ACCESS CONTROL

MATRIX COSEC Right People in Right Place at Right Time



ACCESS CONTROL

All modern organizations need to protect their physical and IP assets and ensure human safety by controlling movement of people as per pre-defined rules. Matrix COSEC is a comprehensive and flexible access control solution to meet any access control need of an organization irrespective of its size, layout, locations and timings. Matrix COSEC allows controlling access on three simultaneous dimensions – user, zone and time by answering the three fundamental questions about 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 smart card based identification ensure foolproof security of physical assets and safety of manpower.



TIME ATTENDANCE MODULE TAM	EMPLOYEE SELF SERVICE PORTAL ESS	ACCESS CONTROL MODULE ACM	VISITOR MANAGEMENT MODULE VMM	CAFETERIA MANAGEMENT MODULE CMM	ROSTER MANAGEMENT MODULE RSM	CONTRACT WORKERS MANAGEMENT CWM	JOB PROCESSING AND COSTING JPC	
COSEC CENTRA PLATFORM								
	Users Management		System Admin		Devices Management			
	Access Using Palm Vein, Fingerprint, RF Cards and PIN			2-Person Rule, First-In User and Guard Tour			User	

KEY FEATURES

Access Zone

Access Zone is a predefined physical area for which specific access policies are required. Access Zones can be created by dividing the organization into various departments like, R&D, finance, production, marketing and IT. Matrix COSEC controls who (user) goes where (access zone) and when (time) for each Access Zone. Using this feature, employee of one department can be restricted from entering into another department. Sub zones can also be created within an access zone to regulate further entries.

Access Control on: User, Zone and Time

Access Zones, Access Levels

and Access Groups

Access Mode

User can enter a zone by showing his credentials (Finger, Palm Vein, RF Card, PIN) to the reader. Admin can select any one or combination of any two or three credential options as an Access Mode on the door controllers to allow to the zone.

Access Level

Access Level gives privileges to a user to enter a controlled area. Access Levels are assigned separately to zones and users, ranging from 1 to 15. If user access level is greater than or equal to the zone access level, the user is allowed in that zone. Different access levels can be assigned for different times such as working hours, break hours and non-working hours.

Home Zone

Home Zone is a pre-defined area, assigned to a user as his/her regular workplace. COSEC allows access to the home zone without checking user's access level during working and break hours. The same user is restricted from accessing other zones having lower access levels than his home zone access level.

Route based Access Control

Smart Card based Identification

Anti-Pass Back, Man-Trap and Occupancy Control

Visit Zone

Visit Zone is an area where a user needs to visit often. COSEC provides flexibility to provide additional access privileges to a user to visit such zone without checking his access level. Visit Zone allows people to access without assigning them higher access levels and thus not allowing access to other zones.

VIP Access

A user holding VIP Access gets the highest level of access privilege allowing him to access any controlled area without checking his access rights. Admin can give VIP access to directors and senior people allowing them universal access without checking their access policies.



2-Person Rule

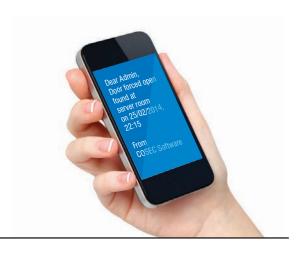
Certain sensitive zones contain valuable assets like cash, gold, data, intellectual property, etc. Security of such assets should not be entrusted to any single individual. 2-Person Rule allows entry only when two persons from an authorized group jointly use their access rights within a specified time. 2-Person Rule helps in eliminating frauds. This feature can prevent a single person from entering any hazardous area.

Door Auto Relock

Door Auto Relock is an important security feature for avoiding "tail-gating" of any person with an authorized user. When user shows his credential to COSEC device, the door relay is energized for the predefined time to allow the user to enter. After this period, COSEC deactivates the door relay to lock the door and preventing further entries.

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 completely closed. Man-Trap offers programmable delay to regulate traffic or the flow rate of people. It also prevents any intruder from entering or escaping in a hurry.



First-In User Rule

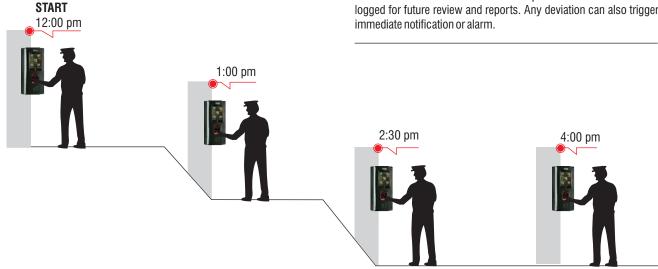
In some organizations, employees or workers are not allowed to enter certain work areas unless a designated person enters first to ensure higher level of safety and security. Matrix COSEC keeps the door locked until the designated first user registers his entry. Other users are allowed to enter during the working time of the First-In user.

