CHAPTER 3 FUNCTIONAL REQUIREMENTS

Overview

About this chapter

This chapter describes the **features** that can be performed by the roles described in Chapter 2.

Each of the **features** is discussed in details as follows:
- Purpose of the feature: Provide rationale to clarify the intent of the feature,
- How it will act and work: Describe the functionalities the feature will provide and the business rules it has to comply,
- The pre-requisites that the role requires before performing the feature,
- The end result that the role obtains after performing the feature, and

The roles responsible to perform the feature and functionality.

The business process diagram helps to illustrate the flow of processes of the feature as well as the role responsible for a particular process.

Notes:

1. For a full list of features, please refer to Chapter 1 (BSME Solution Scope) of this document.
2. For features to roles mapping, please refer to Chapter 2 (BSME Roles and Features) of this document.

Overview, *Continued*

Inside this chapter	Each of the BSME Solution features is discussed as a specific topic. This section contains the following topics.

Section A F010 Member Application

Overview

Purpose

This "Online Member Application" feature enables any companies except the Group Companies B and Group Companies C, who are interested to participate in the Group Companies A buyer and seller domain, to apply to become BSME member online.

Role

The following is the role(s) that shall be using this feature:
- Non-Member (Public)

Functional requirements

The following is the functional requirement(s) of this feature:

Item	Functional Requirement	Role
1.	Able to apply for BSME membership and fill up online application form.	Non-Member (Public)
2.	Able to submit online application form Enable the system to prompt user to complete mandatory data before submission.	
3.	Able to receive system user id and password via email upon submission the application.	

Business rules

The following is the business rule(s) that this feature is to comply to:

Business Rules	Description
Mandatory Data Completed	All mandatory fields such as contact person, number etc. need to be entered before proceed to submit the application

Pre-requisite

The following is the pre-requisite(s) of this feature:
- This feature is only applicable for the companies (excluding Group Companies B and Group Companies C), which are interested to be a participant in the Group Companies A buyer and seller domain.

End Result

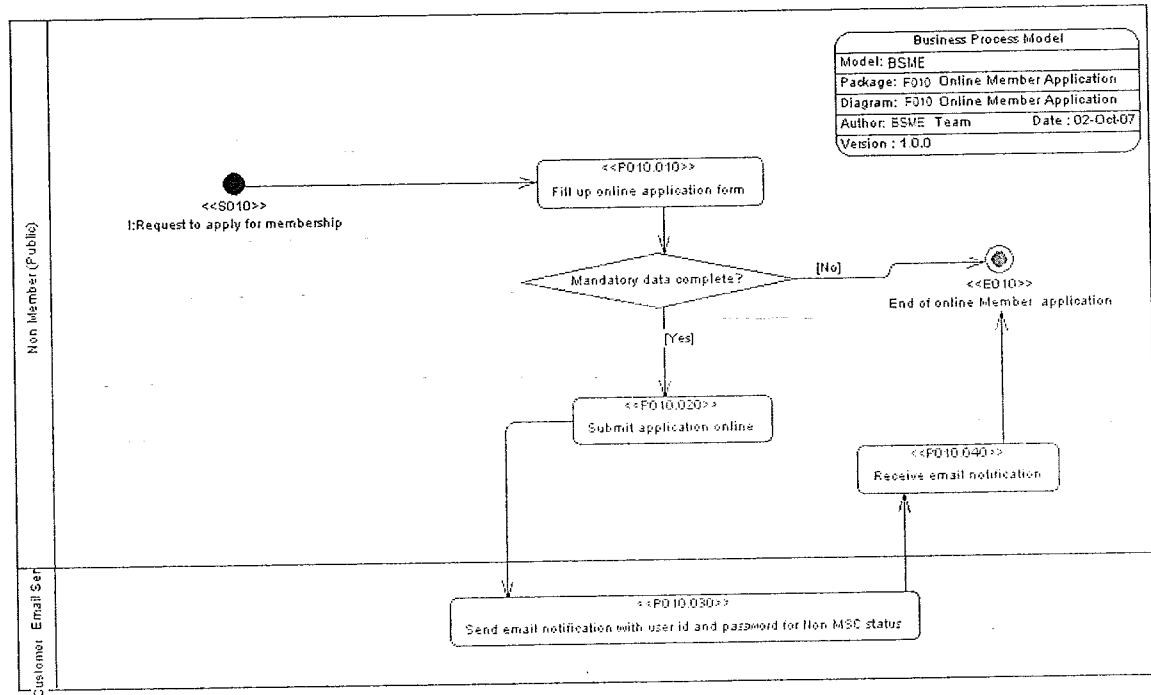The following is the post-condition(s) of this feature:
- All applicants will be automatically registered as a **Normal Member** role after receiving system user id and password via email.

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Overview, *Continued*

Business Process Diagram   Below is the Business Process Diagram that models the interactions between the role(s) with this feature.

Section B F020 Member Profile Maintenance

Overview

Purpose

This "Member Profile Maintenance" feature enables Gold, Silver and Normal Member (Admin role) to maintain their member profile information and activate the accounts of role Member User for their other colleagues. All BSME members have to login into BSME by using their user ID and Password and they can access more features.

Role

The following are the roles that shall be using this feature:
- Gold Member Admin
- Gold Member User
- Silver Member Admin
- Silver Member User
- Normal Member Admin
- Normal Member User
- Platinum User
- Content Admin
- System Admin

Overview, *Continued*

Functional requirements

The following is the functional requirement(s) of this feature:

Item	Functional Requirement	Role
1.	Enable the registered users to login into their account using a unique login id and password sent by system via email.	• Gold Member Admin
		• Gold Member User
	Enable the system to authenticate the user based on its user id and password.	• Silver Member Admin
		• Silver Member User
	Enable the system to display a warning message for incorrect login id or password	• Normal Member Admin
	Upon successful authentication, the system shall be able to authorize the user to specific features based on its given role "access rights" (i.e. Member Admin or BSME Admin role).	• Normal Member User
		• Platinum User
		• Content Admin
2.	For the first-time user login, they have to accept the "Terms and Conditions", specified by Customer before they could proceed to access any other features.	• System Admin
3.	Able to use BSME features such as "Company Profile Maintenance" and "Vendor Directory"	
4.	Able to change Password. Note: Users will be required to enter their existing Password for clarification before update changes.	
5.	Able to request for password in the case of forgotten password by providing user ID. Note: User will receive new password via email.	
6.	Able to retrieve and view its member profile (own) information	• Gold Member Admin
7.	Able to update its member profile (own) information	• Silver Member Admin
8.	Able to register Member Users Note: System will send the User ID and Password to Member Users via email.	• Normal Member Admin
9.	Able to update Member User profile such as name, designation and email address.	
10.	Able to delete Member User if required. Note: Member Admin role is not allowed to delete their account.	

