

**VFE VAS Capacity Management Tool**

**Requirements Specification Document**

Version 2.0

**Table 1 (Document Change Control):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Document Version | Action | Author | Date | Changes |
| 1.0 | Created | Alia Adel | 2013.02.14 | Created |
| 1.1 | Updated | Alia Adel | 2013.02.20 | Apply Eshraq's review comments |
| 1.2 | Updated | Karim Wadie | 2013.02.25 | Attach BI Doc |
| 1.3 | Updated | Samaa El-Komy | 2013.02.26 | Apply Enas comments |
| 1.4 | Updated | Alia Adel | 2013.02.28 | Review |
| 1.5 | Updated | Alia Adel | 2013.03.07 | Update Use Cases |
| 1.6 | Updated | Alia Adel | 2013.03.11 | Update System Events Use cases & add wireframes |
| 1.7 | Updated | Alia Adel | 2013.03.12 | Update Log manager & KPI notifications. |
| 1.8 | Updated | Karim Wadie | 2013.04.11 | BI Document updated |
| 2.0 | Updated | Karim Wadie | 2013.04.22 | BI Document updated |
| 1.9 | Updated | Alia Adel | 2013.04.13 | Add more clarification to constraints  Update KPI form |

**Table 2 (Distribution List):**

|  |  |  |
| --- | --- | --- |
| Affiliation | Name | Role |
| **Internal** | Eshraq Essam | Project Leader |
| **Internal** | Alia Adel | Team Leader |
| **External** | Tamer Mohsen AbdElMonem | Client Representative |

**Table 3 (Sign off):**

|  |  |  |  |
| --- | --- | --- | --- |
| Internal Entities | Name | Position | Signature |
| ITWorx |  |  |  |
| **External Entities** | **Name** | **Position** | **Signature** |
| User Representative |  |  |  |
| Corporate Representative |  |  |  |
| Specifications Owner |  |  |  |

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# About the Document

## Document Purpose and Scope

This document details all the functional and quality requirements of the Capacity Management Tool.

## Document Context

**Table 4 (reference documents):**

|  |  |
| --- | --- |
| Reference | Location |
| BI Details Requirements | Section 7 of the Document |

## Document Conventions

### Mandating Verbs

The keywords “SHALL”, “MUST”, “SHOULD”, and “MAY” in this document are to be interpreted as follows:

**SHALL**: Mandatory requirement; the system/component will be useless without it (most requirements are written with shall)

**MUST:** Mandatory constraint; a rule that the system must apply

**SHOULD:** Suggestive requirement; the system will not be useless without it

**MAY:** An optional (nice-to-have) requirement that can be skipped

### Requirements Numbering Conventions

DC = Data Collection

LOG = Logging module

USR = User management modules

ROL = User Roles management

# Glossary of Terms

**Table 5: Glossary**

|  |  |
| --- | --- |
| Term | Definition |
| DC | Data Collection |
| VFE | Vodafone Egypt |
| KPI | Key Performance Indicator |
| VAS | Value added services |
| VFE | Vodafone Egypt |
| Data Collection File | New Delimited Data File |
| Custom Data Collection | The regular solution to define a new data collection |
| UAT | User Acceptance Testing |
| VNPP | Vodafone Network Performance Portal |

# About the Project



## Stakeholders

**Table 6 (Stakeholders):**

|  |  |  |  |
| --- | --- | --- | --- |
| Name/Title | Role in the project | Contact Info | Type |
| Eshraq Essam | Project Leader |  | ITWorx |
| Alia Adel | Team Leader |  | ITWorx |
| Ahmed Shalan | Technical Architect |  | ITWorx |
| Basma Alkerm | Senior Software Engineer |  | ITWorx |
| Samaa ElKomy | Software Engineer |  | ITWorx |
| Tamer Mohsen AbdElMonem |  |  | Client |
| Ahmed Ali AbdelHamid |  |  | Client |
| Mohamed Wassal |  |  | Client |
| Mohamed Medhat Hafez |  |  | Client |

## Business Background

This system is an enhancement to the currently existing Vodafone Network Performance Portal.

Update the whole look & feel to match the live Vodafone Egypt site “https://www.vodafone.com.eg/”

## Project Purpose

Enhance the user experience for managing data collections.

## Project Scope

### In Scope

GUI to manage system KPIs

* For generic data collection for separated text files, add the availability of having “Other Separator” as in Excel.
* Editing the input config / jobs.xml files through GUI only for nodes and system configuration not the data collection configuration.
* Add option to create table after define the data collection or select from existing table.
* Enhancing the currently existing generic data collection model by having the ability to choose from creating a new table or use currently existing table.
* Testing and Validation Module.
* Force running data collections through GUI (Supporting both daily and hourly data collections).
* Validate data collection, testing it and insert sample data in database.
* Modify generic data collection that already exist for text collection to apply new options that we agreed on it for example the separators
* Add Database to generic data collection
* Adding an option to create a DC that collects its data from an external DB with the availability of supporting multiple DB types.
* XML parsing, making different models based on different vendors. 1st needed model will be for Ericsson XML files.
* Add XML to generic data collection for CCN and VPN formats
* Enhance the Usability
* Log manager revamp, reporting the failed DCs and sending alarms to the associated node owners (Specifying in the log manager to whom should each DC alarm be sent).
* Solution interface language is English
* Planning and scheduling the project and delivering a project schedule
* Documenting, reviewing and finalizing the system requirements document
* Documenting, reviewing, and finalizing the system design document
* Development, unit testing, and bug fixing of the system
* Testing and retesting the system
* Deployment of the solution on Vodafone Production environments.
* Delivering a 5 business day training workshop for system administrators
* Delivering a 5 business day training workshop for end users
* Delivering a user guide for the system(soft copy & hard copy)

### Out of Scope

Network Performance Portal application reports (Will be available in the currently live Vodafone Network Performance Portal)

Archiving administration (Will be available in the currently live Vodafone Network Performance Portal)

Archiving Execution (Will be available in the currently live Vodafone Network Performance Portal)

MGA Subscriber Mapping (Will be available in the currently live Vodafone Network Performance Portal)

IVR Route Manager (Will be available in the currently live Vodafone Network Performance Portal)

Trend Analysis (Will be available in the currently live Vodafone Network Performance Portal)

* Editing old data collection configuration through GUI.
* All required HW, SW licenses and technology provider consultancy.
* Data entry for any data
* Data cleansing
* Data quality issues are not included in the scope of the deliverables.
* Any commented System, node or job in production input\_config.xml & jobs.xml files will be ignored during data migration phase.
* Any wrong configuration in the currently existing data collection configuration files (i.e.: input\_config.xml, jobs.xml & control files).
* Providing supporting for languages other than English
* Providing, installing, or configuring hardware or network equipment
* Providing software licenses for any of the software products
* Load balancing or clustering of the system
* Deployment in multiple data centers
* Having personalized home page for each user that user can create and save to be shown each time the user log in to the web GUI.
* Anything not excluded in this section and not listed in the above "In Scope"
* Any required HW
* BO installation on Vodafone Egypt environment.

## Facts, Assumptions, Dependencies, Constraints, Risks

### Facts

A new web project will be developed & will run in parallel with the current Vodafone network performance portal

The new project will be deployed on Tomcat server v6.0.36

The new project will be deployed on Java v1.6

A new data base will be created linking to the currently live database schema

* VFE will avail a VPN connection to allow ITWorx team to access the production environment both for maintenance activities as well as for deployments and testing
* The application will only be available internally inside Vodafone network
* No integration will take place with the legacy systems or other systems except for the ones mentioned explicitly in the functional requirements section
* Vodafone Egypt team will avail any HW required for BO installation on Production environments.

ITWorx’s team is dependent on the following factors that must be fulfilled to achieve successful project execution. These dependencies are identified as follows:

* Vodafone Egypt will avail BO R4 for ITWORX development and testing environment.
* Vodafone Egypt will avail a VPN connection to allow ITWorx team to access the production environment both for maintenance activities as well as for deployments and testing.
* Any delay from VFE in any of the above sign-off of deliverables or non-availability of required software may result in delay of dependent milestones; and thus may lead to delay in final delivery of the product.

### Constraints

* In case VFE needs to include the commented systems, nodes or jobs during production data migration phase. Then VFE will have to perform one of the following solutions:
  + Un comment them before production migration.
  + Add them through the data collection GUI, after the Capacity Management Portal deployment.

## Open/Closed Issues

**Table 7: Open/Closed Issues**

|  |  |  |  |
| --- | --- | --- | --- |
| Closed Issue | Closed Date | Decision Maker | Justification |
|  |  |  |  |

# System Overview

Data Collection Modification:-

* Generic DC Updates

1. Editing the input config/jobs.xml files through GUI.
2. Force running of data collections through GUI (Supporting both daily and hourly data collections)
3. Adding an option to create a DC that collects its data from an external DB with the availability of supporting multiple DB types.
4. Force running of data collections through GUI (Supporting both daily and hourly data collections)
5. Validate data collection and testing it
6. In the generic data collection for separated text files, add the availability of having “Other Separator” as in Excel.
7. Enhancing the currently existing generic data collection model by having the ability to choose from creating a new table or use currently existing table.
8. XML parsing, making different models based on different vendors. 1st needed model will be for Ericsson XML files.
9. Log manager revamp, reporting the failed DCs and sending alarms to the associated node owners (Specifying in the log manager to whom should each DC alarm be sent).

Reporting

* Self-reporting availability
* Develop One BO Dashboard for 4 services.
* Develop One What-If Scenario for 4 services.



## System Sub Systems, Modules, Functions, or Features

The system is composed of the following sub systems, modules, functions:

User Management

Generic Data Collection

Log Manager

Admin System Events

Notification assignment to specific users

## Site Map

N/A

## Context Diagram

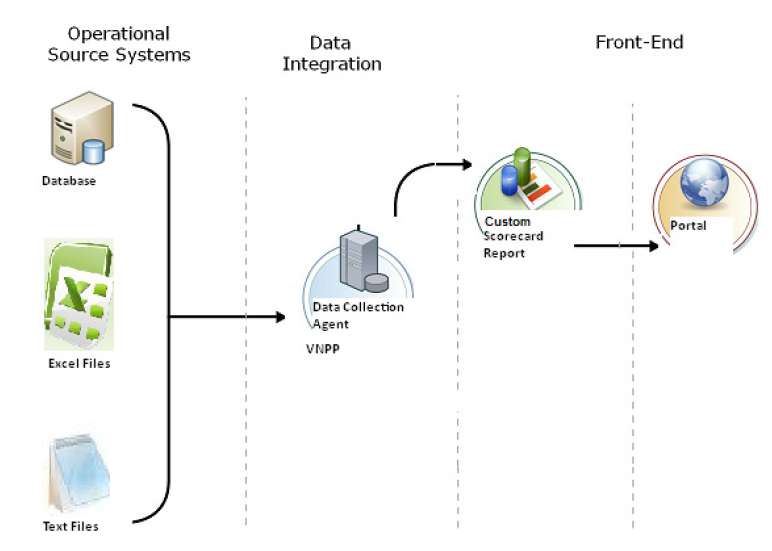


Figure 1: Current and Expected Modifications in VNPP Application

# User Profiles

**Table 8: User Roles Description**

|  |  |
| --- | --- |
| User Role | General Description |
| ADMIN | System Administration with all accessibility |
| REGULAR | System User with limited accessibility |

# Functional Requirements



## User Management

This Module is responsible for user and roles management functionalities

Description:

The objective of this module is to manage the users added to the system, by providing the following functionalities:

[UC-VFE-USR-01.1] System shall allow user to login.

[UC-VFE-USR-01.2] System shall allow user to logout.

Process:

This functionality will not be supported for all users, it’ll only be allowed for the ADMIN users only.

### [UC-VFE-USR-01.1] User's login

Screenshot/Wireframe:

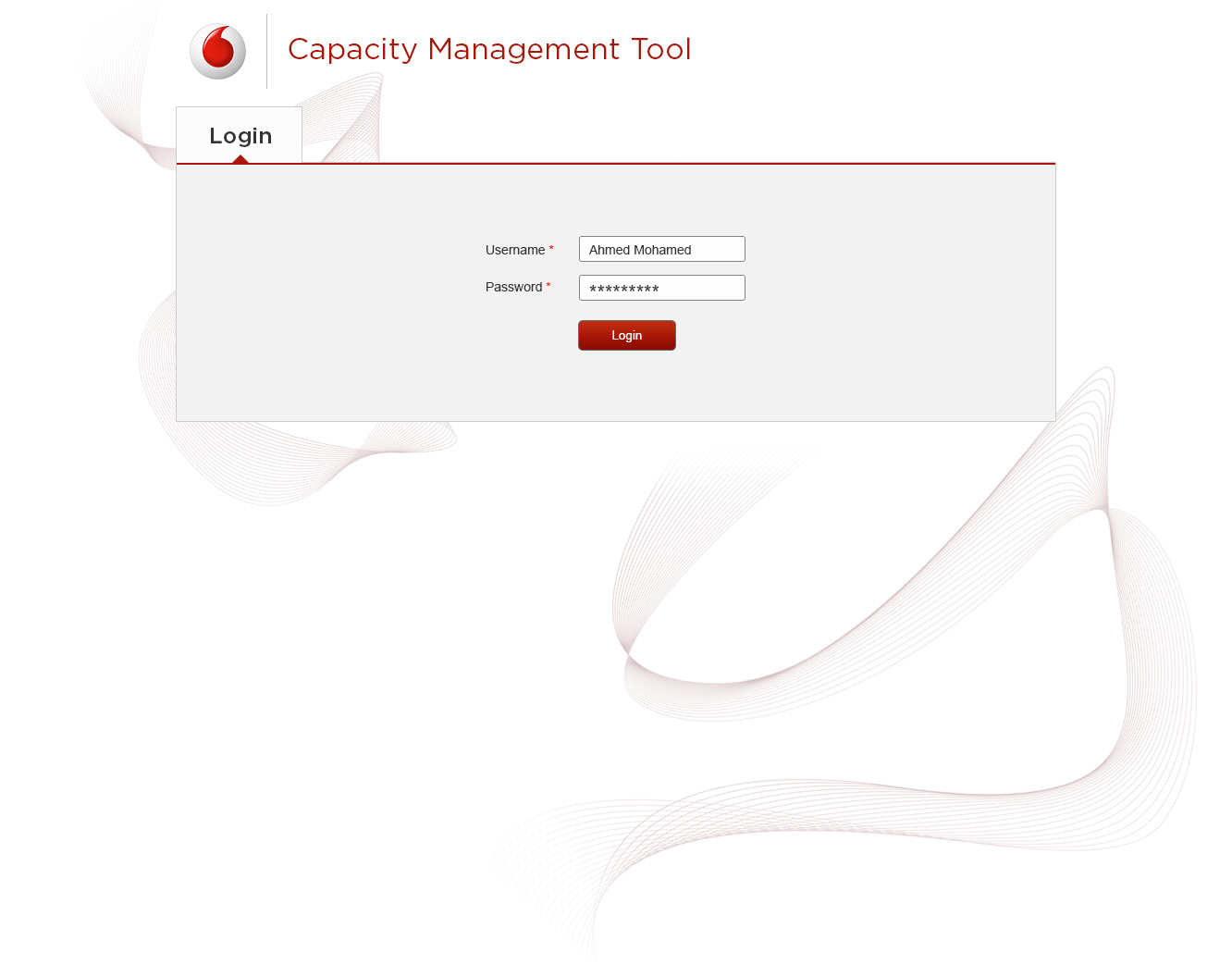


Figure 2 [UC-VFE-USR-01.1] User login

Table 9: [UC-VFE-USR-01.1] User's Login Page Components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Username | Text  Alphanumeric  Size(min = 4, max = 15) | Mandatory: Y |  |  |  |
| Password | Password field | Mandatory: Y |  |  |  |
| Login | Button |  |  |  | If the user has entered a valid username & password then the system will navigate the user to his home page according to his role and credentials. |

Table 10: [UC-VFE-USR-01.1] User's Login Use Case

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-USR-01.1 |
| **USE CASE NAME:** | User Login |
| **ACTORS:** | User, System |
| **DESCRIPTION:** | The user has to login, to enjoy the system functionalities. |
| **PRE-CONDITION:** |  |
| **Trigger** | User Action |
| **TYPICAL COURSE**  **OF EVENTS:** | Actor Action /System Response |
| * User enters username and password then presses login /System navigates the user’s home page. |
| **ALTERNATE COURSES:** | * User enters invalid username or password then presses login /System shows error message. * User enters valid username and password and it’s his first login/ system navigates user to a page to change his password then after changing the password the user will be able to go to his home page ([Refer to First Login Use Case](#_[UC-VFE-USR-01.4]_First_Login)). |
| **POST-CONDITION:** | The user with the entered username will be loaded into the system & the user will be logged in & the system will show him the allowed system functionalities to use. |
| **BUSINESS RULES** |  |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

Messages:

Table 11: [UC-VFE-USR-01.1] User's Login Messages

|  |  |  |
| --- | --- | --- |
| Message Number | Message/Email Text | Condition |
| MSG-VFE-USR-01.1-01 | Invalid username or password! | If the user enters invalid username and password, while trying to login. |
| MSG-VFE-USR-01.1-02 | Sorry, server error! | If any server error happens. |

### [UC-VFE-USR-01.2] User Logout

Table 12: [UC-VFE-USR-01.1] User's Logout Page Components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Logout | Link/Button | N/A | N/A |  |  |

Table 13: [UC-VFE-USR-01.2] User Logout Use Case

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-USR-01.2 |
| **USE CASE NAME:** | User Logout |
| **ACTORS:** | User, System |
| **DESCRIPTION:** | The user can logout |
| **PRE-CONDITION:** | User is logged in |
| **Trigger** | User Action |
| **TYPICAL COURSE**  **OF EVENTS:** | Actor Action /System Response |
| * User clicks logout from any page on the website. |
| **ALTERNATE COURSES:** |  |
| **POST-CONDITION:** | User is directed to login screen. |
| **BUSINESS RULES** |  |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-USR-01.3] Manage Users Module

Description:

The objective of this module is to manage the users added to the system, by providing the following functionalities:

[UC-VFE-USR-01.3.1] System shall allow user to display the list of existing users.

[UC-VFE-USR-01.3.2] System shall allow users to add new user to the system.

[UC-VFE-USR-01.3.3] System shall allow user to edit an existing user’s data.

[UC-VFE-USR-01.3.4] System shall allow user to delete an existing user.

Process:

This functionality will not be supported for all users, it’ll only be allowed for the ADMIN users only.

Use Cases/Scenarios:

**UC-VFE-USR-01.3.1: Show Users**

Table 12: [UC-VFE-USR-01.3.1] Display All Users and Delete User Page Components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Users | List | Supported by system | List of existing users |  |  |
| Add | Button |  |  |  | Navigates to [UC-VFE-USR-01.2] window |
| Edit | Button |  |  |  | Navigates to [UC-VFE-USR-01.3] window |
| Delete | Button |  |  |  | If: no user is selected, show message “You must select a user”  Else: Show popup window, with “Are you sure you want to delete the selected user?”, is the user presses “Yes”, then the user will be deleted from the DB and update the list of existing users, if the users presses “No” then nothing will happen. |

Table 14: [UC-VFE-USR-01.3.1] List Users Use Case.

