

# SOFTWARE REQUIREMENT SPECIFICATION

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## Revision History

Name	Date	Reason For Changes	Version
Linh Do Bao	11/08/2011	Create new template	1.0
Han Truong Ngoc	11/08/2011	Create Use case Diagram and Use case Detail	1.0
Huong Vo Mai	11/08/2011	Use case Detail	1.0
Linh Do Bao & Hanh Tran Duc	11/08/2011	Review	
Han Truong Ngoc and Huong Vo Mai	11/08/2011	Modify and Release	1.1

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## I. Introduction

### 1. Purpose

The following is an SRS (Software Requirements Specification) that will define the requirements and specifications of the Parcel Transportation Supporting system that is being developed.

The purpose of this document is to fully describe the external behavior of the application. Additionally this document describes the non-functional requirements, design constraints, and other factors necessary to provide a complete, comprehensive description of the software requirements.

### 2. Project Statement

Currently, the problem of system is system hasn't the special equipment which can read bar-code and QR-code. This equipment is mobility. Users can move it to wherever they want.

### 3. Intended Audience and Reading Suggestions

**Section 1** of this document should be read by everyone. This section gives the reader all the information needed to read the rest of the document as well as a general overview of the problem, the solution and describes how the solution will benefit the company.

**Section 2** of this document should be read by everyone. This section gives a detailed textual description the system, describes how the system might tie into already existing systems, lists the functionality's that will exist in the system, depicts the types of users of the system, describes general constraints and indicates the assumptions and dependencies.

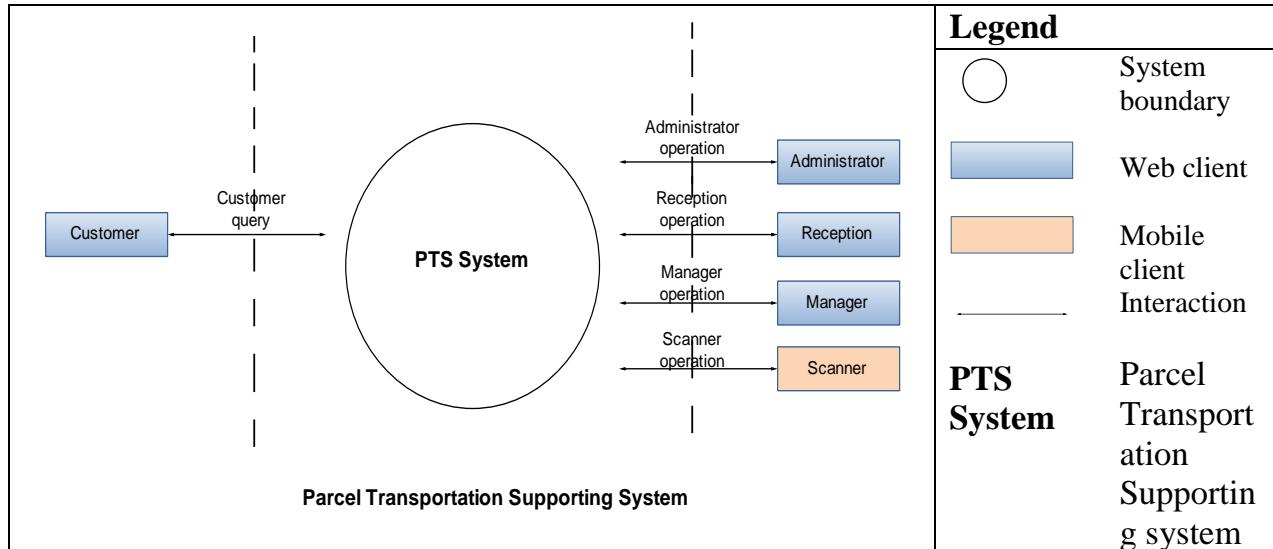
**Section 3** of this document should be read by the System Designer's, implementers and maintainers in its entirety. For those who would like more information on a specific functionality they can consult this section to get more information on it. This section contains a structured and detailed explanation of all functionality's, the external interfaces to the system, performance requirements, design constraints, quality attributes and other requirements.

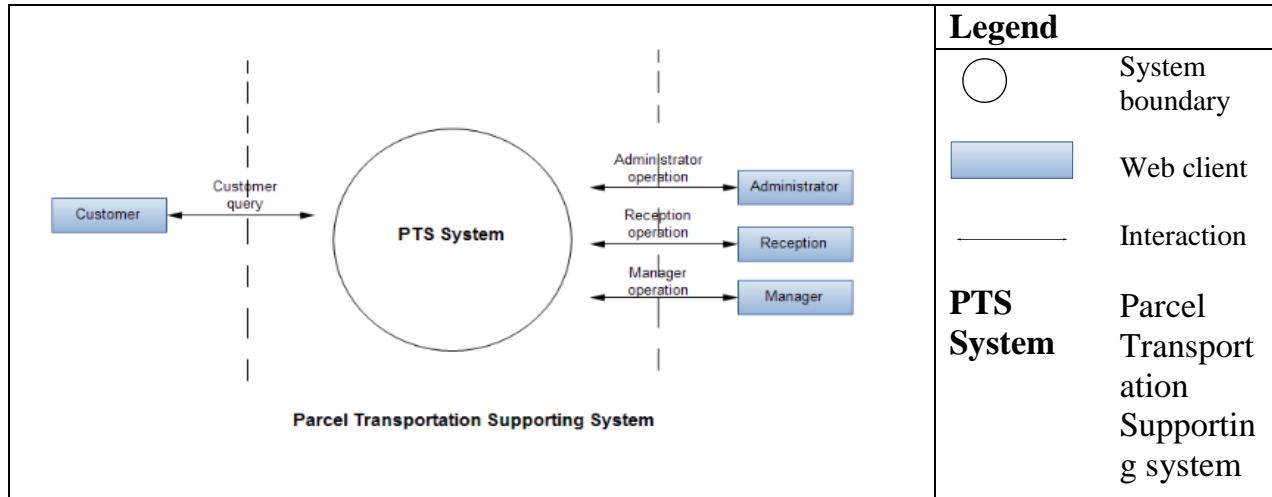
**Table 1: Document readers and their recommended reading**

<b>Reader Type</b>	<b>Recommended Reading</b>
User	Section 1 (all), 2 (all)
Manager	Section 1 (all), 2 (all)
Requirement Engineer	Section 1 (all), 2 (all), 3(all)
System Designer	Section 1 (all), 2 (all), 3(all)
Implementer	Section 1 (all), 2 (all), 3(selective)
System Tester	Section 1 (all), 2 (all), 3(all)
System Maintainer	Section 1 (all), 2 (all), 3(selective)

## II. Overall description

### 1. System Context Diagram

**Table 3: System Context Diagram for PTS system**

**Table 4: System Context Diagram for Web module**

## 2. Product Functions

Below is a list of all functions that can be found in the system with a description of the function and its priority. The priorities range from 1 to 3, with 1 being the highest priority and 3 being the lowest.

