**# Phone Management System PRD**

**## Overview**

A web-based system for managing company mobile devices and SIM cards across multiple countries (CZ, SK, PL, HU). The system replaces an existing WinForms application with a modern web solution.

**## Core Features**

1. Employee device management

2. SIM card management

3. Device inventory tracking

4. Multi-country support

5. SSO Authentication

**## Data Models**

**### Device**

```typescript

interface Device {

id: string;

serialNumber: string;

deviceType: 'MOBILE\_PHONE' | 'TABLET' | 'OTHER';

make: string;

model: string;

cost: number;

currency: 'CZK' | 'EUR' | 'PLN' | 'HUF';

purchaseDate: Date;

operationStartDate: Date;

provider: string;

status: 'AVAILABLE' | 'ASSIGNED' | 'MAINTENANCE' | 'RETIRED';

notes?: string;

createdAt: Date;

updatedAt: Date;

}

```

**### DeviceAssignment**

```typescript

interface DeviceAssignment {

id: string;

deviceId: string;

employeeId: string;

releasedDate: Date;

returnedDate?: Date;

notes?: string;

handoverProtocolId?: string;

returnProtocolId?: string;

status: 'ACTIVE' | 'RETURNED' | 'LOST';

createdAt: Date;

updatedAt: Date;

}

```

**### Employee**

```typescript

interface Employee {

id: string;

oscisId: string;

firstName: string;

lastName: string;

country: 'CZ' | 'SK' | 'PL' | 'HU';

status: 'ACTIVE' | 'INACTIVE' | 'MATERNITY\_LEAVE';

entryDate: Date;

exitDate?: Date;

createdAt: Date;

updatedAt: Date;

}

```

**## API Endpoints**

**### Devices**

**#### GET /api/devices**

Query parameters:

- search: string

- status: DeviceStatus

- country: Country

- page: number

- limit: number

- sort: string

Response:

```typescript

{

items: Device[];

total: number;

page: number;

pageSize: number;

}

```

**#### GET /api/devices/{id}**

Response: Device object

**#### POST /api/devices**

Body: Device object without id

Response: Created Device object

**#### PATCH /api/devices/{id}**

Body: Partial Device object

Response: Updated Device object

**### Device Assignments**

**#### GET /api/devices/{id}/assignments**

Response: DeviceAssignment[]

**#### POST /api/devices/{id}/assignments**

Body:

```typescript

{

employeeId: string;

releasedDate: Date;

notes?: string;

}

```

Response: Created DeviceAssignment object

**#### PATCH /api/devices/assignments/{id}/return**

Body:

```typescript

{

returnDate: Date;

notes?: string;

status: 'RETURNED' | 'LOST';

}

```

Response: Updated DeviceAssignment object

**## Key Workflows**

**### 1. Device Assignment**

1. User searches for available device

2. Selects employee

3. Enters handover details

4. System:

- Creates assignment record

- Generates handover protocol

- Updates device status

- Sends email notification

**### 2. Device Return**

1. User selects assigned device

2. Enters return details

3. System:

- Updates assignment record

- Generates return protocol

- Updates device status

- Sends email notification

**## Security Requirements**

1. SSO Authentication required

2. Role-based access control

3. Action audit logging

4. Data encryption at rest

5. HTTPS for all communications

**## Technical Requirements**

1. Modern web stack (React)

2. RESTful API

3. Support for 5000+ concurrent users

4. Page load times under 2 seconds

5. 99.9% uptime

**## Mobile Support**

1. Responsive web design

2. Mobile-optimized views

3. Touch-friendly interface

4. Offline protocol access

**## Metrics & Analytics**

1. Device utilization rates

2. Assignment duration analytics

3. Cost tracking by department

4. Lost device rates

5. Protocol generation counts

**## Phase 1 Deliverables**

1. SSO Integration

2. Basic device management

3. Employee assignment workflow

4. Protocol generation

5. Email notifications

**## Phase 2 Features**

1. Bulk device import

2. Advanced reporting

3. Cost center allocation

4. API for external systems

5. Mobile app

**## Success Metrics**

1. 100% device tracking accuracy

2. < 1% lost device rate

3. 95% user satisfaction

4. 50% reduced admin time

5. Zero double-assignments