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Overview, *Continued*

Business rules   The following is the business rule(s) that this feature is to comply to:

Business Rules	Description
System does not allow Member Admin to delete own User ID and Password.	Member Admin can delete other's User ID but not its own.
No limitation of User ID / Password to Customer Manager role, Customer Executive, role, Content Admin role and System Admin role	Customer will have as many users as required to access BSME application

Pre-requisite   The following is the pre-requisite(s) of this feature:
- Users must be registered as a member into BSME application
- The users have received their login user id and password via email.

End result   The following is the post-condition(s) of this feature:
- Member profile information has been updated.
- For first time login, the users activate their accounts using given user login ID and password
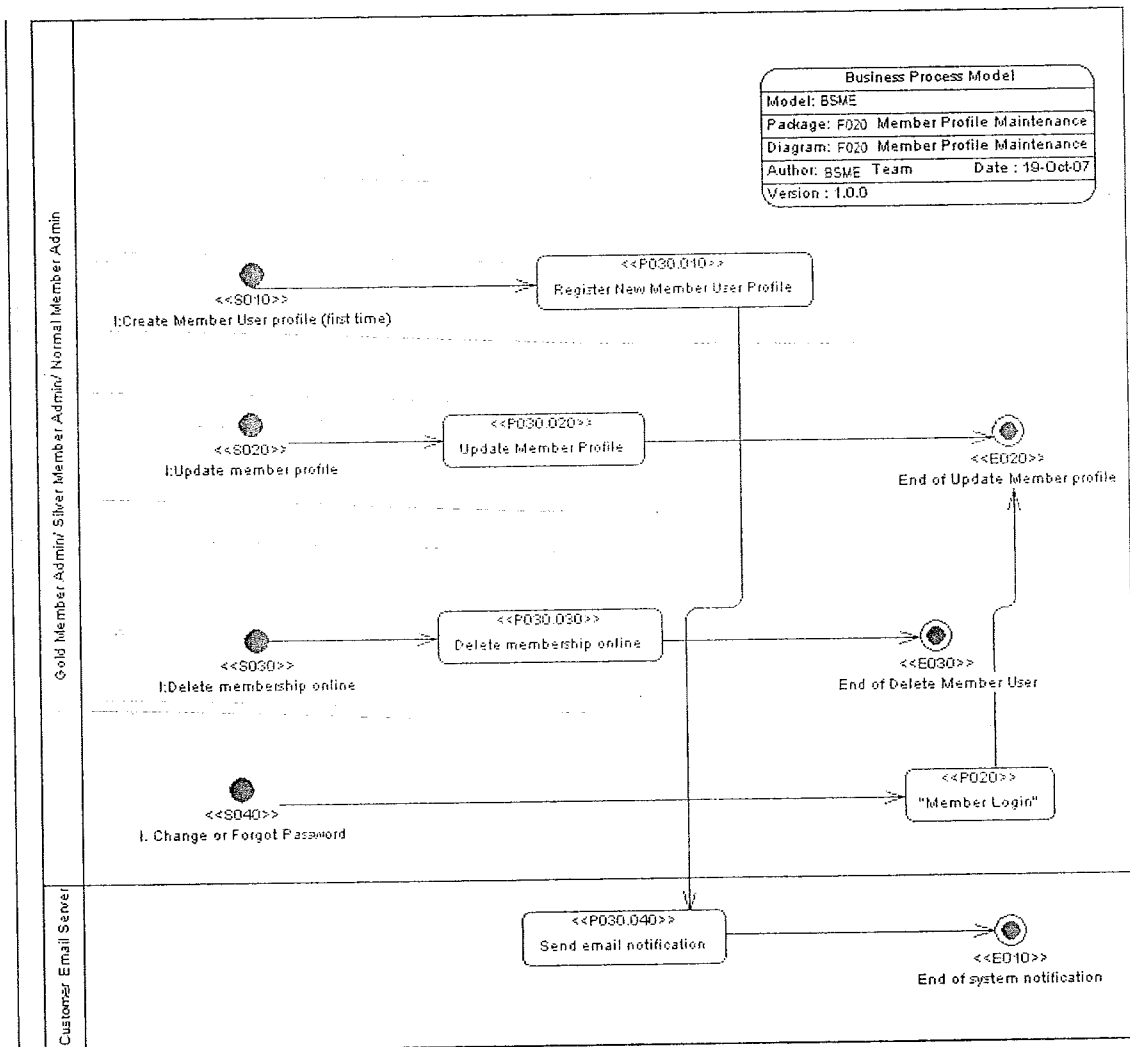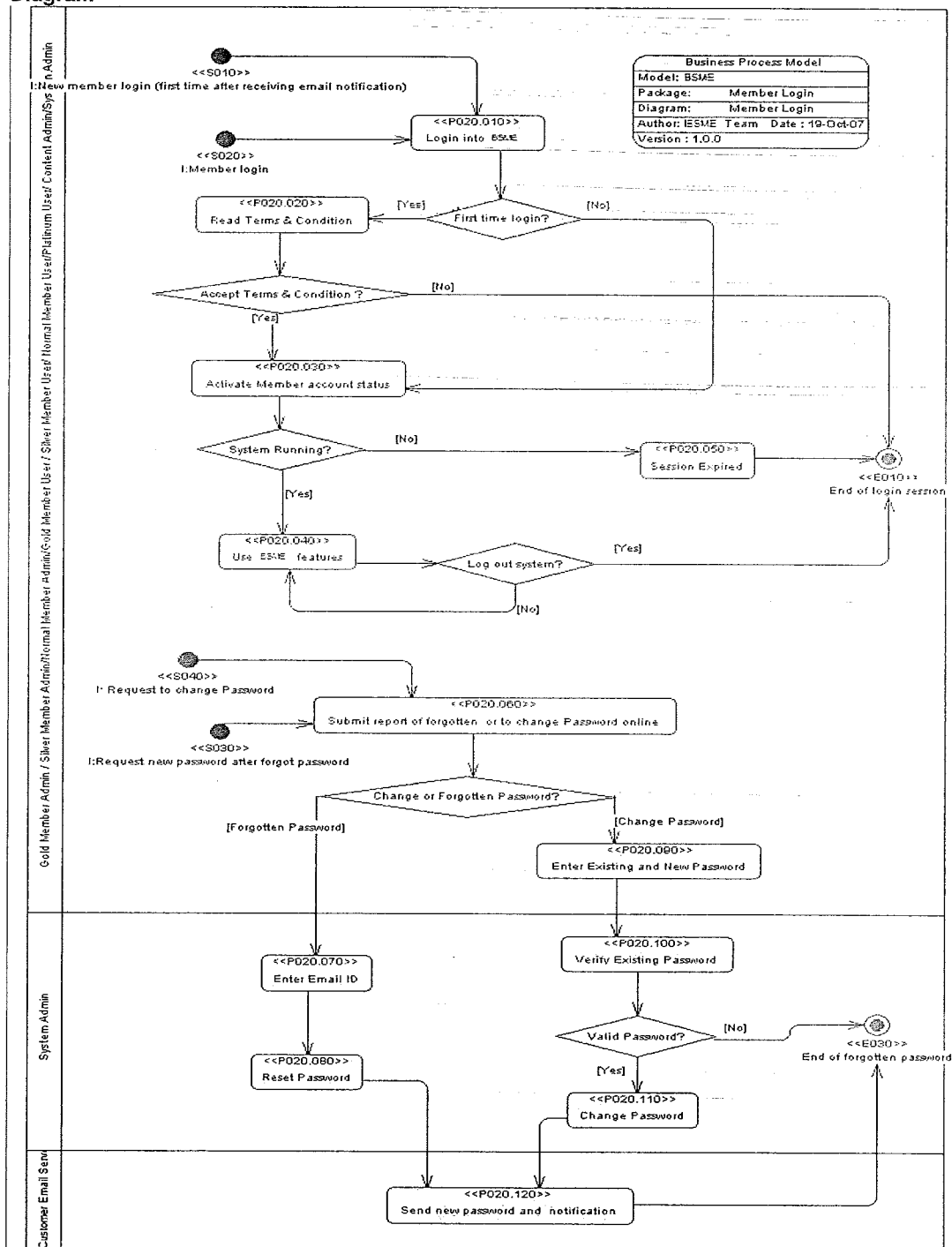- In the case of forgotten password, the users will be receiving their new passwords via email.

