Use Case Model

Version:	1.0
Created:	Tuesday, 3 June 2003
Last Update:	Tuesday, 3 June 2003
Print Date:	Tuesday, October 28, 2003
By:	Chuck Wilson
Distribution:	

Change Control

Version	Date	Author	Changes Required
	/ /		
	/ /		
	/ /		

Sign Off

Person	Signature	Date
		/ /
		/ /
		/ /

Change Control

Version	Date	Author	Changes Required

Table of Contents

1   Introduction

1.1   Purpose of Document

The Purpose of this Document is to define the Use Case for Use Case Model. The package is to be developed using ….

This is to be a standard paragraph to layout that the Business Logic and the elements within the package which are laying out the Use Cases for the package under development. This text is definable as a template by the user and stored locally. The system Variables are filled in by EA via the Automation Interface.

It might also have a standard paragraph defining and describing scheduling for delivery. Something on timing and delivery…

1.2   History/Background

Some text on the history of the this application now under development..

1.3   Glossary

Group	Term	Definition
Technical		
	Dell	A manufacturer of computer equipment.
	SMS	Short Message Service is a service available on mobile phones that support Global System for Mobile (GSM) communication. It is limited to 160 characters per message.
	SMTP	Simple Mail Transfer Protocol is the common protocol by which e-mail messages are transferred over the Internet.
Business		
	Attachment	Any piece of information that can be sent in addition to a message. It may take the form of a file in the case of an e-mail message or the form of a physical document in the form of a postal mail message.
	Contact	A person or organization that needs to be reached with a message and is not part of the organization using the messenging system.
	Fax	A fax is an electronic transmission of printed material. The material was traditionally scanned at the source and printed at the destination.

2   Application Overview

Some text on the application Overview…

2.1   Define the Scope

Definition of the Scope of the application …

2.2   Context

This is to give a brief definition of the Context in which of the application will be implemented. Specifying the relationship this system will have to existing systems within the environment.

2.3   Technical Environment

This is to give a brief definition of any applications relevant to the system being implemented. There needs to be a definition of the relationship between these as well as any aspects that this system is reliant upon them.

3   Use Case Model

Name: Overview
Package: Use Case Model
Version: 1.0
Author: Chuck Wilson

Manage Contacts

Compose Message ‹‹include›› **Choose Recipient**

‹‹include››

Send Message ‹‹extend›› **Encrypt Message**

Staff Member

Read Message ‹‹extend›› **Decrypt Message**
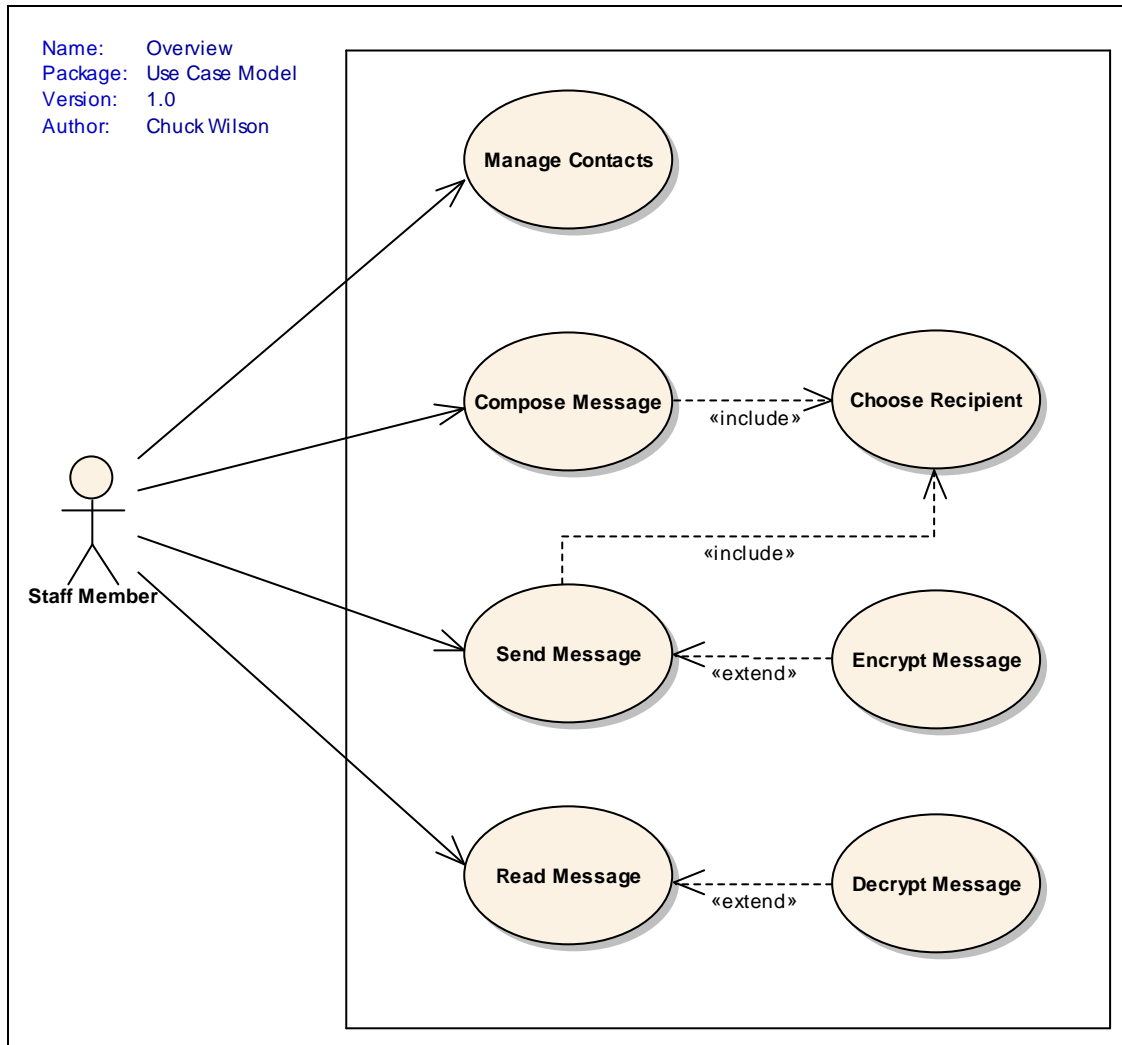
Figure 1: Overview