**Table 4: Function's priorities range**

Priority	Detail
1	Must have
2	Should have
3	Nice to have

**Table 5: Product Functions**

<b>ID</b>	<b>Function</b>	<b>Description</b>	<b>Priority</b>
F01	Login	This function is used for reception, scanner, manager and administrator to login to the system	1
F02	Logout	This function is used for reception, scanner, manager and administrator to logout to the system	1
F03	Change password	This function is used for reception, scanner, manager and administrator to change their password	2
F04	Create new shipment	This function is used for reception to create new shipment when the customer want to uses the transport service	1
F05	Modify shipment	This function is used for reception to modify shipment when the customer want to change the information in shipment	2
F06	Track shipment for Reception	This function is used to help reception view the journey of the shipment in detail	1
F07	Cancel shipment	This function is used for reception to cancel the shipment if the customer want (just in the accepted time range)	2
F08	Track shipment for Customer	This function is used to help customer view the journey of the shipment in overview (Just view the shipment ID and the state)	1
F09	Add new account	This function is used for administrator to create new account (reception or scanner)	1
F10	Delete account	This function is used for administrator to delete account (reception or scanner)	1

F11	Modify account	This function is used for administrator to modify account (reception or scanner)	1
F12	View account	This function is used for administrator to list the account or view the account detail	1
F13	Add station	This function is used for administrator to create new station	1
F14	Modify station	This function is used for administrator to modify station	1
F15	Delete station	This function is used for administrator to delete station	1
F16	Add route	This function is used for administrator to create new route	1
F17	Modify route	This function is used for administrator to modify route	1
F18	Delete route	This function is used for administrator to delete route	1
F19	Add device	This function is used for administrator to create new device	1
F20	Modify device	This function is used for administrator to modify device	1
F21	Delete device	This function is used for administrator to delete device	1
F22	Report the sales of shipments in stations on month	This function is used for manager to create and manage the report about the sale of shipment in each station on month	2
F23	Report the sales of shipments in stations in years	This function is used for manager to create and manage the report about the sale of shipment in each station in year.	2
F24	Report the	This function is used for manager to create	2

	summaries of receptions, scanners, devices in stations	and manage the report about the summaries of the reception, scanner, devices in stations	
F25	Report the shipments are being transported in routes	This function is used for manager to create and manage the report about the shipment are being transported in routes.	2
F26	Report the shipments are final transported in routes	This function is used for manager to create and manage the report about the shipments are transported in routes.	2

### 3. Users and Characteristics (Actors )

The following is a list of the actors in the system and their description.

**Table 6: System Actors**

Actor	Description
Customer	This type of user is the customer of transport company who send the parcel and can track for specific parcel by shipment ID.
Reception	Reception gets the new parcel, input the basic information of this parcel and generate the image code, give to the customer the parcel tracking link via email.
System Administrator	System administrator manages all the staff based on managing accounts. Each staff has one account and each account defines the station where this staff works on.
Manager	Manager is a person who can base on all information of station to report and make decision on business.

## 4. Operating Environment

### a. Web Component:

**Table 7: The web component is operated on app engine by Google.**

Feature	Default Instances	Backend Instances
<b>Deadlines</b>	30-second deadline for HTTP requests, 10-minute deadline for tasks	Requests to back ends can run indefinitely. A backend can choose to handle <code>/_ah/start</code> and execute a program or script for many hours without returning an HTTP response code.
<b>CPU</b>	Flexible, billed by CPU-hour	Configurable from 600MHz–4.8GHz, included in the hourly price of the instance uptime.
<b>Memory</b>	Low memory cap (128MB).	Configurable memory limit, from 128MB to 1GB of memory per instance.
<b>Residence</b>	Instances are evicted from memory based on usage patterns, unless they are marked Always On.	You can configure back ends to use resident instances, which remain in memory, so state is preserved across requests. When back ends are restarted, you usually have 30 seconds to finish before shutdown.
<b>Startup and Shutdown</b>	Instances are created on demand to handle requests and automatically turned down when idle.	Back ends are sent a start request automatically by App Engine in the form of an empty request to <code>/_ah/start</code> . A backend that is stopped with appcfg back ends stop or using Shutdown in the Administration Console has 30 seconds to finish handling requests before it is forcibly terminated.

<b>Instance Addressability</b>	Instances are anonymous.	Instances are individually addressable at a URL of this form: <code>[instance].[backend].[app].appspot.com</code> You can reliably cache state in each instance and retrieve it in subsequent requests.
<b>Scaling</b>	App Engine scales the number of instances automatically in response to processing volume.	You configure the number of instances of each backend in <code>backends.xml</code> or <code>backends.yaml</code> . The number of instances usually corresponds to the size of a dataset being held in memory or the desired throughput for offline work. A dynamic backend is configured with a maximum number of instances; the number of live instances scales with the processing volume. You can adjust the number of instances of a backend very quickly, without stopping instances that are currently running, using the <code>configure</code> command.
<b>Public vs. Private HTTP Requests</b>	Instances can handle private and public requests.	Instances handle private requests by default, but you can configure them to handle public requests.
<b>Concurrent Requests</b>	Instances marked <code>&lt;threadsafe&gt;</code> can serve a small number of requests in parallel.	Instances can specify how many requests to serve in parallel with <code>&lt;max-concurrent-requests&gt;</code> .

### b. Brower:

We suggest using Chrome 1.3, other browser such as Firefox, Internet Explorer are compatible.

