources	
Users	1,000,000 (1Million)
Users per Panel	10,000
Users per Direct Door Controller	2,000
Panels	1,000
PANEL Door Controllers (with PANEL/PANEL LITE)	10,000
Direct Door Controllers (Direct with COSEC Software)	1,000
User Credentials	Finger, Card, PIN, Finger+Card, Finger+PIN, Card+PIN,Finger+Card+PIN
User Verification	1:1 and 1:N
Finger Templates per Door Controller	9,600
Templates per User	Up to10
Cards per User	2 (Any Type)
Events (In COSEC Database)	Unlimited
Events per Panel (Offline Storage)	100,000
Events per Door Controller (Offline Storage)	50,000

COSEC PANELS		
	COSEC PANEL	**COSEC PANEL LITE**
Maximum Door Controllers	75	16
Maximum Users	10,000	10,000
Maximum Door Controllers on Ethernet	75	16
Maximum Door Controllers on RS485	32	16
Events per PANEL (Offline Storage)	1,00,000	1,00,000
Power Supply	100-240VAC, 47-63Hz	12VDC
Battery Backup	Battery Backup with 12V/7AH (Battery Not Supplied)	No
Power Output for Door Controllers	4 Ports, Each 12VDC@1A	No
LED Indications	4 (Power, Mains Fail, Battery Fail, Alarm and Fault)	3 (Power, Status and Alarm)
Tamper Detection	Yes	No
CPU	32-Bit RISC	
Operating System	Linux	
Memory	32MB SDRAM, 32MB Flash	
Communication	Ethernet, RS485,WiFi and 3G	
Communication Speed	10/100 Mbps on Ethernet and 115.2 Kbps on RS485	
USB Port	1 (For WiFi, 3G, Data Transfer and Firmware Upgradation)	
Alarm Input Port	1 (Supervised)	
Auxiliary Output Port	Relay SPDT, Form C, 5A@28VDC	
Buzzer	Yes	
Mounting	Wall or Tabletop	
Dimensions(WxHxD)	231 x 231 x 85mm (9.1" x 9.1" x 3.3")	125 x 30.40 x 81.20mm (4.3" x 1.1 x 3.1)
Weight	2.71Kgs, 5.98Lbs, 0.138Kgs, 0.304Lbs	
Environment	-10^{0}C to +55^{0}C (14^{0}F to 131^{0}F), 5% to 95% RH Non-Condensing	

COSEC DOOR CONTROLLERS

	DOOR CAS	DOOR FOS	DOOR FCS	DOOR CAP	DOOR FOP	DOOR FCP	DOOR CAW	DOOR FOW	DOOR FCW
Credential Support	Card	Card & Fingerprint		Card & PIN	Card, Fingerprint & PIN		Card & PIN	Card, Fingerprint & PIN	
Fingerprint Module	NA	Optical	Capacitive	NA	Optical	Capacitive	NA	Optical	Capacitive
Fingerprint Templates	NA	9600		NA	9600		NA	9600	
LCD (128x64 Dot-Matrix)	No			Yes					
Touch Sense Keys (16)	No			Yes					
USB	No			Yes					
WiFi	No						Yes		
Communication	Ethernet and RS485						Ethernet, WiFi, 3G and RS485		
Events Buffer	50,000								
Communication Speed	10/100Mbps on Ethernet and 115.2 Kbps on RS485								
External Reader	1 Port for Card or Fingerprint Reader								
External Reader Interfaces	RS232 and Wiegand								
External Reader Power	12VDC@0.5A								
Exit Switch Port	Yes								
Door Status Sense	Programmable NO, NC, Supervised								
Door Lock Relay	Relay SPDT, Form C, 1A@30VDC								
Door Lock Power	Internal12VDC@0.5A or External								
Auxiliary Input Port	Programmable NO, NC, Supervised								
Auxiliary Output Relay	Relay SPDT, Form C, 1A@30VDC								
Tamper Detection	Yes								
Buzzer	Yes								
LED Indication	4 (Status, Alarm, Allowed and Denied)								
CPU	16-Bit Micro-Controller								
Memory	16KB SRAM, 256KB+128KB Flash								
Input Power	12 VDC@1A								
Dimensions (WxHxD)	85 x 135 x 52mm (3.3" x 5.3" x 2.0")				100 x 220 x 55mm (3.9" x 8.7" x 2.2")				
Weight	0.26Kg 0.59Lbs	0.30Kg 0.66Lbs		0.46Kg 1.00Lbs	0.49Kg 1.07Lbs		0.46Kg 1.00Lbs	0.49Kg 1.07Lbs	
Environment	-10^{0}C to +50^{0}C (14^{0}F to 122^{0}F), 5% to 95% RH Non-Condensing								