Dead-Man Zone

It is essential to track physical safety of an employee who is working in hazardous environments like railroads, mines, chemical labs, etc. Dead-Man Zone makes it compulsory for the employee to confirm his presence at pre-defined interval. If the user fails to punch within the pre-defined duration, an alarm is activated to draw attention of others. This feature can also be used to ensure guards remain awake during night shifts.

GUARD TOUR

Guard Tour facilitates enforcing vigil patrol of security guards or such pre-fixed movement of other people. The guards have to show their credentials (palm, fingerprint or card) on defined checkpoints at specified time period. Guard Tour can be programmed to cover all required locations in a specific sequence. The maximum time period to complete a tour and total number of such tours in a defined time can also be defined. Successful completions and deviations are logged for future review and reports. Any deviation can also trigger immediate notification or alarm.



Anti-Pass-Back

Anti-Pass-Back prevents a card holder from passing his card back to another person to gain unauthorized entry. Second entry using the same card is allowed only after an exit is registered for every entry. Anti-Pass-Back helps organization in maximizing security by preventing fraudulent use of cards and maintaining an accurate record of the number of people in a specific zone. Anti-Pass-Back works 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) before allowing re-entry.

For every Anti-Pass-Back violation, there are options: Hard Anti-Pass-Back records the violation but prevents re-entry. Whereas, Soft Anti-Pass-Back records the violation but allows re-entry.

Anti-Pass Back Forgiveness

Forgiveness works in association with Anti-Pass-Back. With the Forgiveness option on, Anti-Pass-Back status resets automatically at every midnight and allows the user his access rights from the next day.

Do Not Disturb (DND) Zone

Do Not Disturb Zone feature is useful for meeting rooms, conference halls where people inside the area do not want to be disturbed by outside people. Users are restricted to enter DND zone till it is activated on the device. Certain users with VIP access can override DND rule.

Route Based Access

Route based Access ensures users follow specific route to reach their destinations preventing them from wandering intentionally or unknowingly. A user must reach locations in a particular sequence which is defined on his smart card. The user cannot access devices which are not part of his route or out of sequence. This feature is very useful in large and sensitive areas like ports, mines, pharmaceutical labs and R&D centers where contract workers or external agencies need to reach their place of work following defined route.

Occupancy Control

Occupancy Control is used to control the number of users within a designated zone. Maximum number of users in a zone can be defined and when the count reaches this limit, COSEC blocks

additional user from entering the zone. This is useful for facilities like seminar halls, conference rooms and cafeterias where space is limited for certain number of people.

Smart Identification

Smart Identification is very useful where a large number of users are accessing one device. User's fingerprint and other information are stored on the smart card instead of the device. User has to first show his smart card following his credential. COSEC allows access and marks attendance based on the result.

Blocked Users

Matrix COSEC classifies certain users as blocked users and prevents them from entering specified zones. A blocked user is treated as a deactivated user and all the access privileges are withdrawn temporarily. A user can be blocked because of following three reasons:

- (1) User is absent for more than a predefined time period
- (2) Consecutive unauthorized attempts to access a zone
- (3) Access attempts by an authorized user exceed the maximum number of attempts allowed within a time limit

Additional Security Code

Duplication or fraudulent use of cards can create a security threat for an organization. COSEC provides enhanced security by encoding an additional security code in the smart card.

Time Stamping

COSEC offers Time Stamping functionality through its integration with video surveillance systems like DVR and NVR. COSEC triggers the video surveillance system to take snapshot of the person accessing a door and generates reports with the photograph. Time Stamping restricts proxy punching — unauthorized user entering using someone else's card.

Who's In

Who's In allows COSEC administrator to identify all the users present inside a zone. COSEC generates a list of users inside any specified zone at given time helping in emergency evacuation.