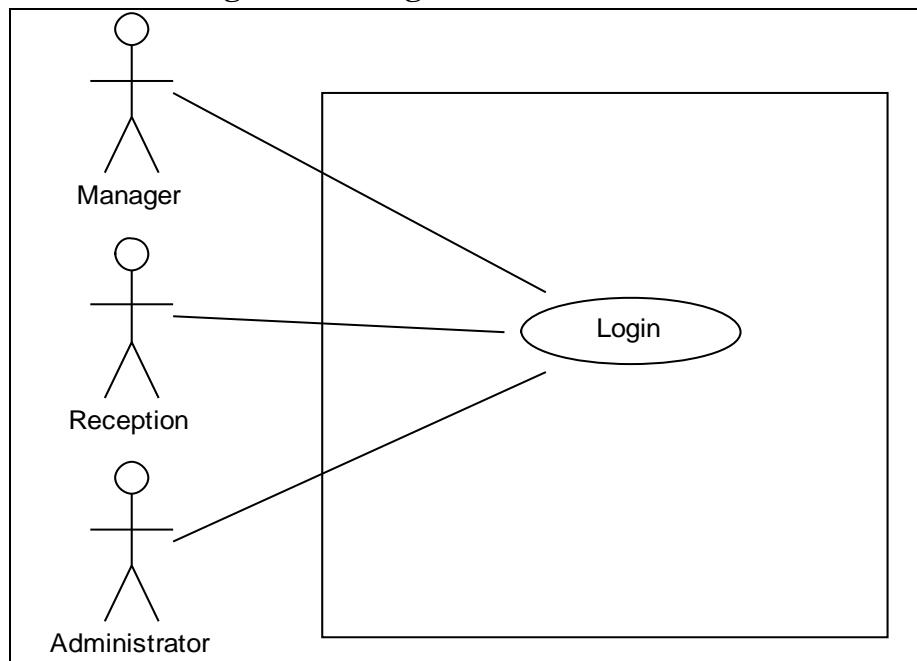
### III. Work Breakdown Structure



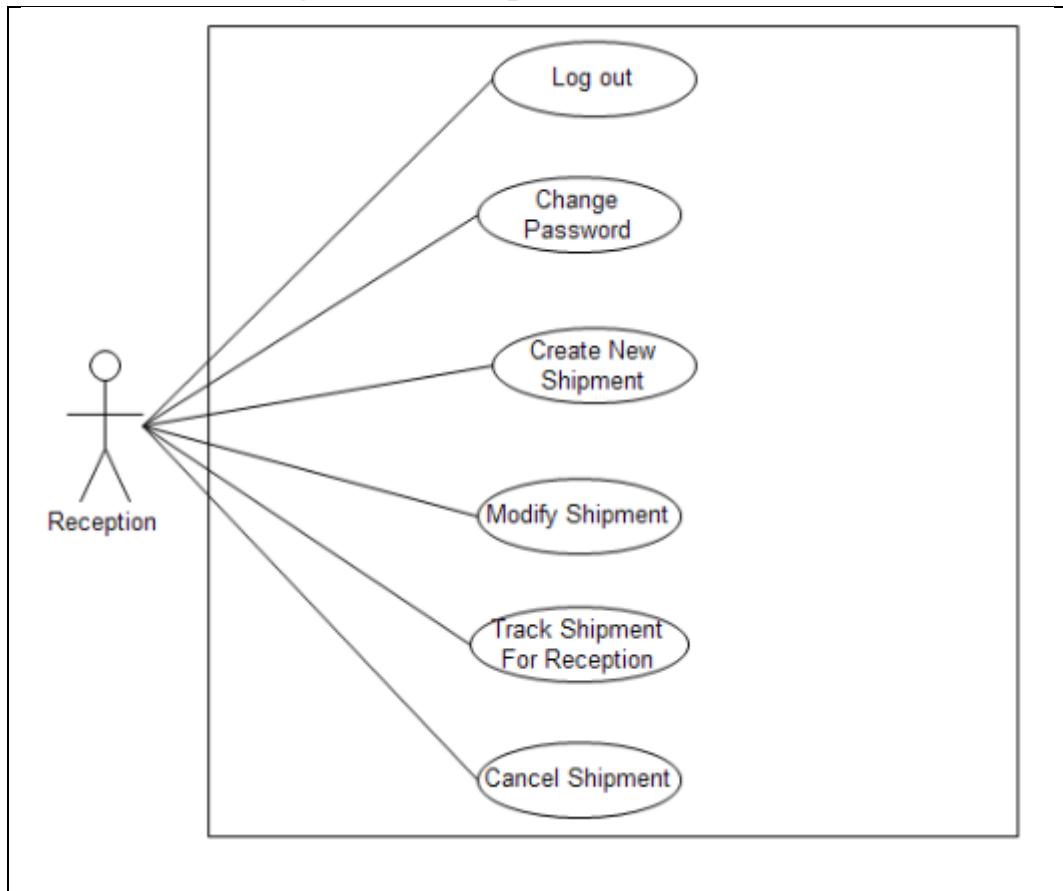
In this document, we will focus on building cycle 1 – developing product on web-form.

