



Corporate Digital Banking
Enhancement of BSNeBiz Application and
Organization Setup
[CR22003]
for
IBAM and BSNeBiz

Performance Testing Report

(PENRIL/BSN-PERF-TEST/BSNeBiz/01) – [CR22003]

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Performance Testing Acceptance



I/We hereby verify that this Performance Testing Acceptance Document consists of all the information requested by Bank Simpanan Nasional.

I/We also hereby AGREE that this satisfies our entire performance test result for DB Tech Refresh (MSSQL 2019) in UAT environment.

Bank Simpanan Nasional:

Approved by	Role	Signature	Date

Penril Datability (M) Sdn. Bhd.:

Approved by	Role	Signature	Date
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Document Management

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Chapter 1 - Introduction

1. Background

Bank implements the Enhancement of BSNeBiz Application and Organization Setup in BSNeBiz and IBAM system, which is customer able to make new application and digital signing via online. However, the bank requested Penril to perform a performance report at BSNeBiz New Application Form.

2. Purpose

Bank need to ensure that by implementing Enhancement of BSNeBiz Application and Organization Setup and integrating IB to this new system will not cause major performance degradation.

Thus, this document describes the Performance Test Result before and after IB integration to Enhancement of BSNeBiz Application and Organization Setup in the UAT environment.

Chapter 2 – Content

1. Execution Strategy

1.1 Type of testing: Load Testing

A load test is a planned test to perform a specified number of requests to a system in order to test the query to DB under specific levels of simultaneous requests. A load test ensures that CDB is capable of handling an expected volume of traffic, and therefore is sometimes referred to as volume testing.

The goal of this load test is to prove that with new integration to Enhancement of BSNeBiz Application and Organization Setup, it can handle the expected volume with minimal to acceptable performance degradation. In this test scenario, we simulated the maximum number of requests with the goal of less than 1% of errors.

1.2 Methods of Testing

Penril conducted load testing to the selected menu mentioned in Chapter 1 - 2 Purpose - Module to Test. The test scenarios will be Enhancement of BSNeBiz Application and Organization Setup, because this is considered one of modules that perform heavy query to database and highest number of touch points BSNeBiz. Below is the list of detailed test modules in BSNeBiz:

System	Function	Module	Test Case
IBAM	New Application – Adding Delete Funtionality	BSNeBiz Administration Login Page – Step 1 (portalAccess.do)	[TC-AD-AOS-1]
		BSNeBiz Administration Home Page – Step 2 (portalLogin.do)	[TC-AD-AOS-2]
		BSNeBiz Application Page – Step 3 (applicationFormSearch.do)	[TC-AD-AOS-3]
		BSNeBiz Application Delete Page - Step 4 (applicationFormDeleteConfirm.do)	[TC-AD-AOS-4]
		BSNeBiz Application Delete Result Page – Step 5 (deleteApplicationFormResult.do)	[TC-AD-AOS-5]
BSNeBiz	New Application – To add an account number	New Application Page – Step 1 (ibNewApplicationFormStep1.action)	[TC-ACN-AOS-1]
		New Application Organization and Information Form Page – Step 2 (ibNewApplicationFormStep2.action)	[TC-ACN-AOS-2]
		New Application Services and Access Type Form Page – Step 3 (ibNewApplicationFormStep3.action)	[TC-ACN-AOS-3]
		New Application Confirmation Form Page – Step 4 (ibNewApplicationFormStep4.action)	[TC-ACN-AOS-4]
		New Application Terms & Condition Page – Step 5	[TC-ACN-AOS-5]

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		ibBSN_TNC.action)	
		New Application Save and Download Declaration Pdf Page – Step 6 (ibNewApplicationFormModal.action)	[TC-ACN-AOS-6]
		New Application Save and Download Declaration Pdf Page - Step 7 (RegistrationSummaryPdfDownload.action)	[TC-ACN-AOS-7]
BSNeBiz	New Application – Rearrange the Services Listing	New Application Page – Step 1 (ibNewApplicationFormStep1.action)	[TC-RSL-AOS-1]
		New Application Organization and Information Form Page – Step (ibNewApplicationFormStep2.action)	[TC-RSL-AOS-2]
		New Application Services and Access Type Form Page – Step 3 (ibNewApplicationFormStep3.action)	[TC-RSL-AOS-3]
		New Application Confirmation Form Page – Step 4 (ibNewApplicationFormStep4.action)	[TC-RSL-AOS-4]
		New Application Term & Conditions Page – Step 5 (BSN_TnC.pdf)	[TC-RSL-AOS-5]
		New Application Save and Download Declaration Pdf Page – Step 6 (ibNewApplicationFormModal.action)	[TC-RSL-AOS-6]
		New Application Save and Download Declaration Pdf Page – Step 7 (RegistrationSummaryPdfDownload.action)	[TC-RSL-AOS-7]
		BSNeBiz	New Application – To update the Contact Us Screen
New Application Organization and Information Form Page – Step 2 (ibNewApplicationFormStep2.do)	[TC-UCS-AOS-2]		
New Application Services and Access Type Form Page – Step 3 (ibNewApplicationFormStep3.do)	[TC-UCS-AOS-3]		
New Application Confirmation Form Page – Step 4 (ibNewApplicationFormStep4.do)	[TC-UCS-AOS-4]		
New Application Term & Condition Page – Step 5 (BSN_TnC.pdf)	[TC-UCS-AOS-5]		
New Application Save and Download Declaration Pdf Page – Step 6 (ibNewApplicationFormModal.do)	[TC-UCS-AOS-6]		
New Application Save and Download Declaration Pdf Page – Step 7 (RegistrationSummaryPdfDownload.do)	[TC-UCS-AOS-7]		
New Application Email Us Page – Step 8 (ibNewApplicationFormStep5.do)	[TC-UCS-AOS-8]		

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IBAM	To Add Checkbox in Order to Facilities	BSNeBiz Administration Login Page – Step 1 (ibPortalAccess.do)	[TC-ACF-AOS-1]
		BSNeBiz Administration Home Page – Step 2 (ibPortalLogin.do)	[TC-ACF-AOS-2]
		BSNeBiz Application Page – Step 3 (applicationFormSearch.do)	[TC-ACF-AOS-3]
		BSNeBiz Application Page – Step 4 (applicationFormCreate.do)	[TC-ACF-AOS-4]
		BSNeBiz Application Search ByPage – Step 5 (applicationFormCreateStep2.do)	[TC-ACF-AOS-5]
		BSNeBiz Application Create (Organization Detail) Page – Step 6 (applicationFormCreateStep3.do)	[TC-ACF-AOS-6]
		BSNeBiz Application Create (Services) Page – Step 7 (applicationFormCreateStep4.do)	[TC-ACF-AOS-7]
		BSNeBiz Application Create (Services) Page – Page 8 (applicationFormCreateStep5.do)	[TC-ACF-AOS-8]
		BSNeBiz Application Create (Charges) Page – Step 9 (applicationFormCreateStep6.do)	[TC-ACF-AOS-9]
		BSNeBiz Application Create (Charges) Page – Step 10 (applicationFormCreateStep7.do)	[TC-ACF-AOS-10]
		BSNeBiz Application Create (Confirmation) Page – Step 11 (applicationFormCreateStep8.do)	[TC-ACF-AOS-11]
		BSNeBiz Application Create (Result) Page – Step 12 (applicationFormCreateStep9.do)	[TC-ACF-AOS-12]

Important Notes:

This performance test case does not reflect the actual performance in the production environment. Bank need to provide the ratio between staging vs. production environment.

1.3 Process of testing – Adding Delete Functionality to IBAM > CBE BSNeBiz Application Module

This test scenario simulates concurrent users to Adding Delete Functionality to IBAM > CBE BSNeBiz Application module. This test case depends on below test case to be executed:

1.3.1 [TC-AD-AOS-1] – BSNeBiz Administration Login Page – Step 1 (PortalAccess.do)

In this stage, the CDB connects to:

- a) DBO DB Schema

The DBO fetches:

- IB_SERVICE_INFO. IB_SERVICE_INFO contains some notes or announcements.

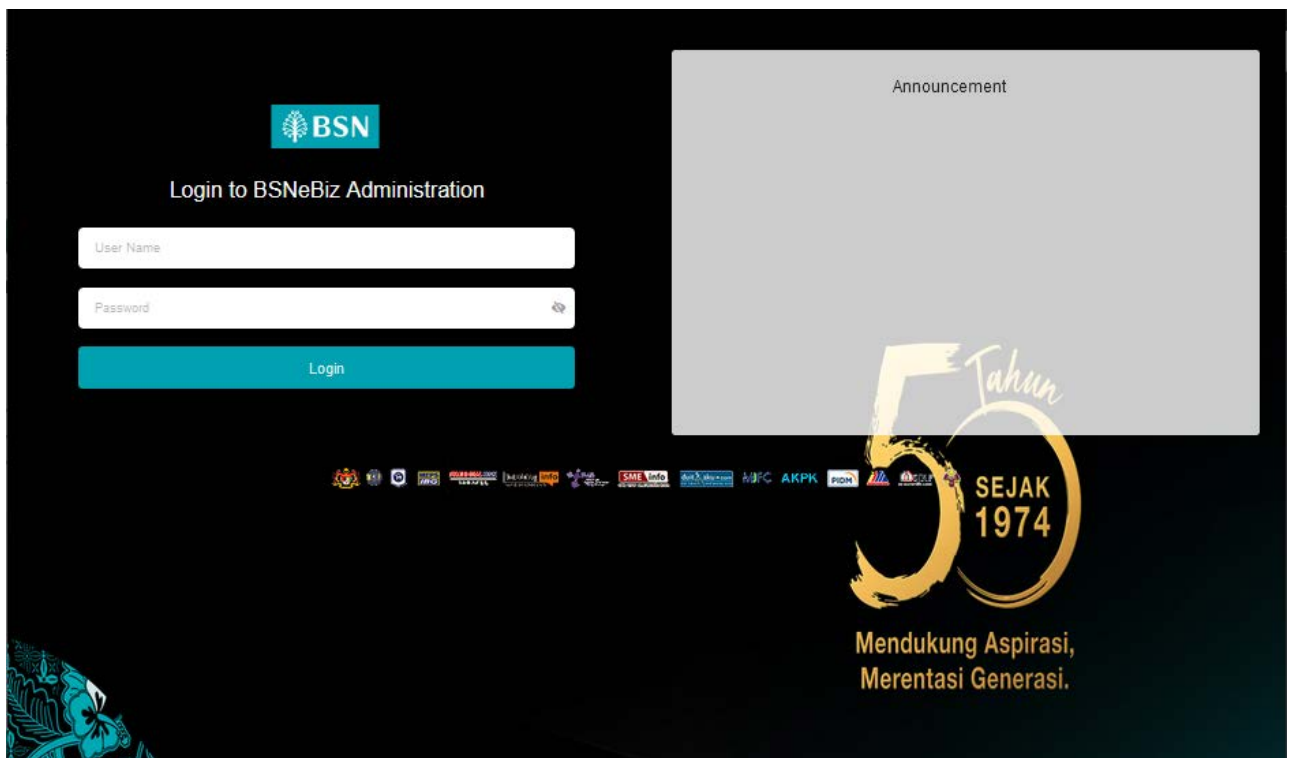


Figure 1: BSNeBiz Administration Login page

Performance Report: CR23001 - Enhancement of New Application

1.3.2 [TC-AD -AOS-2] – BSNeBiz Administration Home Page – STEP 2 (portalLogin.do)