Centralized Monitoring and Control

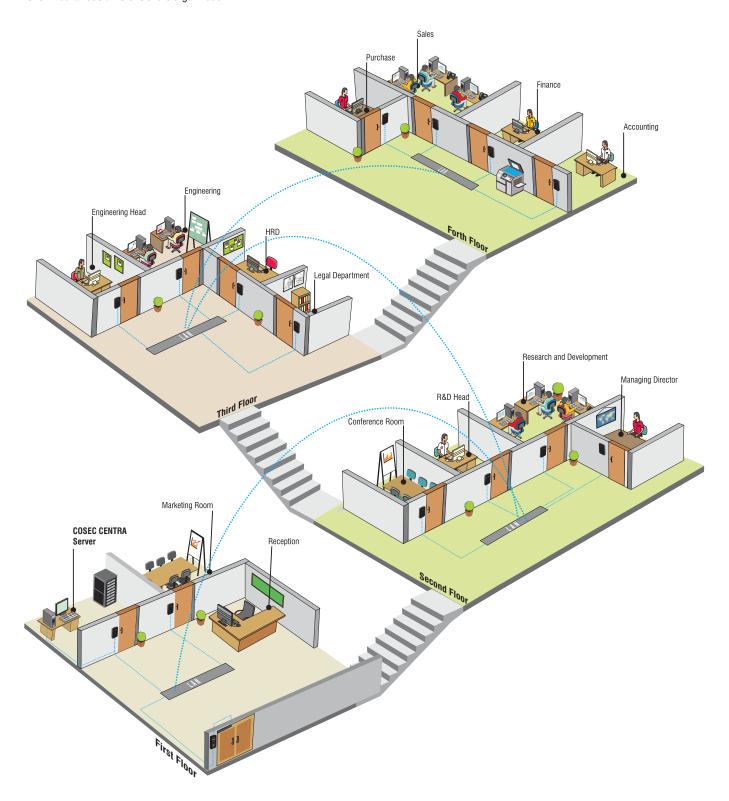
COSEC offers live monitoring and control to check the system in real-time. It shows the current status of all the site controllers, door-controllers, alarms, input ports and output ports. COSEC shows entries and exits with user photographs live as these events occur. Further, the administrator can control door alarms, lock or unlock doors, synchronize time, delete fingerprints and other performs other access control functions the monitor and control window.



APPLICATION DIAGRAM

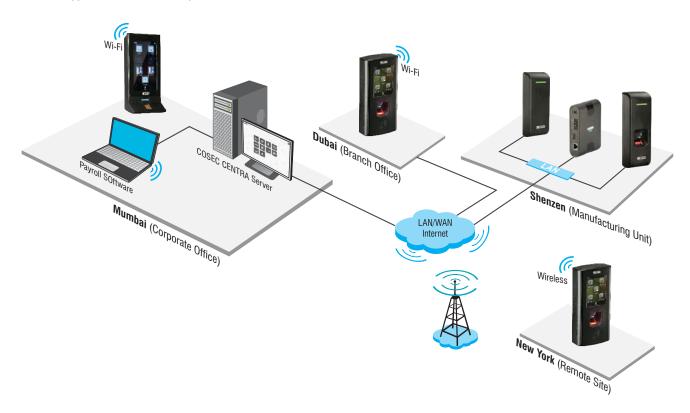
ACCESS CONTROL FOR LARGE ORGANIZATIONS

Picture below shows COSEC access control application for a large, multi-floor organization. Different biometric and card based door controllers are shown at various divisions of the organization.



ACCESS CONTROL FOR MULTI LOCATIONS

Picture below shows COSEC access control application installed in an organization having offices at multi locations. All COSEC devices are connected to the central server using wired or wireless connectivity to send real-time data at a central place. COSEC CENTRA controls and monitors the entire application from the central place.



FEATURE LIST

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
- · Biometric Only
- Card + Biometric
- Card + PIN
- Biometric + PIN
- Card + Biometric + PIN
- · Card or Biometric or PIN
- 1:1, 1:G or 1: N Verification
- Bypass Biometric
- Zone-wise Card, Biometric, PIN

ANTI-PASS BACK

- · Hard/Soft
- · Local/Global
- Forgiveness

ACCESS POLICIES

- Home Zone*
- Visit Zone*
- Access Levels*
- Smart Identification
- Physical Zones
- Short Duration
- Time Zones*
- User Groups
- VIP Access
- Route based Access
- Dead-Man Zone*

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
- Zone Monitor (Dead-Man)*
- · Monitor, Acknowledge and Clear

INPUT-OUTPUT PORTS

- Control
- Linking*
- Status

SMS AND EMAIL ALERTS

- Door Force Open
- Door Offline
- User Allowed
- User Denied
- Guard Tour Completion
- Access Route Violation
- · Anti Pass Back Violation
- Duress Detection
- · Shift based Access Violation