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-USR-01.3.1 |
| **USE CASE NAME:** | List Users |
| **ACTORS:** | Admin user, System |
| **DESCRIPTION:** | The user can display a list of all existing users on the system. |
| **PRE-CONDITION:** | 1. The user must be logged in. 2. Admin user |
| **Trigger** | User Action |
| **TYPICAL COURSE**  **OF EVENTS:** | Actor Action /System Response |
| * User selects manage users module /System navigates to show users page |
| **ALTERNATE COURSES:** |  |
| **POST-CONDITION:** |  |
| **BUSINESS RULES** |  |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

**UC-VFE-USR-01.3.2: Add User**

Table 15: [UC-VFE-USR-01.3.2] Add User Page Components.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Username | Text  Alphanumeric  Size(min = 4, max = 15) | Mandatory: Y  Updateable: Y  Unique: Y | None |  |  |
| Password | Alphanumeric and can contain special characters | Mandatory: Y  Updateable: Y  Unique: N | None |  | Min length: 6 |
| Email | Text  Length: 50 | Mandatory: N  Updateable: Y  Unique: N | None | Matches e-mail formula |  |
| Mobile number | Text  Length: 20 | Mandatory: N  Updateable: Y  Unique: Y | None | Egyptian mobile number (starting with 010, 011 or 012 then 8 digits) |  |
| Role | Text  Length: 50 | Mandatory: Y  Updateable: Y  Unique: N | None | Must be an existing role |  |
| Save | Button |  | None |  | Saves the new user to the DB, update the list of existing users and show confirmation message, or if an error happens then show error message |
| Cancel | Button |  | None |  | Back to the page of all users without saving any data. |

Table 16: [UC-VFE-USR-01.3.2] Add User Use Case.

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-USR-01.3.2 |
| **USE CASE NAME:** | Add User |
| **ACTORS:** | Admin user, System |
| **DESCRIPTION:** | The user can add a new user to the system |
| **PRE-CONDITION:** | 1. The user must be logged in. 2. Admin user |
| **Trigger** | User Action |
| **TYPICAL COURSE**  **OF EVENTS:** | Actor Action /System Response |
| * User clicks “Add” button from [UC-VFE-USR-01.3.1]/System navigates to the add user form [UC-VFE-USR-01.3.2] * User enters valid data (Username, Password, Email, Mobile number, Role) and clicks save /System saves the new user to DB, show confirmation message, then navigate to [UC-VFE-USR-01.3.1] page with updated list of users. |
| **ALTERNATE COURSES:** | * User enters invalid data and clicks save /System shows a message with the invalid fields. * User clicks cancel /System navigates to [UC-VFE-USR-01.3.1] page. * User clicks reset /System clears all the input fields. |
| **POST-CONDITION:** | * User is added to the system. * The user first login flag is set to true, so he will have to change his password after his first login. |
| **BUSINESS RULES** |  |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

* **UC-VFE-USR-01.3.3: Edit User**

Table 11: [UC-VFE-USR-01.3.3] Edit User Page Components.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Username | Text  Alphanumeric  Size(min = 4, max = 15) | Mandatory: Y  Updateable: Y  Unique: Y | Old username |  |  |
| Password | Alphanumeric and can contain special characters | Mandatory: Y  Updateable: Y  Unique: N | Old password |  | Min length: 6 |
| Email | Text  Length: 50 | Mandatory: N  Updateable: Y  Unique: N | Old email | Matches e-mail formula |  |
| Mobile number | Text  Length: 20 | Mandatory: N  Updateable: Y  Unique: Y | Old mobile number | Egyptian mobile number (starting with 010, 011 or 012 then 8 digits) |  |
| Role | Text  Length: 50 | Mandatory: Y  Updateable: Y  Unique: N | Old role | Must be an existing role |  |
| Save | Button |  | None |  | Saves the new user to the DB, update the list of existing users and show confirmation message, or if an error happens then show error message |
| Cancel | Button |  | None |  | Back to the page of all users without saving any data. |

Table 17: [UC-VFE-USR-01.3.3] Edit User Use Case.

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-USR-01.3.3 |
| **USE CASE NAME:** | Edit User |
| **ACTORS:** | Admin user, System |
| **DESCRIPTION:** | The user can edit an existing user to the system |
| **PRE-CONDITION:** | 1. The user must be logged in. 2. Admin user 3. The user must select a user to be updated from [UC-VFE-USR-01.3.1] |
| **Trigger** | User Action |
| **TYPICAL COURSE**  **OF EVENTS:** | Actor Action /System Response |
| * User clicks “Edit” button from [UC-VFE-USR-01.3.1] /System navigates to the edit user form [UC-VFE-USR-01.3.3] * User enters valid data (Username, Password, Email, Mobile number, Role) and clicks save /System saves the updates to the user on DB, show confirmation message, then navigate to [UC-VFE-USR-01.3.1] page. |
| **ALTERNATE COURSES:** | * User enters invalid data and clicks save /System shows a message with the invalid fields. * User clicks cancel /System navigates to [UC-VFE-USR-01.3.1] page. |
| **POST-CONDITION:** | User data is updated |
| **BUSINESS RULES** |  |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

**UC-VFE-USR-01.4: Delete User**

Table 18: [UC-VFE-USR-01.4] Delete User Use Case

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-USR-01.4 |
| **USE CASE NAME:** | Delete User |
| **ACTORS:** | Admin user, System |
| **DESCRIPTION:** | The delete a specific user. |
| **PRE-CONDITION:** | 1. The user must be logged in. 2. Admin user |
| **Trigger** | User Action |
| **TYPICAL COURSE**  **OF EVENTS:** | Actor Action /System Response |
| * User selects a specific user from the list in [UC-VFE-USR-01.3.1] then clicks delete /System deletes the selected user from DB, navigates to show users page [UC-VFE-USR-01.3.1] with updated list of users. |
| **ALTERNATE COURSES:** | 1. User clicks delete without selecting a user/ System will show error message. |
| **POST-CONDITION:** | The selected user is deleted from the DB. |
| **BUSINESS RULES** | User cannot delete himself. |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-USR-01.4] First Login password change

Description:

After user's login, the value of "FIRST\_LOGIN" column in "USERS" table is checked to identify if this is his first login or not.

If this is the user's first login then a page will be opened after login prompting him to change his password.

Screenshot/Wireframe:

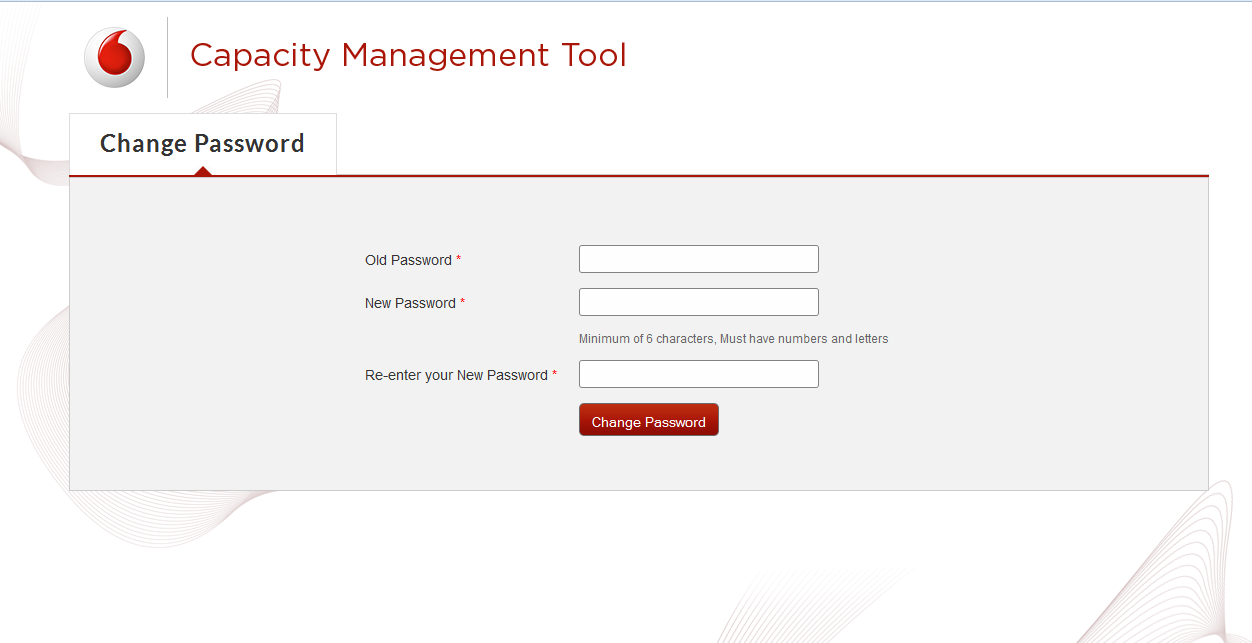


Figure 3: [6.1.4] First Login

Page (or window) Components:

Table 19: [UC-VFE-USR-01.4] First Login password change Page or window components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Old Password | Text(Password) | Mandatory: Y  Updateable: Y  Unique: N | N/A | The user's current password |  |
| New Password | Text(Password) | Mandatory: Y  Updateable: Y  Unique: N | N/A | Alphanumeric and can contain special characters  Length {6, 20} |  |
| Re-enter your New Password | Text(Password) | Mandatory: Y  Updateable: Y  Unique: N | N/A | Alphanumeric and can contain special characters  Length {6, 20} | Must be equal to the value of "New password" field. |

Use Cases/Scenarios:

[UC-VFE-USR-01.1] User's login

Table 20: [UC-VFE-USR-01.4] First Login password change Use Cases

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-USR-01.4 |
| **USE CASE NAME:** | First Login password change |
| **ACTORS:** | Any logged user |
| **DESCRIPTION:** | After user's login, the value of "FIRST\_LOGIN" column in "USERS" table is checked to identify if this is his first login or not.  If this is the user's first login then a page will be opened after login prompting him to change his password. |
| **PRE-CONDITION:** | The user must already be registered in the system |
| **Trigger** | User's login |
| **TYPICAL COURSE**  **OF EVENTS:** | Actor Action |
| 1. User logins for the first time with his given credentials. 2. User is prompted to a page to change his password by entering the following:    1. Old password    2. New Password    3. Re-enter new password |
| **ALTERNATE COURSES:** | * User enters incorrect value in the "Old password' * User enters invalid password format in "New password" * "Re-enter new password" is not equal to "New Password" field value. |
| **POST-CONDITION:** | * The user's password is updated in the database. * The user is logged into the system. * "FIRST\_LOGIN" column value is reset to "0" in "USERS" table. |
| **BUSINESS RULES** | Re-enter new password must be equal to the New password value. |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** | Password pattern is the same as the password pattern added in Add/Edit User use cases. |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

## Manage Data Collection Process

The system shall provide the Define Data collection Module.

**Description:**

This module enables the user to perform the needed steps to define a new generic process.

[UC-VFE-GDC-01.1] System shall allow users to select the Data collection type (DB based, Text based, Xml based)

[UC-VFE-GDC-01.2], [UC-VFE-GDC-01.3] and [UC-VFE-GDC-01.4] System shall allow user to define the structure (logic) of the Generic process.

[UC-VFE-GDC-01.5] System shall allow user to define the output DB table for the generic process.

[UC-VFE-GDC-01.6] System shall allow user to define the mapping between the extracted data and the output DB table.

[UC-VFE-GDC-01.7] System shall allow user to edit retrieval SQL of previously defined generic data collection process.

**Process:**

[UC-VFE-GDC-01.1] Define data collection Type

[UC-VFE-GDC-01.2] Extract data collection source data

* + UC-VFE-GDC-01.2.1: Extract source columns for text based process
  + UC-VFE-GDC-01.2.2: Extract source columns for xml based process

[UC-VFE-GDC-01.3] Define plain Columns

[UC-VFE-GDC-01.4] Define SQL columns

[UC-VFE-GDC-01.5] Define the Extraction SQL statement for DB based process

[UC-VFE-GDC-01.6] Define data collection reporting table

[UC-VFE-GDC-01.7] Define data collection mapping

[UC-VFE-GDC-01.8] Edit data collection retrieval SQL

### [UC-VFE-GDC-01.0] Manage Data Collection Process

Description:

This is the entry page for managing the data collection process.

The system will allow the user to perform the following actions:

Define data collection type

Edit data collection retrieval SQL

Delete data collection type

Search for a data collection

Table 21: [UC-VFE-GDC-01.0] Manage Data Collection Process Page or window components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Data Collection Name | Text | Mandatory: N  Updateable: N  Unique: Y | N/A | N/A | User to search for an existing data collection. |
| Search | Button |  |  |  | Search for an existing data collection given the value added in the "Data collection Name" search text field. |
| Data Collection  Processes | Table(Data collection name, edit, delete)  The table should implement pagination | Updateable: N |  |  | The “edit” button will be disabled for excel and non generic text data collections |
| Edit | Button inside the “Data collection Process) table |  |  |  | Ref UC-VFE-GDC-01.8 |
| Delete | Button inside the “Data Collection Process” table |  |  |  | Ref UC-VFE-GDC-01.9 |
| Add Data collection Process | Button |  |  |  | System display confirmation |

Table 22: [UC-VFE-GDC-01.0] Manage Data Collection Process Use Cases

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-01.0 |
| **USE CASE NAME:** | Manage Data Collection Process |
| **ACTORS:** | Admin User |
| **DESCRIPTION:** | The user can view all defined data collection processes, add new processes, edit and delete. |
| **PRE-CONDITION:** | The user must be logged in & with ROLE Admin |
| **Trigger** | The user clicks on "Manage Data Collection Process" Tab |
| **TYPICAL COURSE**  **OF EVENTS:** | Actor Action |
| 1. The user can click “Edit” on one of the data collections listed (Ref UC-VFE-GDC-01.8) 2. The user can click “Delete” on one of the data collections listed :    1. The system displays confirmation    2. The system validates that the data collection process is not used by systems/nodes.    3. The data collection process is deleted and removed from the listing table. 3. The user can click “Add data collection process”( Ref UC-VFE-GDC-01.1) 4. User can add a value in the " Data Collection Name" text field to search for a data collection between the already saved data collections. |
| **ALTERNATE COURSES:** | In step 2.b: if the data collection is used system displays error message |
| **POST-CONDITION:** |  |
| **BUSINESS RULES** | Excel, non-generic text data collections are not editable. |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-GDC-01.1] Define Data collection type

Table 25: [UC-VFE-GDC-01.1] Define Data collection Type Page Components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Data collection type | combo box | Mandatory: Y | None |  |  |
| Data collection name | Alphanumeric text  Length=25 | Mandatory: Y | None |  |  |
| Steps Panel | Vertical panel at the left side of the page showing the complete steps list with the current step highlighted |  |  |  | This panel will be displayed on all screens involved in adding/editing data collections |
| Title bar | Horizontal bar at top of page showing the name and type of currently defined or edited data collection |  |  |  | This bar will be displayed on all screens involved in adding/editing data collections |
| Errors frame | Page frame |  |  |  | This frame should be placed at top of page(under title bar) ,it shows any errors returned from the system to the user |
| Next | Button |  |  |  | Ref :UC-VFE-GDC-01.2.1 OR UC-VFE-GDC-01.2.2 OR UC-VFE-GDC-01.2.3(based on user selection) |
| Cancel | Button |  |  |  | Exit Data Collection process back to the first “Manage Data Collection” page |

**Use Cases/Scenarios:**

UC-VFE-GDC-01.1: Define Data collection type

**Table 26: [UC-VFE-GDC-01.1] Define Data collection Type Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-01.1 |
| **USE CASE NAME:** | Define Data collection type |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user selects the Extraction type for the new generic process |
| **PRE-CONDITION:** | The user should have the appropriate Role |
| **Trigger** | Actor Action |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| 1. The user clicks “Add data collection Process” 2. The system display options to select from(Text, DB, XML) 3. The user selects Data collection type 4. The user inputs Data collection name 5. The user click “Next” |
| **ALTERNATE COURSES:** |  |
| **POST-CONDITION:** |  |
| **BUSINESS RULES** |  |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

Messages:

Table 23: [UC-VFE-GDC-01.1] Define Data collection Type Messages

|  |  |  |
| --- | --- | --- |
| Message Number | Message/Email Text | Condition |
| MSG-VFE-GDC-01.1-01 | Data collection has been defined successfully! | All steps are passed, and new Data collection is saved to DB. |
| MSG-VFE-GDC-01.1-02 | Sorry, server error! | For any server error |

### [UC-VFE-GDC-01.2] Extract Data collection source data

**Description:**

This Function enables the user to perform the needed steps to define structure (logic) for generic process.

**Process:**

[UC-VFE-GDC-01.2.1] Extract source columns for text based process

[UC-VFE-GDC-01.2.2] Extract source columns for XML based process

Table 27: [UC-VFE-GDC-01.2.1] Extract Source Columns for Text Based Process Page Components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Sample file | File control | Mandatory: Y | none | Size must not exceed 4 MB  The control should only allow the user to brows “.txt” and “.csv” files. | Entered file will be validated for the following:   * File type must be either txt or csv * The uploaded file size must not be larger than 4 MB |
| Sample lines | Alphanumeric text  Length=100 line | Read only | none |  |  |
| Delimiter | Combo box | Mandatory: N | none |  | If not selected then "Other Delimiter" field must be selected |
| Other delimiter | Text field  Accepts any character | Mandatory: N |  |  | If not selected then "Delimiter" field must be selected |
| Ignore lines | Text field  Numeric | Mandatory: N  Max value: 999 | 0 |  |  |
| Headers usage | Radio buttons | Mandatory: N | "Don't Use" | Options:   * Use now only * Use now and always * Do not use |  |
| Next | Button |  |  |  | REF : UC-VFE-GDC-01.3 |
| Back | Button |  |  |  | Ref: UC-VFE-GDC-01.1 |
| Cancel | Button |  |  |  | Exit Data Collection process back to the first “Manage Data Collection” page |

Table 27: [UC-VFE-GDC-01.2.3] Extract Source Columns for XML Based Process Page Components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Sample file | File control | Mandatory: Y | none | Must be valid xml file  The control should allow the user to brows only xml files. | Entered file will be validated for the following:   * File type must be XML * The uploaded file size must not be larger than 4 MB * The XML schema is validated in case "Simple" Complexity option is selected. |
| XML Complexity | Radio button | Mandatory: Y | Simple | LOV: Simple, Vendor Specific |  |
| Vendor Specific Name | Selection list | Mandatory: Y | Ericsson | LOV: Ericsson | * Will be shown only in case "Vendor Specific" option was selected. * Mandatory in case "Vendor Specific" option was selected from "XML Complexity" was chosen. |
| Vendor Specific Converter Name | Selection list | Mandatory: Y | none | LOV for the Vendor Specific "Ericsson":   * VPNXMLCountersConverter * VPNPlatformMeasures * VPNPMFStatisticsConverter * VPNXMLCompaniesConverter * CCNCountersGeneralConverter * CCNVoiceChargingCountersConverter * CCNPlatformMeasuresConverter | * Will be shown only in case a value was selected from "Vendor Specific Name" selection list. * Mandatory in case a value was selected from "Vendor Specific Name" selection list. |
| Back | Button |  |  |  | Ref: UC-VFE-GDC-01.1 |
| Cancel | Button |  |  |  | Exit Data Collection process back to the first “Manage Data Collection” page |

**Use Cases/Scenarios:**

UC-VFE-GDC-01.2.1: Extract source columns for text based process

UC-VFE-GDC-01.2.2 Extract source columns for xml based process

**Table 29: [UC-VFE-GDC-01.2.1.1] Extract Source Columns for Text Based Process Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-01.2.1 |
| **USE CASE NAME:** | Extract source columns for text based process |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user provide sample text file to extract columns from |
| **PRE-CONDITION:** | The user should have the appropriate Rule  The user must have gone through [UC-VFE-GDC-01.1](#_6.1.1_Define_generic) and selected text based option |
| **Trigger** | Actor Action |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| 1. User uploads sample text delimited file    1. A hint message will be shown to notify the user of the expected file extension & file size 2. The system displays sample lines 3. The user selects delimiter (mandatory)    1. from list of common delimiters    2. type other delimiter 4. The user inputs “ignore lines” value (optional) 5. The user selects the use headers option    1. Use headers now only    2. Use headers always    3. Do not use headers 6. The user clicks “Next” 7. Ref: [UC-VFE-GDC-01.3] |
| **ALTERNATE COURSES:** |  |
| **POST-CONDITION:** |  |
| **BUSINESS RULES** | The uploaded file must have at least two rows in case the user chooses "Use headers now only" or "Use headers always" options.  In case no delimiter exists in the parsed file, the file will be parsed as if it includes only one column.  Only one delimiter can be selected at a time  File type must be either txt or csv  The uploaded file size must not be larger than 4 MB |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

**Table 31: [UC-VFE-GDC-01.2.2] Extract Source Columns for XML Based Process Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-01.2.3 |
| **USE CASE NAME:** | Extract source columns for xml based process |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user provide sample xml file to extract columns from |
| **PRE-CONDITION:** | The user should have the appropriate Rule  The user must have gone through [UC-VFE-GDC-01.1](#_6.1.1_Define_generic) and selected XML based option |
| **Trigger** | Actor Action |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| 1. User selects “XML Complexity” option.    1. If “Simple” option was selected.       1. User Uploads the sample XML file .    2. A hint message will be shown to notify the user of the expected file extension & file size       1. The user clicks “Next”(Refer to UC-VFE-GDC-01.4)    3. If “Vendor Specific” option is selected.       1. User selects the “Vendor Specific Name”          1. User selects the “Vendor Specific Converter Name”       2. User clicks “Next” (refer to UC-VFE-GDC-01.6) |
| **ALTERNATE COURSES:** | Validation error will be displayed to the user in the following cases:   * The XML schema is invalid. * The entered XML file size is greater than 4 MB * The uploaded file extension is not XML |
| **POST-CONDITION:** | User will be directed to “[Define SQL Columns](#_[UC-VFE-GDC-01.4]_Define_SQL)” |
| **BUSINESS RULES** | * File type must be XML * The uploaded file size must not be larger than 4 MB * The XML schema validated according to the XML Complexity option selected. |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** | After selecting a converter from “Vendor Specific Converter Name”, the uploaded XML file will be parsed against the already existing converters. |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-GDC-01.3] Define plain Columns

**Description:**

The system should allow the user to select the columns used by the Data collection from the extracted columns, edit their names, set their types, and give them default values.