In this stage, the CDB connects to BSNeBiz Administration Home page:

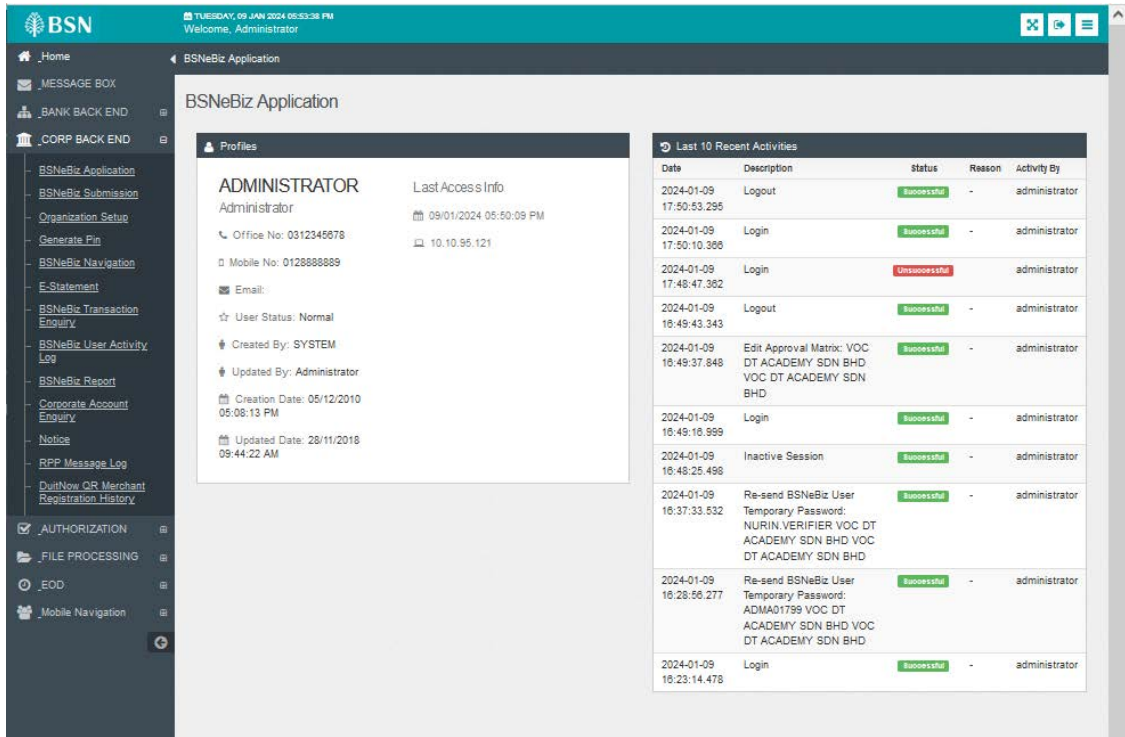


Figure 2: BSNeBiz Administration Home page

1.3.3 [TC-AD-AOS-3] – BSNeBiz Application Page – STEP 3 (applicationFormSearch.do)

In this stage, the CDB connects to BSNeBiz Application page:

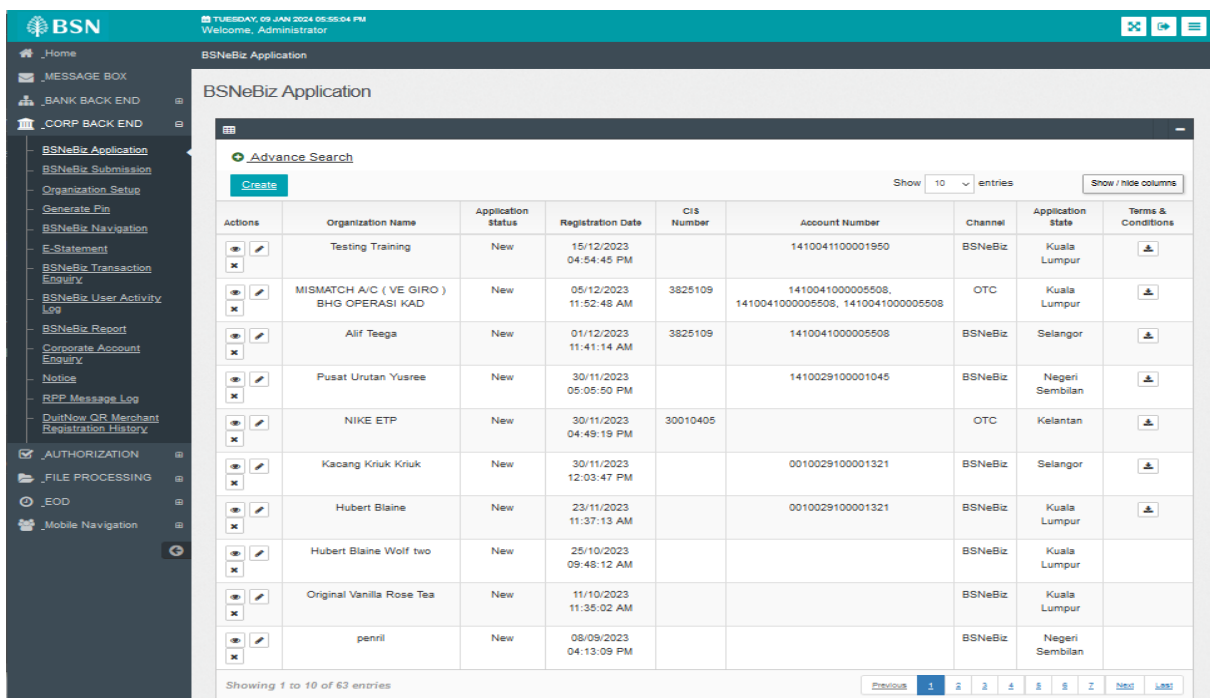
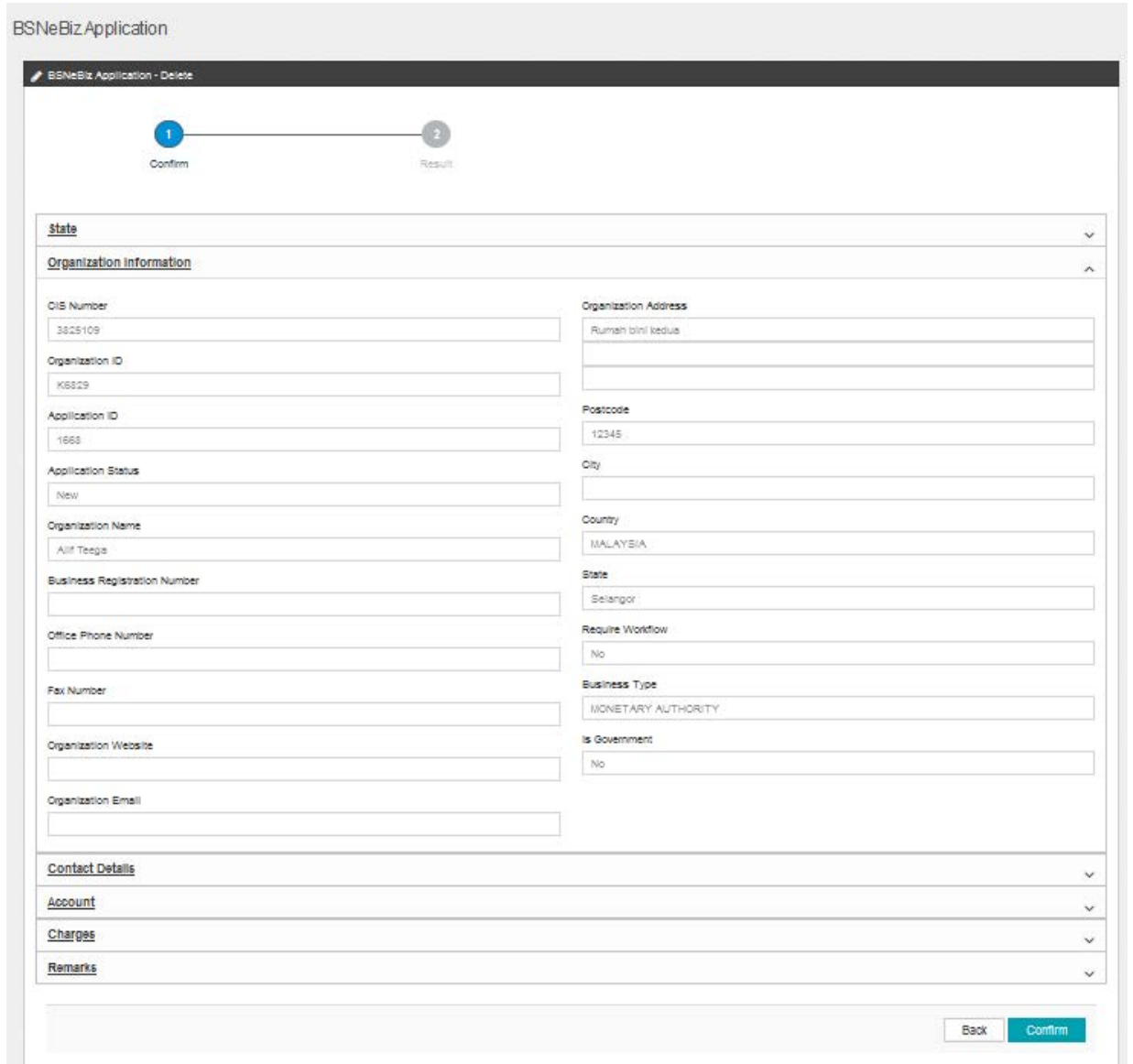


Figure 3 : BSNeBiz Application page

1.3.4 [TC-AD-AOS-4] – BSNeBiz Application – Delete Page – Step 4 (applicationFormDeleteConfirm.do)

In this stage, the CDB connects to BSNeBiz Application – Delete page:



BSNeBiz Application

BSNeBiz Application - Delete

1 Confirm — 2 Result

state

Organization Information

OIS Number: 3825109

Organization ID: K5829

Application ID: 1658

Application Status: New

Organization Name: Aini Teaga

Business Registration Number:

Office Phone Number:

Fax Number:

Organization Website:

Organization Email:

Organization Address: Rumah bini kedua

Postcode: 12345

City:

Country: MALAYSIA

State: Selangor

Require Workflow: No

Business Type: MONETARY AUTHORITY

Is Government: No

Contact Details

Account

Charges

Remarks

Back Confirm

Figure 4 : BSNeBiz Application – Delete page

1.3.5 [TC-AD-AOS-5] - BSNeBiz Application Delete Result Page – Step 5 (deleteApplicationFormResult.do)

In this stage, the CDB connects to BSNeBiz Application Delete Result Page:

