* Document overview
* Introduction

Meshreq Computer Systems has agreement with Edex for IT services ad consultancy. This agreement includes development for FindOn software. FindOn is an online service owned by Edex purposing introducing new contact management service to the market.

With the sense of ownership Meshreq has hands on the project and in the middle of development phase now aiming to deliver highly reliable software sticking to standards of software process.

* Document purpose
* Defining the service layer which is the main business layer in the solution
* Giving guide lines for development of back-end rather than services
* Defining user interface/front-end layer views and usability
* Giving sufficient documentation for full integration between back-end and front-end either web or mobile
* Audience
* Meshreq technical team
* Notes

All data within this document and related documents are considered as confidential data and not allowed to be shared outside Meshreq team.

* Technical Design overview
* Introduction

This document states the detailed design for phase 2 features. This phase includes payments, SMS, emails and other features.

So this document will not cover all the solution, it intends only to cover what is going to be developed.

* Modules
* Business Card Selection
* Overview

Selection functionality is suggested to improve usability for users. Where user can filter business cards then selects only the cards he wants. Then actions can be performed on this selected set.

* Back end

|  |  |  |  |
| --- | --- | --- | --- |
| Method name | selectAllBusinessCards | | |
| Description | Selects all the filtered business cards by user. Adds selected cards to the list in session carrying the selected cards. | | |
| Class | com.edexer.mbeans.BusinessCardsIndexManagedBean | | |
| Return Type | void | | |
| Access modifier | Public | | |
| Parameters | | | |
| Name | | Type | Description |

|  |  |  |  |
| --- | --- | --- | --- |
| Method name | unselecteAllBusinessCards | | |
| Description | Removes all the selected business cards from session | | |
| Class | com.edexer.mbeans.BusinessCardsIndexManagedBean | | |
| Return Type | void | | |
| Access modifier | public | | |
| Parameters | | | |
| Name | | Type | Description |

* Front end

Front end is selection controls as follows



* Business card request functionality
* Overview

When a user registers the application creates a business card for him which he can modify later and complete its fields. This type of card are called “Find On” cards, they are the cards owned by Find On. Users can search within these cards to find contacts in Find On cards.

For privacy, Find On cards show only name, title and personal photo. So for a user to get full details he has to send a request to the card owner who can accept or deny.

* Configurations

The module implements push notification algorithm from primefaces, refer to primefaces 5.1 user guide section 9.

Dependencies to be added to the pom file:

<dependency>

<groupId>org.atmosphere</groupId>

<artifactId>atmosphere-runtime</artifactId>

<version>2.2.2</version>

</dependency>

New servlet to be added to web.xml

<servlet>

<servlet-name>Push Servlet</servlet-name>

<servlet-class>org.primefaces.push.PushServlet</servlet-class>

<async-supported>true</async-supported>

</servlet>

<servlet-mapping>

<servlet-name>Push Servlet</servlet-name>

<url-pattern>/primepush/\*</url-pattern>

</servlet-mapping>

* Database changes

|  |  |  |
| --- | --- | --- |
| Table | Status | Description |
| User | Update | Add field privacy level |
| User\_Privacy\_Level | New | Add new look up carries users’ privacy levels |
| BC\_Request | New | Table carries requests data, including sender, receiver, send date, last action, … |
| BC\_Request\_Status | New | Look up carries request status (accepted, ignored) |

* Back end

Back end is interfaced from one method and this method can trigger other methods or classes.

|  |  |  |  |
| --- | --- | --- | --- |
| Method name | updateUserPrivacyLevel | | |
| Description | Updates the user privacy level for a certain user. Return null if updated else returns the error string. | | |
| Class | com.edexer.service.BCRequestServiceManager | | |
| Return Type | String | | |
| Access modifier | Public | | |
| Parameters | | | |
| Name | | Type | Description |
| user | | User | The user to be updated |
| level | | int | The id for new level |
| Notes | | The method call update method from user service or user dao | |

|  |  |  |  |
| --- | --- | --- | --- |
| Method name | sendBCRequest | | |
| Description | Create business card request from sender to receiver. Receiver will be notified by mail where the method call the mail service and notifies the user. The business card of sender will be copied for receiver. | | |
| Class | com.edexer.service.BCRequestServiceManager | | |
| Return Type | String | | |
| Access modifier | Public | | |
| Parameters | | | |
| Name | | Type | Description |
| sender | | User | The user sending the request |
| receiver | | User | The owner of target business card |
| message | | String | Message to be sent from sender to receiver |
| Notes | | The receiver will be notified in front end | |