Actors

4   Human Actors

Figure 2: Human Actors

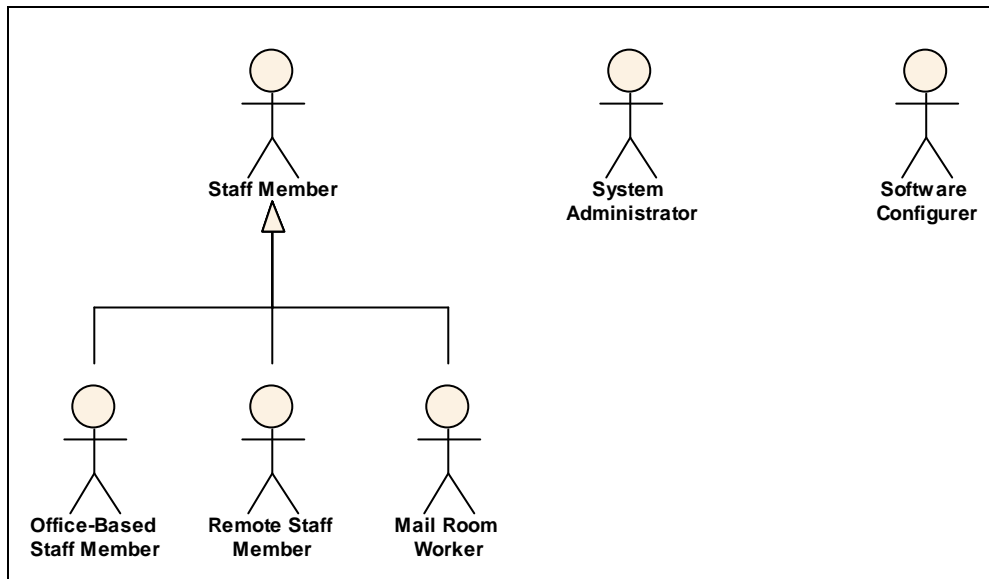| Actor	Notes
Mail Room Worker	The Mail Room Worker is a Staff Member working in the mailroom. They have particular important to the system because they need to update the system when mail arrives or leaves the mailroom. It is this worker that effectively bridges the gap between the electronic and manual parts of the system.
Office-Based Staff Member	This is an Actor who is based in the office and will access the system through the LAN.
Remote Staff Member	The CEO has issued a security warning in conjunction with the Security Officer. Unless there is direct permission granted by the security department no staff member should be able access the system externally, except those given this express permission.
Software Configurer	
Staff Member	The Staff Member actor is a role played by almost every individual in the organization. It represents anyone who has been given an account with the messenger system. It is important to note that contractors or visiting personnel will typically given an account and will therefore be considered Staff Members for the duration of their contract or visit.
System Administrator	

4.1   Mail Room Worker

The Mail Room Worker is a Staff Member working in the mailroom. They have particular important to the system because they need to update the system when mail arrives or leaves the mailroom. It is this worker that effectively bridges the gap between the electronic and manual parts of the system.

Update system when new mail arrives
Status: *Proposed,* Difficulty: *Medium,* Priority: *Medium*

Update system when mail leaves the office
Status: *Proposed,* Difficulty: *Medium,* Priority: *Medium*

Maintain mail cost settings
Status: *Proposed,* Difficulty: *Medium,* Priority: *Medium*

4.2   Office-Based Staff Member

This is an Actor who is based in the office and will access the system through the LAN.