Table 27: [UC-VFE-GDC-01.3] Define Plain Columns Page Components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Extracted columns | Table (name, type, sample value, default value, selected)  Column name max length =25  Default value max length = 50 | Mandatory: Y  (must select at least one ) | None | 1- Column name: must be valid Oracle Identifier[start with char, contains only digits, chars and underscore]  2- Default value: must match selected column type, must match length entered in column type (for strings), must match format entered in column type (for dates). | If the column has validation errors it should be highlighted with different background color |
| Use Date Column | checkbox | Mandatory: N |  |  | 1- this option is not available for xml-vendor data collection(hidden/disabled)  2- If the user checked it, then the screen should show “Date Column” text field |
| Date Column | Text field max =25 char | Mandatory: Y  (in case use date column = true) |  | The value entered must be one of the extracted column from the file and has type date | 1- this option is not available for xml-vendor data collection(hidden/disabled)  2-This column should be used to match the target date during data collection execution. |
| Next | Button |  |  |  | REF : UC-VFE-GDC-01.4 |
| Back | Button |  |  |  | Back to pervious use case (UC-VFE-GDC-01.2.1 OR UC-VFE-GDC-01.2.2 OR UC-VFE-GDC-01.2.3) |
| Cancel | Button |  |  |  | Exit Data Collection process back to the first “Manage Data Collection” page |

Use Cases/Scenarios:

* + [UC-VFE-GDC-01.3] Define plain Columns

**Table 24: [UC-VFE-GDC-01.3] Define Plain Columns Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-01.3 |
| **USE CASE NAME:** | Define plain columns |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user defines the structure (logic) for the new generic process |
| **PRE-CONDITION:** | The user should have the appropriate Role  The user must have gone through UC-VFE-GDC-01.2.1 OR UC-VFE-GDC-01.2.2 OR UC-VFE-GDC-01.2.3 successfully. |
| **Trigger** | Actor Action |
| **TYPICAL COURSE**  **OF EVENTS:** | 1. The System displays the extracted columns table 2. The user can change columns names 3. The user selects each column type    1. String       1. Enter manually the size of the VARCHAR2    2. Number    3. Float    4. Date       1. Enter manually the date format   (max length = 30)   1. The user can set the default value(matching column type) for each column(optional) 2. The user selects the columns that the Data collection will use in output (minimum 1 column).   The user clicks next, Ref: UC-VFE-GDC-01.4 |
|  |
| **ALTERNATE COURSES:** |  |
| **POST-CONDITION:** | In case the user selects the column type to be “String”, the number entered will be validated not to be greater than the digit 4000 which is the VARCHAR2 maximum length |
| **BUSINESS RULES** |  |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-GDC-01.4] Define SQL columns

**Description**:

The system should allow the user to define SQL expression columns, add where clause, having clause and group by clause.

Table 28: [UC-VFE- GDC-01.4]: Define SQL Columns Page Components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Extracted columns | Table(name, type, default value) | Read only |  |  |  |
| SQL Expression Fields | Table(name, type, default value, SQL expression)  SQL expression max length = 500 | Editable  Mandatory: (name, type, SQL expression) |  |  |  |
| WHERE clause | Text area  Max length=3000 | Mandatory: N |  |  |  |
| GROUP BY clause | Text area  Max length=3000 | Mandatory: N |  |  |  |
| HAVING clause | Text area  Max length=3000 | Mandatory: N |  |  |  |
| Add field | Button |  |  |  | System adds a new empty row in the “SQL expression Fields” table |
| Delete field | Button |  |  |  | System removes selected fields from “SQL expression Fields” table |
| Next | Button |  |  |  | Ref:UC-VFE-GDC-01.5 |
| Back | Button |  |  |  | Ref: UC-VFE-GDC-01.3 |
| Cancel | Button |  |  |  | Exit Data Collection process back to the first “Manage Data Collection” page |

Use Cases/Scenarios:

**UC-VFE-** **GDC-01.4: Define SQL columns**

**Table 25: [UC-VFE-GDC-01.4] Define SQL Columns Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-01.4 |
| **USE CASE NAME:** | Define SQL columns |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user add SQL expression columns to the Data collection logic |
| **PRE-CONDITION:** | The user should have the appropriate Rule  The user must have gone through UC-VFE-GDC-01.3 successfully |
| **Trigger** | Actor Action |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| 1. The user click “add Field” 2. The user define column name(must be valid identifier) 3. The user can define default value 4. The user type SQL expression for the column 5. The user can repeat steps (1 to 4) to define more fields 6. The user can type “where clause”(optional) 7. The user can type “group by clause”(optional) 8. The user can type “having clause” (optional) 9. The user can select fields from the “SQL Expression Fields” and click “delete field” button, to remove it from the table 10. The user clicks ”next” 11. Ref UC-VFE-GDC-01.5 |
| **ALTERNATE COURSES:** | The user clicks next without defining any SQL expression columns or adding any SQL clause.  The inputs of the user are not valid SQL syntax, system displays the error |
| **POST-CONDITION:** |  |
| **BUSINESS RULES** | The manually entered SQL Statement will be executed against the database table & in case an exception is thrown, the user will be notified that there’s a validation error in his statement.  Column names must be unique (error message should be displayed to user if he used the same name for more than one column) |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** | There’s no ceiling to the number of adding a new field to the database table in the step 5 above. |
| **OPEN ISSUES:** |  |

### [UC-VFE-GDC-01.5] Define the Extraction SQL statement for DB process

**Description:**

This Function enables the user to define the extraction SQL statement that will be used if he is defining new Data collection of type “database”, as well as the source database type.

Page Components:

**UC-VFE-** **GDC-01.5: define the extraction SQL statement**

* Database type combo
* SQL query text area..

Table 28: [UC-VFE-GDC-01.5] Define the extraction SQL statement for DB Based Process Page Components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Database type | Combo box | Mandatory: Y |  |  |  |
| Columns | Text Area  Alphanumeric  Max length=not specified | Mandatory: Y | N/A | N/A | * Here the user will enter his select statement & specify the columns * There will be no limit to the user input. * Will be saved in Database as CLOB |
| Query | Text Area  Alphanumeric  Max length=not specified | Mandatory: Y | N/A | N/A | * Here the user will enter the rest of query (i.e.: where clause) * There will be no limit to the user input. * Will be saved in Database as CLOB |
| Next | Button |  |  |  | If no validation error exists, the user will be shown a success message & will be prompted to go to [UC-VFE-GDC-01.6](#_[UC-VFE-GDC-01.6]_Define_generic) |
| Back | Button |  |  |  | Ref: UC-VFE-GDC-01.1 |
| Cancel | Button |  |  |  | Exit Data Collection process back to the first “Manage Data Collection” page |

**Use Cases/Scenarios:**

UC-VFE-GDC-01.5: define the extraction SQL statement for DB based process

**Table 30: [UC-VFE-GDC-01.2.2] DB Based Process Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-01.5 |
| **USE CASE NAME:** | define the extraction SQL statement |
| **ACTORS:** | Admin User |
| **DESCRIPTION:** |  |
| **PRE-CONDITION:** | The user should have the appropriate Rule  The user must have gone through [UC-VFE-GDC-01.1](#_6.1.1_Define_generic) and selected DB based option |
| **Trigger** | Actor Action |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| * The user selects the Data base type from the available list   The user will enter his SQL query in the following Text Areas:   * 1. Columns   2. Query   The user will click on "Next" button. |
| **ALTERNATE COURSES:** | * If the SQL Query validation fails, the user will be shown the appropriate validation error beside the field. * If the user clicks on "cancel", the user will be redirected to the portal home page |
| **POST-CONDITION:** | The Select field will be parsed internally to extract column names to be used in use case " [UC-VFE-GDC-01.6](#_[UC-VFE-GDC-01.4]_Define_SQL)" |
| **BUSINESS RULES** | N/A |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** | N/A |
| **ASSUMPTIONS:** | The end user must have good SQL knowledge. |
| **OPEN ISSUES:** |  |

### [UC-VFE-GDC-01.6] Define Data collection output table

**Description:**

This Function enables the user to perform the needed steps to define the output (output) table for generic process.

Page Components:

**UC-VFE-** **GDC-01.6.1: Use existing output table**

* Output table option
* Define new table section
  + Table columns section
* Use existing table section
  + Select table combo box
  + Table columns table
  + Add column button
  + Delete column button
* Node Name column type option
  + Configurable (default)
  + Mapped
  + Do not use
* Truncate table before new insertion
* Next button
* back button
* cancel

Table 28: [UC-VFE- GDC-01.6] & [UC-VFE- GDC-01.6.1] Page Components

**(UC-VFE-** **GDC-01.6: Define Data collection output table and**

**UC-VFE-** **GDC-01.6.1: Use existing output table)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Output table option | Radio button | Mandatory: Y |  |  |  |
| Define new table | Page section (frame) |  |  |  |  |
| Table columns (new table) | Table(name, type)  Name max length =30 | Read only |  |  |  |
| Use existing table | Page section (frame) |  |  |  |  |
| Select table | Combo box | Mandatory: Y |  |  |  |
| Table columns(existing table) | Table  The old columns are dimmed(not editable or delectable) |  |  |  |  |
| Add column | Button |  |  |  | System adds new empty row to the “Table columns” table in Use existing table section |
| Delete column | Button |  |  |  | System deletes selected columns from the “Table columns” table in Use existing table section(only newly added columns) |
| NODE\_NAME Column type | Radio button |  | “configurable” | Options:  “configurable”  “mapped”  “do not use” | 1- the option ”mapped” should not be available for xml-vendor based data collection(disabled/hidden)  2-If the user selects “mapped” a column with name “Node\_Name” should be added to ‘Data collection columns’ in the next screen. |
| Truncate table before new insertion | checkbox |  | selected |  | This value should be used as bellow:  If (true)  1-case this data collection has “date column”(in UC-VFE-GDC-01.3) then the data collection should truncate data matching target date before new insertion  2-case the data collection do not have “date column” ”(in UC-VFE-GDC-01.3) then the data collection should truncate the whole table before new insertion.  If(false)  Regardless of having date column, the data collection should not delete any data before new insertion. |
| Next | Button |  |  |  | Ref: UC-VFE-GDC-01.6 |
| Back | Button |  |  |  | Ref: UC-VFE-GDC-01.4 |
| Cancel | Button |  |  |  | Exit Data Collection process back to the first “Manage Data Collection” page |

**Use Cases/Scenarios:**

UC-VFE-GDC-01.6: Define Data collection output table

UC-VFE-GDC-01.6.1: Use existing output table

**Table 26: [UC-VFE-GDC-01.6] Define Data collection Output Table Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-01.6 |
| **USE CASE NAME:** | Define Data collection output table |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user defines the output (output) table for the new generic process |
| **PRE-CONDITION:** | The user should have the appropriate Rule  The user must have gone through [UC-VFE-GDC-01.4] successfully. |
| **Trigger** | Actor Action |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| 1. The system display two options    1. Use Existing table    2. Create new table 2. If the user selects option a, then please follow UC-VFE-GDC-01.5.1. 3. If the user selects option b, the system displays “create new table” page. 4. The page should contain the data collection columns defined in steps ( and) as read only table    1. The user selects node name column type 5. User clicks “Next” button, to move to step UC-VFE-GDC-01.6 |
| **ALTERNATE COURSES:** |  |
| **POST-CONDITION:** |  |
| **BUSINESS RULES** |  |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

**Table 27: [UC-VFE-GDC-01.5.1] Use Existing Output Table Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-01.6.1 |
| **USE CASE NAME:** | Use existing output table |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user sets an existing table as the output table for the new generic process |
| **PRE-CONDITION:** | The user should have the appropriate Rule  The user must have gone throw steps 1 of UC-VFE-GDC-01.5 and selects option ‘a’ |
| **Trigger** | Actor Action |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| 1. The system provides a list of existing tables’ names. 2. The user selects one table 3. The system displays the selected table columns dimmed (not editable), and provide “add column”, “delete column” options. 4. The user can click “add column” to define new column(optional)  * the user provide column name   The user provide column type(supported types: String, Number, Float, Date  The user provide default value(optional)  The user can repeat step 4 to add more columns.  The user can delete any of the newly added columns.   1. The user clicks “Next” |
| **ALTERNATE COURSES:** | 1. If invalid inputs, system displays the oracle exception message to the user. And the user is asked to re input needed inputs. 2. Go to step 4 of the TYPICAL COURSE OF EVENTS in UC-VFE-GDC-01.5 |
| **POST-CONDITION:** |  |
| **BUSINESS RULES** |  |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |
|  |  |

### [UC-VFE-GDC-01.7] Define Data collection Mapping

**Description:**

This Function enables the user to perform the needed steps to define the Mapping for the new generic process.

Table 33: [UC-VFE- GDC-01.7] Define Data collection Mapping Page Components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Mapped columns | Table  First column (Data collection column)contains all the Data collection output columns  The second column (output column) contains a combo box in each row contains the output table columns |  |  | The list of output table columns beside each data collection column must be of matching type |  |
| Save | Button |  |  |  |  |
| Back | Button |  |  |  | Ref: UC-VFE-GDC-01.5 |
| Cancel | Button |  |  |  | Exit Data Collection process back to the first “Manage Data Collection” page |

**Use Cases/Scenarios:**

UC- UC-VFE 01.7: Define Data collection mapping

**Table 34: [UC-VFE-GDC-01.7] Define Data collection Mapping Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-01.7 |
| **USE CASE NAME:** | Define Data collection mapping |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user sets the mapping between the Data collection outputs and the output table. |
| **PRE-CONDITION:** | The user should have the appropriate Role  The user should have gone through UC-VFE-GDC-01.5 successfully. |
| **Trigger** | Actor Action |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| 1. The system displays the Data collection output columns and the output table columns. 2. The user assigns a output table column to each Data collection column.   (the mapped columns must have same types)   1. The user selects one “NODE\_NAME” column option:    1. **Default** (NODE\_NAME column added to output table without being mapped)    2. **Mapped** (NODE\_NAME column added to output table and the user is asked to provide mapping, if the user mapped that column it will contain the data of mapped source column)    3. **Don’t use** (No NODE\_NAME column added to output table). 2. The user click save 3. If valid mapping the system displays saved successfully message. 4. If mapping errors exist, system displays error message asking the user to provide valid mapping. |
| **ALTERNATE COURSES:** |  |
| **POST-CONDITION:** | * The Data collection definition is stored in DB. * Logged in user & current date will be saved with the input structure saved DB row. |
| **BUSINESS RULES** |  |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-GDC-01.8] Edit data collection

**Description:**

This Function enables the user to edit the data collection retrieval SQL to add plain columns or SQL expression columns and add matching columns to the data collection output table.

**Use Cases/Scenarios:**

UC-VFE-GDC-01.8: Edit data collection

**Table 28: [UC-VFE-GDC-01.8] Edit data collection**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-01.8 |
| **USE CASE NAME:** | Edit data collection retrieval SQL |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user edit the data collection retrieval SQL |
| **PRE-CONDITION:** | The user should have the appropriate Rule  The user should have selected a data collection to edit. |
| **Trigger** | Actor Action |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| 1. If selected data collection type is Text or Xml(Simple):    1. The system displays the current data collections extraction columns.( ref Table 27 for screen)    2. The user can select (previously not selected) plain columns.    3. The user can deselect (previously selected) plain columns.    4. The user clicks next.    5. The system displays the current data collection defined SQL expression fields.(ref Table 28 for screen)    6. The user can add new SQL expression fields.    7. The user can delete a SQL expression fields.    8. The user can edit the SQL clues (where, having, group by)    9. The user clicks next    10. Go to step 4 2. If selected data collection type is Xml (vendor-based)    1. Go to step 4 3. If selected data collection type is DB    1. The system displays “Define Extraction SQL Statement” page. (refer to UC-VFE- GDC-01.5)    2. The user can change the database type.    3. The user can change the Columns    4. The user can edit the Query.    5. The user clicks next    6. Go to step 4 4. The System will display the “Define output table” screen. (ref Table 28 screen (‘existing table section’ active) 5. The user can add new column to output table 6. The user can change the “Node name column” option. 7. The user can change the “truncate before insert option) 8. The user clicks next. 9. The system displays the “define data collection mapping” page(ref Table 33 for screen) 10. The user sets the mapping of the newly added columns, or edit mapping of original columns. 11. The user clicks save. 12. The system validates user updates. 13. In case valid updates system displays success message. 14. In case invalid updates system display error message asking the user to correct the updates. |
| **ALTERNATE COURSES:** |  |
| **POST-CONDITION:** | The data collection definition updated in DB.  The data collection output table altered to contain newly defined columns. |
| **BUSINESS RULES** | Each generic data collection process output column should be mapped to matching type column in the output table. |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** | The system will validates user updates in each screen. |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

## Manage Data Collection Configurations

The system shall provide the Manage Data Collection Configuration Module.

**Description:**

This module Enables the user to configure new Systems, Edit existing systems configurations and delete systems.

[UC-VFE-GDC-02.1] System shall allow the user to define new Systems.

[UC-VFE-GDC-02.2] System shall allow the user to edit existing systems configurations.

[UC-VFE-GDC-02.3] System shall allow the user to delete systems.

[UC-VFE-GDC-02.4] System shall allow the user to define new nodes.

[UC-VFE-GDC-02.5] System shall allow the user to edit existing nodes

[UC-VFE-GDC-02.6] System shall allow the user delete existing nodes

[UC-VFE-GDC-02.7] System shall allow the user to define new input structure.

