



Goals & Scope of the POC



Primary goals:



- **Demonstrate scheduling and booking of dock appointments (create, reschedule, edit, cancel).**
- **Show real time updates and conflict detection (i.e. preventing double booking).**
- **Provide a dashboard or listing of scheduled appointments.**
- **Send notifications (e.g. email / SMS) on changes to appointments.**

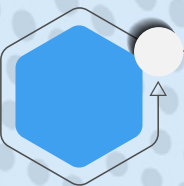


Scope Constraints

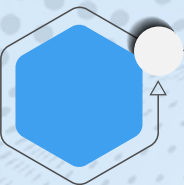
Modules Covered in POC

-  **User & Role Management**
-  **Company Module**
-  **Facility / Warehouse Module**
-  **Event Type Module**
-  **Door Management Module**

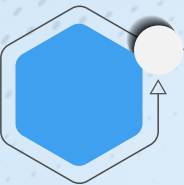




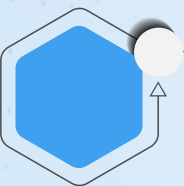
Event Booking Module



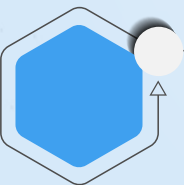
Freezer Module



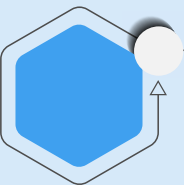
Heat Map View



Reporting Module



Notification System



Dashboard



User & Role Management



- Creation of Admin User who has full access to all system modules
- Admin can create Company Users with limited access based on their organization
- Role based access control to distinguish between:
 - ➡ Admin
 - ➡ Company User
 - ➡ Public User



Company Module

- **Admin can create and manage Company profiles**
- **Each Company can have one or more:**
 - **Associated users**
 - **Facilities**



Facility / Warehouse Module

- Companies can manage one or more facilities (warehouses)
- Each facility can store its own configuration:
 - ➔ Operational hours
 - ➔ Location details
- Facilities act as the parent entity for:
 - ➔ Doors
 - ➔ Event types



Event Type Module

- Company users can define custom event types per facility (e.g., Loading, Unloading, Maintenance)
- Event types allow categorizing and filtering scheduled activities



Door Management Module



- Facilities will have multiple dock doors, each identified uniquely
- **Doors can be:**
 - Pre assigned to specific event types
 - Left open to be assigned dynamically during event booking
- Admin and Company Users can manage door availability, assign or block doors



Event Booking Module



- Booking Channels

- **Public Portal:**

- External users (vendors, carriers) access a unique public URL to submit booking requests

- **Internal Portal:**

- Admin or Company Users create bookings directly within the main portal



Event Booking Core Functionality

- Create, Reschedule, Cancel, and Edit events
- View assigned door and event details
- Validate booking conflicts (door/time overlaps)



Freezer Module Controls



01

Allows filtering and reporting on freezer related events

02

Events can be marked as "Freezer Required"

03

Only freezer enabled doors can be assigned

04

Helps warehouses segregate and manage temperature sensitive operations



Heat Map View

- Visual representation of slot utilization across days and time ranges
- Helps Admins identify:
 - Peak hours
 - Free slots
- Enables proactive planning and load balancing



Reporting Module

Basic Downloadable / Exportable Reports

- Event Data Report:
 - ⬢ Filter by facility, door, time range, event type, and user
- Door Utilization Report
 - ⬢ Summary of how each door was used
 - ⬢ Frequency
 - ⬢ Idle periods