## IV. Use case Diagram

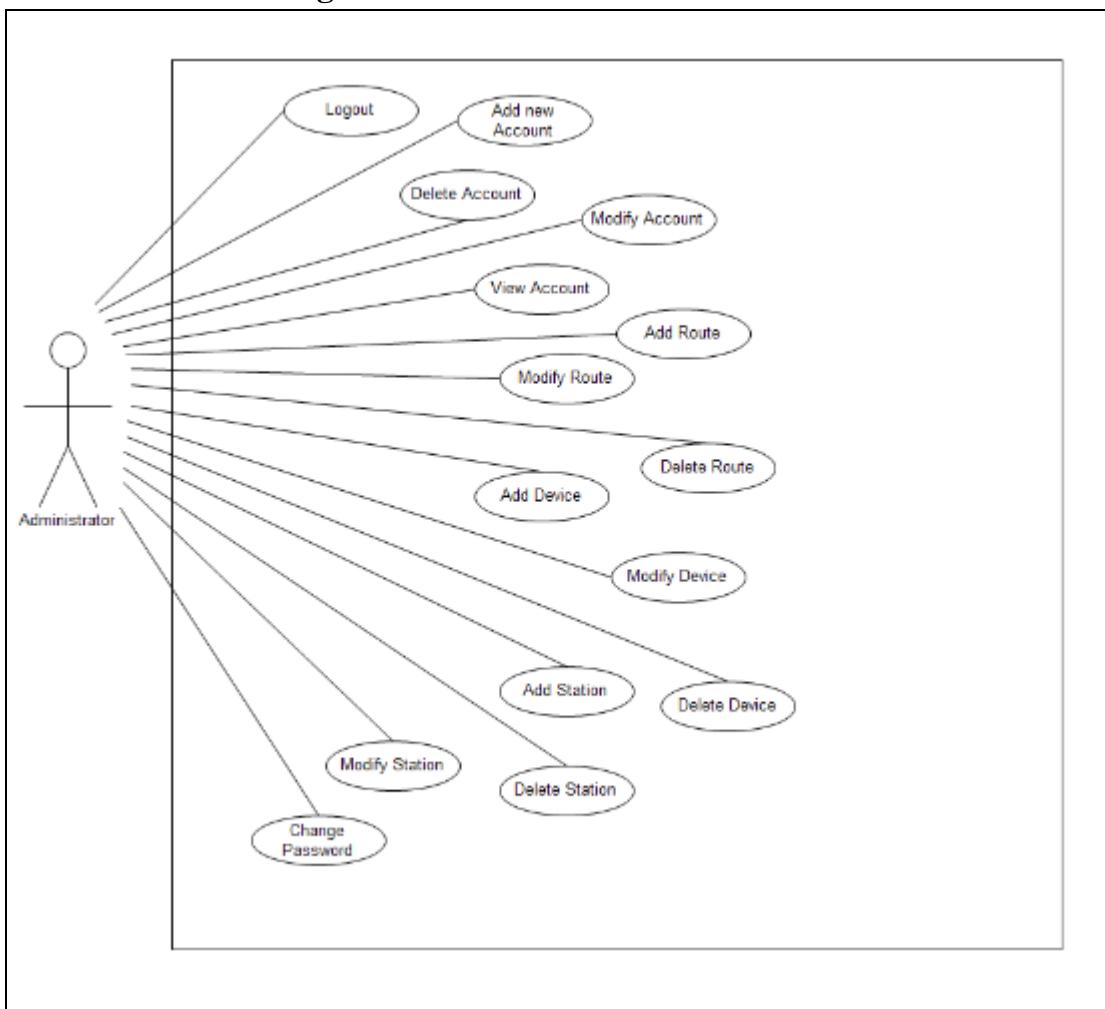
### 1. Use case diagram for Login function

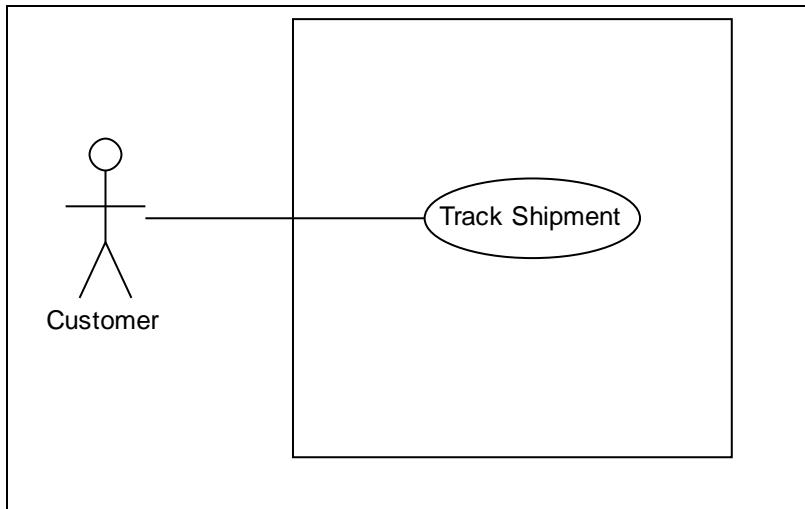
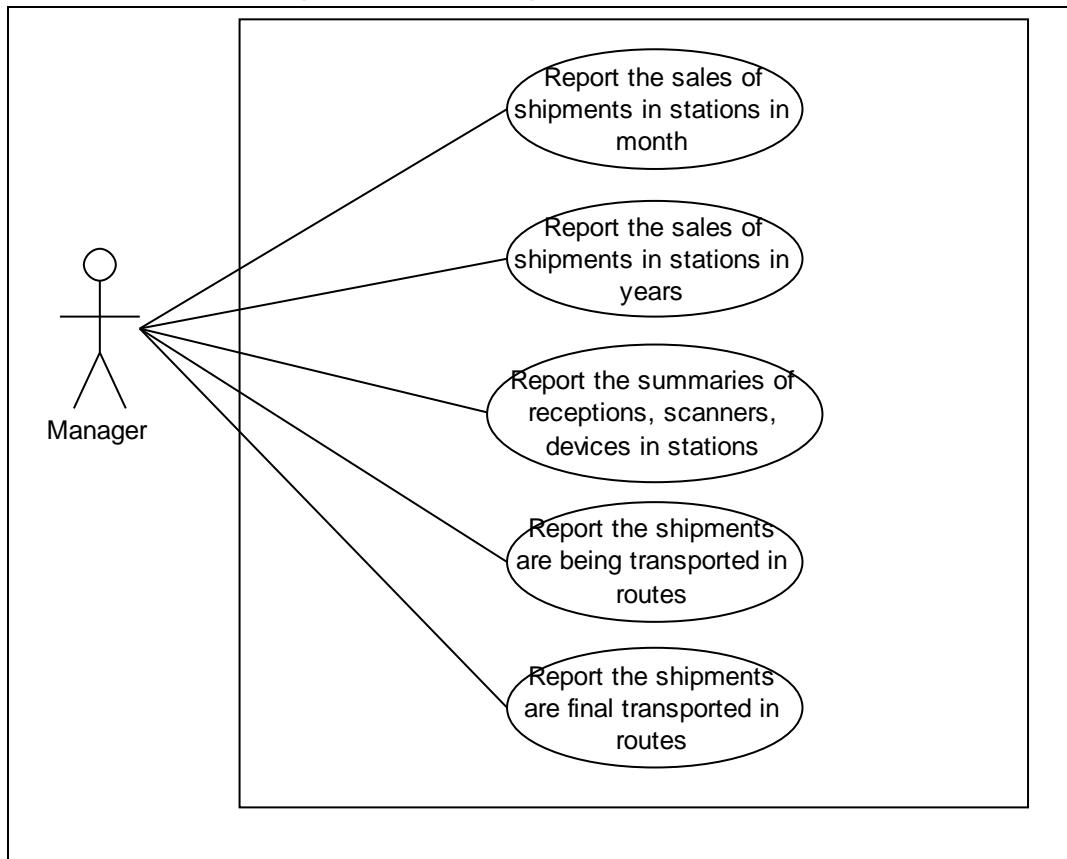