[UC-VFE-GDC-02.8] System shall allow the user to edit existing input structure.

[UC-VFE-GDC-02.9] System shall allow the user to delete existing input structure.

### [UC-VFE-GDC-02.1] Define new system

**Description:**

This Function enables the user to define new system.

Table 29: [UC-VFE-GDC-02.1] Define New System Page Components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| System name | Alphanumeric  Length=50 | Mandatory: Y  Unique: Y | None |  |  |
| System description | Alphanumeric  Length=100 | Mandatory: N | None |  |  |
| System nodes | Single select list (select one item at a time) | Editable: Y |  |  |  |
| System input structures | Single select list (select one item at a time) | Editable: Y |  |  |  |
| Add node | Button |  |  |  | Ref UC-VFE-GDC-02.7 |
| Add input structure | Button |  |  |  | Ref UC-VFE-GDC-02.7 |
| Save | Button |  |  |  | System saved |
| Cancel | Button |  |  |  | Returns to manage systems page. |

**Use Cases/Scenarios:**

UC- UC-VFE 02.1: Define new system

**Table 30: [UC-VFE-GDC-02.1] Define New System Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-02.1 |
| **USE CASE NAME:** | Define new system |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user creates a new system |
| **PRE-CONDITION:** | The user should have the appropriate Rule |
| **Trigger** | User clicks “create new system” |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| 1. The user inputs system name. 2. The user inputs system description (optional). 3. The user can click “create node”, and go through UC-VFE-GDC-02.4. 4. The user can click “add input structure” to add node disabled data collection to the system, UC-VFE-GDC-02.7 5. The user can repeat steps 3, 4. 6. The user clicks “save configuration” 7. The system displays success message. |
| **ALTERNATE COURSES:** | The user clicks “cancel”, nothing saved. |
| **POST-CONDITION:** | 1. Configuration tables will be updated with the new system. 2. The username column will be updated with the logged in username. 3. The date column will be updated with the current date. |
| **BUSINESS RULES** | 1. The system must have at least one node added or one input structure added. |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** | No maximum number defined for nodes or input structures added to the system.  A tooltip should be available to guide the user for the page data entry. |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-GDC-02.2] Edit existing system

**Description:**

This Function enables the user to edit the configurations of a previously defined system.

Table 31: [UC-VFE-GDC-02.2] Edit Existing System Page Components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| System name | Alphanumeric  Length=50 | Editable: N | None |  |  |
| System description | Alphanumeric  Length=100 | Mandatory: N  Editable: Y | none |  |  |
| System nodes | Single select list (select one item at a time) | Editable: Y |  |  |  |
| System input structures | Single select list (select one item at a time) | Editable: Y |  |  |  |
| Add node | Button |  |  |  | Ref UC-VFE-GDC-02.7 |
| Edit node | Button |  |  |  | Ref UC-VFE-GDC-02.5 |
| Delete node | Button |  |  |  | Ref UC-VFE-GDC-02.6 |
| Add input structure | Button |  |  |  | Ref UC-VFE-GDC-02.7 |
| Edit input structure | Button |  |  |  | Ref UC-VFE-GDC-02.8 |
| Delete input structure | Button |  |  |  | Ref UC-VFE-GDC-02.9 |
| Save | Button |  |  |  | System updates saved |
| Cancel | Button |  |  |  | Returns to manage systems page. |

**Use Cases/Scenarios:**

UC-VFE-GDC-02.2: edit existing system.

**Table 32: [UC-VFE-GDC-02.2] Edit Existing Systems Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-02.2 |
| **USE CASE NAME:** | edit existing system |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user modify configurations of the system |
| **PRE-CONDITION:** | The user should have the appropriate Rule  The user should select system to edit |
| **Trigger** | User clicks “edit system” |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| 1. The system provides the user with all selected system data (name, description, nodes, input structures created via the generic definition process in "UC-VFE-GDC-01"). 2. The user can edit system description. 3. The user can click “add node”, refer to UC-VFE-GDC-02.4 4. The user can click “add input structure”, refer to UC-VFE 02.7. 5. The user can select one node and click “edit node”, refer to UC-VFE-GDC-02.5 6. The user can select one input structure and click “edit input structure”, refer to UC-VFE-GDC-02.8 7. The user can select one node and click “delete node”, refer to UC-VFE-GDC-02.6. 8. The user can select one input structure and click ”delete input structure”, refer to UC-VFE-GDC-02.9 9. User can repeated any of these steps (3,4,5,6,7,8) 10. The user clicks “save configuration” 11. The system displays success message. |
| **ALTERNATE COURSES:** |  |
| **POST-CONDITION:** | 1. Configuration tables will be updated with the updated system information. 2. The username column will be updated with the logged in username. 3. The date column will be updated with the current date. |
| **BUSINESS RULES** | 1. System name is not editable. 2. System must have at least one node or one input structure. 3. For deleting nodes and input structure: delete one by one (multi selection not supported). 4. No maximum number of nodes and input structures added to the system. |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** | A tooltip should be available to guide the user for the page data entry. |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-GDC-02.3] Delete system

**Description:**

This Function enables the user to delete system.

Table 33: [UC-VFE-GDC-02.3] Delete System Page components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Available systems | Single select List(select one item at a time) | Editable: N | none |  |  |
| Add system | Button |  |  |  | Ref UC-VFE-GDC-02.1 |
| Delete system | Button |  |  |  | Display confirmation message |
| Edit system | Button |  |  |  | Ref UC-VFE-GDC-02.2 |

**Use Cases/Scenarios:**

UC-VFE-GDC-02.3: delete system

**Table 34: [UC-VFE-GDC-02.3] Delete System Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-02.3 |
| **USE CASE NAME:** | Delete system |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user deletes a system |
| **PRE-CONDITION:** | The user should have the appropriate Rule  The user should have selected a system. |
| **Trigger** | User clicks “delete system” |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| 1. The system displays confirmation message.   The message should notify the user that associated jobs will be deleted.   1. The user confirms. 2. The selected system is permanently deleted and a success message is displayed. |
| **ALTERNATE COURSES:** | The user can disconfirm at step 2.  The selected system will not be deleted. |
| **POST-CONDITION:** |  |
| **BUSINESS RULES** |  |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-GDC-02.4] Define new node

**Description:**

This Function enables the user to define new node within specific system.

Table 35: [UC-VFE-GDC-02.4] Define New Node Page Components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Name | Alphanumeric  Length=50 | Mandatory: Y  Unique: Y(per system) | none |  |  |
| Description | Alphanumeric  Length=50 | Mandatory: N |  |  |  |
| Input | List (single select list) with delete/edit buttons on each row | Editable: Y |  |  |  |
| Add input | Button |  |  |  | Ref UC-VFE-GDC-02.7 |
| Save | Button |  |  |  | Node saved |
| Cancel | Button |  |  |  | Returns to “Add System” or “Edit System” page |

**Use Cases/Scenarios:**

UC-VFE-GDC-02.4: Define new node

**Table 36: [UC-VFE-GDC-02.4] Define New Node Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-02.4 |
| **USE CASE NAME:** | Define new node |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user adds (creates) a new node for specific system. |
| **PRE-CONDITION:** | The user should have the appropriate Rule  The user should have selected to edit a selected system Or the user is defining a new system. |
| **Trigger** | User clicks “add node” |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| 1. The user provides node name value. 2. The user clicks “add input structure”, ref to UC-VFE-GDC-02.7. 3. The user can repeat step 2. 4. The user clicks save. 5. The system displays success message. |
| **ALTERNATE COURSES:** | If user click on "Cancel" no node will be created. |
| **POST-CONDITION:** | 1. Session object updated. |
| **BUSINESS RULES** | 1. The node must have at least one input structure added |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** | A tooltip should be available to guide the user for the page data entry. |
| **ASSUMPTIONS:** | The system to which the new node is added must be available at the beginning of the use case, as the entry point to “add node“ must be through either “add system” or “edit system”. |
| **OPEN ISSUES:** |  |

### [UC-VFE-GDC-02.5] Edit node

**Description:**

This Function enables the user to edit selected node within selected system.

Table 37: [UC-VFE-GDC-02.5] Edit Node Page Components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Node name | Alphanumeric  Length=50 | Editable: Y | none |  |  |
| Input structure | List (single select list) | Editable: Y |  |  |  |
| Add input structure | Button |  |  |  | Ref UC-VFE-GDC-02.7 |
| Edit input structure | Button |  |  |  | Ref UC-VFE-GDC-02.8 |
| Delete input structure | Button |  |  |  | Ref UC-VFE-GDC-02.9 |
| Save | Button |  |  |  | Node saved |
| Cancel | Button |  |  |  | Returns to “Add System” or “Edit System” page |

**Use Cases/Scenarios:**

UC-VFE-GDC-02.5: Edit node

**Table 38: [UC-VFE-GDC-02.5] Edit Node Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-02.5 |
| **USE CASE NAME:** | Edit node |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user edit node configuration within specific system. |
| **PRE-CONDITION:** | The user should have the appropriate Rule  The user should have selected a node within the “edit system” Or the “add system” pages. |
| **Trigger** | User clicks “edit node” |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| 1. The system displays the node data. 2. The user can edit the node name 3. The user can add new input structures, refer to UC-VFE-GDC-02.7 4. The user can edit input structures , refer to UC-VFE-GDC-02.8 5. The user can delete input structures, refer to UC-VFE-GDC-02.9 6. The user can repeat steps (3, 4, and 5). 7. The user clicks “save”. 8. The system displays success message. |
| **ALTERNATE COURSES:** | The user clicks “cancel”, and nothing updated. |
| **POST-CONDITION:** | * Update session object. * The username column will be updated with the logged in username. * The date column will be updated with the current date. |
| **BUSINESS RULES** | 1. Node must have at least one input structure. |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** | A tooltip should be available to guide the user for the page data entry. |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-GDC-02.6] Delete node

**Description:**

This Function enables the user to delete a node within selected system.

**Use Cases/Scenarios:**

UC-VFE-GDC-02.6: Delete node

**Table 39: [UC-VFE-GDC-02.6] Delete Node Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-02.6 |
| **USE CASE NAME:** | Delete node |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user deletes node within specific system. |
| **PRE-CONDITION:** | The user should have the appropriate Rule  The user should have selected a node within the “edit system” Or the “add system” pages. |
| **Trigger** | User clicks “delete node” |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| 1. The system displays confirmation message   The message should notify the user that associated jobs will be deleted.   1. The user confirms 2. The node is deleted. |
| **ALTERNATE COURSES:** | The user disconfirms at step2, system do nothing. |
| **POST-CONDITION:** | 1. Session object updated. |
| **BUSINESS RULES** |  |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-GDC-02.7] Add new input

**Description:**

This Function enables the user to define new input.

Table 40: [UC-VFE-GDC-02.7] Add New Input Page Components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Name | Text  Max length= 50  alphanumeric | Mandatory: Y  Unique: Y | None |  | Must be unique per node/ system |
| Access method | Combo box | Mandatory: Y |  | LOV:   * + Sftp\_access   + ftp\_access   + ftp\_single\_access   + local access   + DB\_access |  |
| Data base type | Combo box | Mandatory: Y  If access methods is DB\_Access |  | LOV:   * Oracle * Oracle\_rac * My Sql * MS Sql server * DB2 * Sybase | 1- This should filter the Data collections names provided in the auto complete field to show only data base data collections with the selected data base type  2-Each time the user changes the selected data base type , the page should refresh to apply needed changes and clears the “data collections” list |
| File Type |  | Mandatory: Y  If access methods is NOT DB\_Access |  | LOV:   * Excel * Text * Xml | 1- This should filter the Data collections names provided in the auto complete field to show only non data base data collections with the selected file type  2-Each time the user changes the selected data base type , the page should refresh to apply needed changes and clears the “data collections” list |
| Data collections | Auto-complete text field  And Listing table to be filled | Mandatory: Y  Must contains one at least |  |  | Must contain valid data collection process only :  1- If access method is DB then only display DB data collection  2-if access method is file only text, xml data collection displayed  4-as the user selects one data collection, the list should refresh to display only data collections of the same type as the first |
| File Name Pattern | Text  Max length= 200  alphanumeric | Mandatory: N  Unique: N |  | Must be a valid pattern | * Will be needed in case the added Data collection type is text or XML * Will not be Mandatory in case the access method selected is database & will be hidden. |
| Database name | Mandatory: Y |  |  |  | Will be Mandatory in case the access method selected database only  & will be hidden otherwise. |
| Paths | Table (path) | Mandatory: Y | None | Must be valid file system path | Will not be Mandatory in case the access method selected is database & will be hidden. |
| Add path | Button |  |  |  | * Will add another "Path" text field. * Will not be Mandatory in case the access method selected is database & will be hidden. |
| Server | Text  Max length= 200 | Mandatory: Y | None |  |  |
| port | Max length = 5 | Mandatory: N |  |  |  |
| Username | Text  Max length= 200 | Mandatory: Y | None |  |  |
| Password | Password text  Max length=200 | Mandatory: Y | None |  |  |
| Save | Button |  |  |  | Save input structure |
| Cancel | Button |  |  |  | Back to previous page |

**Use Cases/Scenarios:**

UC-VFE-GDC-02.7: define new input

**Table 41: [UC-VFE-GDC-02.7] Define New Input Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-02.7 |
| **USE CASE NAME:** | define new input |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user defines new input. |
| **PRE-CONDITION:** | The user should have the appropriate Rule.  The user should have selected system(UC-VFE 02.1 and UC-VFE-GDC-02.2) Or a node(UC-VFE-GDC-02.4 and UC-VFE 02.5) |
| **Trigger** | User clicks “add input” |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| 1. The user fills input data:    1. Name 2. Access method(from provided list) 3. Data collection process (from provided list)Server 4. User name 5. Password 6. Port 7. According to the selected access method,    1. If it’s file access(ftp, sftp…) the system displays the following fields       1. Paths List       2. File Type       3. File Name Pattern          1. There will be a hint message to the user to enter the correct pattern 8. Validation should be set    1. if it's a database access, the system displays the following fields       1. Data base type       2. Data base name       3. If data base type is “ORACEL\_RAC), the system should show 1-TNS Name (text area) 9. The user clicks “save”. 10. The system displays success message. |
| **ALTERNATE COURSES:** | The user clicks “cancel”, nothing saved. |
| **POST-CONDITION:** | 1. Session object updated. 2. New input inserted to Database(in case we are editing old system/node) 3. The username column will be updated with the logged in username. 4. The date column will be updated with the current date. |
| **BUSINESS RULES** | 1. A data collection can be added to different nodes/systems. 2. Old DC’s are supported. 3. If access method is DB, then only one data collection (input structure) can be selected, and must be of type DB. 4. If access method is File, and file type is Excel, then only one data collection (input structure) can be selected. 5. If access method is File, and file type is Text or XML, then more than one data collection (input structure) can be selected. 6. In case the input structure is Text, then during job execution the system will check the suffix of the "file name pattern" to decide the appropriate input streaming method to read. The uploaded file might be a simple text or GZIP file |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** | A tooltip should be available to guide the user for the page data entry. |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-GDC-02.8] Edit input

**Description:**

This Function enables the user to edit input.

**Table 42: [UC-VFE-GDC-02.8] Edit input Page Components**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Name | Text  Max length= 50  alphanumeric | Mandatory: Y  Unique: Y | None |  | Must be unique per node/ system |
| Access method | Combo box | Mandatory: Y |  | LOV:   * + Sftp\_access   + ftp\_access   + ftp\_single\_access   + local access   + DB\_access |  |
| Data base type | Combo box | Mandatory: Y  If access methods is DB\_Access |  | LOV:   * Oracle * Oracle\_rac * My Sql * MS Sql server * DB2 * Sybase | 1- This should filter the Data collections names provided in the auto complete field to show only data base data collections with the selected data base type  2-Each time the user changes the selected data base type , the page should refresh to apply needed changes and clears the “data collections” list |
| File Type |  | Mandatory: Y  If access methods is NOT DB\_Access |  | LOV:   * Excel * Text * Xml | 1- This should filter the Data collections names provided in the auto complete field to show only non data base data collections with the selected file type  2-Each time the user changes the selected data base type , the page should refresh to apply needed changes and clears the “data collections” list |
| Data collections | Auto-complete text field  And Listing table to be filled | Mandatory: Y  Must contains one at least |  |  | Must contain valid data collection process only :  1- If access method is DB then only display DB data collection  2-if access method is file only text, xml data collection displayed  4-as the user selects one data collection, the list should refresh to display only data collections of the same type as the first |
| File Name Pattern | Text  Max length= 200  alphanumeric | Mandatory: N  Unique: N |  | Must be a valid pattern | * Will be needed in case the added Data collection type is text or XML * Will not be Mandatory in case the access method selected is database & will be hidden. |
| Database name | Mandatory: Y |  |  |  | Will be Mandatory in case the access method selected database only  & will be hidden otherwise. |
| Paths | Table (path) | Mandatory: Y | None | Must be valid file system path | Will not be Mandatory in case the access method selected is database & will be hidden. |
| Add path | Button |  |  |  | * Will add another "Path" text field. * Will not be Mandatory in case the access method selected is database & will be hidden. |
| Server | Text  Max length= 200 | Mandatory: Y | None |  |  |
| port | Max length = 5 | Mandatory: N |  |  |  |
| Username | Text  Max length= 200 | Mandatory: Y | None |  |  |
| Password | Password text  Max length=200 | Mandatory: Y | None |  |  |
| Save | Button |  |  |  | Save input structure |
| Cancel | Button |  |  |  | Back to previous page |

**Use Cases/Scenarios:**

UC-VFE-GDC-02.8: Edit input

**Table 43: [UC-VFE-GDC-02.8] Edit Input Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-02.8 |
| **USE CASE NAME:** | Edit input |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user edits an existing input data. |
| **PRE-CONDITION:** | The user should have the appropriate Rule.  The user should have selected an input within a system(UC-VFE 02.1 and UC-VFE-GDC-02.2) Or a node(UC-VFE-GDC-02.4 and UC-VFE 02.5) |
| **Trigger** | User clicks “edit” |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| 1. The System displays the selected input structure data. 2. The user can edit input data:    1. Name 3. Access method(from provided list) 4. Data collection process (from provided list)(add/delete) 5. User name 6. Password 7. Port 8. According to the selected access method,    1. If it’s file access(ftp, sftp…) the system displays the following fields       1. Paths List       2. File Type       3. File Name Pattern          1. There will be a hint message to the user to enter the correct pattern 9. Validation should be set    1. if it's a database access, the system displays the following fields       1. Data base type       2. Data base name       3. If data base type is “ORACEL\_RAC), the system should show          1. TNS Name (text area) 10. The user clicks “save”.   The system displays success message. |
| **ALTERNATE COURSES:** | The user clicks “cancel”, nothing saved. |
| **POST-CONDITION:** | 1. Session object updated. 2. The username column will be updated with the logged in username. 3. The date column will be updated with the current date. |
| **BUSINESS RULES** | 1. A data collection can be added to different nodes/systems. 2. Old DC’s are supported. 3. If access method is DB, then only one data collection (input structure) can be selected, and must be of type DB. 4. If access method is File, and file type is Excel, then only one data collection (input structure) can be selected. 5. If access method is File, and file type is Text or XML, then more than one data collection (input structure) can be selected. 6. In case the input structure is Text, then during job execution the system will check the suffix of the "file name pattern" to decide the appropriate input streaming method to read. The uploaded file might be a simple text or GZIP file |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** | A tooltip should be available to guide the user for the page data entry. |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-GDC-02.9] Delete input

**Description:**

This Function enables the user to delete input.