4.3   Remote Staff Member

The CEO has issued a security warning in conjunction with the Security Officer. Unless there is direct permission granted by the security department no staff member should be able access the system externally, except those given this express permission.

4.4   Software Configurer

4.5   Staff Member

The Staff Member actor is a role played by almost every individual in the organization. It represents anyone who has been given an account with the messenger system. It is important to note that contractors or visiting personnel will typically given an account and will therefore be considered Staff Members for the duration of their contract or visit.

4.6   System Administrator

5   System Actors
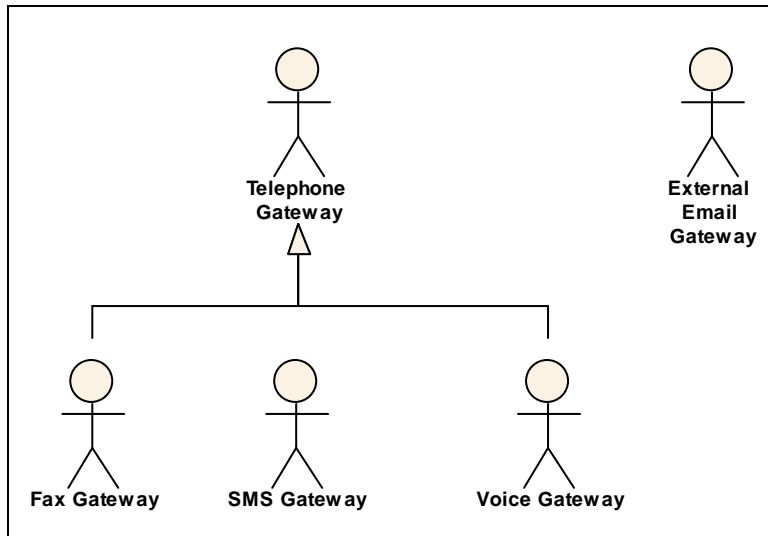
Figure 3: System Actors

Actor	Notes
External Email Gateway	
Fax Gateway	
SMS Gateway	
Telephone Gateway	Fax Gateway
Voice Gateway	