BLOCKED USERS

- Absentee
- Unauthorized Attempts
- Usage Count

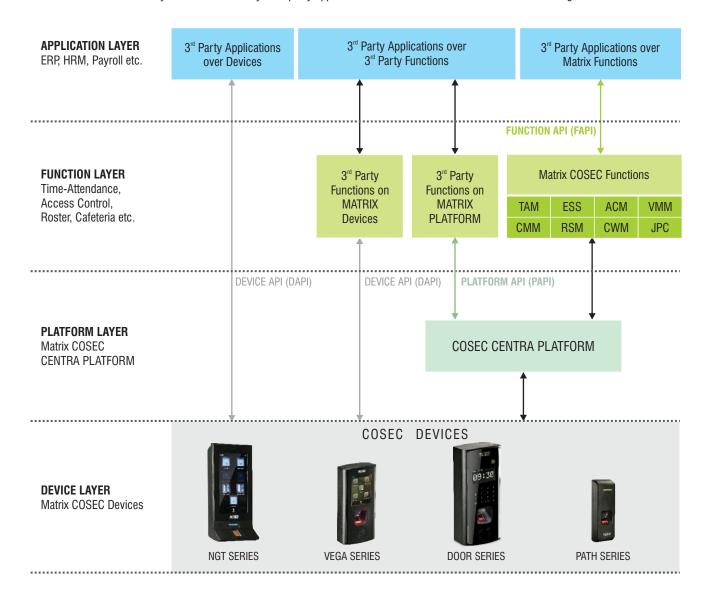
ACCESS CONTROL REPORTS

- Access Group
- Access Zones
- · Guard Tour
- · Input Output Linking
- Time Zone
- · Door Held Open
- · Zone Access by User
- · First-In User
- 2-Person Rule
- · Who is In
- · Access Denied

^{*} COSEC PANEL is required.

MATRIX COSEC INTEGRATION

Matrix COSEC offers flexibility to interface with any third-party applications at three different levels as shown in the diagram.



Device Level Integration

Matrix COSEC devices come ready with Device API for 3rd party application developers to develop their applications using Matrix COSEC devices. Matrix COSEC Device APIs (DAPI) allows other third party applications to communicate directly with the COSEC devices without need for COSEC CENTRA PLATFORM.

Platform Level Integration

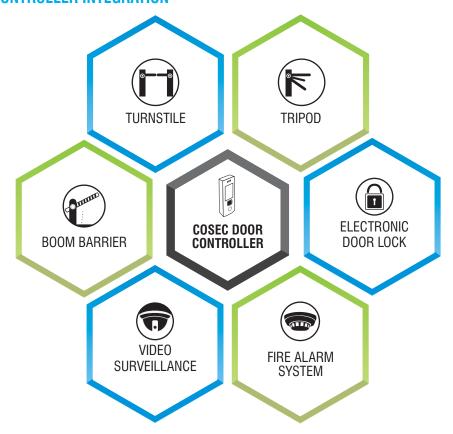
Many application developers need application ready APIs. They expect the hardware vendors to manage device configuration, communication, enrollment and all such lower-level tasks. This saves them from the complexity of physical interfaces, network management, communication, device configuration, template distribution, etc. For such developers, Matrix COSEC CENTRA offers PLATFORM APIs (PAPI). Matrix COSEC CENTRA PLATFORM

manages all the lower level tasks shielding application developers from the tedious lower-level software engineering and offers them application-ready interfaces for simple and quick programming. Using PAPI, they can build their applications like time-attendance, access control, visitor management, cafeteria management, contract labor management and roster management on top of COSEC CENTRA PLATFORM.

Function API

This is the highest level of interface Matrix COSEC offers for application to application integration. Using Function APIs (FAPI), Matrix COSEC applications like Time-Attendance can be integrated with other 3rd party applications like payroll, ERP, HRMS and CRM. Matrix COSEC is integrated with many widely popular applications like SAP, Oracle, Microsoft Dynamics NAV/AX, Tally and others.

COSEC DOOR CONTROLLER INTEGRATION

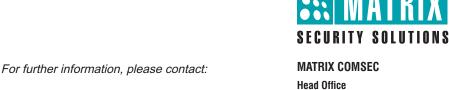


ORDERING INFORMATION

COSEC CENTRA ACM100	OSEC CENTRA ACM100 Access Control Software License for 100 Users	
COSEC CENTRA ACM1000	Access Control Software License for 1,000 Users	
COSEC CENTRA ACM10000	Access Control Software License for 10,000 Users	

ABOUT MATRIX

Established in 1991, Matrix is a leader in Telecom and Security solutions for modern businesses and enterprises. An innovative, technology driven and customer focused organization; Matrix 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 products like IP-PBX, Universal Gateways, VoIP Gateways and Terminals, GSM Gateways, Access Control and Time-Attendance Systems, Video Surveillance System and Fire Alarm Systems. These solutions are feature-rich, reliable and conform to the international standards. Having global footprints 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 customers representing the entire spectrum of industries. Matrix has won many international awards for its innovative products.



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