**Use Cases/Scenarios:**

UC-VFE-GDC-02.9: Delete input

**Table 44: [UC-VFE-GDC-02.9] Delete Input Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-02.9 |
| **USE CASE NAME:** | Delete input |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user deletes an existing input. |
| **PRE-CONDITION:** | The user should have the appropriate Rule.  The user should have selected an input within a system(UC-VFE 02.1 and UC-VFE-GDC-02.2) Or a node(UC-VFE-GDC-02.4 and UC-VFE 02.5) |
| **Trigger** | User clicks “delete input structure” |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| 1. The system displays confirmation message. 2. The user confirms. 3. The selected input deleted. |
| **ALTERNATE COURSES:** | The user disconfirms at step2, input not deleted. |
| **POST-CONDITION:** | 1. Session object updated. |
| **BUSINESS RULES** |  |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

## Manage Jobs Module

The system shall provide the Manage jobs Module.

Description:

This module enables the user to configure new jobs, edit existing jobs, delete jobs and force running of jobs.

[UC-VFE 03.1] System shall allow the user to define new jobs.

[UC-VFE 03.2] System shall allow the user to edit existing jobs configurations.

[UC-VFE 03.3] System shall allow the user to delete jobs.

[UC-VFE 03.4] System shall allow the user to force running jobs.

### [UC-VFE-GDC-03.1] Define new job

Description:

This Function enables the user to define new jobs.

Table 45: [UC-VFE-GDC-03.1] Define New Job Page Components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Job Name | Text  Length: 50 | Mandatory: Y  Updateable: Y  Unique: Y | N/A | Alphanumeric, underscore, dash |  |
| Job Description | Text  Length: 120 | Mandatory: Y  Updateable: Y  Unique: N | N/A | Alphanumeric, underscore, dash, space |  |
| Job Type | Option | Mandatory: Y  Updateable: Y  Unique: N | System Level Job | LOV: (System Level Job or Node Level Job) |  |
| System Name | Selection List | Mandatory: Y  Updateable: Y  Unique: Y | N/A | N/A | A selection list will appear with all available System names in the system  This will appear in both options' selection for "Job Type" |
| Node Name | Selection List | Mandatory: N  Updateable: Y  Unique: Y | N/A | N/A | This will only appear after the following sequence:   * After the user selects "Node Level Job" option from "Job Type" option list * & afterwards the user selects a specific system from "System Name" selection list. * The "Node Name" selection list will appear according to the selected System Name in addition to "All nodes" option which will add "system\_node" value to node name job data |
| CRON Expression | Text  Length: 80 | Mandatory: Y  Updateable: Y  Unique: N | N/A | N/A | The entered CRON expression must be a valid expression |
| Zones | Selection List | Mandatory: Y  Updateable: N  Unique: Y | All | LOV: Zone 1, Zone 2 | This will specify if this job will execute on Zone1 or Zone 2 |
| Retry Count | Number | Mandatory: Y  Updateable: Y  Unique: N | 0 | LOV:  Min value: 2  Max value: 100 | Number of times the Job will retry in case of failure (i.e.: network issue)  This will only be mandatory in case of choosing "Daily" option from the "Execution period" selection list |
| Execution period | Selection List | Mandatory: Y  Updateable: Y  Unique: N | Daily | LOV: Daily, Hourly |  |
| Retry Interval | Number | Mandatory: Y  Updateable: Y  Unique: N | 0 | Minutes  Minimum: 1  Maximum: 1440 | The time interval between each retry for the job.  This will only be mandatory in case of choosing "Daily" option from the "Execution period" selection list |
| Sava | Button | N/A | N/A | N/A | This will save job in quartz queue |
| Cancel | Button | N/A | N/A | N/A | Cancel operation & returns to manage jobs page |

Use Cases/Scenarios:

UC-VFE-GDC-03.1: Define new job.

Table 46: [UC-VFE-GDC-03.1] Define New Job Use Case

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-03.1 |
| **USE CASE NAME:** | Define New Job |
| **ACTORS:** | Admin |
| **DESCRIPTION:** | Add new Job |
| **PRE-CONDITION:** | The user should have the appropriate Rule.  The user should have navigated to the manage jobs main page  The user should select one job |
| **Trigger** | User clicks on "Define new job" button |
| **TYPICAL COURSE**  **OF EVENTS:** | Actor Action |
| 1. The system displays update job page 2. The user inputs job name 3. The user inputs job description 4. The user selects job type 5. System level job 6. Node level job 7. If user selects " System level" job type:    1. System displays list all systems    2. The user selects one system 8. If user selects "Node level" job type:    1. System display list of system nodes 9. User selects one node. 10. User inputs job CRON expression 11. User selects (daily /hourly) option 12. User selects zone 13. In case you select "Daily" option then the following will be entered:     1. User inputs retry count     2. User inputs retry interval 14. User clicks “Save” |
| **ALTERNATE COURSES:** |  |
| **POST-CONDITION:** | * Job data will be saved in the selected Zone Quartz table, i.e. if Zone quartz table prefix is "QRTZ" as per "EXECUTION\_ZONE\_LKP" table then the data will be saved in the following tables:   + **Job Name:** QRTZ\_JOB\_DETAILS. JOB\_NAME   + **Job Description:** QRTZ\_JOB\_DETAILS.JOB\_GROUP   + **System name:** QRTZ\_JOB\_DETAILS. JOB\_DATA   + **Node Name:** QRTZ\_JOB\_DETAILS. JOB\_DATA   + **Retry Count:** QRTZ\_JOB\_DETAILS. JOB\_DATA   + **Retry Interval:** QRTZ\_JOB\_DETAILS. JOB\_DATA   + **CRON expression:** QRTZ\_CRON\_TRIGGERS.CRON\_EXPRESSION (WHERE QRTZ\_CRON\_TRIGGERS.TRIGGER\_NAME = (SELECT TRIGGER\_NAME FROM QRTZ\_TRIGGERS WHERE JOB\_NAME = QRTZ\_JOB\_DETAILS. JOB\_NAME))  1. A trigger will be scheduled according to the configured CRON Expression. |
| **BUSINESS RULES** | You cannot configure more than one job on the same system node.  You cannot configure more than one job on the same system with system level option.  You cannot configure more than one job on the same system with node level option & with "All Nodes" option selected.  If you configure a job on node level with "All Nodes" option then you cannot create another job for this system.  If you configure a job on system level then you can only configure a job on node level for every single node on that system. |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** | * A tooltip should be available to guide the user for page data entry. |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** | * The current recovery mechanism works as follows:   1. In case failure occurs, one recovery job is created by default with the given retry interval.   2. In case a failure occurs in the first recovery, a check is done if the number of retries done equal the Retry count configured, if it's equal then the recovery process will stop, else a new recovery job is created until it reaches the number of retry count configured. * Currently there is an old issue where in step 2, the number of retries is incremented first before checking the retry count, so as a result, if the configured retry count is 2, then when first entering step 2, the retry count will be 2 while only 1 has been executed & therefore the system will validate that number of retries equal the number of retry count configured & it will exist. |

### [UC-VFE-GDC-03.2] Edit existing job

Description:

This Function enables the user to edit existing jobs.

Table 47: [UC-VFE-GDC-03.2] Edit Existing Job Page Components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Job Name | Text  Length: 50  Disabled | Mandatory: Y  Updateable: N  Unique: Y | N/A | Alphanumeric, underscore, dash |  |
| Job Description | Text  Length: 120 | Mandatory: Y  Updateable: Y  Unique: N | N/A | Alphanumeric, underscore, dash, space |  |
| Job Type | Option | Mandatory: Y  Updateable: Y  Unique: N | System Level Job | LOV: (System Level Job or Node Level Job) |  |
| System Name | Selection List | Mandatory: Y  Updateable: Y  Unique: Y | N/A | N/A | A selection list will appear with all available System names in the system  This will appear in both options' selection for "Job Type" |
| Node Name | Selection List | Mandatory: N  Updateable: Y  Unique: Y | N/A | N/A | This will only appear after the following sequence:   * After the user selects "Node Level Job" option from "Job Type" option list * & afterwards the user selects a specific system from "System Name" selection list.   The "Node Name" selection list will appear according to the selected System Name in addition to "All nodes" option which will add "system\_node" value to node name job data |
| CRON Expression | Text  Length: 80 | Mandatory: Y  Updateable: Y  Unique: N | N/A | N/A | The entered CRON expression must be a valid expression |
| Zones | Text  Disabled | Mandatory: Y  Updateable: N  Unique: Y | All | LOV: Zone 1, Zone 2 | This will specify if this job will execute on Zone1 or Zone 2 |
| Retry Count | Number | Mandatory: Y  Updateable: Y  Unique: N | 0 | LOV:  Min value: 2  Max value: 100 | Number of times the Job will retry in case of failure (i.e.: network issue)  This will only be mandatory in case of choosing "Daily" option from the "Execution period" selection list |
| Execution period | Selection List | Mandatory: Y  Updateable: Y  Unique: N | Daily | LOV: Daily, Hourly |  |
| Retry Interval | Number | Mandatory: Y  Updateable: Y  Unique: N | 0 | Minutes  Minimum: 1  Maximum: 1440 | The time interval between each retry for the job.  This will only be mandatory in case of choosing "Daily" option from the "Execution period" selection list |
| Sava | Button | N/A | N/A | N/A | This will save job in quartz queue |
| Cancel | Button | N/A | N/A | N/A | Cancel operation & returns to manage jobs page |

Use Cases/Scenarios:

UC-VFE-GDC-03.2: Edit existing job.

Table 48: [UC-VFE-GDC-03.2] Edit Existing Job Use Case

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-03.2 |
| **USE CASE NAME:** | Edit existing job |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user edit existing job |
| **PRE-CONDITION:** | The user should have the appropriate Rule.  The user should have navigated to the manage jobs main page  The user should select one job |
| **Trigger** | User clicks “edit job” |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| 1. The system displays update job page 2. The user inputs job description 3. The user selects job type 4. System level job 5. Node level job 6. If user selects " System level" job type:    1. System displays list all systems    2. The user selects one system 7. If user selects "Node level" job type:    1. System display list of valid systems    2. User selects one system    3. System displays list of valid nodes.    4. User selects one node. 8. User inputs job CRON expression 9. User selects (daily /hourly) option 10. In case you select "Daily" option then the following will be entered:     1. User inputs retry count     2. User inputs retry interval 11. User clicks “Save” |
| **ALTERNATE COURSES:** | The user clicks cancel, the system navigates back to “manage jobs” main page. |
| **POST-CONDITION:** | 1. Job data will be saved in the selected Zone Quartz table, i.e. if Zone quartz table prefix is "QRTZ" as per "EXECUTION\_ZONE\_LKP" table then the data will be saved in the following tables:    1. **Job Name:** QRTZ\_JOB\_DETAILS. JOB\_NAME    2. **Job Description:** QRTZ\_JOB\_DETAILS.JOB\_GROUP    3. **System name:** QRTZ\_JOB\_DETAILS. JOB\_DATA    4. **Node Name:** QRTZ\_JOB\_DETAILS. JOB\_DATA    5. **Retry Count:** QRTZ\_JOB\_DETAILS. JOB\_DATA    6. **Retry Interval:** QRTZ\_JOB\_DETAILS. JOB\_DATA    7. **CRON expression:** QRTZ\_CRON\_TRIGGERS.CRON\_EXPRESSION (WHERE QRTZ\_CRON\_TRIGGERS.TRIGGER\_NAME = (SELECT TRIGGER\_NAME FROM QRTZ\_TRIGGERS WHERE JOB\_NAME = QRTZ\_JOB\_DETAILS. JOB\_NAME)) 2. A trigger will be scheduled according to the configured CRON Expression. |
| **BUSINESS RULES** | You cannot configure more than one job on the same system node.  You cannot configure more than one job on the same system with system level option.  You cannot configure more than one job on the same system with node level option & with "All Nodes" option selected.  If you configure a job on node level with "All Nodes" option then you cannot create another job for this system.  If you configure a job on system level then you can only configure a job on node level for every single node on that system. |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** | * A tooltip should be available to guide the user for page data entry. |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** | * The current recovery mechanism works as follows:   1. In case failure occurs, one recovery job is created by default with the given retry interval.   2. In case a failure occurs in the first recovery, a check is done if the number of retries done equal the Retry count configured, if it's equal then the recovery process will stop, else a new recovery job is created until it reaches the number of retry count configured. * Currently there is an old issue where in step 2, the number of retries is incremented first before checking the retry count, so as a result, if the configured retry count is 2, then when first entering step 2, the retry count will be 2 while only 1 has been executed & therefore the system will validate that number of retries equal the number of retry count configured & it will exist. |

### [UC-VFE-GDC-03.3] Delete job

Description:

This Function enables the user to delete jobs.

Table 49: [UC-VFE-GDC-03.3] Delete Job Page Components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Confirm Job Deletion? | Label-Text | N/A | N/A | N/A | Confirmation message |
| Confirm | Button | N/A | N/A | N/A | N/A |
| Cancel | Button | N/A | N/A | N/A | N/A |

Use Cases/Scenarios:

UC-VFE-GDC-03.3: Delete job.

Table 50: [UC-VFE-GDC-03.3] Delete Job Use Case

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-03.3 |
| **USE CASE NAME:** | Delete job |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user deletes job |
| **PRE-CONDITION:** | The user should have the appropriate Rule.  The user should have navigated to the manage jobs main page  The user should select one job |
| **Trigger** | User clicks “delete job” |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| 1. The system displays confirmation. 2. The user confirms 3. The system delete the job |
| **ALTERNATE COURSES:** | The user disconfirms at step 2, the system do nothing. |
| **POST-CONDITION:** | * The job along with its triggers will be deleted from all Quartz tables in the respected zone. |
| **BUSINESS RULES** |  |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-GDC-03.4] Force running job

Description:

This Function enables the user to force running of a selected job.

Table 51: [UC-VFE-GDC-03.4] Force Running Job Page Components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| From Date | Date | Mandatory: Y  Updateable: Y  Unique: N | N/A | dd/MM/yyyy  This date must be less than the “To Date” | This date must be less than the “To Date”  This is the interval start where the Job will execute on |
| To Date | Date | Mandatory: Y  Updateable: Y  Unique: N | N/A | dd/MM/yyyy  This date must be greater than the “From Date” | This date must be greater than the “From Date”  This is the interval end where the Job will execute on |
| From Hour | Number | Mandatory: N  Updateable: Y  Unique: N |  | LOV: from 1 to 24  In case From Date equals To Date then the From Hour must be less than To Hour | Mandatory in case you are running an hourly job |
| To Hour | Number | Mandatory: N  Updateable: Y  Unique: N |  | LOV: from 1 to 24  In case From Date equals To Date then the From Hour must be less than To Hour | Mandatory in case you are running an hourly job |
| Execute | Button | N/A | N/A | N/A | Force the job to start execution |
| Cancel | Button | N/A | N/A | N/A | Cancel operation & returns to manage jobs page |

Use Cases/Scenarios:

UC-VFE-GDC-03.4: Force running job.

Table 52: [UC-VFE-GDC-03.4] Force Running Job Use Case

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-03.4 |
| **USE CASE NAME:** | Force running job |
| **ACTORS:** | User (Admin) |
| **DESCRIPTION:** | The user runes (executes) job |
| **PRE-CONDITION:** | The user should have the appropriate Rule.  The user should have navigated to the manage jobs main page  The user should select one job |
| **Trigger** | User clicks “Execute job now” |
| **TYPICAL COURSE**  **OF EVENTS:** |  |
| 1. The system display “execute job” page 2. The user inputs “From” date 3. The user inputs The "From Date Hour" (If the job selected is hourly) 4. The user inputs “To” date 5. The user inputs The" To Date Hour" (If the job selected is hourly) 6. The user clicks “Execute” 7. The system run the job 8. The System shows a message to the user that the Job has been set in progress 9. In the background the job will insert result outputs in the affected output tables |
| **ALTERNATE COURSES:** | The user clicks cancel, the system navigates back to “manage jobs” main page. |
| **POST-CONDITION:** | 1. The resulting data are inserted to the affected output table. 2. The logs files updated. |
| **BUSINESS RULES** |  |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-GDC-03.5] Manage Jobs

Description:

Displays all available jobs in the available zones to manage. In addition the user can define a new job.

Table 53: [UC-VFE-GDC-03.5] Manage Jobs Page or window components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Job Name | Text | Mandatory: N  Updateable: Y  Unique: N | N/A |  | You can use it to search for a job name |
| Search | Button | N/A | N/A |  | Search for a job like the given value in the “Job Name” text field in all available zones |
| Define new job | Button | N/A | N/A |  | Add new Job |
| List of All Jobs | Table/Text |  |  |  | All jobs from all available zones |
| Force Running Job | Link | N/A | N/A | N/A | Used to force job execution now |
| Edit | Link | N/A | N/A | N/A | Opens the corresponding Job for editing |
| Delete | Link | N/A | N/A | N/A | Deletes the corresponding job |

Table 54: Use Cases

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-GDC-03.5 |
| **USE CASE NAME:** | Manage Jobs |
| **ACTORS:** | Admin |
| **DESCRIPTION:** | Manage available jobs & add new jobs |
| **PRE-CONDITION:** | User must be logged in & systems must be already defined. |
| **Trigger** | User clicks on “Manage Data collection jobs” navigation tab |
| **TYPICAL COURSE**  **OF EVENTS:** | Actor Action |
| * All available jobs will be displayed in a table with the following information & functionalities:   + Job Name   + Force Running Job 🡪 Link   + Edit 🡪   + Delete 🡪 Link * Search text box to search for a specific job   + Search button     - One search button is clicked the list will be refreshed to display only the search result. * A button to define a new job |
| **ALTERNATE COURSES:** |  |
| **POST-CONDITION:** |  |
| **BUSINESS RULES** |  |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

## Log Manager

### [UC-VFE-LOG-01] Analyze & Extract System Logs

**Description:**

[LOG-01] System will analyze & parse logs after Job execution

[LOG-02] System will send emails or/and SMS to the designated users as per the notification lists configured in [[UC-VFE-LOG-03](#_[UC-VFE-LOG-02]_Manage_log)]

**Use Cases/Scenarios:**

[UC-VFE-LOG-02](#_[UC-VFE-LOG-02]_Display_System): Display System Logs

[UC-VFE-LOG-03](#_[UC-VFE-LOG-03]_Manage_log): Manage Log Notifications

**Table 55: [UC-VFE-LOG-01] Analyze & Extract System Logs Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-LOG-01 |
| **USE CASE NAME:** | Analyze & Extract System Logs |
| **ACTORS:** | N/A |
| **DESCRIPTION:** | Parse the log files extracted from DC Jobs & saving it to database categorized by node, system, log type & date |
| **PRE-CONDITION:** | All DC Jobs should have finished collecting data |
| **Trigger** | Job Execution. |
| **TYPICAL COURSE**  **OF EVENTS:** | Job starts to parse the logs. |
| The logs will be parsed & saved in database in the following columns in "DC\_LOG\_FILES\_INFO" table:  LOG\_DATE  SYSTEM\_NAME  NODE  DESCRIPTION  RETRY  LOG\_TYPE  ERROR\_CODE |
| **ALTERNATE COURSES:** | N/A |
| **POST-CONDITION:** | “DC\_LOG\_FILES\_INFO” will be filled with the parsed logs |
| **BUSINESS RULES** |  |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** | Extracted logs will be sent as a whole to the designated notification list according to the notification configurations (email or SMS)  In case the notification is configured to email, the filtered log rows will be sent by email.  In case the notification is configured to SMS, only a notification message will be sent to the user/s to check the filtered log rows through the portal GUI. |
| **OPEN ISSUES:** | N/A |

**Messages:**

**Table 56: [UC-VFE-LOG-01] Analyze & Extract System Logs Messages**

|  |  |  |
| --- | --- | --- |
| Message Number | Message/Email Text | Condition |
| MSG-VFE-LOG-01-01 | <table style="border-right: 1px solid #333333;color: #FFFFFF;font-family: 'Lato',Calibri,Arial,sans-serif;font-size: 16px;line-height: 19px;padding: 14px 15px;text-align: left;text-transform: capitalize;word-wrap: break-word;"><thead style="background:#A91607;color:white;"><tr>  <th>System Name</th>  <th>Date</th>  <th>Node</th>  <th>Type</th>  <th>Error Code</th>  <th>Retry</th>  <th>Description</th>  </tr></thead><tbody style="color: black;"></tr>  </table> | After the execution of the log parsing job, one email is sent per System to the designated users according to defined rules & lists in [[UC-VFE-LOG-03]](#_[UC-VFE-LOG-02]_Manage_log) |
| MSG-VFE-LOG-01-02 | <SMS-NOTIFICATION-BODY> | After the execution of the log parsing job, one email is sent per System to the designated users according to defined rules & lists in [[UC-VFE-LOG-03]](#_[UC-VFE-LOG-02]_Manage_log) |

### [UC-VFE-LOG-02] Display System Logs

**Description:**

This module displays the details of the resulted logs from the data collection "DC” jobs’ execution.