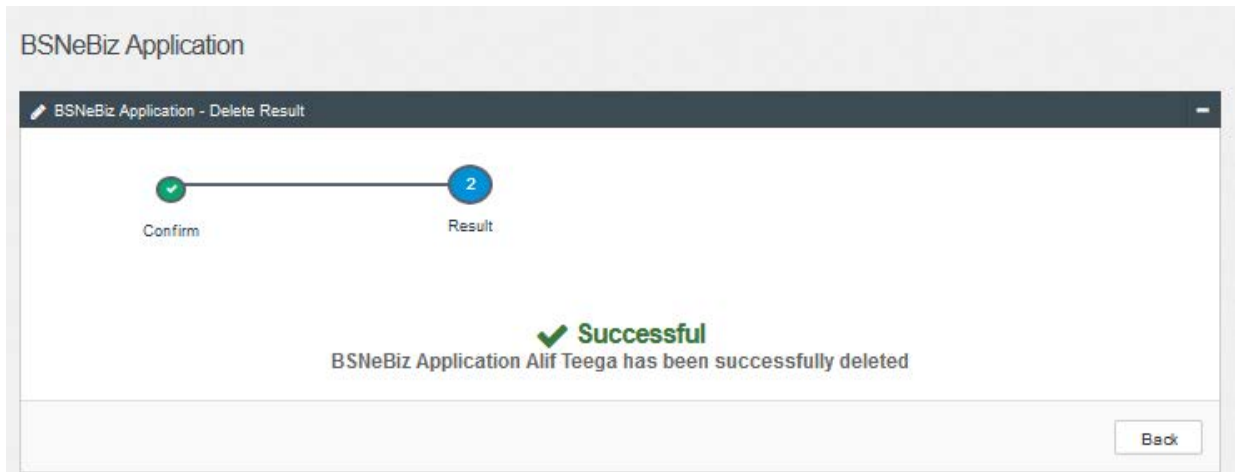


Figure 5: BSNeBiz Application Delete Result Page

1.4 Process of testing – New Application – To add an account number field in the online payment row

This test scenario simulates concurrent users for New Application – To add an account number field in the online payment row. This test depends on below test case to be executed:

1.4.1 [TC-ACN-AOS-1] – New Application Page – Step 1 (ibNewApplicationFormStep1.action) In this stage, the CDB connects to:

- a) DBO DB Schema

The DBO fetches:

- IB_SERVICE_INFO. IB_SERVICE_INFO contains some notes or announcements.

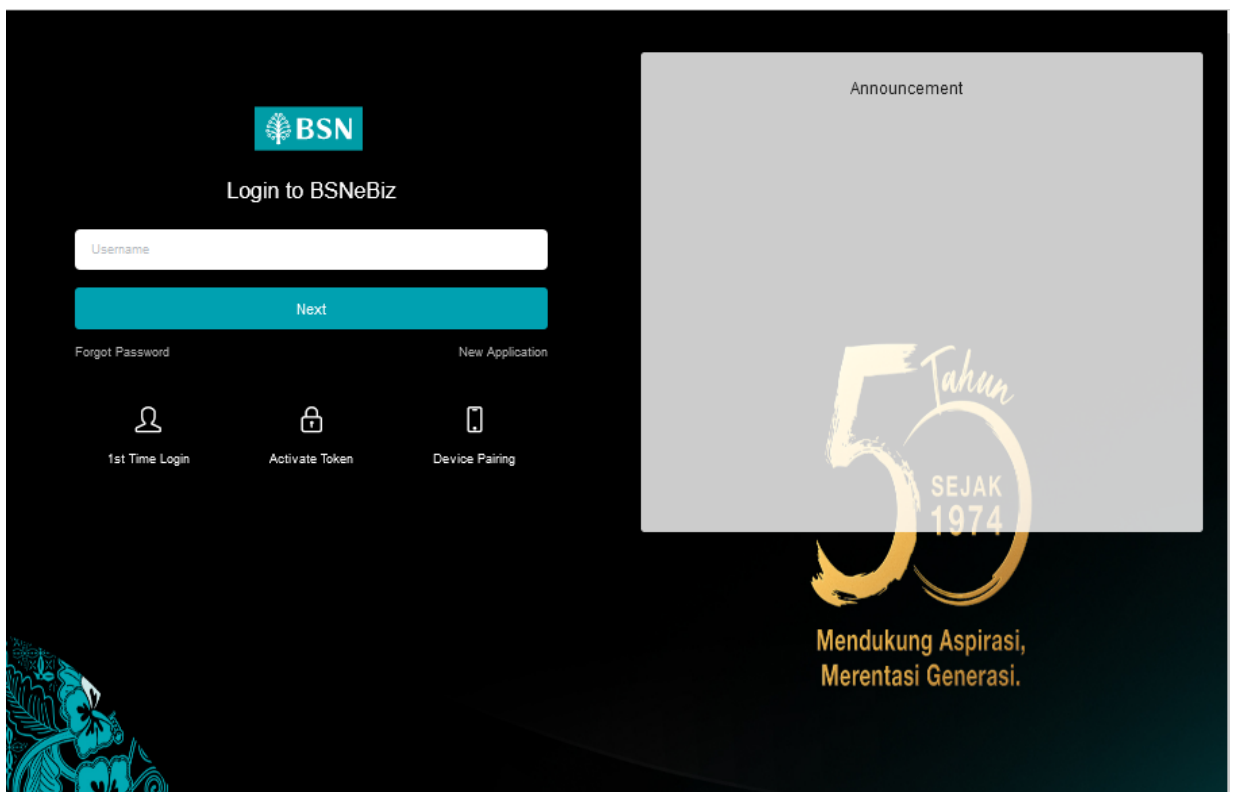


Figure 6: BSNeBiz Login page

1.4.2 [TC-ACN-AOS-2] - New Application Organization and Information Form Page – Step 2 (ibNewApplicationFormStep2.action)

In this stage, the CDB connects to New Application Organization and Information Form page:

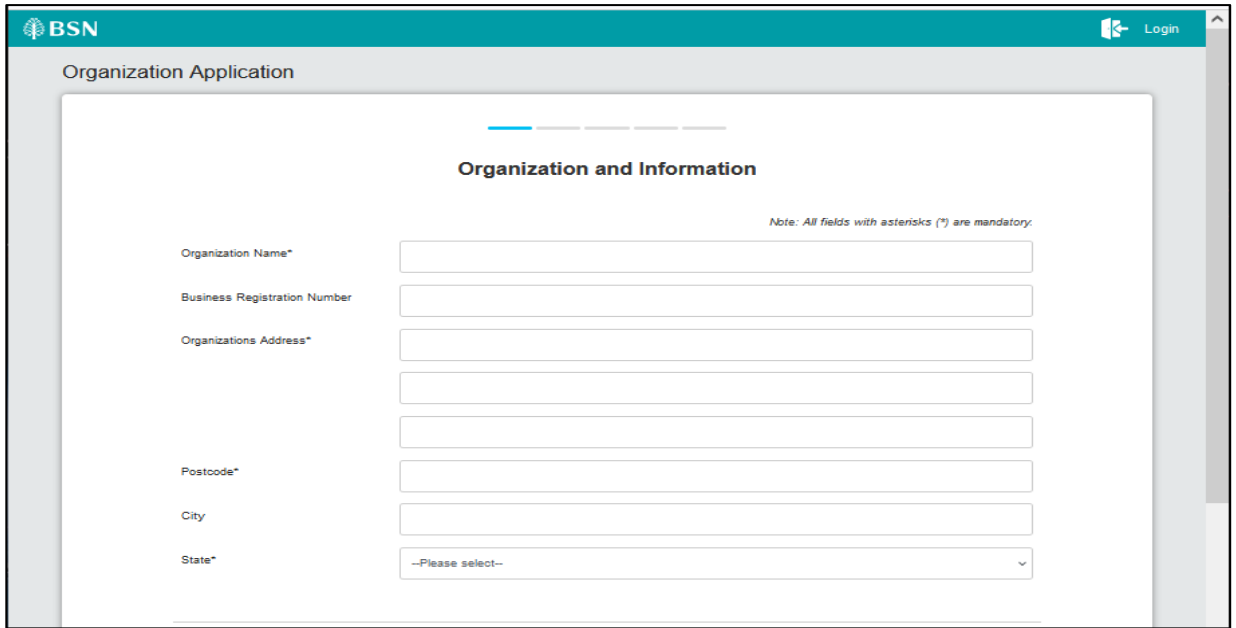


Figure 6 : BSNeBiz New Application > Organization and Information page

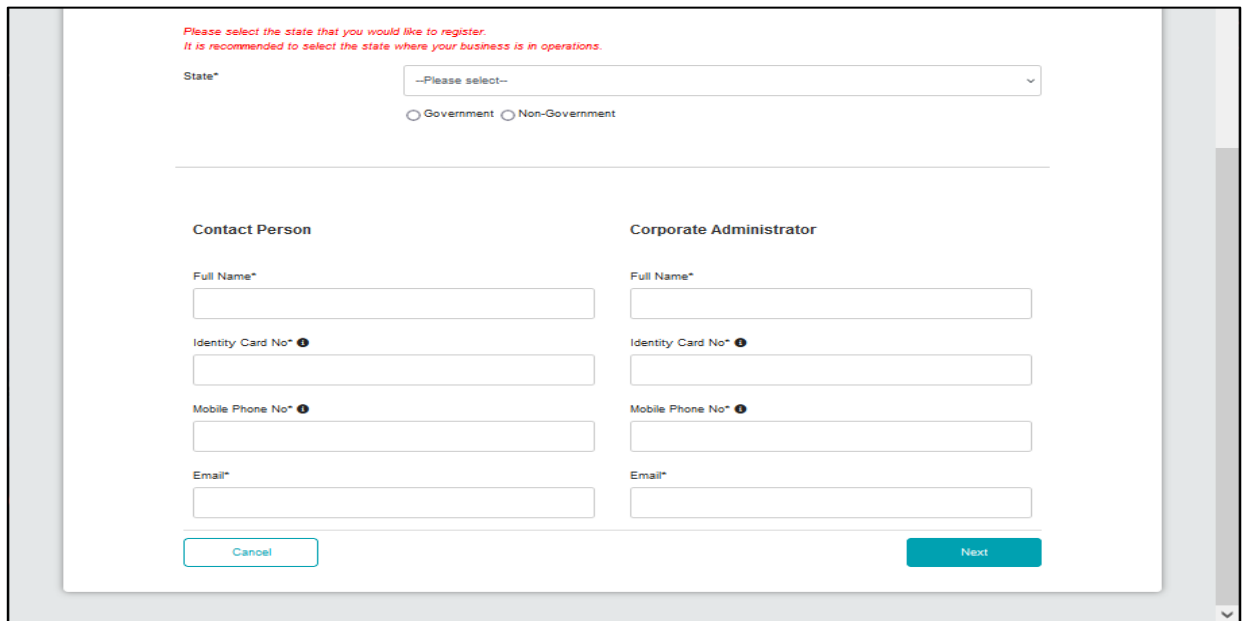


Figure 7 : BSNeBiz New Application > Organization and Information page

1.4.3 [TC-ACN-AOS-3] - New Application Services and Access Type Form Page – Step 3 (ibNewApplicationFormStep3.action)

In this stage, the CDB connects to:

- a) DBO DB Schema

The DBO fetches:

- Table BIB_LHDN_EMPLOYER_NO. Table BIB_LHDN_EMPLOYER_NO contains id number validation details.