## 2. Use case diagram for Reception



### 3. Use case diagram for Administrator



**4. Use case diagram for customer****5. Use case diagram for Manager**

## V. Functional Requirements

### 1. Use case Login

<i>ID</i>	<b>UC1</b>	<i>Use case name</i>	<b>Login</b>
<i>Author</i>	<b>Huong Vo Mai</b>	<i>Updater</i>	<b>Han Truong Ngoc</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Describe</b>	User enter username and password to login		
<b>Actor</b>	Reception, Administrator, Manager		
<b>Assumption</b>			
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: User enters username into “Username” textbox and password into “Password” textbox.</li> <li>- Step 2: User press Enter or click “Submit” button to login.</li> <li>- Step 3: System confirm username and password, if be accessed, go to Step 4, else go to Step 5</li> <li>- Step 4: Interface application is called</li> <li>- Step 5: Display warning “Username or password is incorrect, Enter again your username or password, please.” Click Ok button to return Step 1.</li> </ul>		
<b>The Customization</b>			
<b>Non-functional requirement</b>	Performance, Security		
<b>Note</b>			

## 2. Use case Logout

<i>ID</i>	<b>UC2</b>	<i>Use case name</i>	<b>Logout</b>
<i>Author</i>	<b>Huong Vo Mai</b>	<i>Updater</i>	<b>Han Truong Ngoc</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Describe</b>	Logout function help user to go out of system.		
<b>Actor</b>	Reception, Administrator, Manager		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: User click Logout button.</li> <li>- Step 2: System display warning “Are you sure that you want to go out system?” If click Yes, go to Step 3, else go to Step 4</li> <li>- Step 3: Go out of system.</li> <li>- Step 4: Back again previous form.</li> </ul>		
<b>The Customization</b>			
<b>Non-functional Requirement</b>	Performance		
<b>Note</b>			

### 3. Use case Change Password

<i>ID</i>	<b>UC3</b>	<i>Use case name</i>	<b>Change password</b>
<i>Author</i>	<b>Huong Vo Mai</b>	<i>Updater</i>	<b>Han Truong Ngoc</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Describe</b>	This function will help user to change their user password if they want to.		
<b>Actor</b>	Reception, Administrator, Manager		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: After Login, user click Change password button.</li> <li>- Step 2: System will call Change password form.</li> <li>- Step 3: User enters old password and new password.</li> <li>- Step 4: User presses Enter or click Submit button.</li> <li>- Step 5: System checks the old password and validate the new password. If they are passed, go to Step 6, else go to Step 7.</li> <li>- Step 6: System save password which is changed.</li> <li>- Step 7: System will warning: “Old password is not matched” if old password is not true, and warning “New password is invalid”</li> </ul>		
<b>The Customization</b>			
<b>Non-functional Requirement</b>	Performance, Security		
<b>Note</b>			

#### 4. Use case Create New Shipment

<b>ID</b>	<b>UC4</b>	<i>Use case name</i>	<b>Create new shipment</b>
<i>Author</i>	<b>Huong Vo Mai</b>	<i>Updater</i>	<b>Han Truong Ngoc</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Describe</b>	User can fill information of customer in shipment form, then print and save it.		
<b>Actor</b>	Reception		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: After login succeeds, User chooses Create new Shipment function.</li> <li>- Step 2: User input Shipper information into “From – Shipper Information” Form. Click “Next” to Step 3 or “Reset” to clear all textbox</li> <li>- Step 3: User input Receiver information into “To – Receiver information” Form. Click “Next” to Step 4 or “Reset” to clear all textbox</li> <li>- Step 4: User input Shipment Detail into “Shipment Detail” Form. Click “Next” to Step 5 or “Reset” to clear all textbox.</li> <li>- Step 5: System will show the fully information of shipment. User click “Save” to save the shipment and print this shipment.</li> </ul>		
<b>The Customization</b>			
<b>Non-functional requirement</b>	Performance		
<b>Note</b>			

## 5. Use case Modify Shipment

<b>ID</b>	<b>UC5</b>	<i>Use case name</i>	<b>Modify shipment</b>
<i>Author</i>	<b>Huong Vo Mai</b>	<i>Updater</i>	<b>Han Truong Ngoc</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Describe</b>	User can modify information of customer in shipment		
<b>Actor</b>	Reception		
<b>Assumption</b>			
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: After login succeeds, User click Manage Shipment function to use Modify Shipment function.</li> <li>- Step 2: User search the shipment to modify by input shipment id into search form.</li> <li>- Step 3: System will show the shipment information and “Modify” button to go to Step 4 if the shipment was found, otherwise, system show an alert “Cannot found shipment”</li> <li>- Step 4: System will show the form to modify shipment information with “Save” and “Cancel” button.</li> <li>- Step 5: User change any information in textbox and click “Save” to save, click “Cancel” to discard.</li> </ul>		
<b>The Customization</b>			
<b>Non-functional requirement</b>	Performance		
<b>Note</b>			

## 6. Use case Track Shipment for Reception

<i>ID</i>	<b>UC6</b>	<i>Use case name</i>	<b>Track shipment for Reception</b>
<i>Author</i>	<b>Huong Vo Mai</b>	<i>Updater</i>	<b>Han Truong Ngoc</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Describe</b>	User can view information and itinerary of customer		
<b>Actor</b>	Reception		
<b>Assumption</b>			
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: After login succeeds, User chooses Track Shipment function.</li> <li>- Step 2: user input shipment Id into search form and click “Submit”</li> <li>- Step 3: system will show the tracking of shipment in detail.</li> </ul>		
<b>The Customization</b>			
<b>Non-functional requirement</b>	Performance		
<b>Note</b>			