[LOG-01] The page will allow the logged in user to filter the displayed result using search criteria.

[LOG-1.1] the user can search using: Start & End Date, System name & Log type.

[LOG-1.2] Page shall display the following data in the result with this order: Date, System name, Node name, Log type, Retry count and Entry description.

**Table 57: [UC-VFE-LOG-02] Display System Logs Page Components**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| From Date | Text | Mandatory: Y  Updateable: Y | Yesterday's Date | Gregorian date with "dd-MMM-yyyy" format | Dependency: Cannot be a date greater than today's date & cannot be after the "**To Date**" value. |
| To Date | Text | Mandatory: Y  Updateable: Y | Yesterday's Date | Gregorian date with "dd-MMM-yyyy " format | Dependency: Cannot be a date greater than today's date & cannot be before the "**From Date**" value. |
| System Name | Text | Mandatory: Y  Updateable: N  Unique: Y | "**All**" |  | The list includes all system names currently available in the application’s database |
| Log Type | Text | Mandatory: Y  Updateable: Y  Unique: Y | "**All**" | LOV: All, Error, Warning | This represents the type of log extracted, i.e.: ERROR or WARNING |
| Manage log notification list | Button |  |  |  | Allows the user to manage notification lists |

Use Cases/Scenarios:

* [UC-VFE-LOG-02] Display System Logs

**Table 58: [UC-VFE-LOG-02] Display System Logs Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-LOG-02 |
| **USE CASE NAME:** | Display System Logs |
| **ACTORS:** | All logged in users |
| **DESCRIPTION:** | This page displays the parsed logs extracted from the output log files generated during Data Collection DC process. |
| **PRE-CONDITION:** | The user must be logged in. |
| **Trigger** | Actor clicks on "Log Manager" navigation link |
| **TYPICAL COURSE**  **OF EVENTS:** | Actor clicks on "Log Manager" navigation link |
| After you enter your search criteria & click on "Display Log", a page will be displayed with the following data:  A table with the previous day log analysis including the following:   * + Date   + System name   + Node name   + Log Type   + Retrial count   + Error Code   + Entry Description   Filter fields to be used to search & filter the parsed log files, i.e.:   * + A list with all available System Names logged in the database.   + A list with the available log type, i.e.: Error, Warning or All.   + From & To Date fields to specify the interval date of search criteria. |
| **ALTERNATE COURSES:** | In case no records are returned, the system will alert the user that no records are available now. |
| **POST-CONDITION:** | N/A |
| **BUSINESS RULES** | Logs are displayed according to the search criteria given, i.e.:  From & To Date  System Name  Log Type (All, Error or Warning) |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** | The log parsing job didn’t start. |
| **ASSUMPTIONS:** | N/A |
| **OPEN ISSUES:** | N/A |

### [UC-VFE-LOG-03] Manage Log Manager Notification list

System allows the system Admin to manage notification lists for each error code resulted from a specific node associate to a system.

Table 59: [UC-VFE-LOG-03] Manage log manager notification list Page or window components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| System Name | Text (Autocomplete field) | Mandatory: Y  Updateable: N  Unique: Y | N/A |  | The auto complete list includes all of the system names currently available in "VSystem" table |
| Error Code List | Text (Selection List) | Mandatory: Y  Updateable: Y  Unique: Y | "**All**" |  | Contains the list of expected error codes per system. |
| Manage Users List | Button |  |  |  | Displays the list of currently configured notification lists. |

Table 60: [UC-VFE-LOG-03.1] Manage log manager notification (Add Existing user for notification list) list Page or window components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Username | Auto complete field | Mandatory: Y  Updateable: Y  Unique: Y | N/A |  | Contains a list of all user names registered in Capacity Management Tool "USERS" table.  You cannot add the same registered user to the notification list more than once. |
| Email | Text - Email | Mandatory: N  Updateable: Y  Unique: N |  | This should be a valid Email | It will be loaded automatically with the registered user's email once the user inputs an already existing registered user in the "Username" text field.  In case "Notify by email" is selected then "Email" text field must be filled. |
| Mobile | Numerical | Mandatory: N  Updateable: Y  Unique: N |  | LOV: Valid Egyptian mobile number (010, 011, 012 in addition to 8 digits) | It will be loaded automatically with the registered user's mobile once the user inputs an already existing registered user in the "Username" text field.  In case "Notify by SMS" is selected then "Mobile Num" text field must be filled. |
| Notify By | Check box | Mandatory: Y  Updateable: Y  Unique: Y |  | LOV: Email, SMS | This will be used in the Log Manager module to select the type of notification to be by SMS, Email or both |
| Add to Selected User | Button |  |  |  | Add a user to the Log notification list |

Table 61: [UC-VFE-LOG-03.2] Manage log manager notification (Add External user for notification list) list Page or window components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Username | Text  Alphanumeric  Size(min = 4, max = 15) | Mandatory: Y  Updateable: Y  Unique: Y | N/A |  |  |
| Email | Text - Email | Mandatory: N  Updateable: Y  Unique: N |  | This should be a valid Email | In case "Notify by email" is selected then "Email" text field must be filled. |
| Mobile | Numerical | Mandatory: N  Updateable: Y  Unique: N |  | LOV: Valid Egyptian mobile number (010, 011, 012 in addition to 8 digits) | In case "Notify by SMS" is selected then "Mobile Num" text field must be filled. |
| Notify By | Check box | Mandatory: Y  Updateable: Y  Unique: Y |  | LOV: Email, SMS | This will be used in the Log Manager module to select the type of notification to be by SMS, Email or both |
| Add to Selected User | Button |  |  |  | Add a user in "DC\_LOG\_EXTERNAL\_CONTACTS" table & add him to the Log notification list |

Table 62: [UC-VFE-LOG-03.3] Manage log manager notification (Update Existing user for notification list) list Page or window components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Username | Text  Alphanumeric  Size(min = 4, max = 15) | Mandatory: Y  Updateable: N  Unique: Y | The registered user's username saved in "USERS" table |  |  |
| Email | Text - Email | Mandatory: N  Updateable: Y  Unique: N | The registered user's Email saved in "USERS" table | This should be a valid Email | In case "Notify by email" is selected then "Email" text field must be filled. |
| Mobile | Numerical | Mandatory: N  Updateable: Y  Unique: N | The registered user's Mobile saved in "USERS" table | LOV: Valid Egyptian mobile number (010, 011, 012 in addition to 8 digits) | In case "Notify by SMS" is selected then "Mobile Num" text field must be filled. |
| Notify By | Check box | Mandatory: Y  Updateable: Y  Unique: Y | The notification type saved in "DC\_LOG\_CONTACTS" table | LOV: Email, SMS | This will be used in the Log notification module to select the type of notification to be by SMS, Email or both |
| Edit User | Button |  |  |  | Will update the registered user information in "USERS" table & will update the notification type in "DC\_LOG\_CONTACT" table |

Table 63: [UC-VFE-LOG-03.4] Manage log manager notification (Update External user for notification list) list Page or window components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Username | Text  Alphanumeric  Size(min = 4, max = 15) | Mandatory: Y  Updateable: N  Unique: Y | The external user's username saved in "DC\_LOG\_EXTERNAL\_CONTACTS" table |  |  |
| Email | Text - Email | Mandatory: N  Updateable: Y  Unique: N | The external user's Email saved in "DC\_LOG\_EXTERNAL\_CONTACTS" table | This should be a valid Email | In case "Notify by email" is selected then "Email" text field must be filled. |
| Mobile | Numerical | Mandatory: N  Updateable: Y  Unique: N | The external user's Mobile saved in "DC\_LOG\_EXTERNAL\_CONTACTS" table | LOV: Valid Egyptian mobile number (010, 011, 012 in addition to 8 digits) | In case "Notify by SMS" is selected then "Mobile Num" text field must be filled. |
| Notify By | Check box | Mandatory: Y  Updateable: Y  Unique: Y | The notification type saved in "DC\_LOG\_CONTACT" table | LOV: Email, SMS | This will be used in the Log manager module to select the type of notification to be by SMS, Email or both |
| Edit User | Button |  |  |  | Will update the external user information in "DC\_LOG\_EXTERNAL\_CONTACTS" table & will update the notification type in "DC\_LOG\_CONTACT" table |

Table 64: [UC-VFE-LOG-03.5] Manage log manager notification (View notification list) list Page or window components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Username | Text(disabled) |  | The user's username |  |  |
| Email | Text - Email(disabled) |  | The user's Email |  |  |
| Mobile | Numerical(disabled) |  | The user's Mobile |  |  |
| Notify By | Check box (disabled) |  | The notification type saved in "DC\_LOG\_CONTACT " table |  |  |
| Delete selected | Link |  |  |  | Deletes the contacts with their checkboxes checked. |
| Edit | Link |  |  |  | Opens the contact information in an edit mode within the page |
| Delete | Link |  |  |  | Deletes the contact |

Use Cases/Scenarios:

UC-VFE-LOG-01: Analyze & Extract System Logs

[UC-VFE-LOG-02](#_[UC-VFE-LOG-02]_Display_System): Display System Logs

**Table 65: [UC-VFE-LOG-03] Manage Log Notification List Use Case**

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-LOG-03 |
| **USE CASE NAME:** | Manage log notification list |
| **ACTORS:** | Admin User |
| **DESCRIPTION:** | System allows the system Admin to manage notification lists for each error code resulted from a selected system. |
| **PRE-CONDITION:** | The user must be logged in & have permission to manage the list. |
| **Trigger** | User clicks on "Manage log notification list" link in "Log Manager" Tab |
| **TYPICAL COURSE**  **OF EVENTS:** | User clicks on "Manage log notification list" link in "Log Manager" Tab |
| The System will display the following search criteria:  System names auto complete field  Error Code List  After selecting the search criteria the system will display a list of the already configured users to receive notification when the selected error code appears on the selected node on the selected system.  The list will include the following items/controls per row:  Delete user Checkbox  Username for the user to be notified  Notify by SMS checkbox  Mobile number text field, which will be pre-populated with the saved user's mobile number  Notify by email checkbox  Email address text field, which will be pre-populated with the saved user's email address  The user will have the option to do the following actions:  Add a new user to the notification list, by clicking on "Add User"   * + This will add a new row to the current notification list     - The user will enter the following:       * Username (The user will have a search widget that will display the list of all currently registered users except for those already added in the notification list)         + The email & mobile number fields will be automatically populated once a user is selected.       * email       * mobile number       * update the "Notify by SMS" checkbox       * update the "Notify by EMail" checkbox.     - User clicks on "Save" button.   Delete user/s from the notification list   * + Users' with their "**Delete user**" checkbox selected will be removed from the list & the currently displayed list will be refreshed   Update user/s saved mobile number & email address   * + All changed mobile number & email text fields in all rows will be updated. |
| **ALTERNATE COURSES:** | In case of entering an invalid email address, the system will display a validation error message  In case of entering an invalid mobile number, the system will display a validation error message |
| **POST-CONDITION:** | The notification list will be refreshed after add, update or deletion. |
| **BUSINESS RULES** | User must select at least one notification type, either Email or SMS  Entered email must be valid  Entered mobile number must be valid  In case no nodes associated to a system, a dummy node will be added to represent empty node.  Viewed username is not editable. |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** | The notification list may have Zero users |
| **OPEN ISSUES:** | N/A |

## [UC-VFE-CAL-01] Admin System Events

### [UC-VFE-CAL-01.1] Show Events

Description:

This use case displays the added events per system on the calendar. The user can navigate to do the following actions.

Add new event.

Edit event.

Delete event.

Table 66: [UC-VFE-CAL-01.1] Show Events Page or window components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Select System | Auto Complete | Mandatory: Y  Updateable: Y  Unique: Y | N/A | N/A | Will load all the available system names. |
| Calendar | Calendar Widget | N/A | Today's date | N/A | The days on the calendar will be highlighted to reflect the following cases:   * Today's day * High event * Medium event * Low event * No event * Selected day |
| Go To Today | Button | N/A | N/A | N/A | This will reset the calendar selection to select today's date |
| Event Subject | Text Label | N/A | N/A | N/A | Will be displayed beside the selected day event description (subject). |
| Event Level | Text Label | N/A | N/A | N/A | Will be displayed beside the selected day event level (i.e.: High, Medium or Low). |
| Date | Text Label | N/A | N/A | N/A | Will be displayed beside the selected day Date |
| Edit | Button | N/A | N/A | N/A | This will open the edit page for the currently selected day & system. |
| Delete | Button | N/A | N/A | N/A | This will delete the event currently added on the selected day for the selected system. |
| New event | Button | N/A | N/A | N/A | This will direct the user to a new page to enter a new event on the selected date for this specific system. |

Table 67: [UC-VFE-CAL-01.1] Show System Events Use Cases

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-CAL-01.1 |
| **USE CASE NAME:** | Show System Events |
| **ACTORS:** | Regular & Admin Users |
| **DESCRIPTION:** | This use case displays the added events per system on the calendar. |
| **PRE-CONDITION:** | * The user must be logged in. * Application should have added Systems to display in the system list. |
| **Trigger** | User clicks on "System Events" |
| **TYPICAL COURSE**  **OF EVENTS:** | Actor Action |
| * The user selects a system from the "System Name" auto complete field. * The calendar widget will be updated to reflect the active events available for the current month for the selected system. * The page will display the following for the default day selection which is (today's date) or for any selected day from the calendar widget.   1. if event exists on the day, the event properties will be displayed i.e.:      + Event Subject      + Event Level (High, Medium or Low)      + Date   2. if no event exists on the day      + Alert message that no event exists on the selected day. * If the user clicks on "Go to Today" button, the calendar widget selected date will be reset to the default date which is today's date. |
| **ALTERNATE COURSES:** | * In case no event exists for the selected system & date, then the user will be shown the following alert message: "No Events are currently available at the selected Date" |
| **POST-CONDITION:** | * User will be shown the corresponding event details. * Or * User will be shown an alert that no event exists on the selected day for the selected system. |
| **BUSINESS RULES** | The default view of events will be for yesterday's date.  The days on the calendar will be highlighted to reflect the following cases:   * Today's day * High event * Medium event * Low event * No event * Selected day   On mouse hovering over a day on the calendar widget, the system event subject will appear in the tooltip |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-CAL-01.2] Add new system event

Description:

User can add a new event on a selected day for the selected system. In case an event existed on the same day, it will be replaced by the added one.

Table 68: [UC-VFE-CAL-01.2] Add new system event Page or window components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Event Subject | Text Field  Length: 50 | Mandatory: Y  Updateable: Y  Unique: N | N/A |  | The subject of the newly added event. |
| Event Level | Selection List | Mandatory: Y  Updateable: N  Unique: Y | Low | LOV: High, Medium, Low |  |
| Event Date | Text Field (Date) | Mandatory: Y  Updateable: Y  Unique: N | N/A | Gregorian | Will be entered via a date widget |
| Save | Button | N/A | N/A |  | Used to add a new system event for the selected system. |
| Cancel | Button | N/A | N/A |  | Will cancel adding the new system event & will return to system events main page |

Use Cases/Scenarios:

[UC-VFE-CAL-01.1](#_[UC-VFE-CAL-01.1]_Show_Events) Show Events

Table 69: [UC-VFE-CAL-01.2] Add new system event Use Cases

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-CAL-01.2 |
| **USE CASE NAME:** | Add new system event Use Cases |
| **ACTORS:** | Regular & Admin Users |
| **DESCRIPTION:** | User can add a new event on a selected day for the selected system. |
| **PRE-CONDITION:** | * The user must be logged in. * The user should have navigated to "System Events" tab. * Application should have added Systems to display in the system list. |
| **Trigger** | User clicks on "Add New Event" on "System Events" page. |
| **TYPICAL COURSE**  **OF EVENTS:** | Actor Action |
| * User selects the following:   1. System name   2. Date from the calendar widget * User fills/select the new event data, i.e.:   1. Event Subject   2. Event Level   3. Event Date * User clicks on "Save" button * The system event will be added & the user will be shown a success message. |
| **ALTERNATE COURSES:** | * Event addition fails & user is directed to the portal generic error page. * If the user clicks on "cancel" button, the addition page area will be hidden & no event will be added. |
| **POST-CONDITION:** | The system event will be added on the specified date for the selected system. |
| **BUSINESS RULES** | In case an event existed on the same day, a confirmation popup will be displayed & incase the user confirms, it will be replaced by the added one. |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-CAL-01.3] Edit new system event

User can edit an existing system event on a selected day for the selected system.

Table 70: [UC-VFE-CAL-01.3] Edit new system event Page or window components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Event Subject | Text Field  Length: 50 | Mandatory: Y  Updateable: Y  Unique: N | N/A |  | The subject of the newly added event. |
| Event Level | Selection List | Mandatory: Y  Updateable: Y  Unique: Y | Low | LOV: High, Medium, Low |  |
| Event Date | Text Field (Date)  Disabled | Mandatory: Y  Updateable: N  Unique: N |  | Gregorian | The event date |
| Save | Button | N/A | N/A |  | Will update the system event for the selected system on the date specified in "Event Date". |
| Cancel | Button | N/A | N/A |  | Will cancel adding the new system event & the addition page area will be hidden. |

Use Cases/Scenarios:

[UC-VFE-CAL-01.1](#_[UC-VFE-CAL-01.1]_Show_Events): Show Events

Table 71: [UC-VFE-CAL-01.3] Edit new system event Use Cases

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-CAL-01.3 |
| **USE CASE NAME:** | Edit new system event |
| **ACTORS:** | Regular & Admin Users |
| **DESCRIPTION:** | User can update an existing system event on the selected day from the calendar widget for the selected system. |
| **PRE-CONDITION:** | * The user must be logged in. * The user should have navigated to "System Events" tab * Application should have added Systems to display in the system list. |
| **Trigger** | User clicks on "Edit" button on "System Events" page. |
| **TYPICAL COURSE**  **OF EVENTS:** | Actor Action |
| * User selects the following:   1. System name   2. Date from the calendar widget * User clicks on "Edit" button found below the system event description. * User updates/select the following system event data, i.e.:   1. Event Subject   2. Event Level * User clicks on "Save" button * The system event will be added & the user will be shown a success message. |
| **ALTERNATE COURSES:** | * System event update fails & user is directed to the portal generic error page. * If the user clicks on "cancel" button, the edit page area will be hidden & no modification will be done for the current system event. |
| **POST-CONDITION:** | The system event information will be updated for the specified date & the selected system. |
| **BUSINESS RULES** | Event Date will be filled automatically from the selected day in the calendar widget & will be disabled & not editable. |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-CAL-01.4] Delete system event

User can delete an existing system event on a selected day for the selected system.