5.1   External Email Gateway

5.2   Fax Gateway

5.3   SMS Gateway

5.4   Telephone Gateway

Fax Gateway

5.5   Voice Gateway

Use Cases

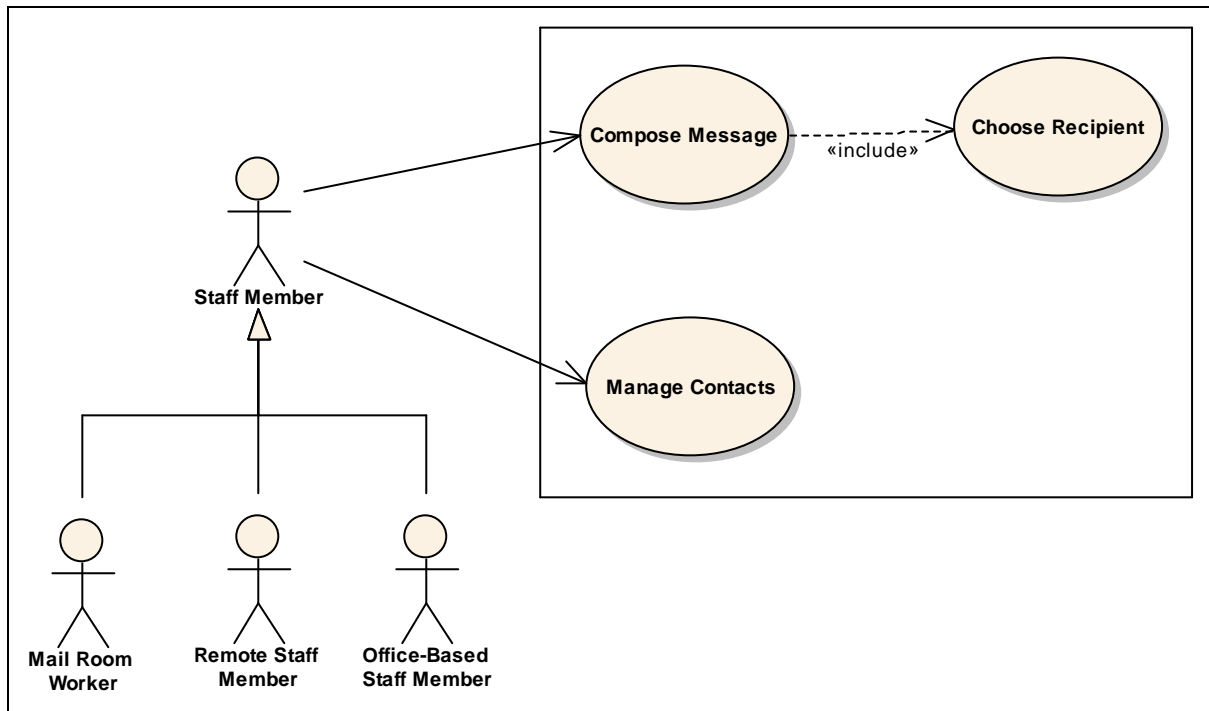# 6   Contact and Address Book

Figure 4: Contact and Address Book

6.1   Choose Recipient

This use case details the process by which contacts are selected from the address book for the purposes of having a message sent to them.

6.1.1   Flow of Events

6.1.1.1 Basic Path

Choose Recipient Form Address Book
1. The use case begins when the User chooses to select a recipient for a message. The System displays a list of contacts. Included in this list are contact groups. Contact groups are able to be differentiated in the list of contacts.

2. The User selects one or more contacts or contact groups from the list. The System closes the list of contacts and displays the list of contacts that were selected by the user in the recipient field in the message.

3. The use case ends.

6.2   Manage Contacts

The Manage Contacts use case describes all aspect of the way that the actors manage the people and parties they have listed in their address book. Actors will be able to create, update, and delete contacts in any address book they have permission to access. They will also be able create, update and delete groups and add and remove allowing them to effectively reclassify contacts and groups within other groups. The notion is that actors should have complete flexibility to manage their contact as they wish.

6.2.1   Flow of Events

6.2.1.1   Alternate

Update Contact
1. The Actor selects update (edit) from the list of options.
The System displays a list of contacts to the user allowing them to choose one (and only one)
contact the following attributes will be displayed:
   Title
    First Name
    Last Name

2. The Actor selects one (and only one) contact from the list.
The System displays a form that is editable allowing the user to edit the contact the form will be
the same layout as the view contact form.

View Contacts
1. The Actor chooses view contacts from the options
The System returns a list of contacts.

2. The Actor selects one (and only one) contact from the list.
The System displays the details for this contact in a form view.

Note: the user is able to select other contacts and open those contacts at the same time.

Create New Contact
1. The Use Case starts when the Actor selects 'New' from the options.
The system displays an empty form with the following fields for the user to complete:
   Title
   First Name (Mandatory)
   Middle Name
   Last Name (Mandatory)
   E-mail Address (Many Max= 5)
   Business Phone
   Mobile Phone
   Note: Mandatory fields will be indicated to the user appropriately
2. The Actor completes the form and selects save.
The system checks the inputs and saves the New Contact details
The Systems prompts the user to say the New Contact has been saved.
The System updates the Screen to show the new contact in the list if it
is visible

Delete Contact
1. The Actor chooses address book from the options.
The System returns a list contacts.

2. The Actor selects one or more contacts from the list. and selects delete from the options.
The System deletes the contacts from the list.

6.2.2   Post-condition

The displays will indicate no contacts or groups are available
Status: *Approved*
If there are no contacts or groups in the address book the system will return a message indicating
this rather than just not returning any records

6.2.3   Invariant

Controlled Access to Update and Delete
Status: *Proposed*
Access to update and delete contacts or groups will be controlled to prohibit actors from altering address book entries which they do not have privileges for.

Maximum number of e-mail contacts = 5
Status: *Proposed*
People often have a number of e-mail addresses and while the system wants to be flexible in storing these a maximum number has been set to ensure that the system will not be overloaded by this data.

View and Update forms should have the same layout
Status: *Proposed*
The forms for updating both contacts and groups should be the same layout as the forms used to view the contacts and groups. Differences will exist such as the inclusion of a save function on the update forms. The intent here is that the users should not have to be familiar with two different forms.
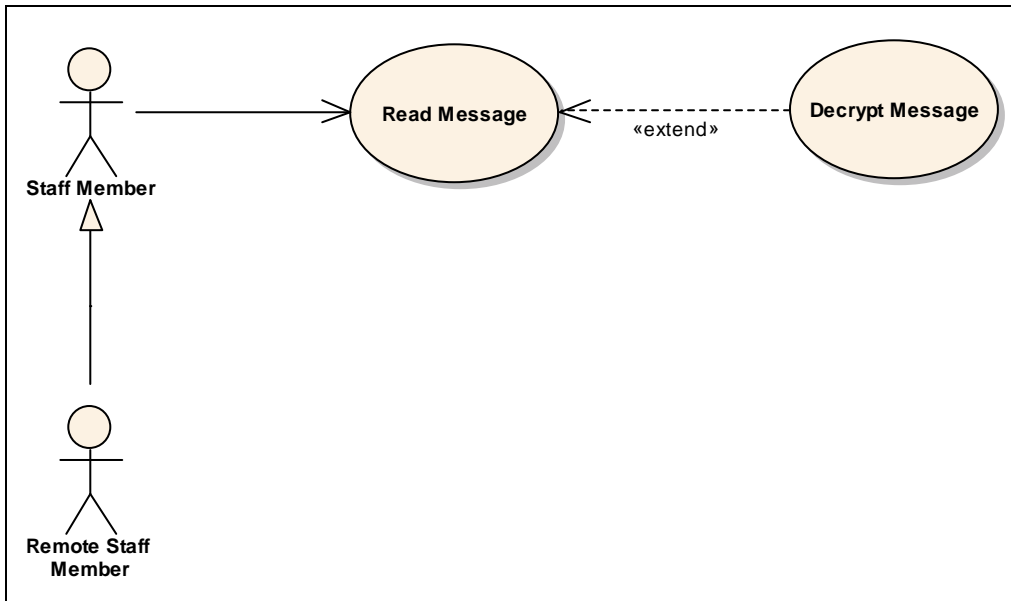
7   Messaging

