

System Requirements Specification for Airport Management System (Including Employee Management)

Employee Management

- 1.1 The system allows for creating and managing employee profiles with roles, permissions, and contact information.
- 1.2 Supervisors can assign tasks and schedules to employees within their departments (landside, airside, security, etc.).
- 1.3 The system tracks employee training records and certs, notifying managers of upcoming renewals.
- 1.4 Employees can access work schedules, shift changes, and leave requests through the system.
- 1.5 Time and attendance can be tracked and managed electronically for payroll purposes.
- 1.6 The system facilitates internal communication between employees and departments.
- 1.7 Performance reports can be generated to analyze employee productivity and identify areas for improvement. **(New)**

Landside Operations

Terminal Management

- 2.1 Managers can view real-time resource allocation (gates, staff) for optimal terminal operations.
- 2.2 The system tracks maintenance schedules and alerts for airport equipment.
- 2.3 Managers can track staff performance metrics and identify training needs. **(From Employee Management)**
- 2.4 The system facilitates resource allocation based on real-time passenger flow and flight schedules. **(From Employee Management)**

Passenger Facilitation

- 3.1 Passengers can use self-service kiosks to check in for flights and print boarding passes.
- 3.2 Border control officers can efficiently process passenger travel documents using the system.
- 3.3 Security personnel can efficiently verify passenger IDs and boarding passes using the system. **(From Employee Management)**

Airside Operations

AFTN Systems

4.1 Pilots and air traffic controllers can receive and send critical flight data (weather, runway conditions) through the AFTN system.

4.2 The system automatically logs flight information (registration, landing/departure times) for statistical purposes.

Apron Handling

5.1 Ground crew can use the system to manage aircraft servicing (boarding, cargo loading, fueling).

5.2 The system calculates fees for ground services based on weight, cargo load, and passenger numbers.

5.3 Ground crew can access real-time flight information and service requirements for assigned aircraft. **(From Employee Management)**

5.4 The system facilitates communication between ground crews and air traffic control. **(From Employee Management)**

Information Management

Flight Information Display Systems (FIDS)

6.1 Passengers can easily view real-time flight information (gates, boarding times, delays) on display screens.

Airport Announcement Systems

6.2 Passengers and staff are notified of important updates (gate changes, delays) through announcements.

Automatic Terminal Information Service (ATIS)

6.3 Pilots receive automated updates on weather conditions and runway status for safe landings.

Staff Information

6.4 Staff can access relevant airport information, procedures, and safety manuals through the system. **(From Employee Management)**

Invoicing and Billing

7.1 The system automatically generates invoices for airlines based on: * Aircraft registration * Parking time * Landing/departure fees * Ground service fees

Reporting and Statistics

8.1 The system generates monthly reports on:

- * Total number of arriving and departing passengers * Lost luggage incidents and compensation costs
- * Number of flights per airline
- * Total fees collected from airlines (landing, facilities)
- * Passenger fees collected
- * Income from private terminals
- * Cargo taxes collected
- * Number of cargo flights and items handled
- * Employee productivity metrics (**From Employee Management**)