Overview, *Continued*

Business Process Diagram

Below is the Business Process Diagram that models the interactions between the role(s) with Member Profile Maintenance feature.

Overview, *Continued*

Business Process Diagram

Below is the Business Process Diagram that models the interactions between the role(s) with Member Login feature

Section A F030 Company Profile Maintenance

Overview

Purpose   This "Company Profile Maintenance" feature enables System Admin role to maintain a particular member's company profile information, verify and approve member's company profile to be published and viewed by the Public and all BSME Members. This feature also allows Gold, Silver and Normal Member Admin roles to update their company's details information. The users are required to update their company profile as and when there is change, so as to ensure that the company's profile displayed at the "Vendor Directory" feature is always up-to-date.

Role   The following is the role(s) that shall be using this feature:
- System Admin
- Content Admin
- Gold Member Admin
- Silver Member Admin
- Normal Member Admin

Overview, *Continued*

Functional requirements

The following is the functional requirement(s) of this feature:

Item	Functional Requirement	Role
1	Able to directly update other companies' information as a "Super User" to ensure the accuracy of data, if necessary However, the system shall be able to prevent the user to update Group Companies A information which is maintained in the Customer-CRM system (i.e. Single Point of update) **Note:** "Super User" has a full access control to update some information on other company's profile.	System Admin
2	Able to delete documents uploaded by other companies.	• System Admin • Content Admin
3	Able to verify and publish company's documents	
4	Able to update Customer company profile, if required	
5	Able to upload Customer company profile related document to be viewed by other users	
6	Able to verify and publish Customer documents in Vendor Directory	
7	Able to change the size limit of document based on specific companies.	
8	Able to receive alert notification if any changes made by System Admin	• Gold Member Admin • Silver Member Admin • Normal Member Admin
9	Able to retrieve its company information entered in the "Online Member Application" form.	• Normal Member Admin
10	Able to retrieve and view its company information available at Customer. However, user can send a request to update information which is maintained in Customer CRM	• Gold Member Admin • Silver Member Admin • System Admin
11	Able to update company information.	• Normal Member Admin • Gold Member Admin • Silver Member Admin
12	Able to upload company profile related documents such as white papers, case studies, certification to be viewed by other users via the "Vendor Directory" feature.	
13	Able to remove company profile related documents to be viewed by other users via the "Vendor Directory" feature	

Overview, *Continued*

	Item	Functional Requirement	Role
Functional requirements (continued)	14	Able to automatically publish document to public	• Gold Member Admin • Silver Member Admin
	15	Need to get approval from Content Admin role before publish document to public	• Normal Member Admin
	16	Able to verify the content of the document	• Content Admin
	17	Able to publish document entered by Normal Member Admin role.	
	18	Able to delete the document if necessary	

Business rules   The following is the business rule(s) that this feature is to comply to:

Business Rules	Description
Limit Type of document	User can only upload certain type of document: 1. Microsoft Word files 2. PDF files 3. Jpeg files 4. Powerpoint files
By default, total size of documents for each company will be limited to 25 MB.	The size of documents will be controlled based on specific companies. System Admin will be responsible to change the size if required.
To check document effective and expiry date	Documents will be displayed based on the effective and expiry date
Field Date of Operation should be more than Date of Incorporated.	The date of operation is the date when the company starts operating whereby the date of incorporated is when the company incorporated.
Any records extracted from External System (CRM) are not allowed to be edited from within BSME.	Some extracted data for Group Companies A that entered from Customer-CRM cannot be edited from within BSME application. System Admin role will require to update Customer-CRM database and subsequently loaded back into BSME database

Pre-requisite   The following is the pre-requisite(s) of this feature:
- For publish process, company profile related documents must be uploaded into the system
- For Normal Member, the basic information is captured from the Membership Application form at Online Member Application feature.
- For Gold Member and Silver Member the information is extracted from Customer CRM.