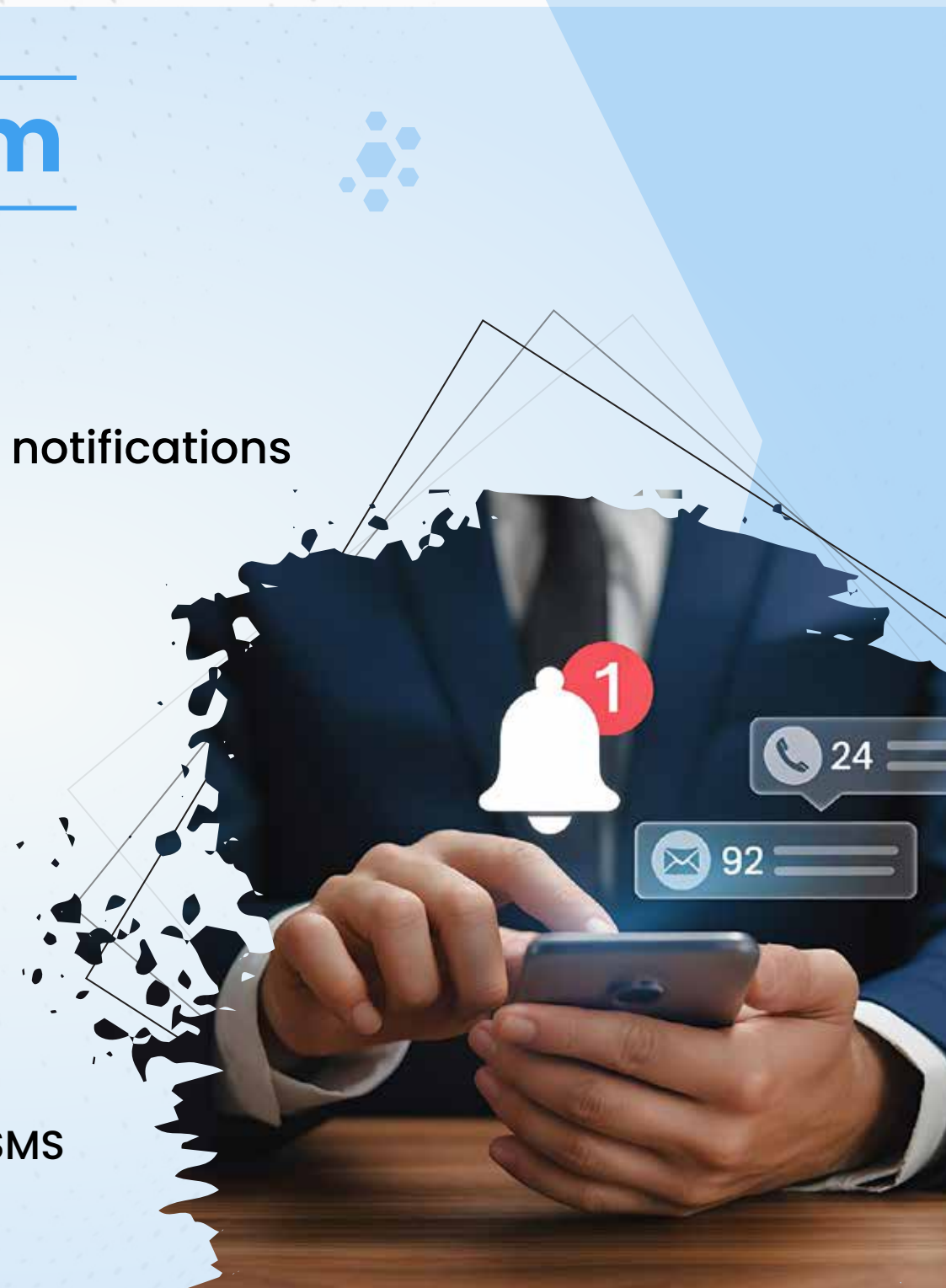
Notification System

(Stub or Basic Implementation)

- System will send basic email or SMS notifications (real or mocked) for:

- New event bookings
- Reschedules
- Cancellations
- Edits

- Notification logic will be implemented
- Integration with production grade email/SMS gateways may be mocked or simulated



Dashboard

- The system shall present a calendar or timeline view for each dock, organized by day. It shall display the current status of each booking, including Scheduled, In Progress, Completed, and Canceled.



Actions & Real Time Updates

- The dashboard shall support quick actions, allowing users to reschedule or cancel bookings directly from the interface.
- The dashboard shall refresh in real time, either via auto refresh or web socket technology, to immediately reflect changes made by other users, system administrators, or company users.



Check In / Check Out

- Additionally, both system administrators and company users shall be able to check in or check out events directly from the dashboard.



Technology & Tools

Layer Technology

- ⚙️ **Backend** – .NET Core API
- ⚙️ **Frontend** – Angular (Internal Portal), Simple HTML or Angular View for Public Booking
- ⚙️ **Database** – SQL Server
- ⚙️ **Hosting** – Local or Azure (optional)
- ⚙️ **Notifications** – SMTP (Email), SMS (stub/mock)



Authentication

Basic login for Admin & Company users;

- Public users can access booking page without login
JWT, Role based authorization mechanism