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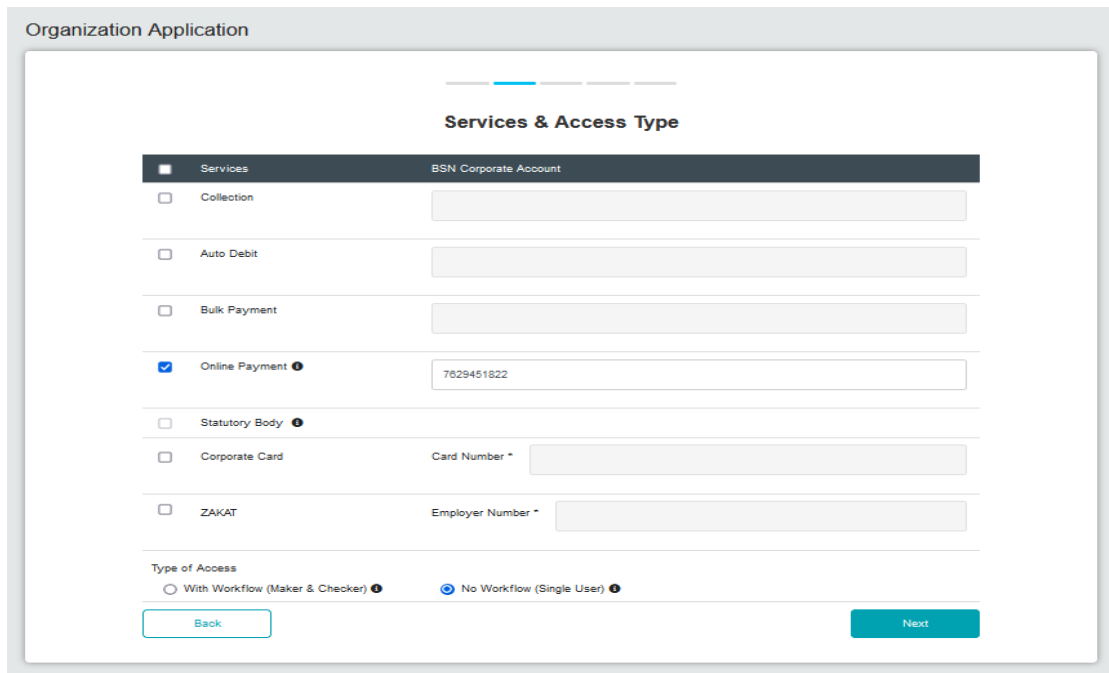


Figure 8 : BSNeBiz New Application > Services and Access Type page

1.4.4 [TC-ACN-AOS-4] - New Application Confirmation Form Page – Step 4 (ibNewApplicationFormStep4.action)

In this stage, the CDB connects to New Application Confirmation Form Page:

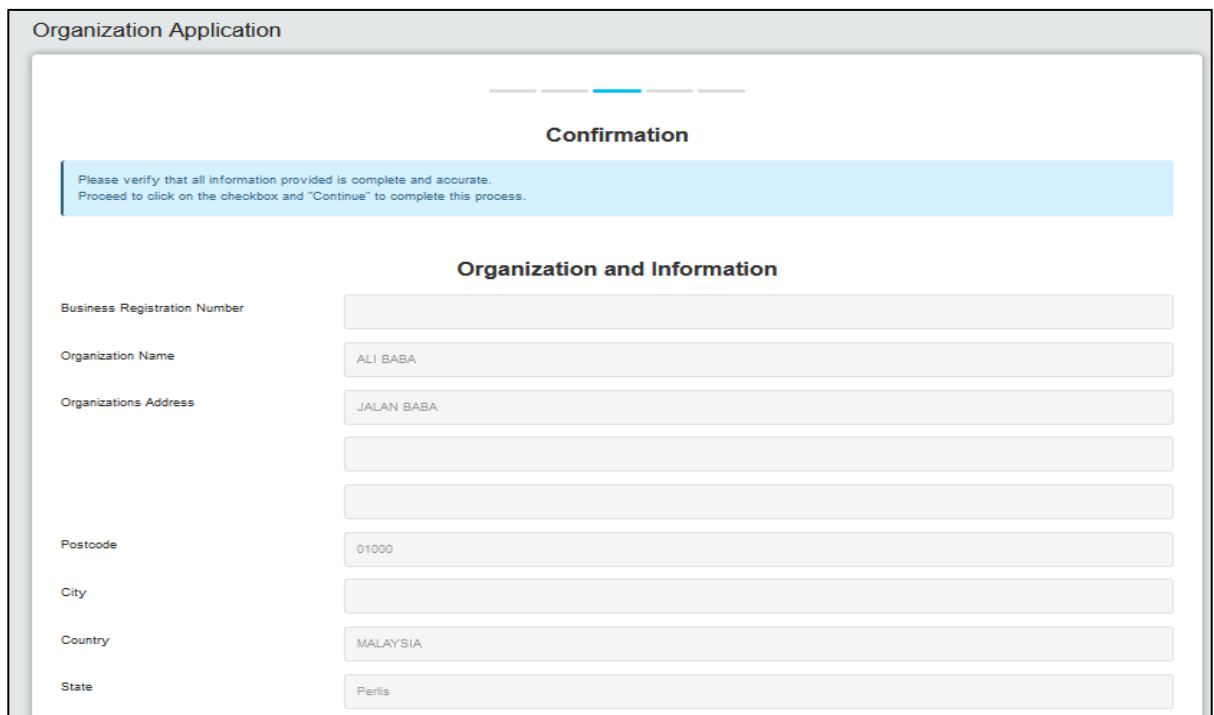
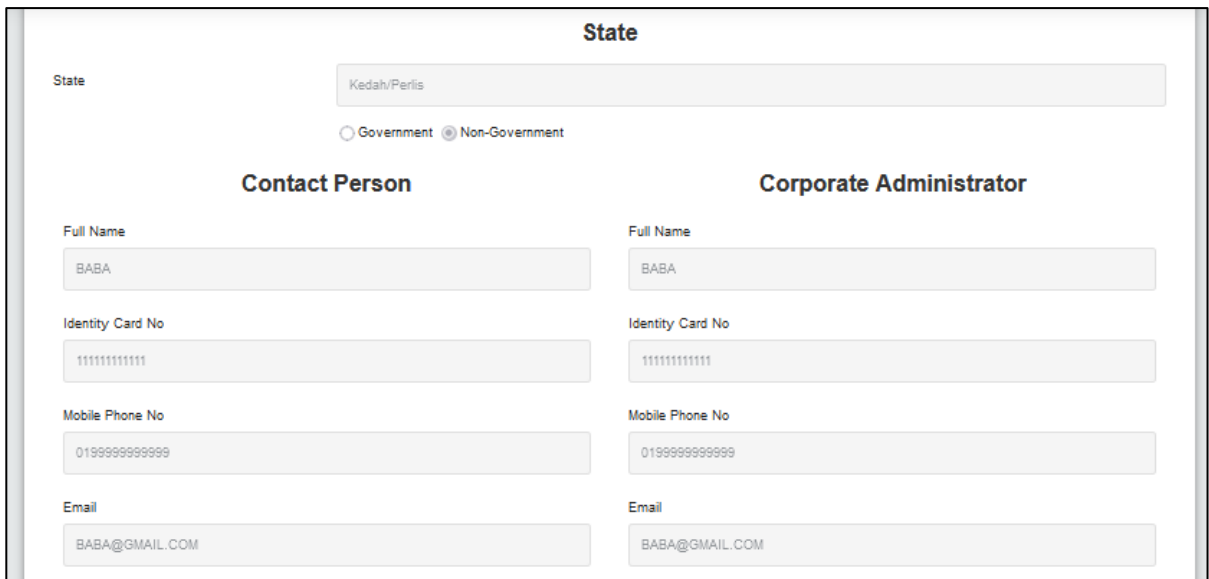


Figure 9 : BSNeBiz New Application > Confirmation page

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State

State: Kedah/Perlis

Government Non-Government

Contact Person

Full Name: BABA

Identity Card No: 111111111111

Mobile Phone No: 019999999999

Email: BABA@GMAIL.COM

Corporate Administrator

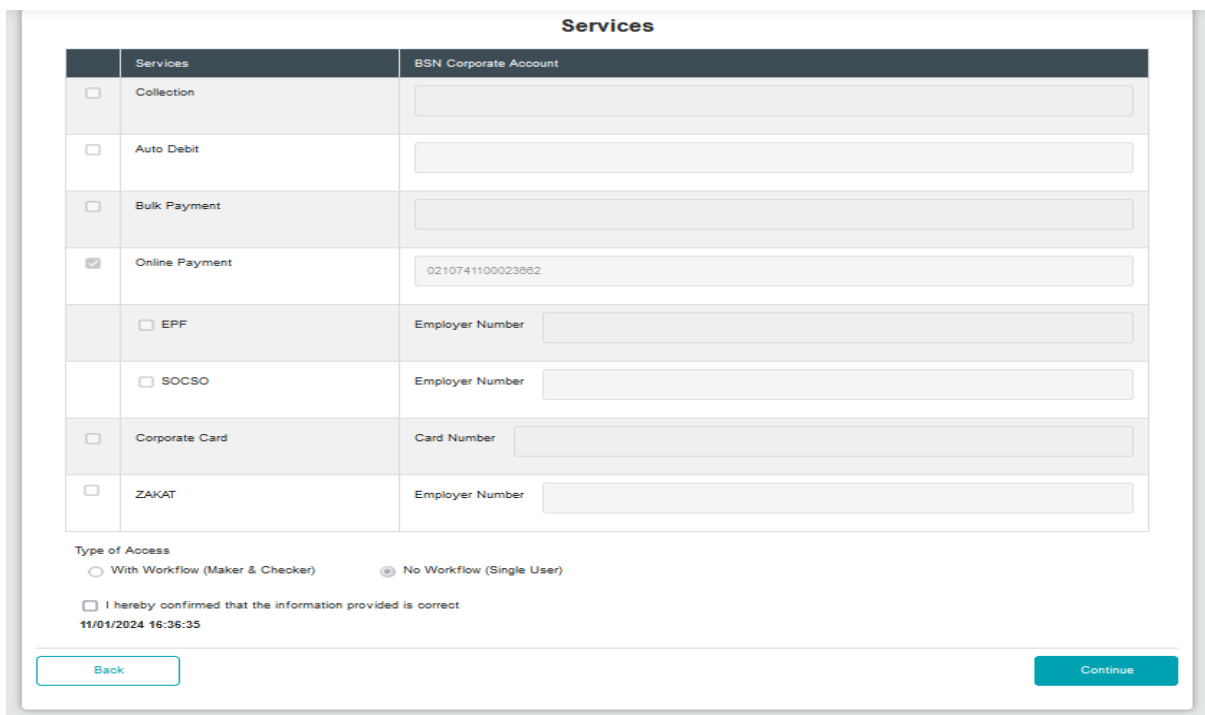
Full Name: BABA

Identity Card No: 111111111111

Mobile Phone No: 019999999999

Email: BABA@GMAIL.COM

Figure 10 : B BSNeBiz New Application > Confirmation page



Services

Services	BSN Corporate Account
<input type="checkbox"/> Collection	
<input type="checkbox"/> Auto Debit	
<input type="checkbox"/> Bulk Payment	
<input checked="" type="checkbox"/> Online Payment	0210741100023862
<input type="checkbox"/> EPF	Employer Number
<input type="checkbox"/> SOCSO	Employer Number
<input type="checkbox"/> Corporate Card	Card Number
<input type="checkbox"/> ZAKAT	Employer Number

Type of Access

With Workflow (Maker & Checker) No Workflow (Single User)

I hereby confirmed that the information provided is correct

11/01/2024 16:36:35

[Back](#) [Continue](#)

Figure 11 : BSNeBiz New Application > Confirmation page

1.4.5 [TC-ACN-AOS-5] - New Application Terms & Conditions Page – Step 5 (ibBSN_TNC.action)

In this stage, the CDB connects to:

- a) SACDA947 Server

The SACDA947 fetches:

- BSN folder. BSN folder contains BSN_TNC.pdf file for Terms And Condition of BSNeBIZ pdf.