|  |  |  |  |
| --- | --- | --- | --- |
| Method name | listSentBCRequests | | |
| Description | Lists the sent business card requests for a given. | | |
| Class | com.edexer.service.BCRequestServiceManager | | |
| Return Type | List<BCRequest> | | |
| Access modifier | Public | | |
| Parameters | | | |
| Name | | Type | Description |
| sender | | User | The user |
| Notes | |  | |

|  |  |  |  |
| --- | --- | --- | --- |
| Method name | listReceivedBCRequests | | |
| Description | Lists the received business card requests for a given. | | |
| Class | com.edexer.service.BCRequestServiceManager | | |
| Return Type | List<BCRequest> | | |
| Access modifier | Public | | |
| Parameters | | | |
| Name | | Type | Description |
| receiver | | User | The user |
| Notes | |  | |

|  |  |  |  |
| --- | --- | --- | --- |
| Method name | updateBCRequest | | |
| Description | Updates a Business Card request in DB. | | |
| Class | com.edexer.service.BCRequestServiceManager | | |
| Return Type | void | | |
| Access modifier | Public | | |
| Parameters | | | |
| Name | | Type | Description |
| bcRequest | | BCRequest | The request to be updated |
| Notes | |  | |

|  |  |  |  |
| --- | --- | --- | --- |
| Method name | acceptBCRequest | | |
| Description | Updates a Business Card request in as accepted. Makes a copy of receiver business card for the sender. | | |
| Class | com.edexer.service.BCRequestServiceManager | | |
| Return Type | void | | |
| Access modifier | Public | | |
| Parameters | | | |
| Name | | Type | Description |
| bcRequest | | BCRequest | The request to be accepted |
| Notes | | The sender will be notified in front end | |

|  |  |  |  |
| --- | --- | --- | --- |
| Method name | ignoreBCRequest | | |
| Description | Updates a Business Card request status as ignored. | | |
| Class | com.edexer.service.BCRequestServiceManager | | |
| Return Type | Void | | |
| Access modifier | Public | | |
| Parameters | | | |
| Name | | Type | Description |
| bcRequest | | BCRequest | The request to be ignored |
| Notes | | The sender will NOT be notified in front end | |

* Front end

Front end pages as following mochups:









Sender will get notified when receiver accepts his request via push notification and also receiver will get notified when he receives a request.

* Sending Emails
* Overview

Sending emails is important functionality for users. Find On gives users the ability to send emails from their own mail server.

* Database changes

|  |  |  |
| --- | --- | --- |
| Table | Status | Description |
| Mail\_Configuration | New | Table carries mail configurations for each user, the table carries foreign key referencing user tables |

* Backend

|  |  |  |  |
| --- | --- | --- | --- |
| Method name | updateOutgoingMailConfigurations | | |
| Description | Updates or creates a record for outgoing mail configurations. | | |
| Class | com.edexer.service.UserMailServiceManager | | |
| Return Type | String | | |
| Access modifier | Public | | |
| Parameters | | | |
| Name | | Type | Description |
| user | | User | The user |
| mailConfig | | MailConfig | The configuration object |
| Notes | |  | |

|  |  |  |  |
| --- | --- | --- | --- |
| Method name | validateOutgoingMailConfigurations | | |
| Description | Tests the mail configuration given by sending test mail to the user. Returns null if valid configuration or returns error message on error. | | |
| Class | com.edexer.service.UserMailServiceManager | | |
| Return Type | String | | |
| Access modifier | Public | | |
| Parameters | | | |
| Name | | Type | Description |
| user | | User | The user |
| mailConfig | | MailConfig | The configuration object |
| Notes | |  | |

|  |  |  |  |
| --- | --- | --- | --- |
| Method name | sendMail | | |
| Description | Sends email from the preconfigured outgoing mail server for user to the destination user contacts. Before sending validation is made if the configurations are found or not. | | |
| Class | com.edexer.service.UserMailServiceManager | | |
| Return Type | String | | |
| Access modifier | Public | | |
| Parameters | | | |
| Name | | Type | Description |
| user | | User | The user |
| subject | | String | The mail subject |
| body | | String | The message to be sent |
| destination | | List<BusinessCard> | The destination contacts |
| Notes | |  | |

* Frontend

Frontend is composed of 2 parts:

* Configuration page: a page on user settings page carrying configurations and contains test button to allow user test his configuration before saving
* Home page: on clicking “Send Email” button, a new pop up screen is opened with a rich text editor for composing email