## 7. Use case Cancel Shipment

<b>ID</b>	<b>UC7</b>	<i>Use case name</i>	<b>Cancel shipment</b>
<i>Author</i>	<b>Huong Vo Mai</b>	<i>Updater</i>	<b>Han Truong Ngoc</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Describe</b>	User can modify information of customer in shipment		
<b>Actor</b>	Reception		
<b>Assumption</b>			
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: After login succeeds, User chooses Cancel Shipment function.</li> <li>- Step 2: System display list Shipment in day, User can select Shipment which wants to cancel.</li> <li>- Step 3: User click “cancel” to cancel this Shipment</li> <li>- Step 4: System display warning “Are you sure that you want to Shipments”. If click Yes, go to Step 5, else go to Step 6</li> <li>- Step 5: Shipments which are selected are canceled.</li> <li>- Step 6: Call again list Shipment.</li> </ul>		
<b>The Customization</b>			
<b>Non-functional requirement</b>	Performance		
<b>Note</b>			

## 8. Use case Track Shipment for Customer

<i>ID</i>	<b>UC8</b>	<i>Use case name</i>	<b>Track shipment for Customer</b>
<i>Author</i>	<b>Huong Vo Mai</b>	<i>Updater</i>	<b>Han Truong Ngoc</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Describe</b>	User use this function to track their parcel		
<b>Actor</b>	Customer		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: By link of system, use go to system</li> <li>- Step 2: Main interface is called</li> <li>- Step 3: User enter Code of parcel which is supported in their shipment into search form</li> <li>- Step 4: User press Enter or click “Submit” button</li> <li>- Step 5: System will display their itinerary parcel.</li> </ul>		
<b>The Customization</b>			
<b>Non-function requirement</b>	Performance		
<b>Note</b>			

## 9. Use case Add New Account

<i>ID</i>	<b>UC9</b>	<i>Use case name</i>	<b>Add new account</b>
<i>Author</i>	<b>Han Truong Ngoc</b>	<i>Updater</i>	<b>Huong Vo Mai</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Description</b>	Administrator can add new an account.		
<b>Actor</b>	Administrator		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: After login succeeds, User chooses Manage Account function.</li> <li>- Step 2: In Manage account user interface, user clicks on “Add new account”</li> <li>- Step 3: “Add new account” form is showed and user can input new information for new account</li> <li>- Step 4: Click “Submit” button for save new account, or click “Reset” to clear all form.</li> </ul>		
<b>The customization</b>			
<b>Non-functional requirement</b>	Performance		
<b>Note</b>			

## 10. Use case Delete Account

<i>ID</i>	<b>UC10</b>	<i>Use case name</i>	<b>Delete Account</b>
<i>Author</i>	<b>Han Truong Ngoc</b>	<i>Updater</i>	<b>Huong Vo Mai</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Description</b>	Administrator can delete account of receptions or scanners.		
<b>Actor</b>	Administrator		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: In Manage Account user interface, user click on any account in account list to view account detail</li> <li>- Step 2: In account detail form, there is a “Delete” button. Click “Delete” button to delete this account</li> <li>- Step 3: System will show warning “Do you sure to delete this account ?”, click “Yes” to Step 4, “No” to Step 5</li> <li>- Step 4: System will alert “ The account has been deleted”</li> <li>- Step 5: Back to account detail user interface</li> </ul>		
<b>The customized</b>			
<b>Non-functional requirement</b>	Performance		
<b>Note</b>			

## 11. Use case Modify Account

<i>ID</i>	<b>UC11</b>	<i>Use-case Name</i>	<b>Modify Account</b>
<i>Author</i>	<b>Han Truong Ngoc</b>	<i>Updater</i>	<b>Huong Vo Mai</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Description</b>	Administrator can modify account of receptions or scanners. Its information will be change.		
<b>Actor</b>	Administrator		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: In Manage Account user interface, user click on any account in account list to view account detail</li> <li>- Step 2: In account detail form, there is a “Modify” button. Click “Modify” button to modify this account</li> <li>- Step 3: System will show form for modify account information in textboxes with “Save” and “Cancel” button. With this form, user can modify account information.</li> <li>- Step 4. Click “Save” to save and back to account detail form or click “Cancel” to back to account detail form.</li> </ul>		
<b>The customized</b>			
<b>Non-functional requirement</b>	Performance		
<b>Note</b>			

## 12. Use case View Account

<i>ID</i>	<b>UC12</b>	<i>Use case name</i>	<b>View account</b>
<i>Author</i>	<b>Han Truong Ngoc</b>	<i>Updater</i>	<b>Huong Vo Mai</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Describe</b>	User use this function to view account in list and can be search		
<b>Actor</b>	Administrator		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: User click Manage account button at the left side.</li> <li>- Step 2: System displays list of accounts in many pages</li> <li>- Step 3: User can selects any account to view detail.</li> </ul>		
<b>The Customization</b>			
<b>Non-functional Requirement</b>	Performance		
<b>Note</b>			

### 13. Use case Add Station

<i>ID</i>	<b>UC13</b>	<i>Use case name</i>	<b>Add station</b>
<i>Author</i>	<b>Han Truong Ngoc</b>	<i>Updater</i>	<b>Huong Vo Mai</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Description</b>	Administrator can add new station.		
<b>Actor</b>	Administrator		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: User click “Manage station” button at the left side.</li> <li>- Step 2: In station form view, click on “Add station” button</li> <li>- Step 3: System will show “Add station” form, and user can input station name, road, district, city, office phone into textboxes.</li> <li>- Step 4: click “Submit” for add new station or “Reset” to clear all textboxes or “Cancel” to cancel the adding.</li> </ul>		
<b>The customization</b>			
<b>Non-functional requirement</b>	Performance		
<b>Note</b>			

## 14. Use case Modify Station

<b>ID</b>	<b>UC14</b>	<i>Use case name</i>	<b>Modify station</b>
<i>Author</i>	<b>Han Truong Ngoc</b>	<i>Updater</i>	<b>Huong Vo Mai</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Description</b>	Administrator can modify station.		
<b>Actor</b>	Administrator		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: User click “Manage station” button at the left side.</li> <li>- Step 2: In station form view, click on any station in station list</li> <li>- Step 3: System will show “Station detail” form, and user click on “Modify” button.</li> <li>- Step 4: System will show “Modify station” form for modify. User click “Save” for save station or “Cancel” to cancel the modifying.</li> </ul>		
<b>The customization</b>			
<b>Non-functional requirement</b>	Performance		
<b>Note</b>			