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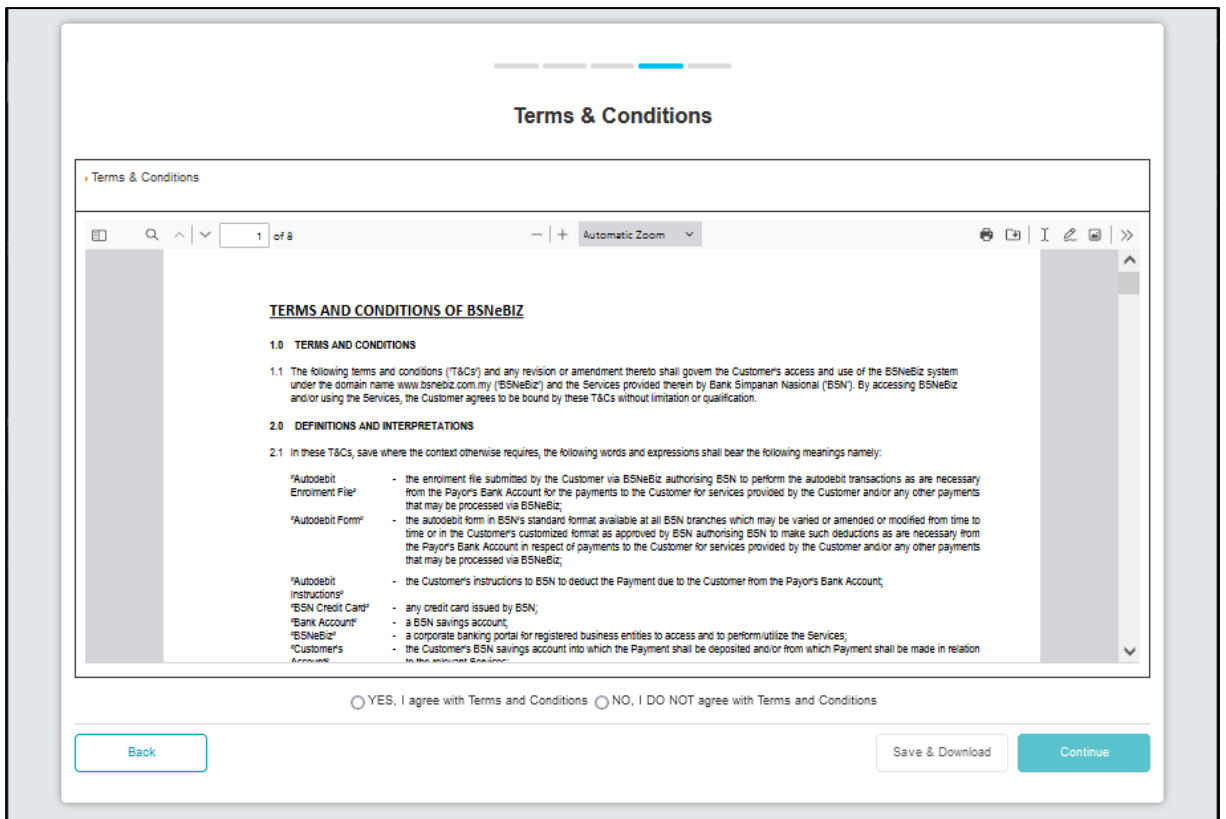


Figure 12: BSNeBiz > New Application > Terms and Condition screen

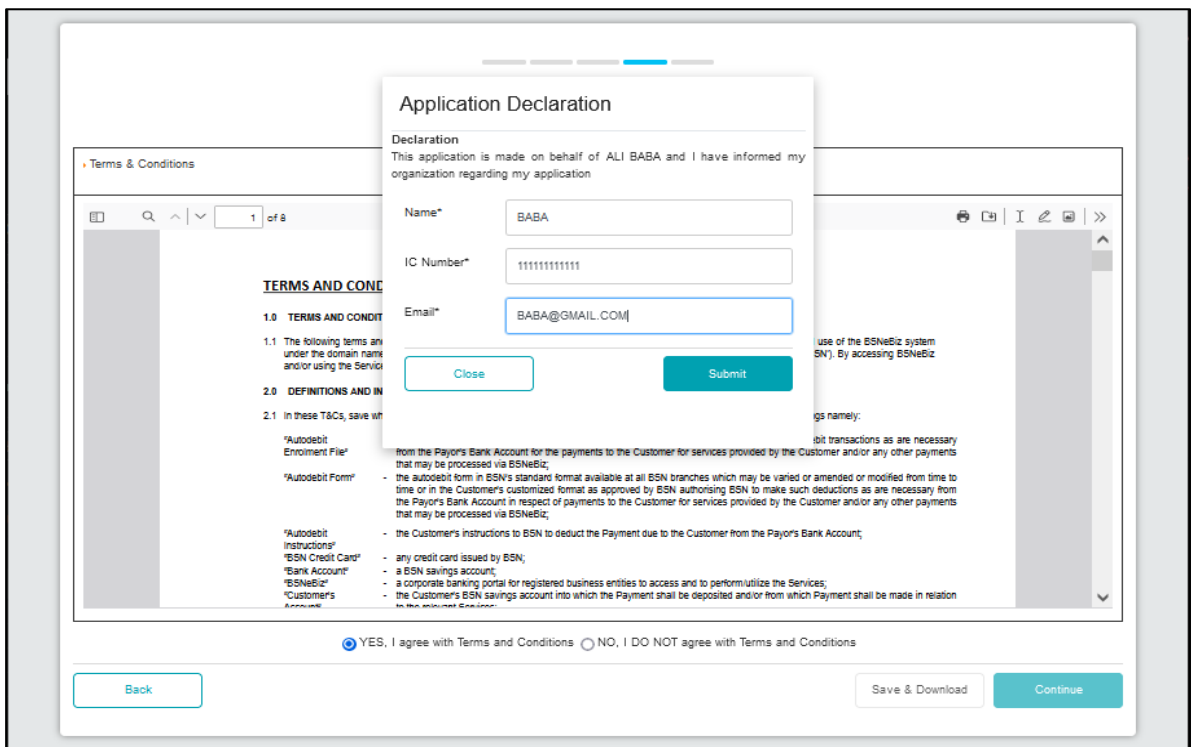


Figure 13: BSNeBiz > New Application > TNC > Application declaration popup

1.4.6 [TC-ACN-AOS-6] - New Application Save and Download Declaration Pdf Page – Step 6 (ibNewApplicationFormModal.action)

In this stage, the CDB connects to:

- a) SACDA947 Server

The SACDA947 fetches:

- BSN folder. BSN folder contains BSN_TNC.pdf file for Terms And Condition of BSNeBIZ pdf.

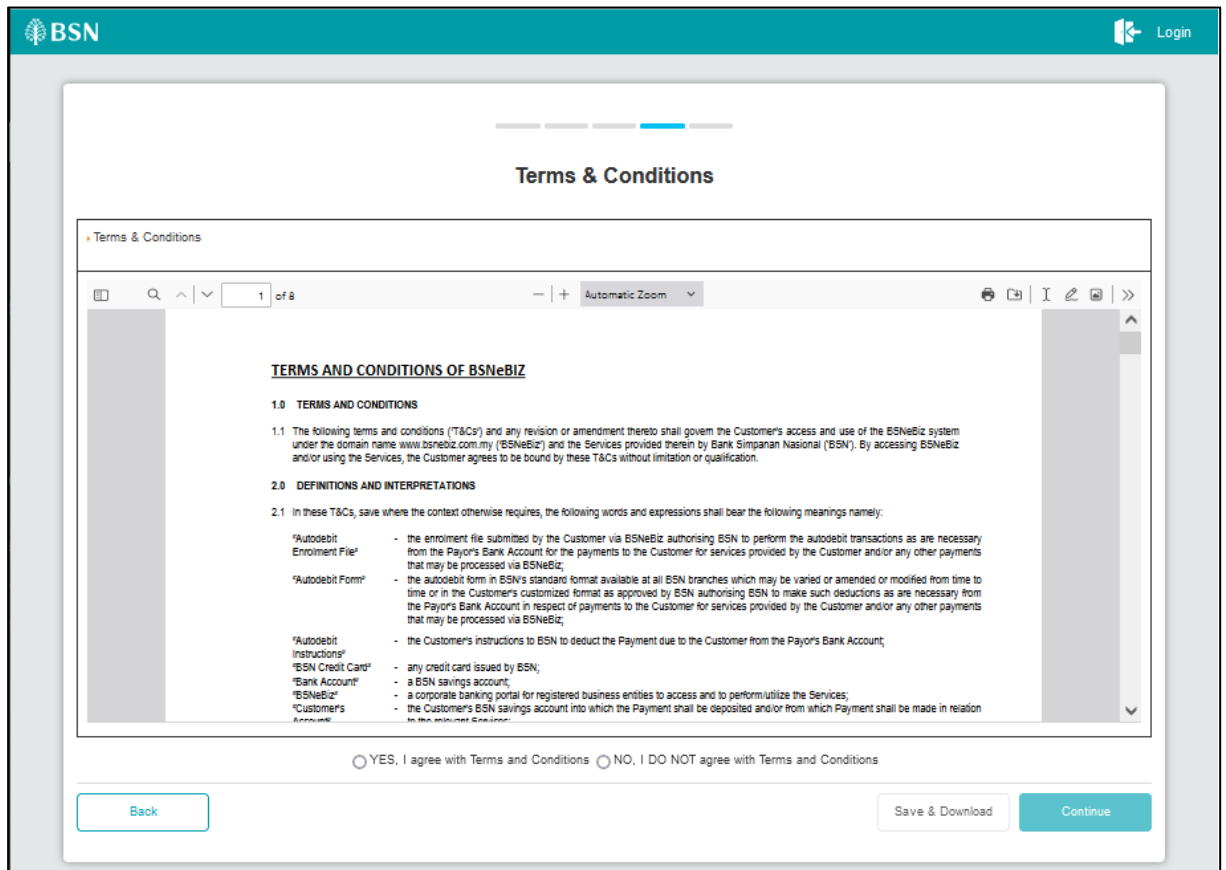


Figure 14: BSNeBiz > New Application > Terms and Condition screen

1.4.7 [TC-ACN-AOS-7] - New Application Save and Download Declaration Pdf Page – Step 7 (RegistrationSummaryPdfDownload.action)

In this stage, the CDB connects to:

- a) DBO DB Schema

The DBO fetches:

- Table BIB_APPLICATION_FORM. Table BIB_APPLICATION_FORM contains data for New Application Form details.

- b) SACDA947 Server

The SACDA947 fetches:

- IBAApplicationResources_en.properties. IBAApplicationResources_en.properties contain the Result page details.
- appConfig.file. appConfig file contains the email value inside Result page.