End Result   The following is the post-condition(s) of this feature for:
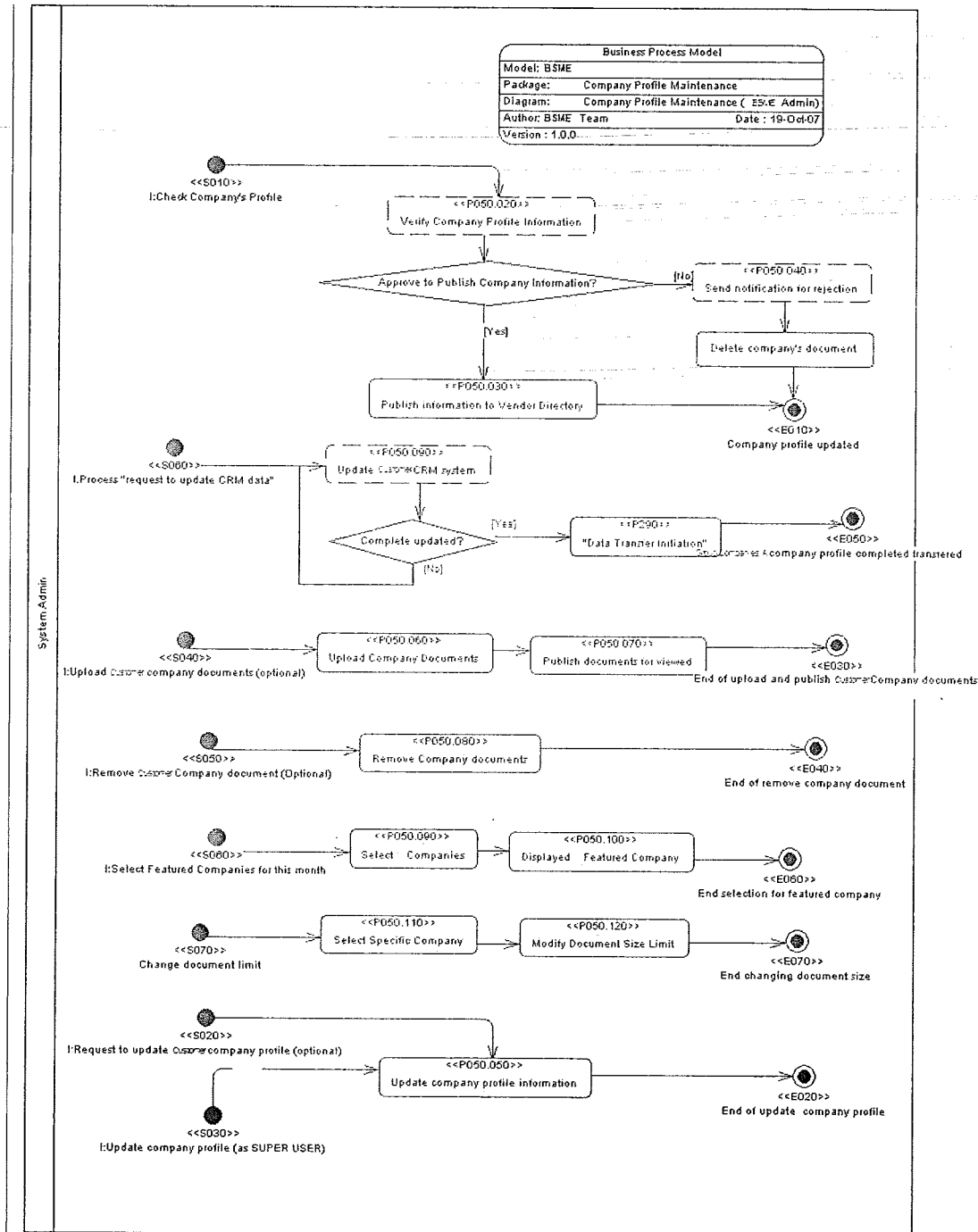- Company's profile record will be verified by System Admin
- Customer company profile is updated, if require changes
- Company profile is updated into the BSME system
- Send notification report on a request to update Gold Member profile

Overview, *Continued*

**Business
Process
Diagram**

Below is the Business Process Diagram that models the interactions between the role(s)
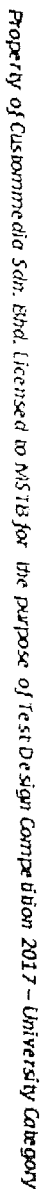with Company Profile Maintenance feature.

Overview, Continued

Business Process Diagram

Below is the Business Process Diagram that models the interactions between the role(s) with this feature.

Section D F040 Products/Services Registration & Benchmarking

Overview

Purpose	This "Products/Services Registration" enables the Member Admin role to register their company's products/services for "Product Benchmarking" feature. This feature also allows Platinum Member to invite companies to conduct benchmark evaluation on selected product/service. All products and services information are consolidated and posted into BSME under Product Directory.
Role	The following are the roles that shall be using this feature:

- Gold Member Admin
- Silver Member Admin
- Normal Member Admin
- Content Admin
- System Admin
- Non-Member(Public)
- Gold Member User
- Silver Member User
- Normal Member User
- Platinum User

Overview, Continued

Functional requirements

The following is the functional requirement(s) of this feature:

Item	Functional Requirement	Role
1.	Able to register its company new product or service.	• Gold Member Admin • Silver Member Admin
2.	Able to provide response to the corresponding "Product/Service Detail Information Template" for its product or service.	
3.	Able to upload product or service related documents such as brochure, data sheets, case studies and white papers for viewing by other users at the "Product Directory" tab.	
4.	Able to update information on a particular product or service when there are changes.	
5.	Able to delete product or service that its company no longer supplies	
6.	Able to view registered products/ services	
7.	Able to verify the content of the document	• Content Admin
8.	Able to delete the document if necessary	
9.	Able to invite companies with the status Gold Members	
10.	Able to assign testing body or benchmarking organization to the companies by specific product.	
11.	Able to track the status of invitation.	
12.	Able to update benchmarking result after completing the evaluation.	
13.	Able to upload benchmark result document.	
14.	Able to publish the benchmark result to public.	
15.	Able to view company's own result.	• Gold Member Admin
16.	Able to view the published result from Product Directory.	• Non-Member(Public)