EXTERNAL READERS

	COSEC READER CA	COSEC READER FO	COSEC READER FC
Reader Type	Card Reader	Fingerprint	Fingerprint
Reader Technology	Proximity or Smart Card	Optical	Capacitive
Interface	Wiegand and RS232	RS232	RS232
Tamper Detection	Yes	Yes	Yes
Buzzer	Yes	Yes	Yes
LED Indication	4	4	4
Dimensions	62 x 107 x 27mm (2.4" x 4.2" x 1.0")	85 x 135 x 52mm (3.3" x 5.3" x 2.0")	85 x 135 x 52mm (3.3" x 5.3" x 2.0")
Weight	0.08Kg, 0.176Lbs	0.238Kg, 0.524Lbs	0.238Kg, 0.524Lbs
Environment	-10^{0}C to +50^{0}C (14^{0}F to 122^{0}F), 5% to 95% RH Non-Condensing		

Fingerprint Readers		
	OPTICAL	**CAPACITIVE**
Sensor Technology	Optical	Capacitive
Waterproof	Yes	No
Sensing Area	15.9 x 17.9mm (0.62" x 0.70")	12.8 x18.0mm (0.50" x 0.70")
Image Size in Pixels	288 x 288	256 x 360
Image Resolution in DPI	500	508
Identification Time	< 1 Sec	< 1 Sec
Verification Time	< 1 Sec	< 1 Sec
Equal Error Rate (EER)	< 0.1%	< 0.1%

COSEC PLATFORM Selection Guide				
	COSEC PLATFORM			
	PE	**GE**	**ME**	**LE**
Customer Segment	SOHO	SMB	SME	Large Enterprises
Maximum Users	100	500	1,000	1 Million
Maximum Door Controllers	4	16	32	10,000
Users/Door Controller (Through PANEL)	100	500	1,000	10,000
Users/Door Controller (Direct Door Controller)	100	500	1,000	2,000
Events Buffer in Database	No Limit	No Limit	No Limit	No Limit
Login Users	No Limit	No Limit	No Limit	No Limit
Compatible Hardware	All COSEC Door Controllers, Readers and PANELs			
Active Visitors/Door Controller (Direct Door Controller)	20	100	100	100
Active Visitors/Door Controller (Through PANEL)	100	500	500	500

COSEC Software Specifications	
Technology	ASP .NET
Architecture	3-Tier
Deployment	Centralized or Distributed
Minimum Server Hardware	Pentium Dual-Core Processor at 2.4GHz with 1GB DDR2 or Higher
Recommended Operating System	32/64-bit Windows XP/Windows Vista/Windows 7/ Windows 2003 Server or Higher
Database Compatibility	MS-SQL Server 2005 or Higher, MS-SQL Server 2008 or Oracle 8.x or Higher
Databases Bundled (Free)	MS-SQL Server Express and Oracle Database XE
Reporting Tool	Crystal Reports 2008
User Access	Web Browser (Internet Explorer 7 and above, Mozilla Firefox 3 and Above)
Hard Disk Usage for Installation	1 GB (Minimum Recommended)

Cards Support:
Low Frequency (125KHz): EM PROX, HID Prox
High Frequency (13.56MHz): MIFARE 1k, MIFARE 4k, HID iClass 2k/2, HID iClass 16k/2, HID iClass 16k/16

When COSEC PANEL/PANEL LITE is required?

COSEC PANEL/PANEL LITE aggregates multiple Door Controllers and it provides a single interface for the server. COSEC PANEL/PANEL LITE is required if one or more of the following conditions exists:

1. More than 2000 Users per Door Controller
2. Greater than 50,000 local events storage
3. When following additional security features are needed:

- Access Groups
- Access Levels
- Day Light Saving
- Dead-Man Zone
- Do Not Disturb
- Duress Detection
- Facility Code