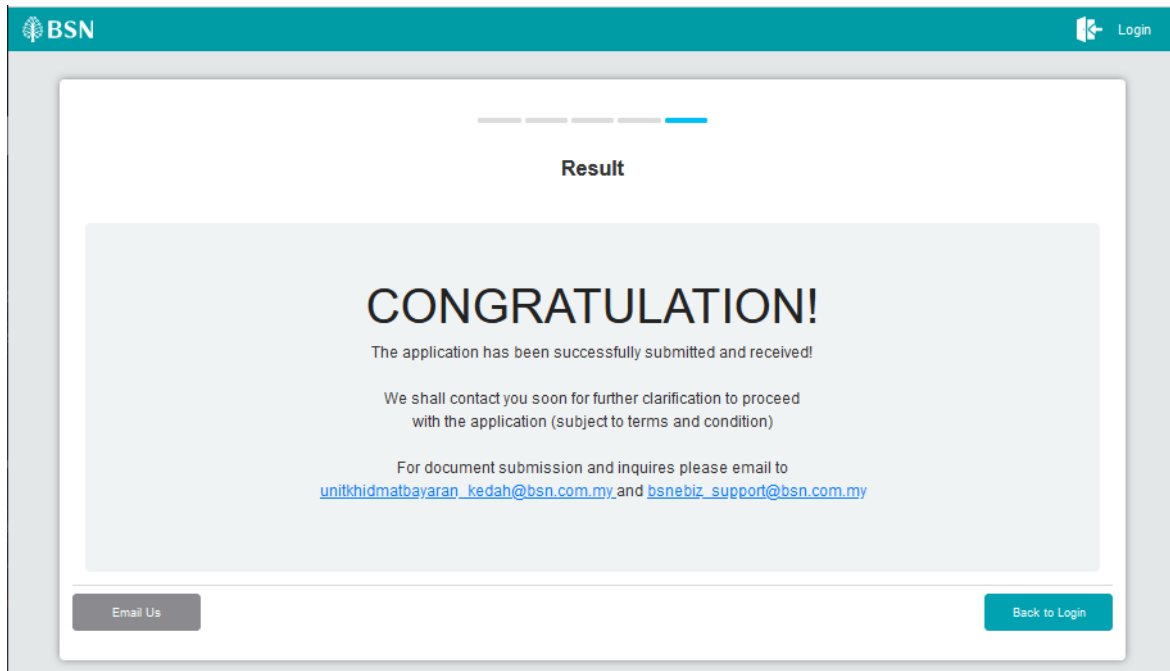


Figure 15 : BSNeBiz New Application > Result page

1.5 Process of testing – New Application – Rearrange the services listing

This test scenario simulates concurrent users for New Application – To rearrange the services listing. This test depends on below test case to be executed:

1.5.1 [TC-RSL-AOS-1] – New Application Page – Step 1 (ibNewApplicationFormStep1.action)

In this stage, the CDB connects to:

- a) DBO DB Schema

The DBO fetches:

- IB_SERVICE_INFO. IB_SERVICE_INFO contains some notes or announcements.

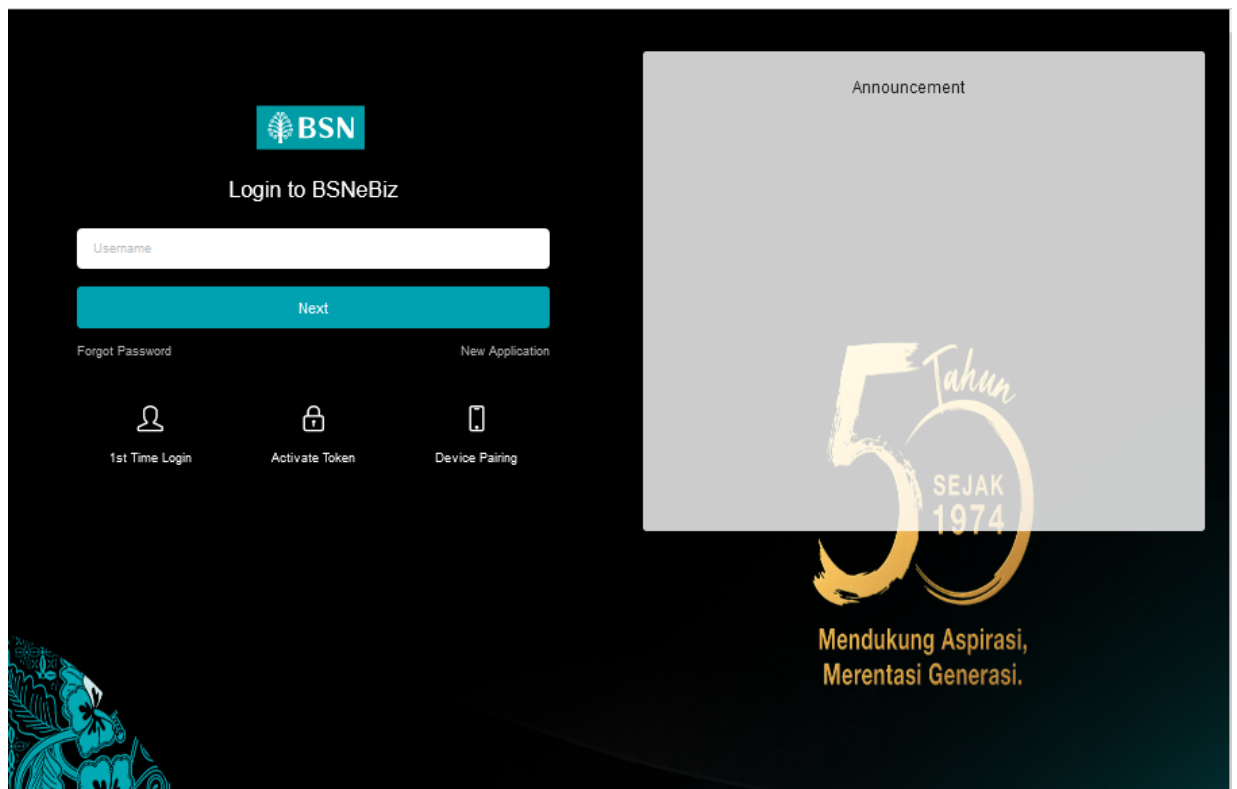


Figure 16 : BSNeBiz Login page

1.5.2 [TC-RSL-AOS-2] - New Application Organization and Information Form Page – Step 2 (ibNewApplicationFormStep2.action)

In this stage, the CDB connects to New Application Organization and Information Form page:

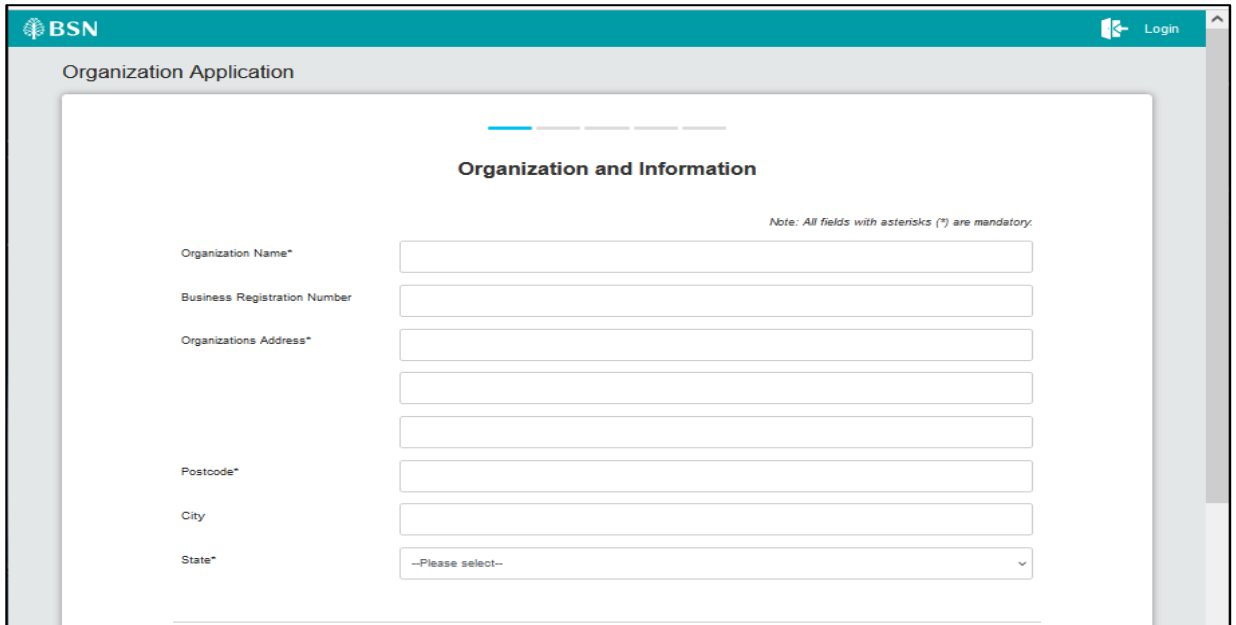


Figure 17 : BSNeBiz New Application > Organization and Information page

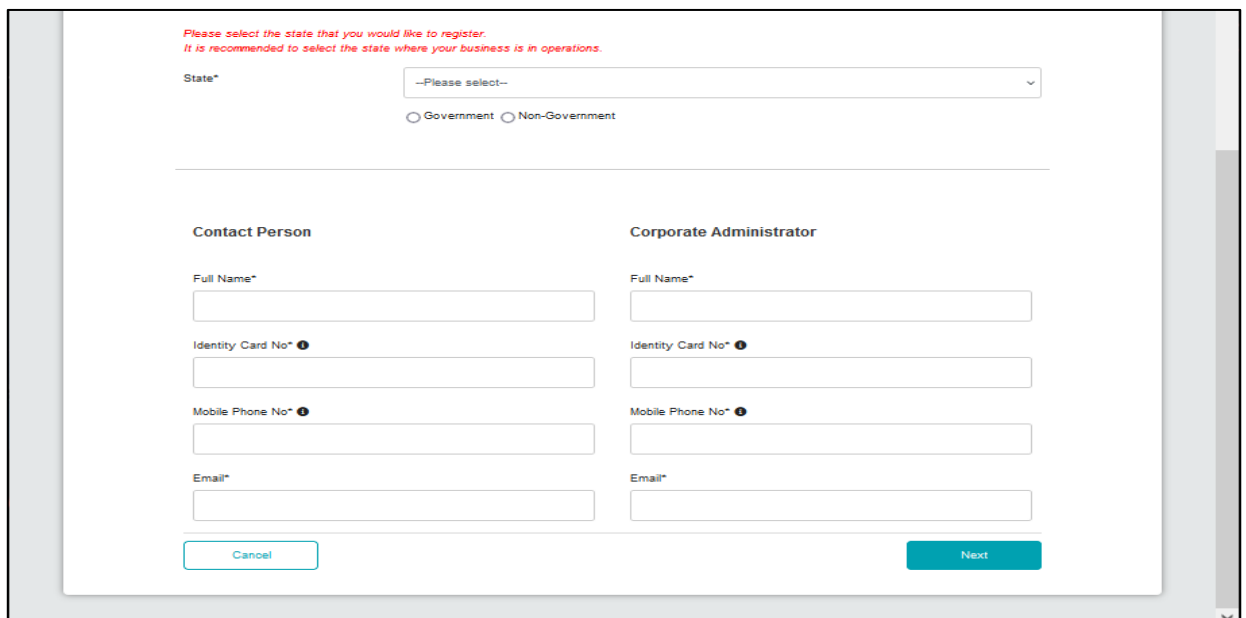


Figure 18 : BSNeBiz New Application > Organization and Information page

1.5.3 [TC-RSL-AOS-3] - New Application Services and Access Type Form Page – Step 3 (RegistrationSummaryPdfDownload.action)

In this stage, the CDB connects to:

- a) DBO DB Schema

The DBO fetches:

Performance Report: CR23001 - Enhancement of New Application

- Table BIB_LHDN_EMPLOYER_NO. Table BIB_LHDN_EMPLOYER_NO contains id number validation details.

