Application Note on COSEC Elevator based Access Control

Security issues corresponding to controlling access, is perceived as prime concern and a strenuous challenge in various sectors like Corporate Office, Manufacturing Units, BFSI, Healthcare and Hotels. These arduous challenges require meticulously planned access control strategies. Implementation of such strategies can be employed at exit/entry doors and at data centers. Along with the conventional approach, it is being enhanced with advanced features, to control access and improve security with Elevators.

Matrix offers Elevator based Access Control, which allows access and entry in the elevator using biometric or RFID card credential, only to authorized personnel, at allotted time and assigned floors.

Advantages and Benefits:

Feature	Advantage	Benefit
Multiple Credential based Identification	Elevator can be accessed using multiple credentials like Fingerprint, PIN, RFID card, Palm Vein and even with a combination of any.	Flexibility of Selecting Single or Multiple Credential
Users	Create up to 25,000 Users	Scalability
Time, User and Floor based Access Control	Assign multiple floors to a user for specified time duration.	Security
Encrypted Communication	Secured End to End Communication	Accurate Identification
Hardware Integration	Alarm, buzzer and call buttons can be integrated with the COSEC ARC IO800 controller.	Cost Reduction
Tamper Detection	When any tampering is detected, a notification appears on the monitor screen and an alarm goes off.	Security
IO Linking	Link input event to an output action as per user requirements.	Security

Expansion	Controlled Access for 32 Floors in one Elevator and eight Elevators in one Panel	Flexibility and Scalability
QR Code based Identification	Simply Scan QR Code on your Mobile for Gaining Access Reduces Cost and Installation Time	Convenience
Communication Interface	Provides Ethernet and RS-485 Connectivity Options	Convenience

Ways to Implement:

Elevator Access Control: Only authorized user can access the elevator, but can access any floor.	Floor Access Control: Anyone can access elevator but only authorized user can access the floors which are permitted by the admin.	Elevator and Floor Access Control: Only authorized user can access elevator for the floors that are permitted by admin.

How it works:

➢ COSEC PANEL LITE V2 can be configured in standalone mode for device, user, group and floor configuration.

➢ Once a user profile is created, his credential enrolment, floor and group allocation for pre-defined time is configured.

➢ User must show enrolled credential at the biometric device located at:

- **Outside Elevator**: To gain access to elevator, a door controller is installed outside the Elevator. The door controller is connected to the elevator call button, which gets enabled, whenever an authorized user shows his enrolled credential.

- **Inside Elevator:** To enable and access the floors that are assigned to the user, a door controller is installed inside the elevator. Some floors like Cafeteria, Reception Area or Customer Lounge are kept accessible for visitors/customers.

Application:

The solution is highly useful under below mentioned circumstances;

1. **Restrict the Customer to their Specific Floor**

    E.g.: In Hotels, to assign and control the customers to their respective floor for pre-defined number of days.

2. **Multi-floor Buildings where Different Floors are Leased to Different Corporates**

    E.g.: Corporate Offices with multiple floors and having requirement of controlled access to each floor, as it has a high flow of visitors.

3. **Limit Access on Sensitive Floors**

E.g.: In Manufacturing Units, to limit access only to authorized group by proper authentication to sensitive zones.

Target Audience:

- ➢ **Corporate:** Elevator Access Control provides secured, speedy and controlled flow of employees. Prevents unauthorized personnel penetration, long queues and congestion.
- ➢ **Hotels:** Provides access to customers only at assigned floors, for pre-defined time. Hence, eliminates commotion and increases security.
- ➢ **Manufacturing:** Controlled access only to authorized group to sensitive floors, which increases security and eliminates trespassers.
- ➢ **Healthcare:** Manage the flow of patients' relatives/visitors to their floor, on which patient is admitted. Hence, reduces commotion and maintains tranquility on entire floor.
- ➢ **BFSI**: Secured access to sensitive area like vaults, which requires an authorized person with customers, to access elevator and floor.

Devices Required:

1. COSEC PANEL LITE V2
2. COSEC Device: VEGA series, DOOR series and PATH series for authentication.
   (Any device can be used for authentication for lift as per credential requirement.)
3. COSEC ARC IO800 CONTROLLER
   (Controllers required as per number of floors. One COSEC ARC IO800 Controller can be used to control eight Floors)

Important: For proper functioning of the system, COSEC Reader/Controller installed inside elevator car, COSEC PANEL LITE and COSEC ARC IO800 controllers should be in communication with each other.

About Matrix

Established in 1991, Matrix is a leader in Telecom and Security solutions for modern businesses and enterprises. Matrix, an innovative, technology driven and customer focused organization, is committed to keep pace with the revolutions in the telecom and security industries. With more than 40% 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, Time-Attendance and Video Surveillance solutions. 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 1,000 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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