Open Number Management
Design Document

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Document History

Date	Author	Summary of changes	Version
2018-02-09	Krzysztof Andryjowicz	Document created	0.1
2018-02-12	Krzysztof Andryjowicz	First version of REST API html documentation attached	0.2

Attachments

Name	Attachment
MySQL script	
REST API documentation	
Asciidoctor Html template file	

Glossary

Term	Definition
Open NM	Open Number Management
DB	Database
API	Application Program Interface
REST	An architecture style for designing networked applications
GUI	Graphical User Interface
MSISDN	A number uniquely identifying a subscription in a GSM or a UMTS mobile network
IMSI	International Mobile Subscriber Identity
SIM	A subscriber identity module, is a smart card that stores data for GSM cellular telephone subscribers, e.g. user identity, location and phone number, network authorization data, personal security keys, contact lists and stored text messages
TDD	Test Driven Approach

1. DEVELOPER'S NOTE

I build this application to meet the following personal goals:
1. To make practice of building web application with Java Spring framework
2. To connect my 10+ years IT consultant working experience in Telecom Industry, very small part of Business needs of this market area, and my need to build Business Support application from the scratch
3. To practice using of modern Java Development tools, mostly Spring framework
4. Have a piece of code to which I have intellectual rights ;-)
5. For fun ;-)

2. DOCUMENT PURPOSE

The purpose of this document is to describe high level of business needs which are covered and technical design details of Open Number Management Java based web application.

3. PROJECT PHASES APPROACH

I plan to deliver this project in 3 phases. Please find list of phases and scope of each of them:
1. Phase I /fire phase/:
    a. Very limited number of functional requirements /exposes only via APIs/:
        i. User Management, including roles and permissions
        ii. Resource Types Management
        iii. Resource Lifecycle Management
        iv. Resource Management
    b. REST APIs to expose 100% coverage of functionality listed in 1a
2. Phase II /Import phase/
    a. Open NM Import resource microservice
2.3. Phase III /UI phase/
    a. Graphical User Interface to consume REST APIs delivered in fire phase
3.4. Phase IVII /Business phase/
    a. Introduce new functionality

Unfortunately,   a high risk issue which can cause I will never finish this project but I have to accept this risk ;-) and I will do my best to manage this ;-)

Please note that I build this project being in line with Open Source License. Any collaboration are welcome and strongly desired ☺

4. FUNCTIONALITY

Open Number Management is design to manage of Number resources, e.g. SIM Card, MSISDN, IMSI. We can distinguish the following functional areas:

1. User management
   a. Add User
   b. Modify User:
      i. Change User Details, including: personal details, assigned role
      ii. Lock/unlock user
      iii. Change password
   c. Get User by id
   ~~c.~~d. Get User by login
2. Access management
   a. Role management
      i. Add role
      ii. Delete role
      iii. Modify role
      iv. Get role by id
      ~~iv.~~v. Get role by name
   b. Permission management
      i. Add permission
      ii. Delete permission
      iii. Modify permission
      iv. Get permission by id
      ~~iv.~~v. Get permission by name
   c. Permission to resource type management
      i. Add resource type to permission
      ii. Delete resource type from permission
      iii. Get resource types by permission id
      ~~iii.~~iv. Get resource types by permission name
   d. Role to permission management
      i. Add permission to role
      ii. Delete permission from role
      iii. Get permissions by role id
      ~~iii.~~iv. Get permissions by role name
3. Resource type management
   a. Add resource type
   b. Delete resource type
   c. Modify resource type
   d. Get resource type by id
   ~~d.~~e. Get resource type by name
4. Resource statuses management
   a. Add resource status
   b. Delete resource status
   c. Modify resource status
   d. Get resource status by id
   ~~d.~~e. Get resource type by name
5. Resource lifecycle management
   a. Add resource status transition
   b. ~~Remove~~ Delete resource status transition
   c. Get possible resource status transitions by source resource status id

      ~~c.~~d. Get possible resource status transitions by source resource status name

6. Resource management
    a. Resource instance management
        i. Add resource
        ii. Modify resource, including: change status, related resource
        iii. Get resource by resource type id
        iv. ~~:~~Get resource by resource type name
        v. Get resource by resource status id
        vi. Get resource by resource status name
        vii. Get resource by related resource id
        ~~iii.~~viii. Get resource by related resource name
            1. Resource type name
            2. Resource name
    b. Resource instance history management
        i. Add history entry
        ii. Get history entries by resource name/id

5. ARCHITECTURE

<TO DO>

6.7. REST APIS

I generate REST APIs documentation by using the following tools:
1. Spring Restdocs Mockmvc
2. Asciidoctor maven plugin

Html documentation is generated in two phases:
1. Generation of .adoc files per each unit test
2. Html document is generated by combination of all .adoc files being in line with documentation.adoc template (please refer to Attachment section, Asciidoctor Html template file of this document for more details)

Please refer to Attachment section, REST API documentation html document, for more details about Open NM REST APIs (note this document is in progress status   ).

Please feel free to clone my repository and check this great tool in action ;-)

7.8. UNIT TESTS APPROACH

\<TO DO\>

8.9. OPEN ISSUES

Ref	Reported by	Status	Description	Comment
1				