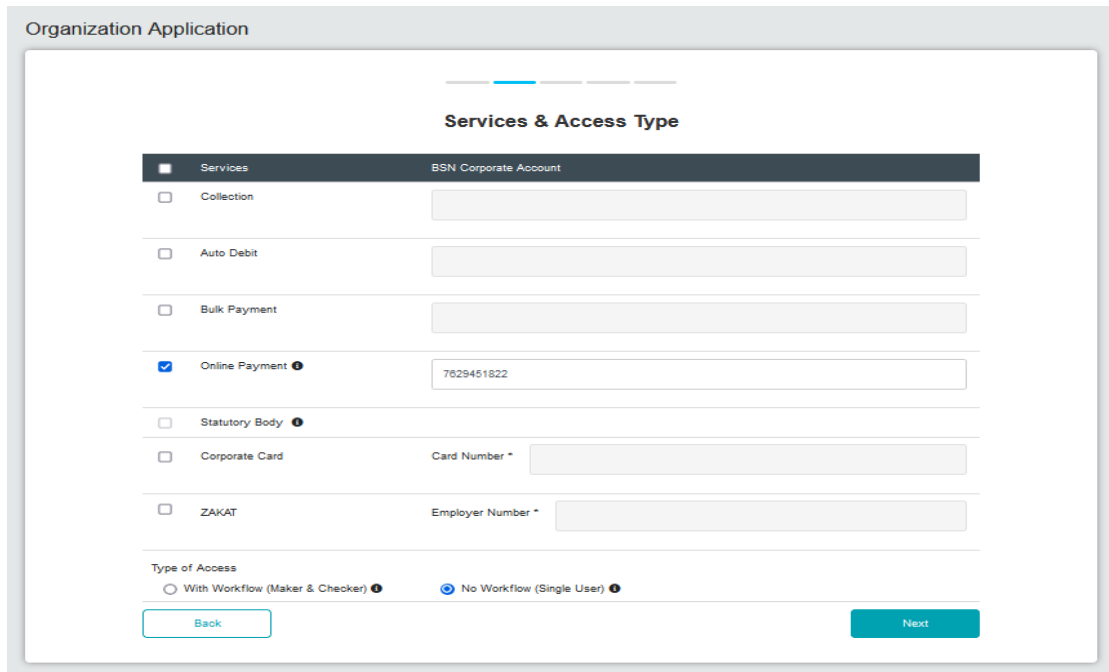


Figure 19 : BSNeBiz New Application > Services and Access Type page

1.5.4 [TC-RSL-AOS-4] - New Application Confirmation Form Page – Step 4 (ibNewApplicationFormStep4.action)

In this stage, the CDB connects to New Application Confirmation Form Page:

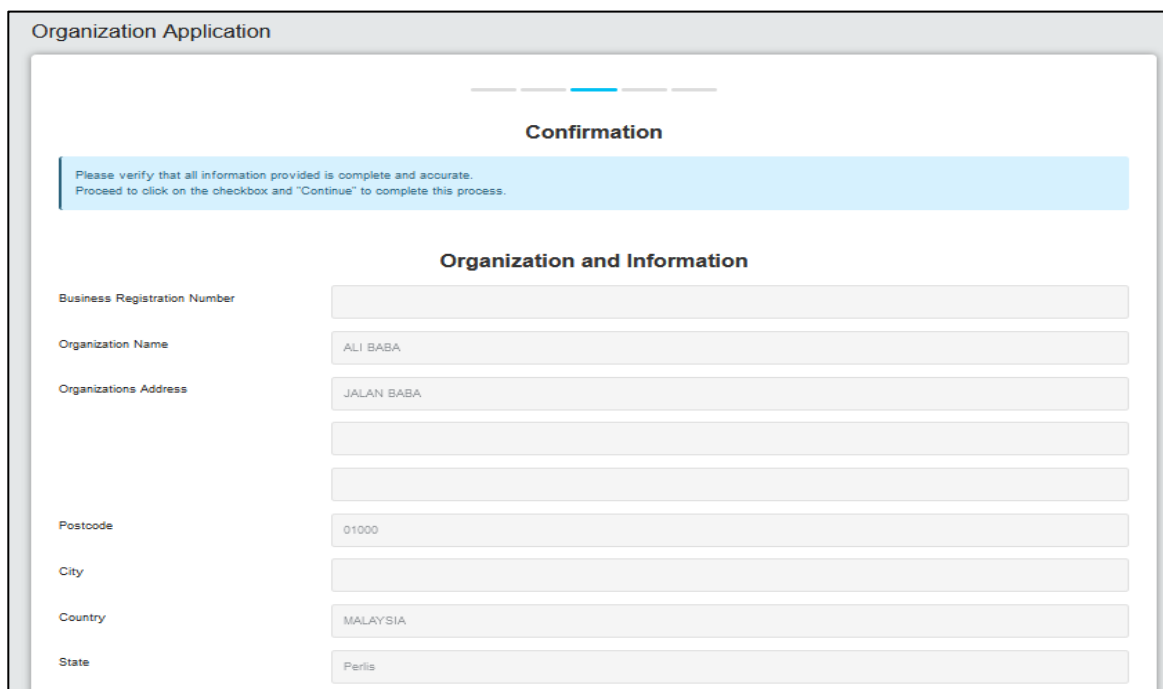


Figure 20 : BSNeBiz New Application > Confirmation page

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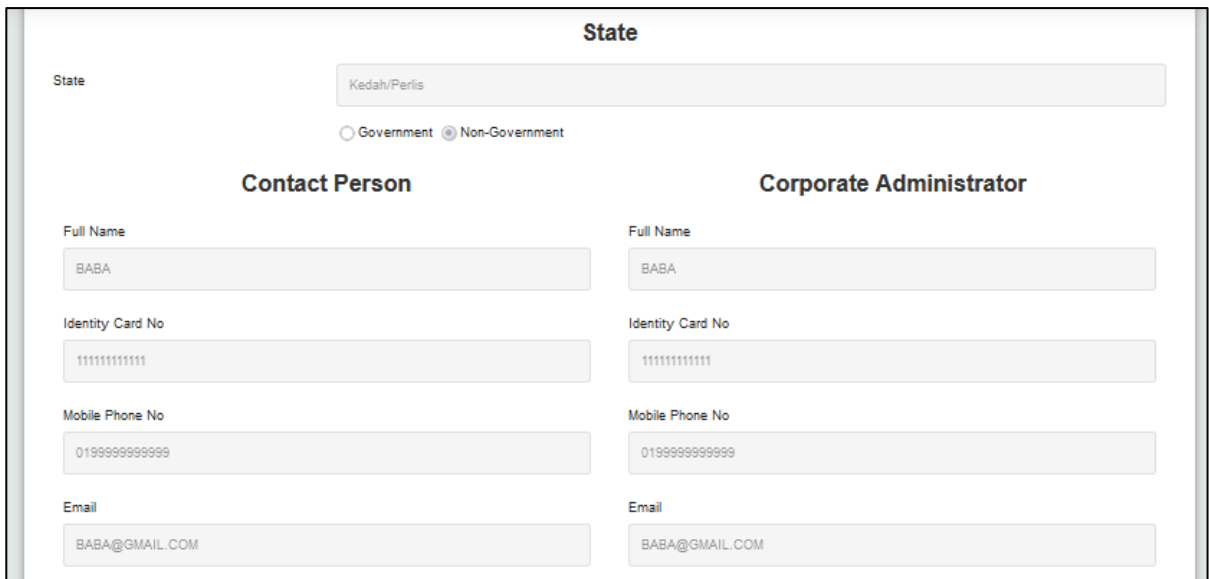
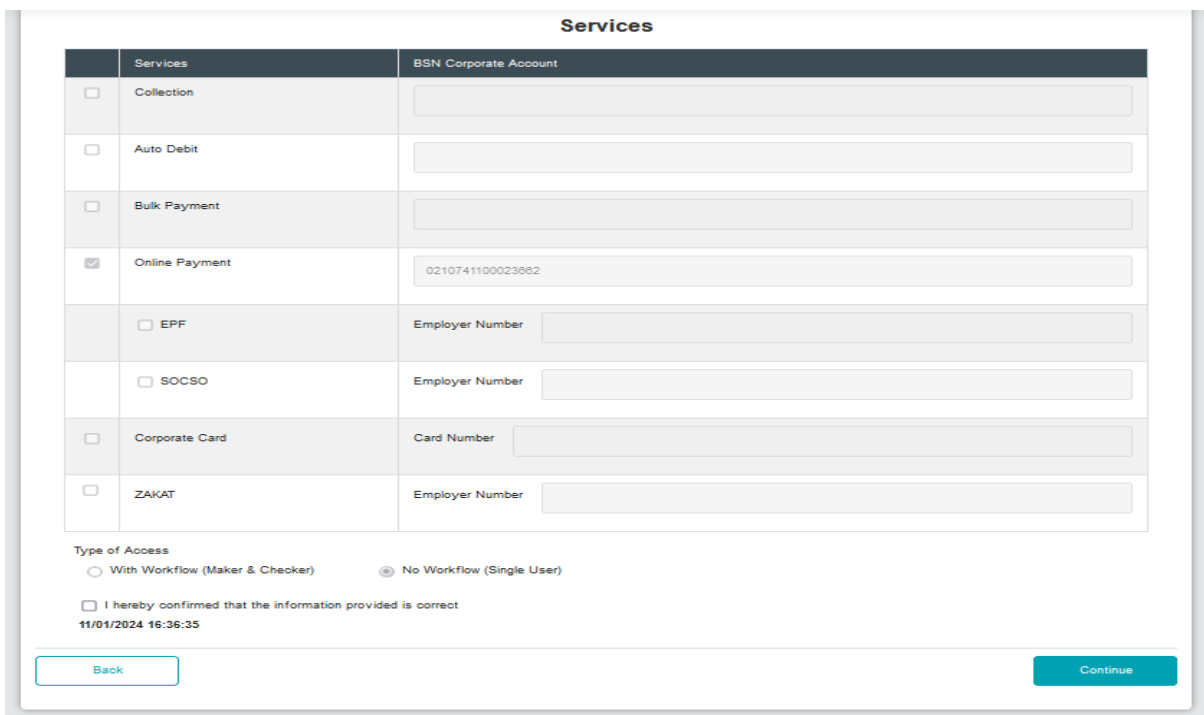


Figure 21 : B BSNeBiz New Application > Confirmation page



Services	BSN Corporate Account
<input type="checkbox"/> Collection	
<input type="checkbox"/> Auto Debit	
<input type="checkbox"/> Bulk Payment	
<input checked="" type="checkbox"/> Online Payment	0210741100023862
<input type="checkbox"/> EPF	Employer Number
<input type="checkbox"/> SOCSO	Employer Number
<input type="checkbox"/> Corporate Card	Card Number
<input type="checkbox"/> ZAKAT	Employer Number

Figure 22 : BSNeBiz New Application > Confirmation page

1.5.5 [TC-RSL-AOS-5] - New Application Terms & Conditions Page – Step 5 (BSN_TnC.pdf)

In this stage, the CDB connects to:

- a) SACDA947 Server

The SACDA947 fetches:

- BSN folder. BSN folder contains BSN_TNC.pdf file for Terms And Condition of BSNeBIZ pdf.

