

ACS SECURITY SYSTEM

APPLICATION PROGRAMMING INTERFACE (API) TECHNICAL DOCUMENTATION

Version: 1.0.0

Base URL: <http://localhost:8090>

Swagger URL: <http://localhost:8090/swagger-ui/index.html>

Documentation Type: Swagger

1. Introduction

The ACS Security System API provides a standardized and secure interface for integrating access control functionalities with enterprise applications. The API is designed using REST principles and supports modular, scalable, and secure communication between systems.

2. API Architecture Overview

The ACS platform follows microservice-based architecture. Each functional module is exposed as an independent REST API while being centrally discoverable through Swagger UI.

MODULE	DESCRIPTION
Authentication	<ul style="list-style-type: none">• Super Admin / System Admin• Role-based access• Password-based login• JWT-based authentication• Login & logout audit logs
Access Control (ACC)	<ul style="list-style-type: none">• Door control (open/close)• Door status monitoring• Anti-passback• Interlock• Access levels, Time Zones, door Setting• Card, Fingerprint, Face, PIN• Access & alarm events
Personnel (PERS)	<ul style="list-style-type: none">• Employee enrolment• Department hierarchy• Active / inactive users• Card & biometric assignment• Fingerprint, face, palm• One-to-many identity mapping
System	<ul style="list-style-type: none">• System & network configuration• Device communication settings• System / operation / alarm logs• Backup• Data cleanup & synchronization
Visitor (VIS)	<ul style="list-style-type: none">• Visitor registration• Photo & ID proof

	<ul style="list-style-type: none"> • Host approval workflow • Time-based access • Visitor reports
Parking (PARK)	<ul style="list-style-type: none"> • Vehicle enrolment • Parking lot configuration • Entry/exit barriers • LPR integration • Whitelist / blacklist • Parking duration logs
Device Management	<ul style="list-style-type: none"> • Push & pull protocols • Online/offline monitoring
Reporting & Monitoring	<ul style="list-style-type: none"> • Access reports • Visitor & parking reports • Real-time dashboards • Alarm & event monitoring

3. Authentication & Security

All secured endpoints require JWT-based authentication using the Authorization header with a Bearer token.

4. Swagger & API Discovery

A centralized Swagger UI is available for API discovery and interactive testing of APIs.

5. API Specification (On-Prem)

The ACS APIs are documented using Swagger (Swagger 2.0).

In on-premises deployments, Swagger UI is hosted locally with the application and provides complete API details.

6. Conclusion

The ACS API provides a secure, scalable, and enterprise-grade integration layer for on-premises access control systems.