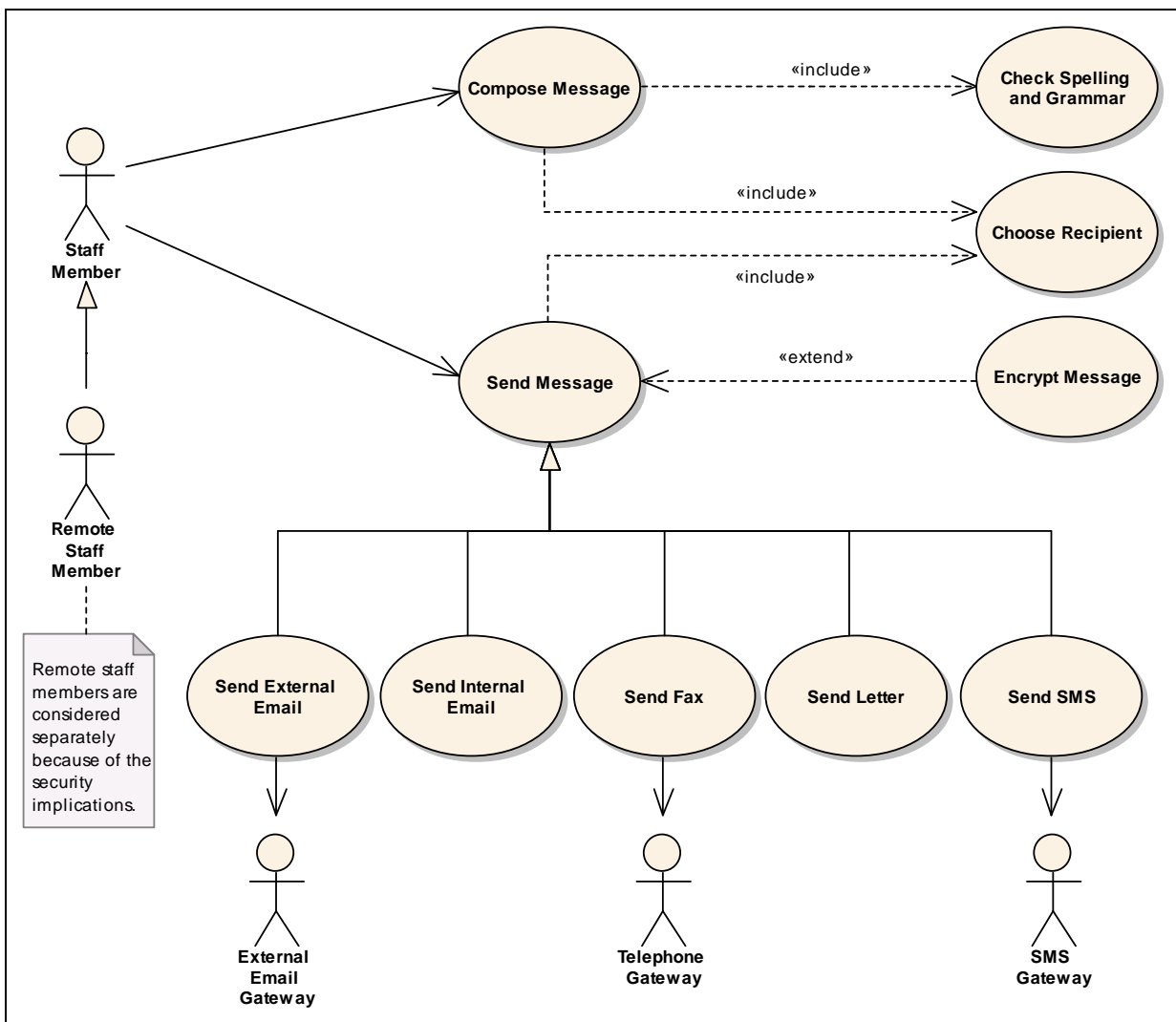
Figure 5: Read/Receive Message

Figure 6: Send Message

7.1   Note

Remote staff members are considered separately because of the security implications.