## 15. Use case Delete Station

<i>ID</i>	<b>UC15</b>	<i>Use case name</i>	<b>Delete station</b>
<i>Author</i>	<b>Han Truong Ngoc</b>	<i>Updater</i>	<b>Huong Vo Mai</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Description</b>	Administrator can delete station.		
<b>Actor</b>	Administrator		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: User click “Manage station” button at the left side.</li> <li>- Step 2: In station form view, click on any station in station list</li> <li>- Step 3: System will show “Station detail” form, and user click on “Delete” button.</li> <li>- Step 4: System will alert “Are you sure to delete this station?”. User click “Yes” delete and go to Step 5 or “Cancel” to cancel the deleting and back to Station detail form.</li> <li>- Step 5: System alert “Delete successfully!” and click “Ok” button to come back station form view.</li> </ul>		
<b>The customization</b>			
<b>Non-functional requirement</b>	Performance		
<b>Note</b>			

## 16. Use case Add Route

<i>ID</i>	<b>UC16</b>	<i>Use case name</i>	<b>Add route</b>
<i>Author</i>	<b>Han Truong Ngoc</b>	<i>Updater</i>	<b>Huong Vo Mai</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Description</b>	Administrator can add new route.		
<b>Actor</b>	Administrator		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: User click “Manage route” button at the left side.</li> <li>- Step 2: In station form view, click on “Add route” button</li> <li>- Step 3: System will show “Add route” form, and user can input route name, select stations.</li> <li>- Step 4: click “Submit” for add new route or “Reset” to clear all textboxes or “Cancel” to cancel the adding.</li> </ul>		
<b>The customization</b>			
<b>Non-functional requirement</b>	Performance		
<b>Note</b>			

## 17. Use case Modify Route

<i>ID</i>	<b>UC17</b>	<i>Use case name</i>	<b>Modify route</b>
<i>Author</i>	<b>Han Truong Ngoc</b>	<i>Updater</i>	<b>Huong Vo Mai</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Description</b>	Administrator can modify route.		
<b>Actor</b>	Administrator		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: User click “Manage route” button at the left side.</li> <li>- Step 2: In route form view, click on any route in route list</li> <li>- Step 3: System will show “Route detail” form, and user click on “Modify” button.</li> <li>- Step 4: System will show “Modify route” form for modify. User click “Save” for save station or “Cancel” to cancel the modifying.</li> </ul>		
<b>The customization</b>			
<b>Non-functional requirement</b>	Performance		
<b>Note</b>			

## 18. Use case Delete Route

<i>ID</i>	<b>UC18</b>	<i>Use case name</i>	<b>Delete route</b>
<i>Author</i>	<b>Han Truong Ngoc</b>	<i>Updater</i>	<b>Huong Vo Mai</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Description</b>	Administrator can delete route.		
<b>Actor</b>	Administrator		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: User click “Manage route” button at the left side.</li> <li>- Step 2: In route form view, click on any route in route list</li> <li>- Step 3: System will show “Route detail” form, and user click on “Delete” button.</li> <li>- Step 4: System will alert “Are you sure to delete this route?”. User click “Yes” delete and go to Step 5 or “Cancel” to cancel the deleting and back to Route detail form.</li> <li>- Step 5: System alert “Delete successfully!” and click “Ok” button to come back route form view.</li> </ul>		
<b>The customization</b>			
<b>Non-functional requirement</b>	Performance		
<b>Note</b>			

## 19. Use case Add Device

<i>ID</i>	<b>UC19</b>	<i>Use case name</i>	<b>Add device</b>
<i>Author</i>	<b>Han Truong Ngoc</b>	<i>Updater</i>	<b>Huong Vo Mai</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Description</b>	Administrator can add new device.		
<b>Actor</b>	Administrator		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: User click “Manage device” button at the left side.</li> <li>- Step 2: In station form view, click on “Add device” button</li> <li>- Step 3: System will show “Add device” form, and user can input device name, IMEI number, IMSE number.</li> <li>- Step 4: click “Submit” for add new device or “Reset” to clear all textboxes or “Cancel” to cancel the adding.</li> </ul>		
<b>The customization</b>			
<b>Non-functional requirement</b>	Performance		
<b>Note</b>			

## 20. Use case Modify Device

<i>ID</i>	<b>UC20</b>	<i>Use case name</i>	<b>Modify device</b>
<i>Author</i>	<b>Han Truong Ngoc</b>	<i>Updater</i>	<b>Huong Vo Mai</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Description</b>	Administrator can modify device.		
<b>Actor</b>	Administrator		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: User click “Manage device” button at the left side.</li> <li>- Step 2: In device form view, click on any device in device list</li> <li>- Step 3: System will show “Device detail” form and user click on “Modify” button.</li> <li>- Step 4: System will show “Modify device” form for modify. User click “Save” for save device or “Cancel” to cancel the modifying.</li> </ul>		
<b>The customization</b>			
<b>Non-functional requirement</b>	Performance		
<b>Note</b>			

## 21. Use case Delete Device

<i>ID</i>	<b>UC21</b>	<i>Use case name</i>	<b>Delete device</b>
<i>Author</i>	<b>Han Truong Ngoc</b>	<i>Updater</i>	<b>Huong Vo Mai</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Description</b>	Administrator can delete device.		
<b>Actor</b>	Administrator		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: User click “Manage device” button at the left side.</li> <li>- Step 2: In device form view, click on any device in device list</li> <li>- Step 3: System will show “Device detail” form, and user click on “Delete” button.</li> <li>- Step 4: System will alert “Are you sure to delete this device?”. User click “Yes” delete and go to Step 5 or “Cancel” to cancel the deleting and back to Device detail form.</li> <li>- Step 5: System alert “Delete successfully!” and click “Ok” button to come back device form view.</li> </ul>		
<b>The customization</b>			
<b>Non-functional requirement</b>	Performance		
<b>Note</b>			