Overview, *Continued*

Functional Requirements (continued)

Item	Functional Requirement	Role
		• Gold Member User • Silver Member User • Normal Member user
17.	Able to find specific vendor or product or services in vendor directory by specifying search criteria as following options: • Industry focus • Product Category • Service Category Enable system to display a list of search result based on specific criteria.	• Non-Member (Public) • Gold Member Admin • Gold Member User • Silver Member Admin • Silver Member User • Normal Member Admin • Normal Member User • Platinum User
18.	Able to select specific search result to view product information that includes: • Product name • Company name • Product Description • Product Image • Product category • List of industry focus that the product is for • List of other products offered by the company	
19.	a. Able to sort the search result by Product Name alphabetically. b. Able to sort the search result by Most Recent/ New product/ services	
20.	Able to navigate to the vendor's web site to get more information on the vendor.	

21.	a. Able to send "Contact Me" notification to the vendor
	b. For Non-Member (Public), enable the user to provide the following information in the "Contact Me" notification:
	  - User's company name
	  - User name
	  - User's email address
	c. Enable the system to track the counts on how many "Contact Me" clicks.	

Overview, *Continued*

Functional Requirements (continued)

Item	Functional Requirement	Role
22.	Able to view details information on a particular product or service. The user shall be able to view the product/ service information details' responses provided by the vendor of the product or service.	• Non-Member (Public) • Gold Member Admin • Gold Member User • Silver Member Admin • Silver Member User • Normal Member Admin • Normal Member User • Platinum User
23.	Able to view and download product/ service articles (such as white paper, case studies, data sheet and brochure) published by vendors at the Product Directory	

Overview, *Continued*

Business rules The following is the business rule(s) that this feature is to comply to:

Business Rules	Description
Limit Type of document	User can only upload certain type of document: 1. Microsoft Word files 2. PDF files 3. Jpeg files 4. Powerpoint files
By default, total size of documents for each company will be limited to 25 MB.	The size of documents will be controlled based on specific companies. System Admin will be responsible to update the size if required.
Silver Users can only register three (3) products/services	System will limit three (3) product/services for Silver users to register.
Silver Members can only display up to a total of three (3) products and services.	System will only allow the Silver Members roles to display up to a total of three (3) products and services for its company.
To check document effective and expiry date	Documents will be displayed based on the effective and expiry date

Pre-requisite The following is the pre-requisite(s) of this feature:
- The company profile has been registered
- The product/ service that to benchmark has been registered into BSME company's product/services.

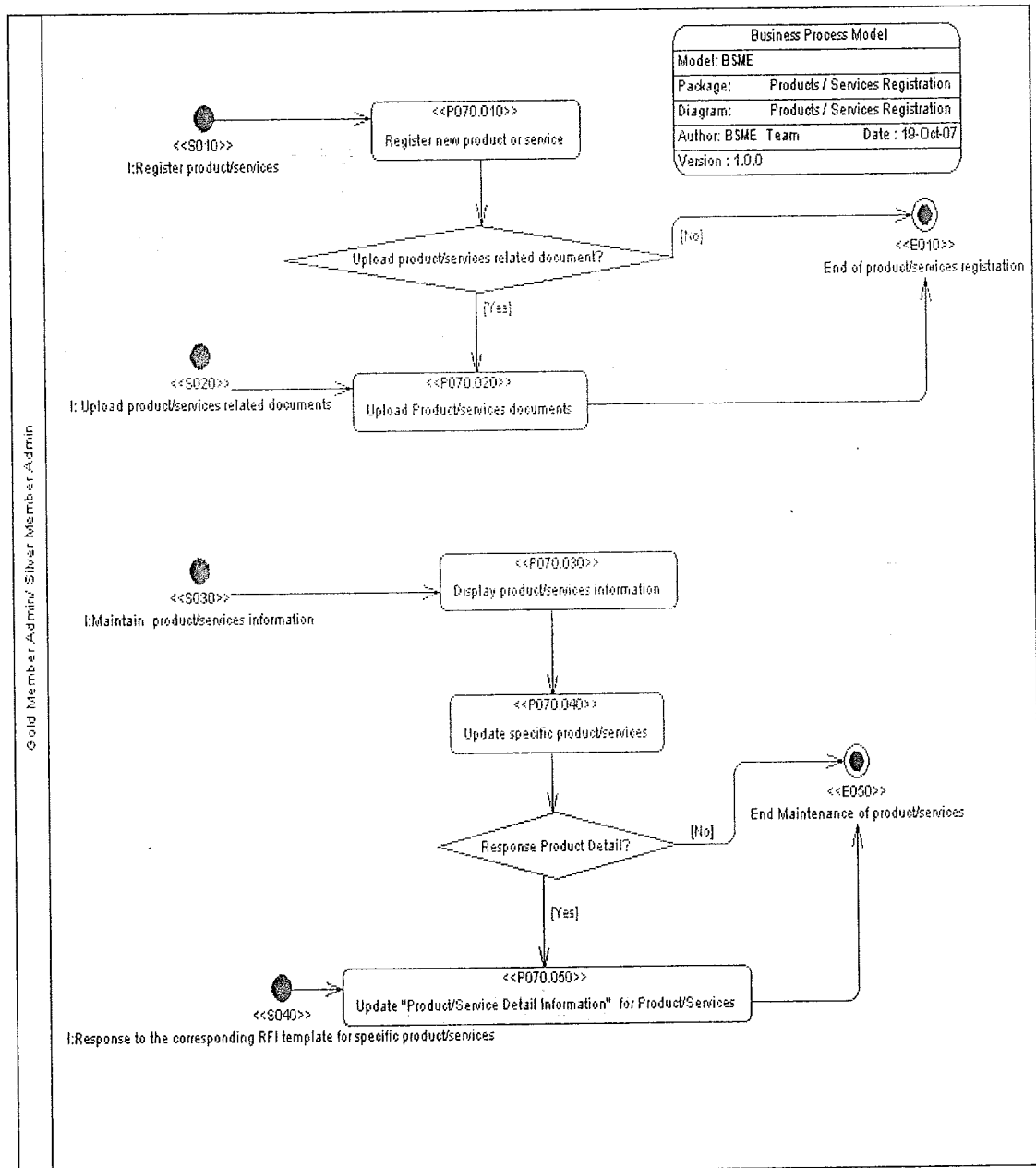**End result** The following is the post-condition(s) of this feature:
- The products/ services information will be displayed at Product Directory.
- The product / services information will be auto (green lane method) or manual approval.
- For manual approval, notification is sent to Customer to further approve product/ services
- Able to view the benchmarking result and any documents produced by the benchmarking organization.