Screenshot/Wireframe:

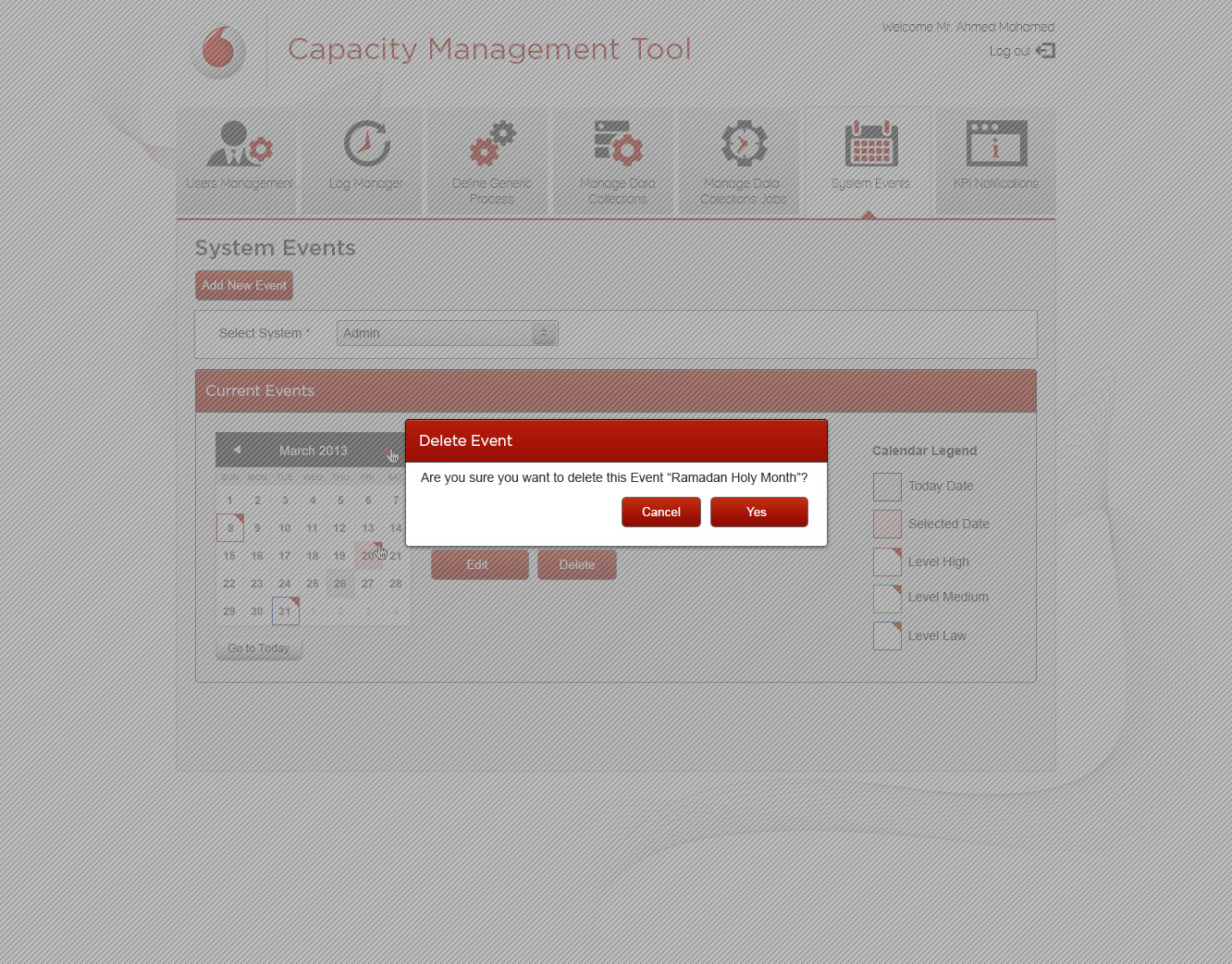


Figure 4 [UC-VFE-CAL-01.4] Delete system event

Table 72: [UC-VFE-CAL-01.4] Delete system event Page or window components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Cancel | Button |  |  |  | Will cancel the system event deletion process |
| Yes | Button |  |  |  | Will confirm system event deletion |

Use Cases/Scenarios:

[UC-VFE-CAL-01.1](#_[UC-VFE-CAL-01.1]_Show_Events): Show Events

Table 73: [UC-VFE-CAL-01.4] Delete system event Use Cases

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-CAL-01.4 |
| **USE CASE NAME:** | Delete new system event |
| **ACTORS:** | Regular & Admin Users |
| **DESCRIPTION:** | User can delete an existing system event on the selected day from the calendar widget for the selected system. |
| **PRE-CONDITION:** | * The user must be logged in. * The user should have navigated to "System Events" tab. * Application should have added Systems to display in the system list. |
| **Trigger** | User clicks on "Delete" button on "System Events" page. |
| **TYPICAL COURSE**  **OF EVENTS:** | Actor Action |
| * User selects the following:   1. System name   2. Date from the calendar widget * User clicks on "Delete" button found below the system event description. * The user will click on "Yes" button on the confirmation popup window. |
| **ALTERNATE COURSES:** | * System event deletion fails & user is directed to the portal generic error page. * If the user clicks on "cancel" button on the confirmation window, no modification will be done to the selected system event & the user will return to the main System Event page.. |
| **POST-CONDITION:** | The system event information will be deleted for the specified date & the selected system. |
| **BUSINESS RULES** |  |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

## [UC-VFE-NTF-01] Managing System KPIs

In this module the user is allowed to configure the Thresholds & KPIs for each node per system, in addition to adding a notification list for each node per system.

### [UC-VFE-NTF-01.1] View System nodes’ Thresholds & KPIs

Description:

The user will be prompted to select a System & select a node from this system. In case no information saved regarding the Thresholds & KPIs values, then the user will be allowed to add a new record. In case there is already Thresholds & KPIs configured, the user is allowed to edit the already saved information. The user will be allowed to also delete the Thresholds & KPIs record displayed.

Screenshot/Wireframe:

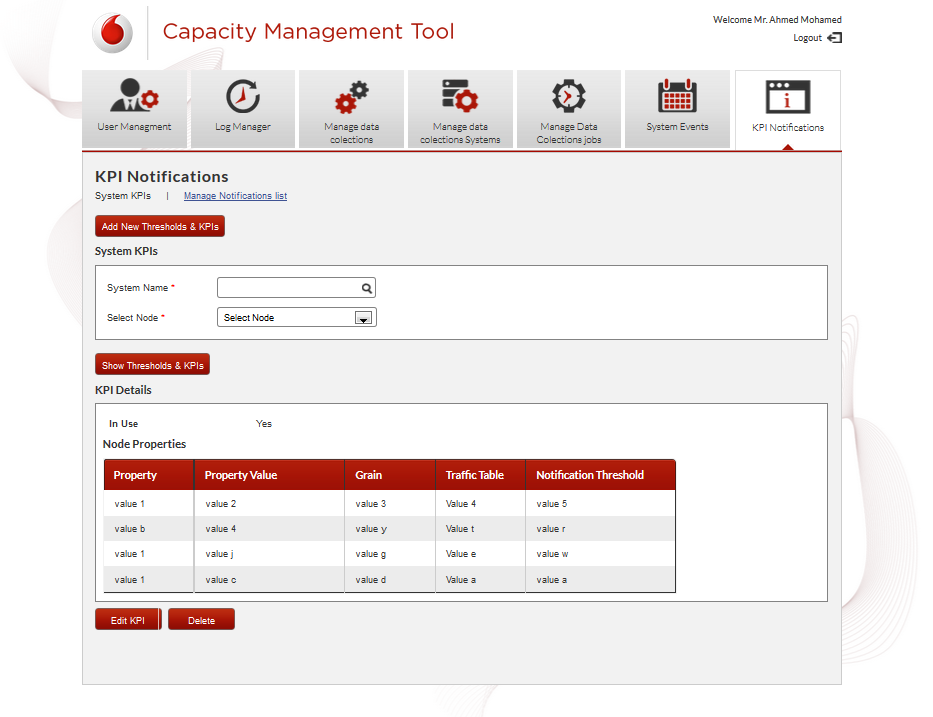


Figure 5 [UC-VFE-NTF-01.1] View System nodes’ Thresholds & KPIs

Page (or window) Components:

Table 74: [UC-VFE-NTF-01.1] View System nodes’ Thresholds & KPIs Page or window components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| System Name | Autocomplete field | Mandatory: Y  Updateable: N  Unique: Y | N/A | LOV: All the available System names |  |
| Node Name | Selection List (Text) | Mandatory: Y  Updateable: N  Unique: Y | N/A | LOV: All the available Node names |  |
| Show Threshold & KPIs | Button |  |  |  | Search by the selected System & node |
| Traffic table name | Text (disabled) | Mandatory: Y  Updateable: Y  Unique: Y |  |  |  |
| Notification threshold | Text (disabled) | Mandatory: Y  Updateable: Y  Unique: Y |  |  | The percentage that the utilization should not exceed |
| In Use | Check box (disabled) | Mandatory: Y |  | N/A |  |
| Property name | Text (disabled) |  |  |  | Repeated |
| Property value | Number (disabled) |  |  |  | Repeated |
| Grain | Combo box | N/A | N/A | LOV: Hourly\Daily | Repeated |
| Edit | Button | N/A | N/A | N/A | Will open a new page for edit. |
| Add | Button |  |  |  | Will be displayed in case no existing KPI data existed from the search. |
| Delete | Button |  |  |  | Will appear in case an existing KPI is already added. |

Table 75: [UC-VFE-NTF-01.1] View System nodes’ Thresholds & KPIs Use Cases

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-NTF-01.1 |
| **USE CASE NAME:** | View System nodes’ Thresholds & KPIs |
| **ACTORS:** | Admin User |
| **DESCRIPTION:** | The user searches using System & node for the saved Thresholds & KPIs.  If Found then their values are displayed for update or delete.  Else the user is prompted to add a new Thresholds & KPIs record for the selected System’s node |
| **PRE-CONDITION:** | The User must be logged in |
| **Trigger** | User clicking on the “KPI Notification” navigation tab |
| **TYPICAL COURSE**  **OF EVENTS:** | Actor Action |
| 1. The user first selects a System from a list with all available “System Names” 2. Then the user selects a node from a list with all the nodes available for the selected system from the above step. 3. The user should click on a button to “show Thresholds & KPIs” 4. In case no result appears, the user will be prompted to add a new KPI information, using “Add” button. 5. The page will display the following fields:    * KPI Name    * Traffic table name    * Notification threshold (percentage difference – or + )    * In Use    * Node properties' list      + Property Name      + Property value  numeric value      + Grain  (Hourly\Daily)   The user will have the option to Update/Delete this information. |
| **ALTERNATE COURSES:** | No “Threshold & KPI” record exists for the selected node, therefore the user should click on the “Add” a new “Threshold & KPI” data in “[UC-VFE-NTF-01.2](#_[UC-VFE-NTF-01.2]_Add_System)”. |
| **POST-CONDITION:** |  |
| **BUSINESS RULES** |  |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-NTF-01.2] Add System nodes’ Thresholds & KPIs

Description:

The user after clicking on adding Threshold & KPI button, the user is prompted to fill the Threshold & KPI form**.**

Screenshot/Wireframe:

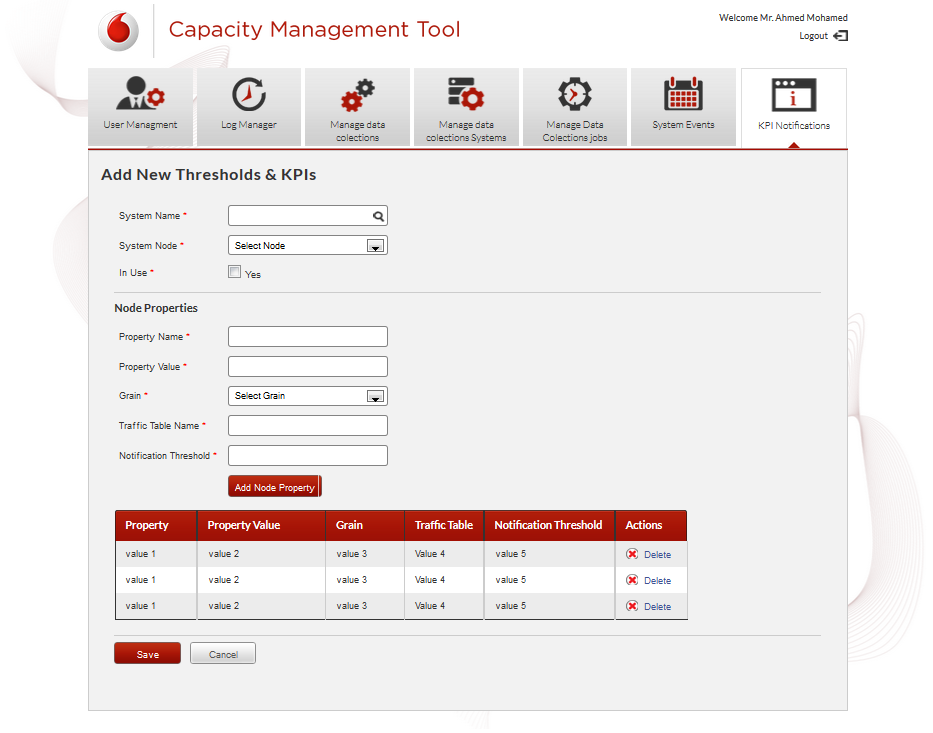


Figure 6 [UC-VFE-NTF-01.2] Add System nodes’ Thresholds & KPIs

Page (or window) Components:

Table 76: [UC-VFE-NTF-01.2] Add System nodes’ Thresholds & KPIs Page or window components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| System Name | Autocomplete field | Mandatory: Y  Updateable: Y  Unique: Y | N/A | LOV: All the available System names |  |
| Node Name | Selection List | Mandatory: Y  Updateable: N  Unique: Y | N/A | LOV: All the available Node names associated with the selected “System Name” |  |
| Traffic table name | Text  Length: 30 | Mandatory: Y  Updateable: Y  Unique: Y |  |  | The actual traffic table name  Must be unique per node. |
| Notification threshold | Number |  |  | Min: 0  Max: 100 | The percentage that the utilization should not exceed |
| In Use | Check box | N/A | Un checked | N/A |  |
| Property Name | Text  Length: 20 | Mandatory: Y  Updateable: Y  Unique: Y | N/A | Min: 1  Max:20 |  |
| Property Value | Number |  |  | Min: 0  Length: maximum 10 digits |  |
| Grain | Combo box | N/A | N/A | LOV: Hourly\Daily |  |
| Add new node property | Button |  |  |  | Will add a new row with the following (Property name, property value, grain, Traffic table name & Notification threshold) |
| Add “Threshold & KPI” | Button | N/A | N/A | N/A | Will add KPI threshold for the selected node. |

Use Cases/Scenarios:

* UC-VFE-NTF-01.1: View System nodes’ Thresholds & KPIs

Table 77: [UC-VFE-NTF-01.2] Add System nodes’ Thresholds & KPIs Use Cases

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-NTF-01.2 |
| **USE CASE NAME:** | Add System nodes’ Thresholds & KPIs |
| **ACTORS:** | Admin User |
| **DESCRIPTION:** | The user adds a new record for the “Threshold & KPI” values for the selected System for the selected Node. |
| **PRE-CONDITION:** | The User must be logged in |
| **Trigger** | User clicking on the add a new “Thresholds & KPIs” button |
| **TYPICAL COURSE**  **OF EVENTS:** | Actor Action |
| * The page will display a page with the following fields to fill:   1. System Name   2. Node Name   3. In Use   4. Node property list:      + Property Name      + Property Value      + Grain      + Traffic table name      + Notification threshold   5. Add new node property button (to add another node property row)   6. Add “Threshold & KPI” button * The user will then be allowed to save the form. |
| **ALTERNATE COURSES:** | Validation error will occur to the user & will halt the process in case any validation in the user’s inputs. |
| **POST-CONDITION:** | The Threshold & KPI will be added for the selected system & selected node. |
| **BUSINESS RULES** | Traffic table name must not be repeated within the properties of the same node. |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-NTF-01.3] Edit System nodes’ Thresholds & KPIs

Description:

The user after clicking on edit Threshold & KPI button, the user is prompted to update the already saved Threshold & KPI values

Screenshot/Wireframe:

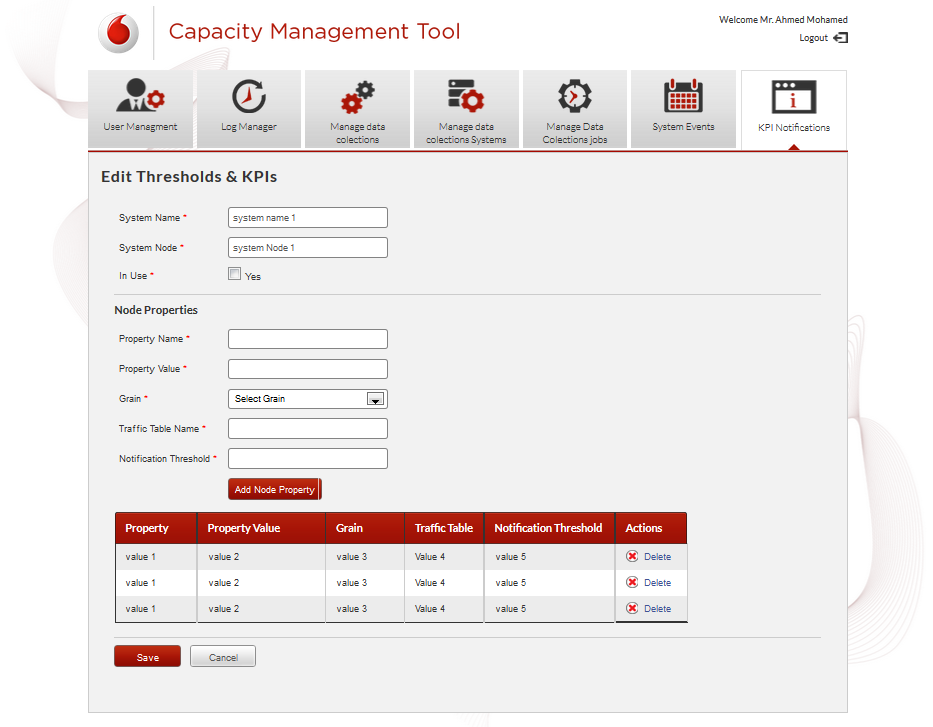


Figure 7 [UC-VFE-NTF-01.3] Edit System nodes’ Thresholds & KPIs

Page (or window) Components:

Table 78: [UC-VFE-NTF-01.3] Edit System nodes’ Thresholds & KPIs Page or window components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| System Name | Text (disabled) |  |  |  |  |
| Node Name | Text (disabled) |  |  |  |  |
| Traffic table name | Text  Length: 30 | Mandatory: Y  Updateable: Y  Unique: Y |  |  | The actual traffic table name  Must be unique per node. |
| Notification threshold | Number |  |  | Min: 0  Max: 100 | The percentage that the utilization should not exceed |
| In Use | Check box | N/A | Un checked | N/A |  |
| Property Name | Text  Length: 20 | Mandatory: Y  Updateable: Y  Unique: Y | N/A | Min: 1  Max:20 |  |
| Property Value | Number |  |  | Min: 0  Length: maximum 10 digits |  |
| Grain | Combo box | N/A | N/A | LOV: Hourly\Daily |  |
| Delete | Link |  |  |  | Will delete property tow from the KPI property list |
| Add new node property | Button |  |  |  | Will add a new row with the following (Property name, property value, grain, Traffic table name & Notification threshold) |
| Update “Threshold & KPI” | Button | N/A | N/A | N/A | Will update KPI threshold for the selected node. |

Use Cases/Scenarios:

* UC-VFE-NTF-01.1: View System nodes’ Thresholds & KPIs

Table 79: [UC-VFE-NTF-01.3] Edit System nodes’ Thresholds & KPIs Use Cases

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-NTF-01.3 |
| **USE CASE NAME:** | Edit System nodes’ Thresholds & KPIs |
| **ACTORS:** | Admin User |
| **DESCRIPTION:** | The user updates the existing record for the “Threshold & KPI” values for the selected System for the selected Node. |
| **PRE-CONDITION:** | The User must be logged in |
| **Trigger** | User clicking on the update “Thresholds & KPIs” button |
| **TYPICAL COURSE**  **OF EVENTS:** | Actor Action |
| * The page will display a page with the following fields to fill:   1. System Name   2. Node Name   3. In Use   4. Node property list:      + Property Name      + Property Value      + Grain      + Traffic table name      + Notification threshold      + Delete link 🡪 delete node property row   5. Add new node property button (to add another node property row)   6. Update “Threshold & KPI” button * The user will then be allowed to save the form. |
| **ALTERNATE COURSES:** | Validation error will occur to the user & will halt the process in case any validation in the user’s inputs. |
| **POST-CONDITION:** | The Threshold & KPI in addition to managing the notification list will be updated for the selected system & selected node. |
| **BUSINESS RULES** | Traffic table name must not be repeated within the properties of the same node. |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-NTF-01.4] Delete System nodes’ Thresholds & KPIs

Description:

The user after clicking on delete Threshold & KPI button, the user is shown a confirmation message/page where he can either cancel or confirm.