- Guard Tour
- Home Zone
- Input-output Ports Link
- Man Trap
- Soft Override
- Time Zone based Access
- Visit Zone
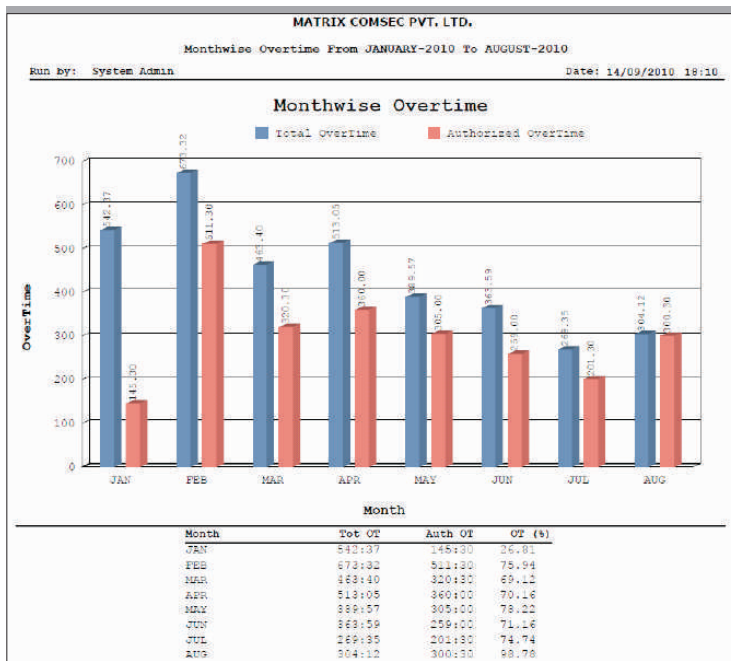- Who's In

PANEL

PANEL LITE

SALARY DATA REPORT

THOMSON RUBBERS INDIA PVT LTD   Page 1 of 3

Department wise Salary Data For JULY-2011

Run by: System Admin   Date: 23/07/2011 14:53

SR No	User ID	Name/Designation	PR	WO	PH	PL	TR	AB	UL	LO	Shift ALW	Pay Days	Auth OT	Total WorkTime	Total COFF
Department-1															
1	1	SREEKANTH R Designation-1	2.0	0	0	0.0	0.0	13.0	0.0	0.0	0	2.0	00:00	55:20	00:00
Previous Adjustment : Adj Days 0.0 Overtime 00:00 WorkTime 00:00 Shift Allowance 0															
2	2	JACK HILARY Designation-1	0.0	0	0	0.0	0.0	15.0	0.0	0.0	0	0.0	00:00	15:31	00:00
Previous Adjustment : Adj Days 0.0 Overtime 00:00 WorkTime 00:00 Shift Allowance 0															
3	3	SUBHA R NAIR Designation-1	1.0	0	0	0.0	0.0	2.0	0.0	0.0	0	1.0	00:00	12:49	00:00
Previous Adjustment : Adj Days 0.0 Overtime 00:00 WorkTime 00:00 Shift Allowance 0															
4	4	PRASAD JOSEPH Designation-1 1 :13	1.0	0	0	0.0	0.0	0.0	0.0	0.0	0	1.0	00:00	51:46	00:00
Previous Adjustment : Adj Days 0.0 Overtime 00:00 WorkTime 00:00 Shift Allowance 0															
5	5	SHYLAJA KUMARY Designation-1	0.0	0	0	0.0	0.0	0.0	0.0	0.0	0	0.0	00:00	00:00	00:00
Previous Adjustment : Adj Days 0.0 Overtime 00:00 WorkTime 00:00 Shift Allowance 0															
6	6	VIDYA P S Designation-1	0.0	0	0	0.0	0.0	0.0	0.0	0.0	0	0.0	00:00	00:00	00:00
Previous Adjustment : Adj Days 0.0 Overtime 00:00 WorkTime 00:00 Shift Allowance 0															
7	7	SIBY M GEORGE Designation-1	0.0	0	0	0.0	0.0	0.0	0.0	0.0	0	0.0	00:00	00:00	00:00
Previous Adjustment : Adj Days 0.0 Overtime 00:00 WorkTime 00:00 Shift Allowance 0															
8	8	SAJI	0.0	0	0	0.0	0.0	0.0	0.0	0.0	0	0.0	00:00	00:00	00:00

OVERTIME CHART

MATRIX COMSEC PVT. LTD.