Overview, *Continued*

Business Process Diagram

Below is the Business Process Diagram that models the interactions between the role(s) with Products/Services Registration feature.
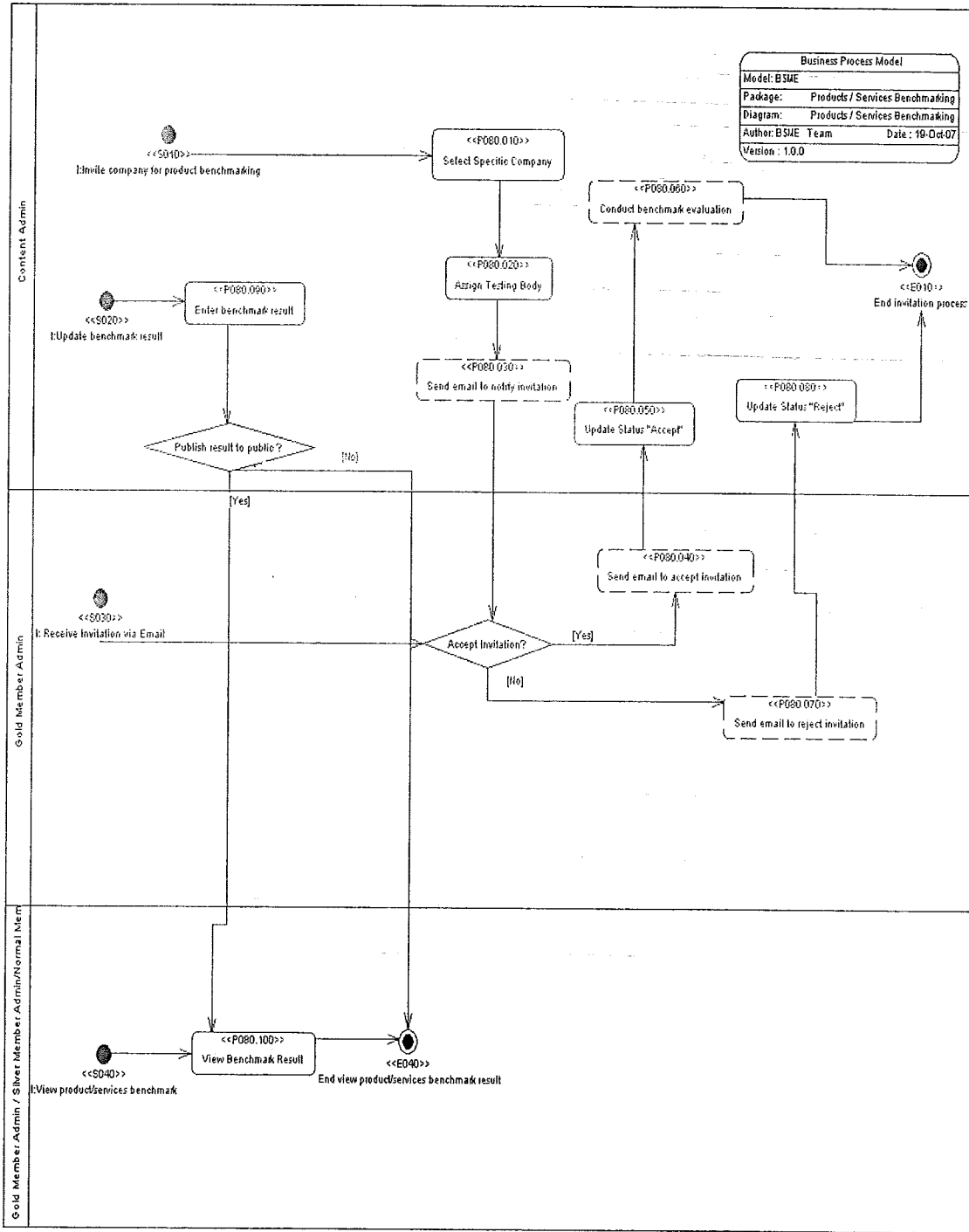
Overview, *Continued*

Business Process Diagram

Below is the Business Process Diagram that models the interactions between the role(s) with Product Benchmarking feature.

Section E F050 Vendor Directory

Overview

Purpose

This "Vendor Directory" feature enables the Public and all BSME Members:
- to seek seller information that sell a particular product or provide a particular service its company is looking for procurement needs, or
- to get details information on a particular seller when searching for potential partnerships.

In addition, the Public and all BSME Members can also view and download documents such as white paper or case studies published by the sellers at this "Vendor Directory" feature.

Role

The following are the roles that shall be using this feature:
- Non-Member (Public)
- Gold Member Admin
- Gold Member User
- Silver Member Admin
- Silver Member User
- Normal Member Admin
- Normal Member User
- Platinum User

Functional Requirements

The following is the functional requirement(s) of this feature:

Item	Functional Requirements	Role
1.	a. Able to find specific vendor by browsing the Directory Listing by Industry. b. Enable system to display a list of vendors in the selected Industry.	• Non-Member (Public) • Gold Member Admin • Gold Member User • Silver Member Admin • Silver Member User • Normal Member Admin • Normal Member User • Platinum User
2.	Able to select specific search result to view information	
3.	Able to refine the search result by the following options: • Industry focus, • Product category, or • Service category	
4.	a. Able to sort the search result by Vendor Name alphabetically. b. Able to sort the search result by Performance.	