7.2   Note

Generally the message would just have been created and as such the message would already be selected.

7.3   Check Spelling and Grammar

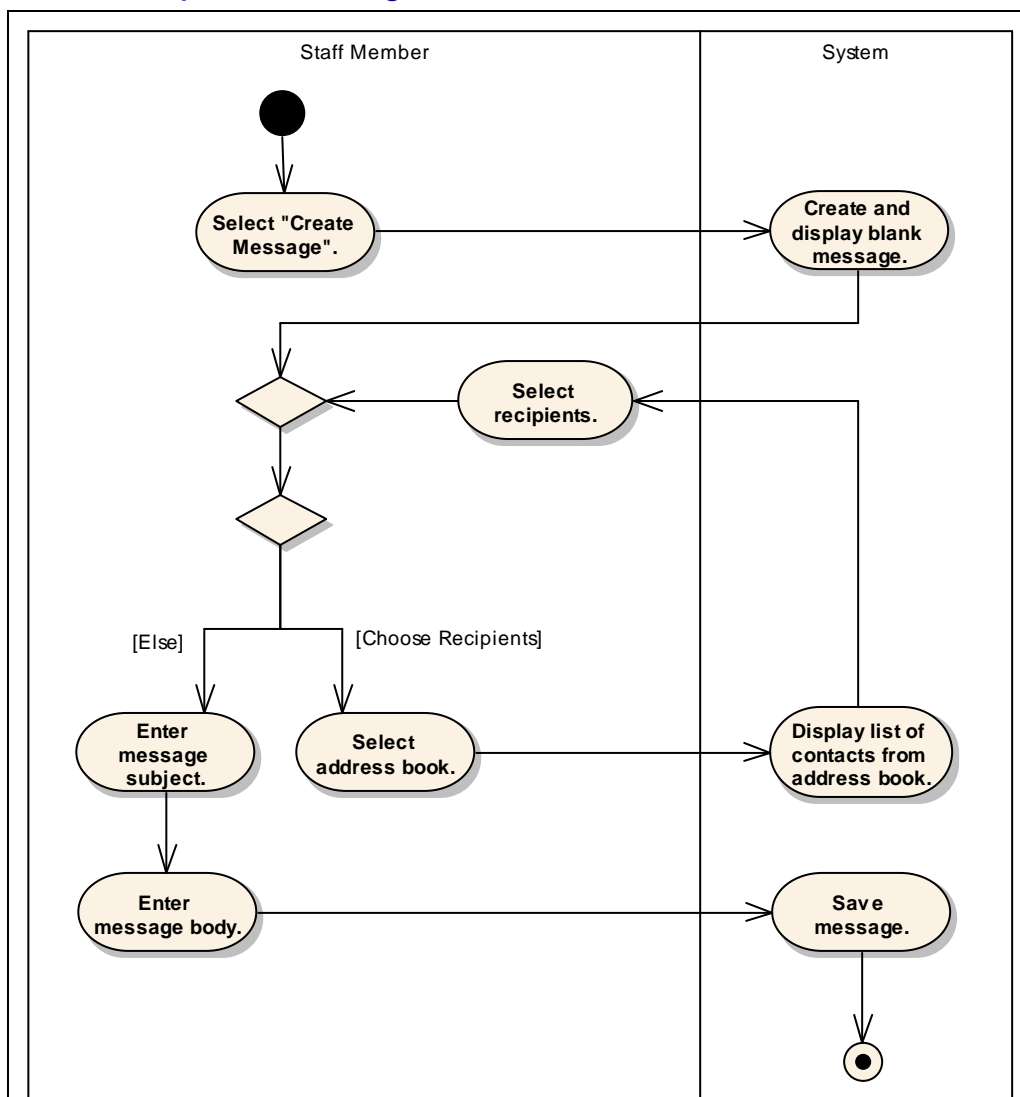## 7.4   Compose Message

Figure 7: Compose Message

The Compose Message use case defines all aspects of the creation of messages such as the selection of message recipients and the writing of message contents and the inclusion of attachments to the message. Note that the delivery mechanism used to deliver the message is not determined at this stage but is determined by the preferences of the recipient when the message is sent. Once a message is composed it can be saved or sent (these are defined in other use cases)

7.4.1   Flow of Events

7.4.1.1   Basic Path

Compose Message
1. The use case begins when the User chooses to compose a new message. The System prompts the User for message details. The details include: the recipient or recipients, the content or body, the subject and attachments.