Monthwise Overtime From JANUARY-2010 To AUGUST-2010

Run by: System Admin   Date: 14/09/2010 18:10

Monthwise Overtime

Total Overtime   Authorized Overtime

Month	Tot OT	Auth OT	OT (%)
JAN	542:37	145:30	26.81
FEB	673:32	511:30	75.94
MAR	463:40	320:30	69.12
APR	513:05	360:00	70.16
MAY	389:57	305:00	78.22
JUN	363:59	259:00	71.16
JUL	269:35	201:30	74.74
AUG	304:12	300:30	98.78

ORDERING INFORMATION

PRODUCTS	DESCRIPTION
COSEC COMBOS: (Complete Solution with Hardware and Software)	
COSEC COMBO CAP	COSEC DOOR CAP + COSEC CPM EM PROX + COSEC PE Platform + COSEC PE TAM with 100 Users Capacity.
COSEC COMBO FOP	COSEC DOOR FOP + COSEC PE Platform + COSEC PE TAM with 100 Users Capacity.
COSEC HARDWARE	
Door Controllers and PANELs :	
COSEC DOOR CAS	Standard Door Controller for any Smart or Proximity Card having RS485, Ethernet, 50000 Events Storage and Power Adaptor. Card Personality Module not Included.
COSEC DOOR CAP	Premium Door Controller for any Smart or Proximity Card with LCD and Keypad having RS485, USB, Ethernet, 50000 Events Storage and Power Adaptor. Card Personality Module not Included.
COSEC DOOR CAW	WiFi based Premium Door Controller for any Smart or Proximity Card with LCD and Keypad having RS485, USB, Ethernet, 50000 Events Storage and Power Adaptor. Card Personality Module not Included.
COSEC DOOR FOS	Standard Optical Fingerprint based Door Controller for any Smart or Proximity Card having RS485, Ethernet, 50000 Events Storage and Power Adaptor. Card Personality Module not Included.
COSEC DOOR FOP	Premium Optical Fingerprint based Door Controller for any Smart or Proximity Card with LCD and Keypad having RS4855, USB, Ethernet, 50000 Events Storage and Power Adaptor. Card Personality Module not Included.
COSEC DOOR FOW	WiFi based Premium Optical Fingerprint based Door Controller for any Smart or Proximity Card with LCD and Keypad having RS485, USB, Ethernet, 50000 Events Storage and Power Adaptor. Card Personality Module not Included.
COSEC DOOR FCS	Standard Capacitive Fingerprint based Door Controller for any Smart or Proximity Card having RS485, Ethernet, 50000 Events Storage and Power Adaptor. Card Personality Module not Included.
COSEC DOOR FCP	Premium Capacitive Fingerprint based Door Controller for any Smart or Proximity Card with LCD and Keypad having RS4855, USB, Ethernet, 50000 Events Storage and Power Adaptor. Card Personality Module not Included.
COSEC DOOR FCW	WiFi based Premium Capacitive Fingerprint based Door Controller for any Smart or Proximity Card with LCD and Keypad having RS485, USB, Ethernet, 50000 Events Storage and Power Adaptor. Card Personality Module not Included.
COSEC PANEL	Controller to Support up to 75 Door Controllers having Ethernet, RS485, Aux Input and Output Port, USB, Power Supply and Battery Backup for up to 4 Door Controllers. Battery (12VDC/7AH) not Included.
COSEC PANEL LITE	Controller to Support up to 16 Door Controllers having Ethernet, RS485, Auxiliary Input and Output Port, USB and Power Adaptor.
Additional Readers	
COSEC READER CA	Any Smart or Proximity Card Reader with Wiegand/RS232 Interface. Works with any COSEC Door Controller. Card Personality Module not Included.
COSEC READER FO	Biometric Optical Fingerprint Reader with 9600 Templates and RS232 Interface. Works with any COSEC Door Controller.
COSEC READER FC	Biometric Capacitive Fingerprint Reader with 9600 Templates and RS232 Interface. Works with any COSEC Door Controller.
Card Personality Modules	
COSEC CPM EM PROX	EM Proximity Card Personality Reader Module with UART/RS232 Interface.
COSEC CPM HID PROX	HID Proximity Card Personality Reader Module with Wiegand Interface.
COSEC CPM MIFARE SMART	Mifare Smart Card Personality Reader Module with UART/RS232 Interface.
COSEC CPM HID ICLASS	HID iCLASS Smart Card Personality Reader Module with Wiegand and RS232 Interface.