Overview, Continued

Functional Requirements (continued)

Item	Functional Requirements	Role
5.	Able to view business profile information of a particular vendor. The information includes: • Company's logo • Company's name • Company's Industry focus • List of company's technology focus • Description on company's nature of business • Remarks about the company • Company's product highlight • Markets presence • Existing markets • List of certifications • List of company's partners • List of company's awards • Products/ services offered by the company	• Non-Member (Public) • Gold Member Admin • Gold Member User • Silver Member Admin • Silver Member User • Normal Member Admin • Normal Member User • Platinum User
6.	When viewing the vendor's profile, the user shall also be able: a. To view and download documents (such as white papers, case studies) that the vendor published at the Vendor Directory b. To navigate to the vendor's website from the Vendor Directory c. To navigate to the detail information on a particular product/ service in the Product Showcase from the Vendor Directory	
7.	a. Able to send "Contact Me" notification to the vendor. b. For Non-Member (Public), enable the user to provide the following information in the "Contact Me" notification: • User's company name • User name • User's email address c. Enable the system to track the counts on how many "Contact Me" clicks.	
8.	Able to navigate to the detail information on a particular product/ service in the Product Showcase from the Vendor Directory.	

Overview, *Continued*

Functional Requirements (continued)

Item	Functional Requirements	Role
9.	Able to view detail information about the company, that includes: • List of products/ services • Products interest (i.e. list of products that the company searched for) • Partner interest (i.e. list of companies that found us while searching for partners) • Other company interested in the company's products (list of companies that searched for the company's product)	- Gold Member Admin - Gold Member User - Silver Member Admin - Silver Member User - Normal Member Admin - Normal Member User - Platinum User

Business rules The following is the business rule(s) that this feature is to comply to:

Business Rules	Description
N/A	N/A

Pre-requisite The following is the pre-requisite(s) of this feature:
  • Member Admin must register company profile with its product and services

End result The following is the post-condition(s) of this feature:
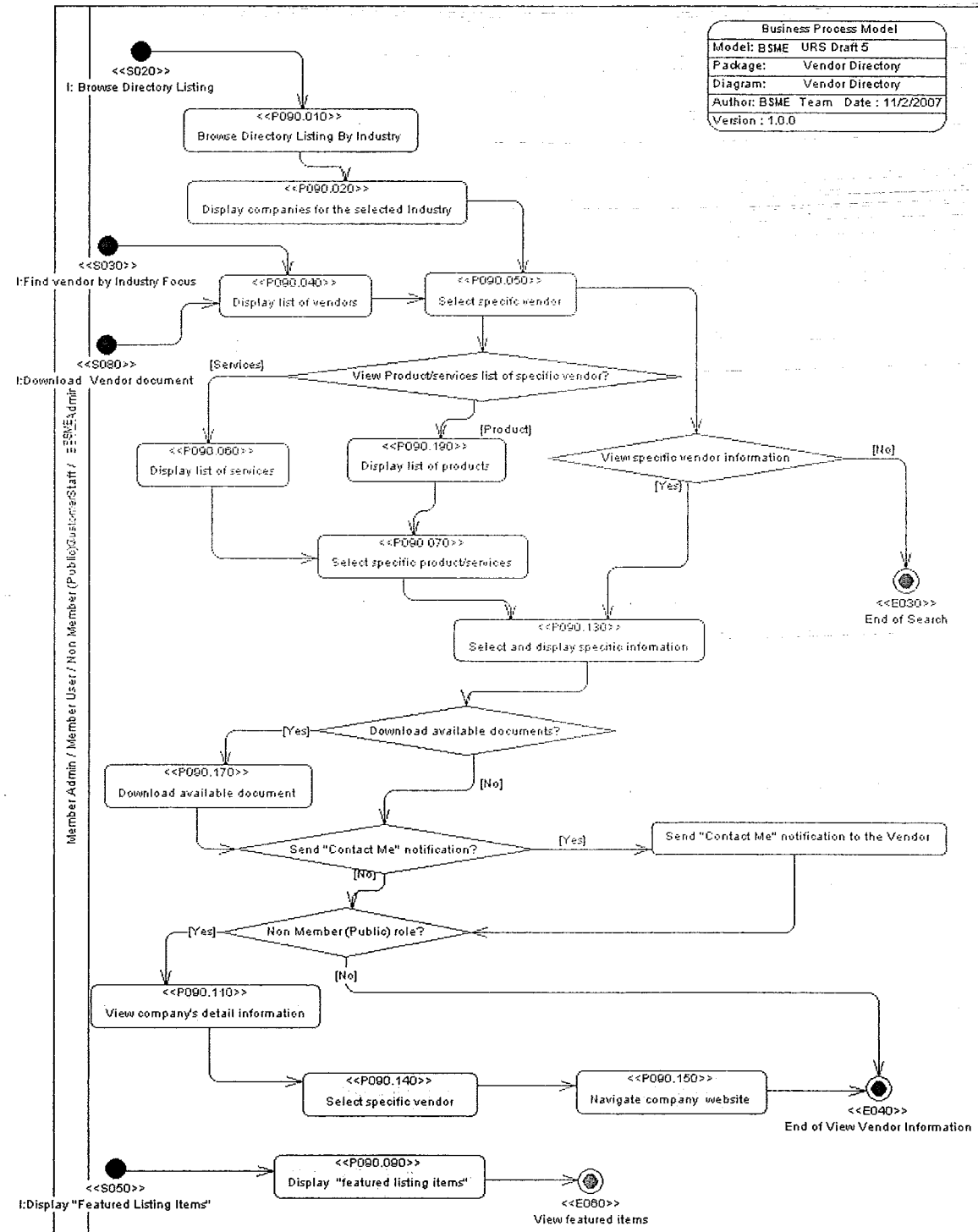 • The Member User will be able to get the required vendor information.

Overview, *Continued*

Business Process Diagram

Below is the Business Process Diagram that models the interactions between the role(s) with this feature.

Section F F060 Partnership Matching

Overview

Purpose	This "Partnership Matching" feature enables BSME Members (who are buyers or sellers) to search for potential partners for new opportunities for business development and networking. It enables them to search for partnerships, joint technology ventures and marketing relationships.