2. The User chooses to select a recipient for the message. Refer to the "Choose Recipient From Address Book" use case.

3. The User enters the message subject and body. The System saves the message details entered by the User.

4. The use case ends.

7.4.1.2   Alternate

Compose Message - Check Spelling and Grammar
At any stage in the basic path the User may choose to check the spelling and grammar of the message. The Check Spelling and grammar use case is inserted. Once the inserted use case has been completed the flow returns to the basic path.

7.4.2   Post-condition

Message Length
Status: *Proposed*
There is no limit to the size of a message in theory. There is a corporate policy that restricts the size of outgoing emails, which depends upon the privileges given to you at a LAN account level. The system is not expected to warn the actor that this limit has been exceeded. It will however be rejected by the outgoing e-mail gateway when the message is sent externally and the limit is exceeded.

7.5   Create and display blank message.

7.6   Display list of contacts from address book.

7.7   Enter message body.

7.8   Enter message subject.

7.9   Save message.

7.10 Select "Create Message".

7.11   Select address book.

7.12   Select recipients.

7.13   Decrypt Message

7.14   Encrypt Message

7.15   Read Message

7.16   Send External Email

7.17   Send Fax

7.18   Send Internal Email

7.19   Send Letter
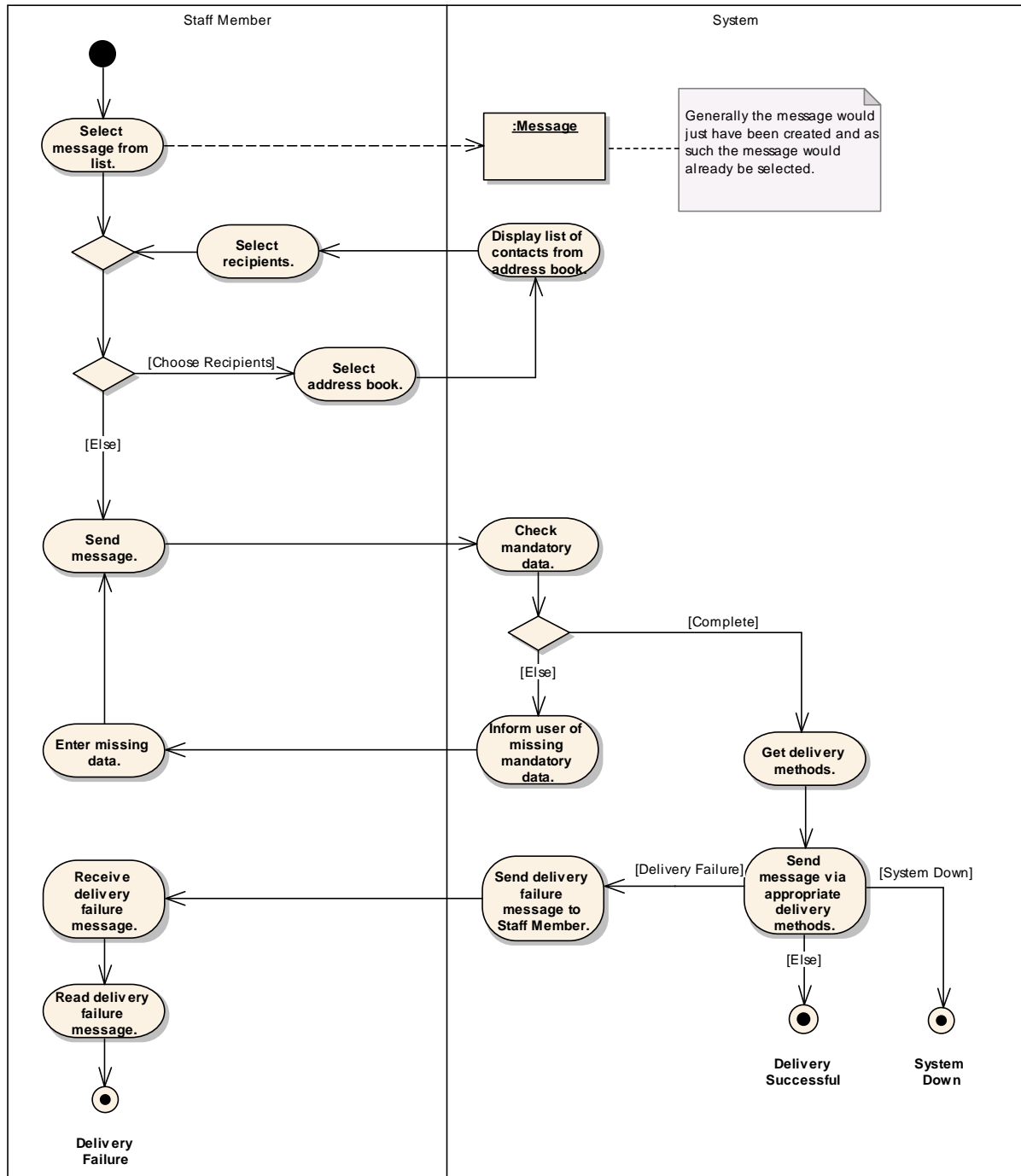
7.20 Send Message

Figure 8: Send Message

This use case deals with sending of messages after they have been created. It describes the process by which message is checked for completeness an sent via the appropriate delivery mechanism or mechanisms.