Screenshot/Wireframe:

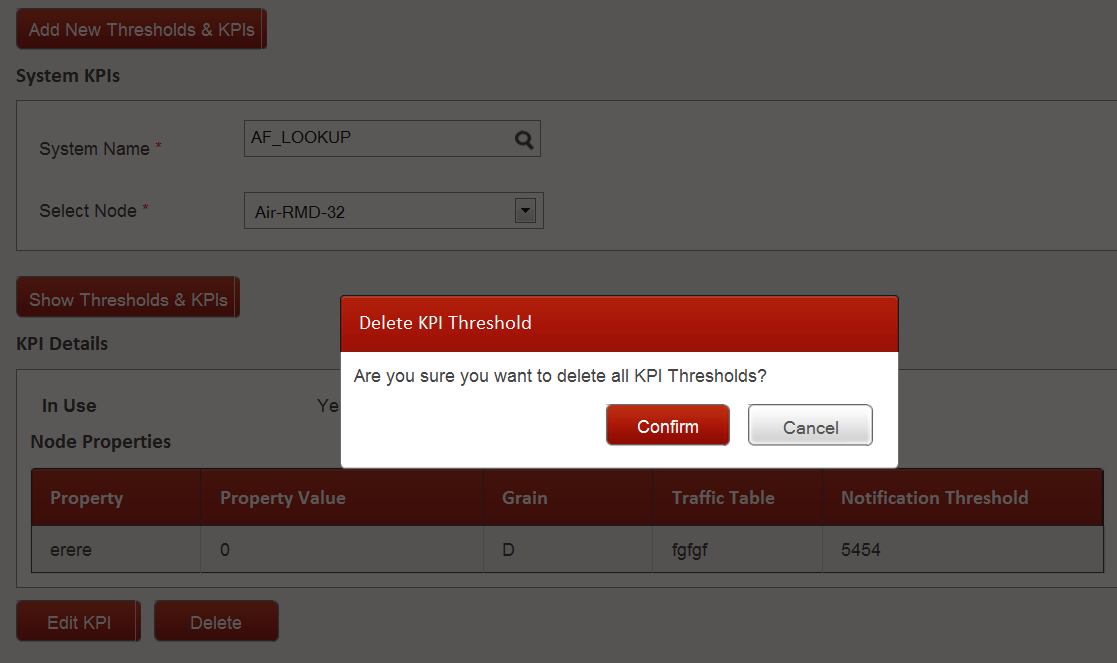


Figure 8 [UC-VFE-NTF-01.4] Delete System nodes’ Thresholds & KPIs

Page (or window) Components:

Table 80: [UC-VFE-NTF-01.4] Delete System nodes’ Thresholds & KPIs Page or window components

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Confirm | Button |  |  |  | Will delete the node’s KPI threshold |
| Cancel | Button |  |  |  | Will cancel the deletion action of the node’s KPI threshold & will return to the view KPI threshold page. |

Use Cases/Scenarios:

* UC-VFE-NTF-01.1: View System nodes’ Thresholds & KPIs

Table 81: [UC-VFE-NTF-01.4] Delete System nodes’ Thresholds & KPIs Use Cases

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-NTF-01.4 |
| **USE CASE NAME:** | Delete System nodes’ Thresholds & KPIs |
| **ACTORS:** | Admin User |
| **DESCRIPTION:** | The user deletes the existing record for the “Threshold & KPI” values for the selected System for the selected Node. |
| **PRE-CONDITION:** | The User must be logged in |
| **Trigger** | User clicking on the delete “Thresholds & KPIs” button |
| **TYPICAL COURSE**  **OF EVENTS:** | Actor Action |
| The User will be prompted to confirm or cancel deletion. |
| **ALTERNATE COURSES:** | If user cancels deletion, the system will remain as it’s. |
| **POST-CONDITION:** | The Threshold & KPI in addition to managing the notification list will be deleted for the selected system & selected node. |
| **BUSINESS RULES** |  |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-NTF-01.5] Manage System’s node Thresholds & KPIs Notification list

Description:

User configures the notification list associated with the designated nodes that will be contacted in case the node exceeds the configured threshold value.

Screenshot/Wireframe:



Figure 9 [UC-VFE-NTF-01.5] Manage System’s node Thresholds & KPIs Notification list

Page (or window) Components:

Table 82: [UC-VFE-NTF-01.5] Manage System’s node Thresholds & KPIs Notification list Page or window components (Search for KPI notification list)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| System Name | Auto complete field | Mandatory: Y  Updateable: Y  Unique: Y | N/A |  | Contains a list of all configured system names |
| Select Node | Selection List | Mandatory: Y  Updateable: N  Unique: Y | N/A |  | Contains the list of nodes associated with the system name entered in the "System Name" auto complete field |
| Manage Users List | Button |  |  |  | Used to retrieve the KPI notification list for the selected node if exists |
| User type | Radio button |  |  | LOV:  Existing user & External user | Selects the type of user you need to add to your list |

Table 83 [UC-VFE-NTF-01.5] Manage System’s node Thresholds & KPIs Notification list Page or window components (Add Existing user for KPI notification list)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Username | Auto complete field | Mandatory: Y  Updateable: Y  Unique: Y | N/A |  | Contains a list of all user names registered in Capacity Management Tool "USERS" table.  You cannot add the same registered user to the notification list more than once. |
| Email | Text - Email | Mandatory: N  Updateable: Y  Unique: N |  | This should be a valid Email | It will be loaded automatically with the registered user's email once the user inputs an already existing registered user in the "Username" text field.  In case "Notify by email" is selected then "Email" text field must be filled. |
| Mobile | Numerical | Mandatory: N  Updateable: Y  Unique: N |  | LOV: Valid Egyptian mobile number (010, 011, 012 in addition to 8 digits) | It will be loaded automatically with the registered user's mobile once the user inputs an already existing registered user in the "Username" text field.  In case "Notify by SMS" is selected then "Mobile Num" text field must be filled. |
| Notify By | Check box | Mandatory: Y  Updateable: Y  Unique: Y |  | LOV: Email, SMS | This will be used in the KPI alarming module to select the type of notification to be by SMS, Email or both |
| Add to Selected User | Button |  |  |  | Add a user to the KPI notification list |

Table 84 [UC-VFE-NTF-01.5] Manage System’s node Thresholds & KPIs Notification list Page or window components (Add External user for KPI notification list)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Username | Text  Alphanumeric  Size(min = 4, max = 15) | Mandatory: Y  Updateable: Y  Unique: Y | N/A |  |  |
| Email | Text - Email | Mandatory: N  Updateable: Y  Unique: N |  | This should be a valid Email | In case "Notify by email" is selected then "Email" text field must be filled. |
| Mobile | Numerical | Mandatory: N  Updateable: Y  Unique: N |  | LOV: Valid Egyptian mobile number (010, 011, 012 in addition to 8 digits) | In case "Notify by SMS" is selected then "Mobile Num" text field must be filled. |
| Notify By | Check box | Mandatory: Y  Updateable: Y  Unique: Y |  | LOV: Email, SMS | This will be used in the KPI alarming module to select the type of notification to be by SMS, Email or both |
| Add to Selected User | Button |  |  |  | Add a user in "DC\_LOG\_EXTERNAL\_CONTACTS" table & add him to the KPI notification list |

Table 85 [UC-VFE-NTF-01.5] Manage System’s node Thresholds & KPIs Notification list Page or window components (Update Existing user for KPI notification list)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Username | Text  Alphanumeric  Size(min = 4, max = 15) | Mandatory: Y  Updateable: Y  Unique: Y | The registered user's username saved in "USERS" table |  |  |
| Email | Text - Email | Mandatory: N  Updateable: Y  Unique: N | The registered user's Email saved in "USERS" table | This should be a valid Email | In case "Notify by email" is selected then "Email" text field must be filled. |
| Mobile | Numerical | Mandatory: N  Updateable: Y  Unique: N | The registered user's Mobile saved in "USERS" table | LOV: Valid Egyptian mobile number (010, 011, 012 in addition to 8 digits) | In case "Notify by SMS" is selected then "Mobile Num" text field must be filled. |
| Notify By | Check box | Mandatory: Y  Updateable: Y  Unique: Y | The notification type saved in "MD\_KPI\_CONTACTS" table | LOV: Email, SMS | This will be used in the KPI alarming module to select the type of notification to be by SMS, Email or both |
| Edit User | Button |  |  |  | Will update the registered user information in "USERS" table & will update the notification type in "MD\_KPI\_CONTACTS " table |

Table 86 [UC-VFE-NTF-01.5] Manage System’s node Thresholds & KPIs Notification list Page or window components (Update External user for KPI notification list)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Username | Text  Alphanumeric  Size(min = 4, max = 15) | Mandatory: Y  Updateable: Y  Unique: Y | The external user's username saved in "DC\_LOG\_EXTERNAL\_CONTACTS" table |  |  |
| Email | Text - Email | Mandatory: N  Updateable: Y  Unique: N | The external user's Email saved in "DC\_LOG\_EXTERNAL\_CONTACTS" table | This should be a valid Email | In case "Notify by email" is selected then "Email" text field must be filled. |
| Mobile | Numerical | Mandatory: N  Updateable: Y  Unique: N | The external user's Mobile saved in "DC\_LOG\_EXTERNAL\_CONTACTS" table | LOV: Valid Egyptian mobile number (010, 011, 012 in addition to 8 digits) | In case "Notify by SMS" is selected then "Mobile Num" text field must be filled. |
| Notify By | Check box | Mandatory: Y  Updateable: Y  Unique: Y | The notification type saved in "MD\_KPI\_CONTACTS" table | LOV: Email, SMS | This will be used in the KPI alarming module to select the type of notification to be by SMS, Email or both |
| Edit User | Button |  |  |  | Will update the external user information in "DC\_LOG\_EXTERNAL\_CONTACTS" table & will update the notification type in "MD\_KPI\_CONTACTS " table |

Table 87 [UC-VFE-NTF-01.5] Manage System’s node Thresholds & KPIs Notification list Page or window components (View notification list)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element Label | Type/Length | Mandatory | Default Value | Data Validations | Business Rules |
| Username | Text(disabled) |  | The user's username |  |  |
| Email | Text - Email(disabled) |  | The user's Email |  |  |
| Mobile | Numerical(disabled) |  | The user's Mobile |  |  |
| Notify By | Check box (disabled) |  | The notification type saved in "MD\_KPI\_CONTACTS" table |  |  |
| Delete selected | Link |  |  |  | Deletes the contacts with their checkboxes checked. |
| Edit | Link |  |  |  | Opens the contact information in an edit mode within the page |
| Delete | Link |  |  |  | Deletes the contact |

Use Cases/Scenarios:

* UC-VFE-NTF-01.1: View System nodes’ Thresholds & KPIs

Table 88: [UC-VFE-NTF-01.5] Manage System’s node Thresholds & KPIs Notification list Use Cases

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-NTF-01.5 |
| **USE CASE NAME:** | Manage System’s node Thresholds & KPIs Notification list |
| **ACTORS:** | Admin User |
| **DESCRIPTION:** | User configures the notification list associated with the designated nodes that will be contacted in case the node exceeds the configured threshold value. |
| **PRE-CONDITION:** | The user must be logged in & systems must be configured with their nodes. |
| **Trigger** | User clicks on "Manage Notifications list" link in "KPI Notification" tab. |
| **TYPICAL COURSE**  **OF EVENTS:** | Actor Action /System Response |
| * User Enters the following:   + System Name     - Then list of available nodes will be displayed     - User selects a node     - User clicks on "Manage users list"       * In case a list exists:         + a paginated disabled table will be displayed with all previously configured users with the option to do the following actions:   Edit contact  Delete contact  Delete more than one contact at a time by checking the checkbox beside each contact & clicking on "Delete Selected" link.   * + - * The system will allow the user to add an Existing or External user         + Option "Existing user"   Username  Email  Mobile  Notify by   * + - * + Option "External user"   Username  Email  Mobile  Notify by   * + - * The system will allow the user to edit the contacts following information by clicking on "Edit" link found in the contact's row in the notification list:         + Username         + Email         + Mobile         + Notify by       * The system will allow the user to delete a contact by clicking "Delete" link found in the contact's row in the notification list. |
| **ALTERNATE COURSES:** | In case of any validation error the page will return with the validation error beside the page control with the issue. |
| **POST-CONDITION:** | KPI notification list will be configured. |
| **BUSINESS RULES** | * You cannot add the same type of user to the list twice (Same type, i.e. Existing or External) * KPI notification list is configured per node, which means that the user can't configure a notification list in case the selected system has no nodes. |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** | * In case you are adding an external user that was added in another notification list, the same user will be used, which means that any update to this user information will affect other notification lists. |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

### [UC-VFE-NTF-01.6] KPI Alarming

Description:

Quartz job that will be scheduled to execute every hour & every day according to the pre-configured KPI threshold properties & will send notification in case of node exceeding its capacity through the pre-configured KPI notification list.

Table 89: [UC-VFE-NTF-01.6] KPI Alarming Use Cases

|  |  |
| --- | --- |
| **USE CASE ID:** | UC-VFE-NTF-01.6 |
| **USE CASE NAME:** | KPI Alarming |
| **ACTORS:** | System Job |
| **DESCRIPTION:** | A job will be scheduled to monitor periodically the nodes with the configured KPI threshold to send notifications to the configured contact list in case the node capacity value increases than the configured value in the KPI threshold.   * Job will load the properties from “***MD\_NODE\_PROPERTY***” table which includes the following columns:   + SYSTEM\_NODE\_ID 🡪 Node Foreign key   + PROPERTY\_NAME 🡪 property key (needed by BO application)   + VALUE 🡪 property value (needed by BO application)   + GRAIN 🡪 Hourly or Daily (This value is used by Bo application)   + TRAFFIC\_TABLE\_NAME 🡪 BO table name from which the job will check the node capacity value.   + NOTIFICATION\_THRESHOLD 🡪 percentage value by which the node capacity should not exceed. * Check the value of the “***UTILIZATION***” column in the BO table mentioned in “***TRAFFIC\_TABLE\_NAME***“ column in “***MD\_NODE\_PROPERTY***” table & multiply it by 100. In case the value exceeds the “***NOTIFICATION\_THRESHOLD***” value in “***MD\_NODE\_PROPERTY”***, then send Email or/& SMS notification to the pre-configured KPI notification list associated with the system node. * Two alarming jobs will be scheduled in quartz:   + Daily     - In case the job associated with the node is a daily job.   + Hourly     - In case the job associated with the node is an hourly job. |
| **PRE-CONDITION:** | * KPI threshold properties should be configured. * KPI notification contact list should be configured. |
| **Trigger** | Quartz scheduler |
| **TYPICAL COURSE**  **OF EVENTS:** | System Response |
| * Email or/& SMS will be sent hourly or daily as per the KPI threshold & notification configuration. |
| **ALTERNATE COURSES:** |  |
| **POST-CONDITION:** | KPI Configured contact list will be notified by Email or/& SMS. |
| **BUSINESS RULES** | * The Node must be in use to activate the alarming job. i.e.: MD\_SYSTEM\_NODE.IN\_USE value must be “Y” * Traffic table name should not be repeated |
| **IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS** |  |
| **ASSUMPTIONS:** |  |
| **OPEN ISSUES:** |  |

Messages:

Table 90: [UC-VFE-NTF-01.6] KPI Alarming Messages

|  |  |  |
| --- | --- | --- |
| Message Number | Message/Email Text | Condition |
| MSG-VFE-NTF-01.6-01 | <html><table style=color: #FFFFFF;font-family: 'Lato',Calibri,Arial,sans-serif;  font-size: 16px;line-height: 19px;padding: 14px 15px;  text-align: left;text-transform: capitalize;  word-wrap: break-word;><thead style=background:#A91607;color:white;>  <tr>  <th>Traffic Table Name</th>  <th>Utilization</th>  <th>Configured Threshold</th>  <th>Date/Time</th>  </tr>  </thead>  <tbody style=color: black;>  <tr>  <td style="border: 1px solid black;"></td>  <td style="border: 1px solid black;"></td>  <td style="border: 1px solid black;"></td>  <td style="border: 1px solid black;"></td>  </tr>  </tbody>  </table>  </html> | In case a node exceeds the configured threshold utilization value & has an email configured list |
| MSG-VFE-NTF-01.6-02 | Utilization of Node: <NODE-NAME> , id: <NODE-ID> in System: <SYSTEM-NAME> exceeded threshold | In case a node exceeds the configured threshold utilization value & has SMS configured list |

## Logging Requirements

N/A

# BI Reports Requirements

The details of the BI module is separated in a different document for simplicity reasons

# Data Dictionary

N/A

# Integration/Interfaces

N/A



## Hardware Interfaces

* The current Solaris machine includes two zones with two DataCollection Jar
* The Capacity Management Tool web application will be installed on Zone 1 on a Apache TomCat 6 Server.

## Software Interfaces

* Quartz
* Simple JDBC Template

## Communication Interfaces

N/A

# Non Functional Requirements

* All already existing Data Collections' functionalities should not be affected.
* The Capacity Management Tool GUI should support updating the Data Collections & jobs configuration to reflect on the current two zones.



## Capacity and Performance Requirements

N/A

Exception Handling

N/A

## Security Requirements

The application will enable Spring security using database, to make sure that there's a user logged in the session for the specified pages.

Exception Handling

All exceptions will be handled using a common exception handling method which will catch the exception & add a unique generic error code that will be logged in the log file in addition to displaying it to the end user.

## Data Migration Requirements

A Java tool will be executed on a copy of the current production input\_config.xml & jobs.xml files, in order to load all old date into the database, to ease future management using the Capacity Management Tool GUI.

## Technology Requirements

Tomcat 6.0.36 & Java 1.6

## Client Operational Environment and System Requirements

Tomcat 6.0.36 & Java 1.6

## User Interface and Usability Requirements

N/A

## Availability Requirements

N/A

## Documentation Requirements

N/A

# Acceptance Criteria

N/A

# Appendix II: Client’s Wish List for Future Releases

N/A

# Appendix III: Sample Documents

N/A