Role

The following are the roles that shall be using this feature:
- Gold Member Admin
- Gold Member User
- Silver Member Admin
- Silver Member User
- Normal Member Admin
- Normal Member User
- Platinum User

Functional requirements

The following is the functional requirement(s) of this feature:

Item	Functional Requirement	Role
1.	Able to find a matching list of potential partners based on the following criteria: • Product Category • Service Category • Industry Focus • Technology Focus • Company location (country) • Fiscal Year Revenue (>,<,=) • Existing Market (by region) • Localization capabilities (i.e. list of region regions where the companies have capabilities to market their products/ services).	• Gold Member Admin • Gold Member User • Silver Member Admin • Silver Member User • Normal Member Admin • Normal Member User • Platinum User
2.	Able to specify values for each of the above matching criteria: • Product Category (more than one) • Service Category (more than one) • Industry focus (more than one) • Technology focus (more than one) • Company location (country) • Fiscal Year Revenue (>,<,=) • Existing Market (more than one) • Target Market (more than one)	

Overview, Continued

Functional Requirements (continued)

Item	Functional Requirement	Role
3.	Able to execute partnership matching analysis based on the criteria specified.	• Gold Member Admin
4.	Enable the system to generate the partnership matching result and display to the user.	• Gold Member User • Silver Member Admin
5.	Able to view the partnership matching result online.	• Silver Member User
6.	a. Able to save potential companies for partnership from the search result as Potential Partnership Listing. b. As the user initiates another partnership matching, the user will be able to append potential companies for partnership into the Potential Partnership Listing. c. Able to remove companies from the Potential Partnership Listing.	• Normal Member Admin • Normal Member User • Platinum User

Business rules   The following is the business rule(s) that this feature is to comply to:

Business Rules	Description
Partnership Matching	The criteria for partnership matching are: • Product Category • Service Category • Industry Focus • Technology Focus • Company location (country) • Fiscal Year Revenue ($>,<,=$) • Existing Market (by region) • Target Market (by region)
Only Gold Members for partners	The scope of partnership matching is Gold Members' companies.

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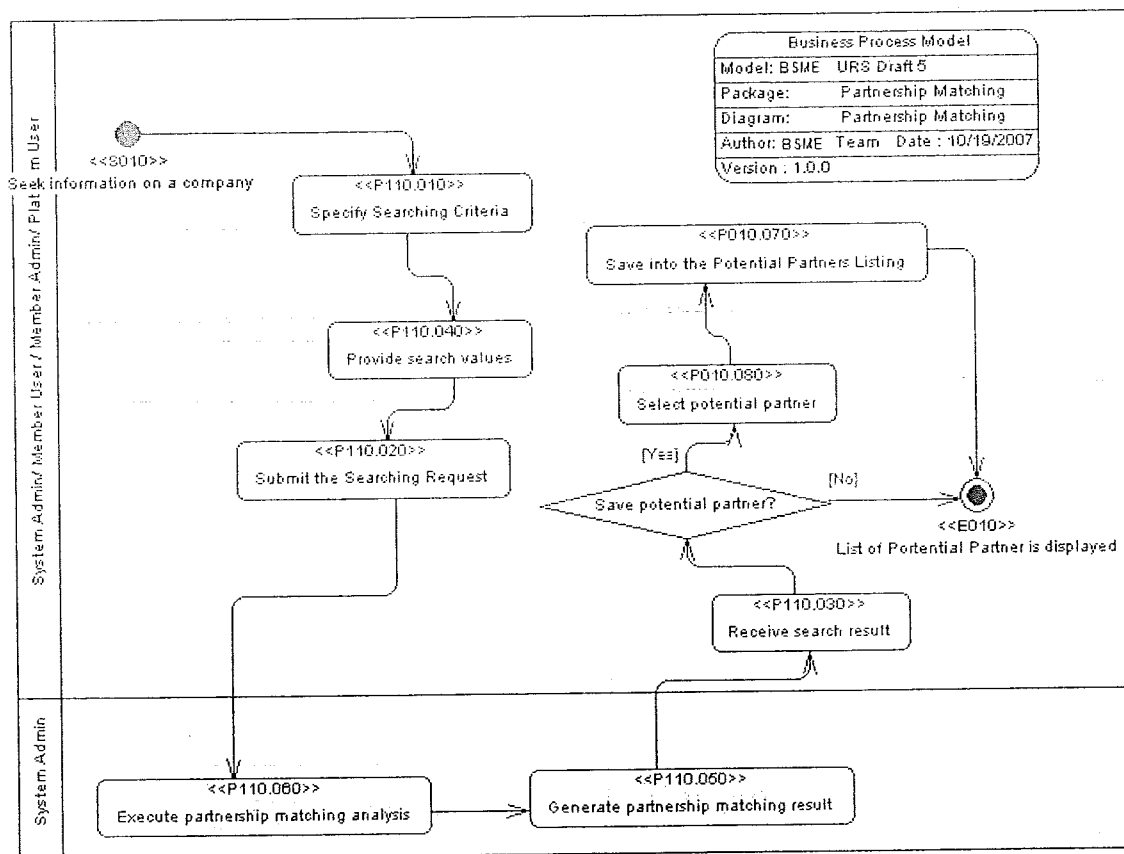
Overview, *Continued*

Pre-requisite   The following is the pre-requisite(s) of this feature:
- N/A

End result   The following is the post-condition(s) of this feature:
- The users shall be able to view search result that contains a list of potential partners.

Business Process Diagram   Below is the Business Process Diagram that models the interactions between the role(s) with this feature.

Section G F070 Products / Services Matching
Overview

Purpose

This "Online Products/ Services Matching" feature enables the Public and all BSME Members to seek the required information on products or services which is published at the Vendor Directory, the Bulletin and the Event Calendar. In addition, this feature enables BSME members (as buyers) to streamline their search result on products or services for their procurement needs.   After relevant information is entered, this feature finds possible matches between bought and sold products/ services.

The following are the roles that shall be using this feature:
- Non-Member (Public)
- Gold Member Admin
- Gold Member User
- Silver Member Admin
- Silver Member User
- Normal Member Admin
- Normal Member User
- Platinum User

Functional requirements

The following is the functional requirement(s) of this feature.

Item	Functional Requirement	Role
1.	Able to search for products/ services by the following search scope: • Products • Services • Companies • Articles	• Non-Member (Public) • Gold Member Admin • Gold Member User
2.	Able to specify a keyword search for a product(s) by one of the following search options: • Industry focus • Technology focus • Product category • Product name • Vendor location • Product award • Product certificate	• Silver Member Admin • Silver Member User • Normal Member Admin • Normal Member User • Platinum User
3.	Able to specify a keyword search for a service(s) by one of the following search options: • Industry focus • Technology focus • Service name • Service category • Vendor location • Service award • Service certificate	