7.20.1   Flow of Events

7.20.1.1 Basic Path

Send Message

1. The use case begins when the User selects a message from a list of messages. Multiple messages may selected and sent at the same time. Often the message would have just been created and in such cases the message would already be selected.

2. The User instructs the System to send the message. The System checks to see if all the mandatory information has been entered into the message. Provided all mandatory data has been supplied the System sends the message to the recipients. In sending the message the System determines the delivery mechanism to be used to send the message to each recipient and sends the message to each recipient via the appropriate delivery mechanism.

3. The use case ends.

7.20.1.2 Alternate

Send Message - Message Failed to Reach Recipient
It is possible that a message may not reach some of its recipients. The following steps are inserted after step 2 in the basic path:

1. The System determines that the message has no reached a particular recipient. The System sends a message to the original sender with details of the original message, the recipient and why the message failed to reach the recipient.

2. The use case ends.

Send Message - Mandatory Data Missing
If all mandatory data has not been entered by the User then the message can not be sent. The following steps are inserted after step 2 in the basic path:

1. The System checks to see if all the mandatory information has been entered into the message. The System informs the User of the mandatory message information has not been entered. The message is not sent to any of the recipients.

2. The User enters the missing information. The System saves the information entered by the User.

4. The use case returns to step 2 in the basic path.

7.21 Check mandatory data.

7.22 Display list of contacts from address book.

7.23 Enter missing data.

7.24 Get delivery methods.

7.25 Inform user of missing mandatory data.

7.26   Read delivery failure message.

7.27   Receive delivery failure message.

7.28   Select address book.

7.29   Select message from list.

7.30   Select recipients.

7.31   Send delivery failure message to Staff Member.

7.32   Send message via appropriate delivery methods.

7.33   Send message.

7.34   Delivery Failure

7.35   Delivery Successful

7.36   System Down

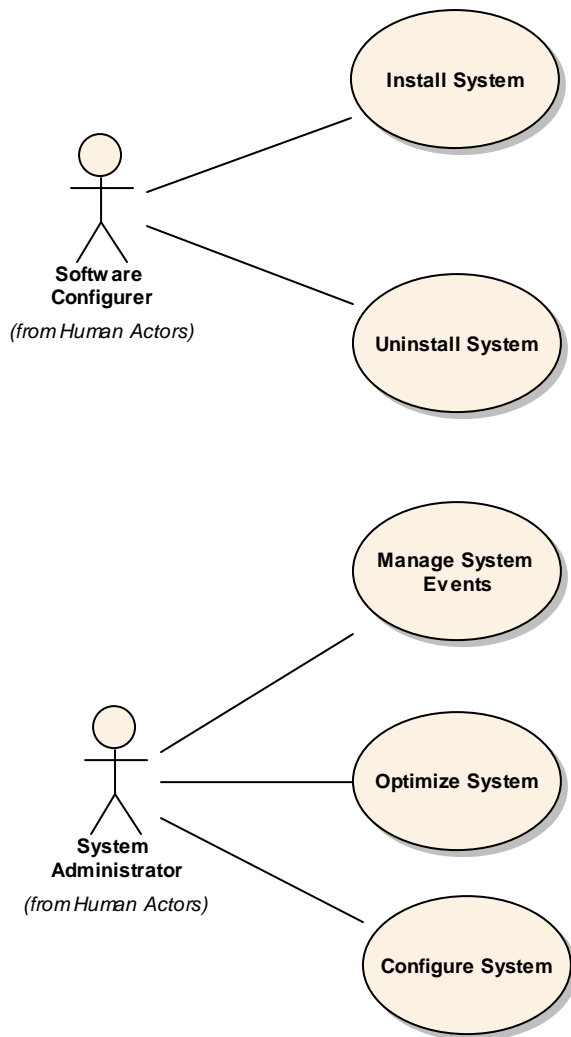## 7.37   Send SMS

8   System Management

Figure 9: System Management

8.1   Configure System

The system needs to be running optimally and there will be a number of things that may slow the system down over time these may need to be configured over time to ensure efficiency.

8.2   Install System

8.3   Manage System Events

In the event of system failure there will be a need to analyze the fault and determine any action that needs to be carried out. This will involve the ability to view where, when and how the error occurred, what the impact of the fault is and the implementation of any corrective action such as restarting the system.

8.4   Optimize System

8.5   Uninstall System