## 22. Use case Report the sales of shipments in stations in month

<b>ID</b>	<b>UC24</b>	<i>Use case name</i>	<b>Report the sales of shipments in stations in month</b>
<i>Author</i>	<b>Han Truong Ngoc</b>	<i>Updater</i>	<b>Huong Vo Mai</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Describe</b>	User can report the sales of shipments in stations in month		
<b>Actor</b>	Manager		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: Click on “Report the sales of shipments in stations in month” Text Label</li> <li>- Step 2: A dialog will show with month and year textboxes</li> <li>- Step 3: User input month into month textboxes</li> <li>- Step 4: Press “Ok” to show the report or press “Cancel” to Cancel</li> <li>- Step 5: The report will show with the needed information</li> </ul>		
<b>The Customization</b>			
<b>Non-functional requirement</b>	Performance		
<b>Note</b>			

### 23. Use case Report the sales of shipments in stations in year

<b>ID</b>	<b>UC25</b>	<i>Use case name</i>	<b>Report the sales of shipments in stations in year</b>
<i>Author</i>	<b>Han Truong Ngoc</b>	<i>Updater</i>	<b>Huong Vo Mai</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Describe</b>	User can report the sales of shipments in stations in year		
<b>Actor</b>	Manager		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: Click on “Report the sales of shipments in stations in years” Text Label</li> <li>- Step 2: A dialog will show with year textbox</li> <li>- Step 3: User input year into year textbox</li> <li>- Step 4: Press “Ok” to show the report or press “Cancel” to Cancel</li> <li>- Step 5: The report will show with the needed information</li> </ul>		
<b>The Customization</b>			
<b>Non-functional requirement</b>	Performance		
<b>Note</b>			

**24. Use case Report the summaries of receptions, scanners, devices in stations**

<b>ID</b>	<b>UC26</b>	<i>Use case name</i>	<b>Report the summaries of receptions, scanners, devices in stations</b>
<b>Author</b>	<b>Han Truong Ngoc</b>	<i>Updater</i>	<b>Huong Vo Mai</b>
<b>Create day</b>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Describe</b>	User can report the summaries of receptions, scanners, devices in stations		
<b>Actor</b>	Manager		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: Click on “Report the summaries of receptions, scanners, devices in stations”</li> <li>- Step 2: The report will show with the needed information</li> </ul>		
<b>The Customization</b>			
<b>Non-functional requirement</b>	Performance		
<b>Note</b>			

## 25. Use case Report the shipments are being transported in routes

<b><i>ID</i></b>	<b>UC27</b>	<b><i>Use case name</i></b>	<b>Report the shipments are being transported in routes</b>
<b><i>Author</i></b>	<b>Han Truong Ngoc</b>	<b><i>Updater</i></b>	<b>Huong Vo Mai</b>
<b><i>Create day</i></b>	<b>11/8/2011</b>	<b><i>Update day</i></b>	<b>15/08/2011</b>
<b><i>Describe</i></b>	User can report the shipments which are being transported in routes		
<b><i>Actor</i></b>	Manager		
<b><i>Assumption</i></b>	After user login system		
<b><i>Scenario</i></b>	<ul style="list-style-type: none"> <li>- Step 1: Click on “Report the shipments are being transported in routes”</li> <li>- Step 2: The report will show with the needed information</li> </ul>		
<b><i>The Customization</i></b>			
<b><i>Non-functional requirement</i></b>	Performance		
<b><i>Note</i></b>			

## 26. Use case Report the shipments are final transported in routes

<i>ID</i>	<b>UC28</b>	<i>Use case name</i>	<b>Report the shipments are final transported in routes</b>
<i>Author</i>	<b>Han Truong Ngoc</b>	<i>Updater</i>	<b>Huong Vo Mai</b>
<i>Create day</i>	<b>11/8/2011</b>	<i>Update day</i>	<b>15/08/2011</b>
<b>Describe</b>	User can report the shipments which are final transported in routes		
<b>Actor</b>	Manager		
<b>Assumption</b>	After user login system		
<b>Scenario</b>	<ul style="list-style-type: none"> <li>- Step 1: Click on “Report the shipments are final transported in routes”</li> <li>- Step 2: The report will show with the needed information</li> </ul>		
<b>The Customization</b>			
<b>Non-functional requirement</b>	Performance		
<b>Note</b>			

## VI. Nonfunctional Requirement

### 1. Performance Requirements

Performance requirements are necessary for system design and development. Response times (in case of interactive work) or processing times (in case of batch jobs or scheduled activities) define how fast requests would be processed. Acceptable response times should be defined in each particular case. A time of 30 minutes can be excellent for a big batch job, but absolutely unacceptable for getting a web page in a customer portal. Although it is often difficult to draw the line here, this is rather a common sense decision. We've decided response times: 5 seconds

### 2. Usability Requirements

#### - Understandability

- Interface elements (e.g. menus) should be easy to understand
- For a walk up and purchase or use system, the purpose of the system should be easily understandable.

#### - Learnability

- The user documentation and help should be complete
- The help should be context sensitive and explain how to achieve common tasks
- The system should be easy to learn

#### - Operability

- The interface actions and elements should be consistent
- Error messages should explain how to recover from the error
- Undo should be available for most actions
- Actions which cannot be undone should ask for confirmation
- The system be customizable to meet specific user needs

### 3. Security Requirements

With the web application, users need to use their information such as username, password to login to the system. This information must be kept in save.

**Appendix A: Glossary****Table 8: Definitions**


**Table 9: Acronyms**

SRD	Software Requirements Document
SRS	Software Requirements Specifications
HTML	Hypertext Markup Language
GUI	Graphical User Interface
DB	Database
ID	Identification
PTS system	Parcel Transportation Supporting System
WBS	Work Breakdown Structure
K14 team 1	Linh Do Bao, Huong Vo Mai, Han Truong Ngoc, Hanh Tran Duc

**Table 10: Abbreviations**

s/he	he/she

**APPROVAL**

<i>Prepared by</i>	<i>Signature</i>	<i>Date</i>
PTSS Team		<u>11/08/ 2011</u>
<i>Approved by</i>	<i>Signature</i>	<i>Date</i>
Luong Vo Van MSc, Mentor Duy Tan University		<u>11/08/ 2011</u>
Hung Pham Van Vice director of DHL Duy Tan University		<u>11/08/ 2011</u>