PRODUCTS	DESCRIPTION
Other Hardware	
COSEC ENROLL CARD	USB based Card Enrollment Station for Proximity, Mifare and HID iCLASS Cards. Card Personality Module not Included.
COSEC ENROLL FINGER	USB based Fingerprint Enrollment Station.
MATRIX USB WIFI DONGLE	Add-on USB based WiFi Module for COSEC PANEL and COSEC PANEL LITE.
PSBB12V	Universal Mains Power Supply with Battery Backup to Support Single COSEC Door Controller. Country-Specific Mains Cord Supplied. Battery (12VDC, 3.2AH) not Included.
COSEC SOFTWARE	
Application Software	
COSEC PE PLATFORM	Application Server Platform for Basic Time-Attendance, Access Control and Enrollment Management for 100 Users and 4 Door Controllers.
COSEC PE TAM	Comprehensive Time-Attendance and Leave Management Module for COSEC PE PLATFORM.
COSEC PE ACM	Comprehensive Access Control Management Module for COSEC PE PLATFORM.
COSEC PE ESS	Employee Self Service Portal for COSEC PE PLATFORM.
COSEC PE VMM	Visitor Management Module for COSEC PE PLATFORM.
COSEC PE RSM	Roster Management Module for COSEC PE PLATFORM.
COSEC GE PLATFORM	Application Server Platform for Basic Time Attendance, Access Control and Enrollment Management for 100 Users and 16 Door Controllers. Expandable up to 500 Users.
COSEC GE TAM	Comprehensive Time-Attendance and Leave Management Module for COSEC GE PLATFORM.
COSEC GE ACM	Comprehensive Access Control Management Module for COSEC GE PLATFORM.
COSEC GE ESS	Employee Self Service Portal for COSEC GE PLATFORM.
COSEC GE VMM	Visitor Management Module for COSEC GE PLATFORM.
COSEC GE RSM	Roster Management Module for COSEC GE PLATFORM.
COSEC ME PLATFORM	Application Server Platform for Basic Time Attendance, Access Control and Enrollment Management for 500 Users and 32 Door Controllers. Expandable up to 1000 Users.
COSEC ME TAM	Comprehensive Time-Attendance and Leave Management Module for COSEC ME PLATFORM.
COSEC ME ACM	Comprehensive Access Control Management Module for COSEC ME PLATFORM.
COSEC ME ESS	Employee Self Service Portal for COSEC ME PLATFORM.
COSEC ME VMM	Visitor Management Module for COSEC ME PLATFORM.
COSEC ME RSM	Roster Management Module for COSEC ME PLATFORM.
COSEC LE PLATFORM	Application Server Platform for Basic Time-Attendance, Access Control and Enrollment Management for 1000 Users and 10000 Door Controllers. Expandable up to 1Million Users.
COSEC LE TAM	Comprehensive Time-Attendance and Leave Management Module for COSEC LE PLATFORM.
COSEC LE ACM	Comprehensive Access Control Management Module for COSEC LE PLATFORM.
COSEC LE ESS	Employee Self Service Portal for COSEC LE PLATFORM.
COSEC LE VMM	Visitor Management Module for COSEC LE PLATFORM.
COSEC LE RSM	Roster Management Module for COSEC LE PLATFORM.
COSEC USER100	Additional 100 Users License for COSEC GE, COSEC ME and COSEC LE PLATFORM.
COSEC LE USER1000	Additional 1000 Users License for COSEC LE PLATFORM.

ABOUT MATRIX

An ISO 9001 Company, Matrix is a leader in Telecom and Security solutions for modern businesses and enterprises. An innovative, technology driven and customer focused organization; the company is committed to keep pace with the revolutions in the telecom and security industries. With around 30% of its human resources dedicated to the development of new products, Matrix has launched cutting-edge telecom products like IP-PBX, Universal Gateways, VoIP Gateways and Terminals, GSM Gateways, Access Control and Time-Attendance Systems and Fire Alarm Systems. These solutions are feature-rich, reliable and conform to the international standards.Having global foot-prints in Asia, Europe, North America, South America and Africa through an extensive network of more than 500 channel partners, Matrix ensures that the products serve the needs of its customers faster and longer. Matrix has gained trust and admiration of more than 150,000 customers representing the entire spectrum of industries. Matrix has won many awards for its innovative products.

MATRIX
SECURITY SOLUTIONS

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V1.R3.Aug '11