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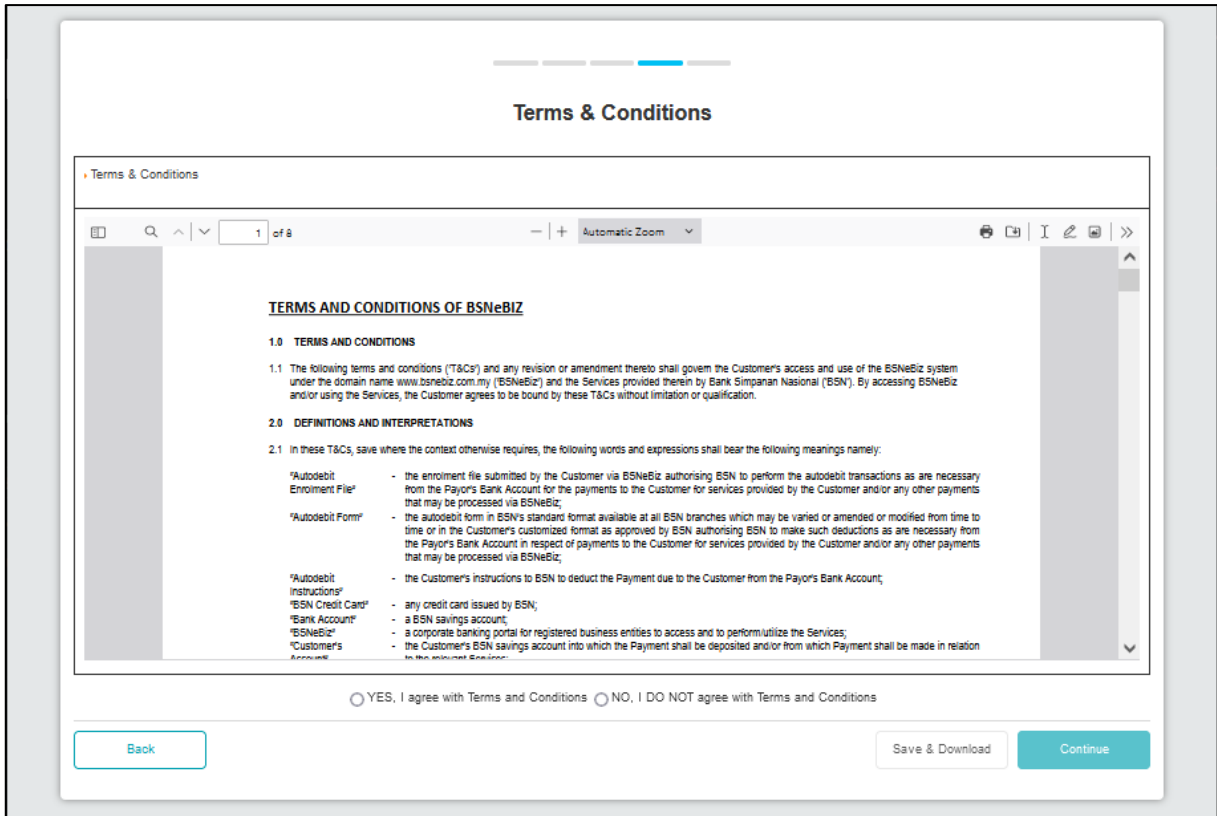


Figure 23: BSNeBiz > New Application > Terms and Condition screen

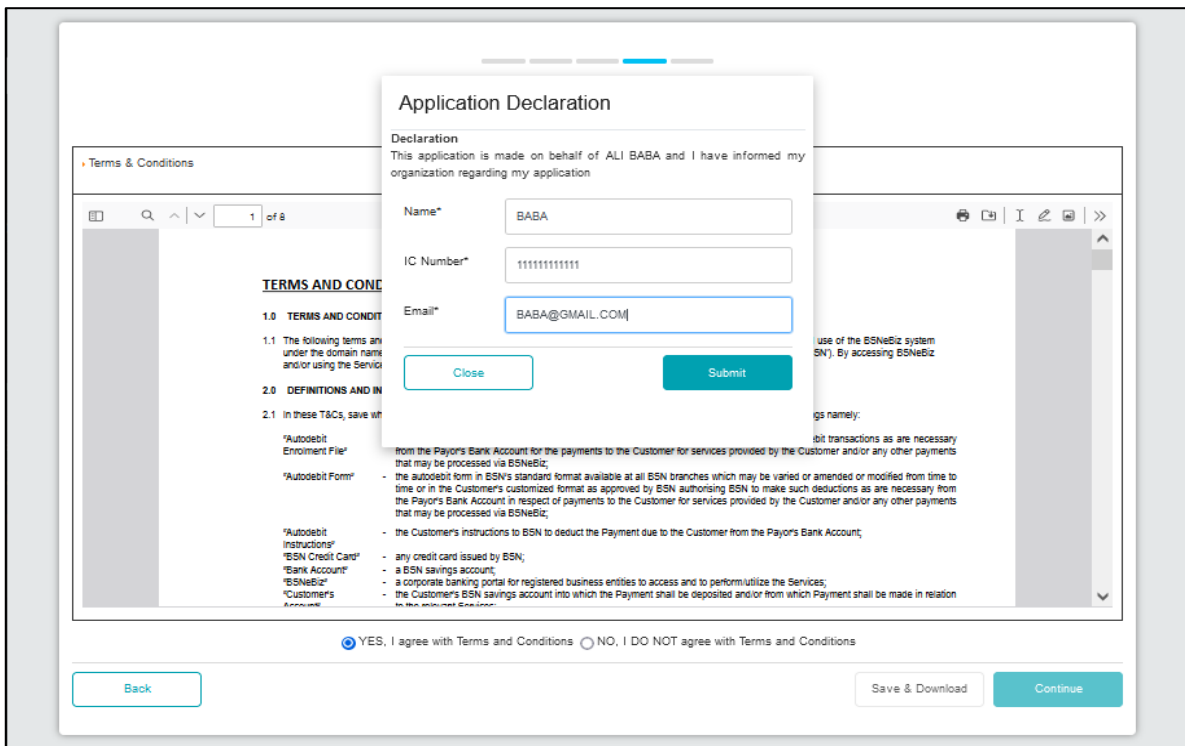


Figure 24: BSNeBiz > New Application > TNC >Application declaration popup

1.5.6 [TC-RSL-AOS-6] - New Application Save and Download Declaration Pdf Page – Step 6 (ibNewApplicationFormModal.action)

In this stage, the CDB connects to:

- a) SACDA947 Server

The SACDA947 fetches:

- BSN folder. BSN folder contains BSN_TNC.pdf file for Terms And Condition of BSNeBIZ pdf.

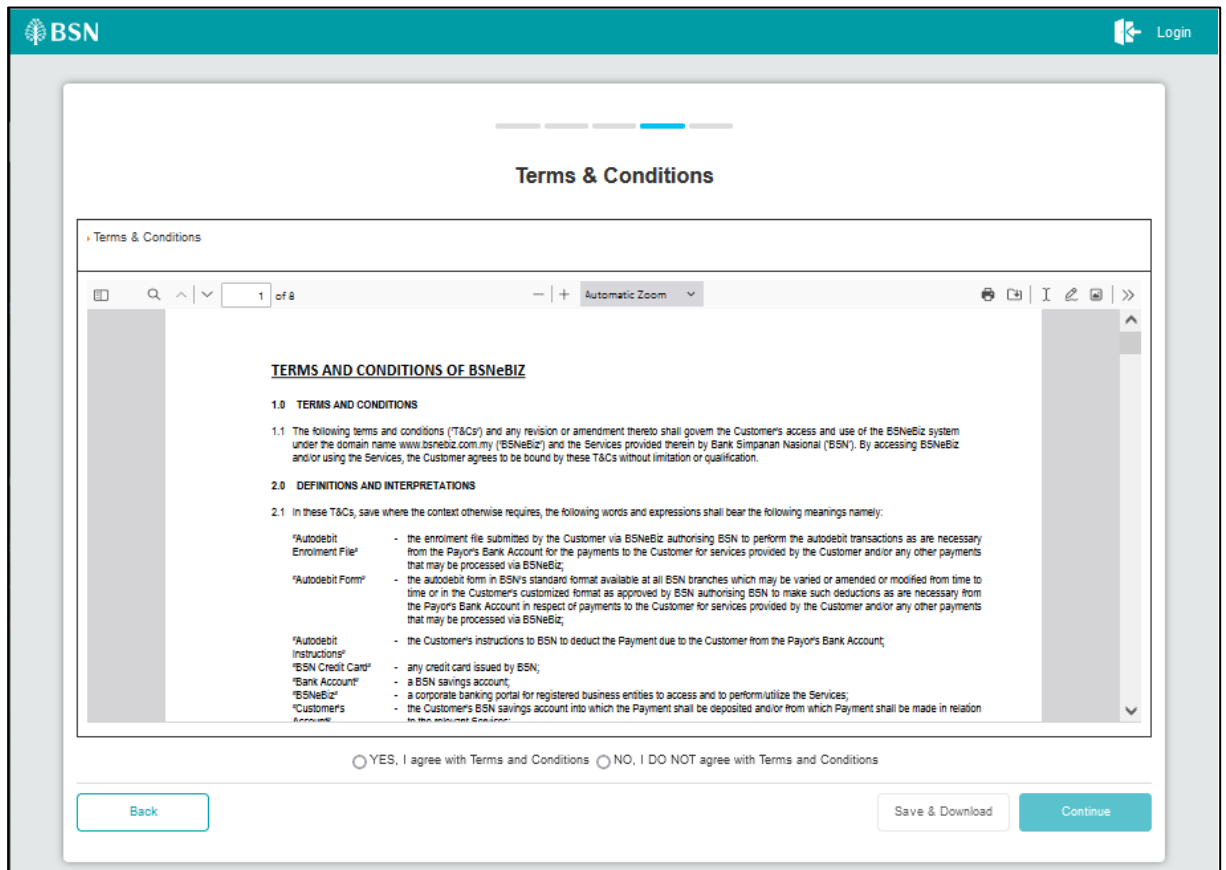


Figure 25: BSNeBiz > New Application > Terms and Condition screen

1.5.7 [TC-RSL-AOS-7] - New Application Save and Download Declaration Pdf Page – Step 7 (RegistrationSummaryPdfDownload.action)

In this stage, the CDB connects to:

- a) DBO DB Schema

The DBO fetches:

- Table BIB_APPLICATION_FORM. Table BIB_APPLICATION_FORM contains data for New Application Form details.

- b) SACDA947 Server

The SACDA947 fetches:

- IBAApplicationResources_en.properties. IBAApplicationResources_en.properties contain the Result page details.
- appConfig.file. appConfig file contains the email value inside Result page.

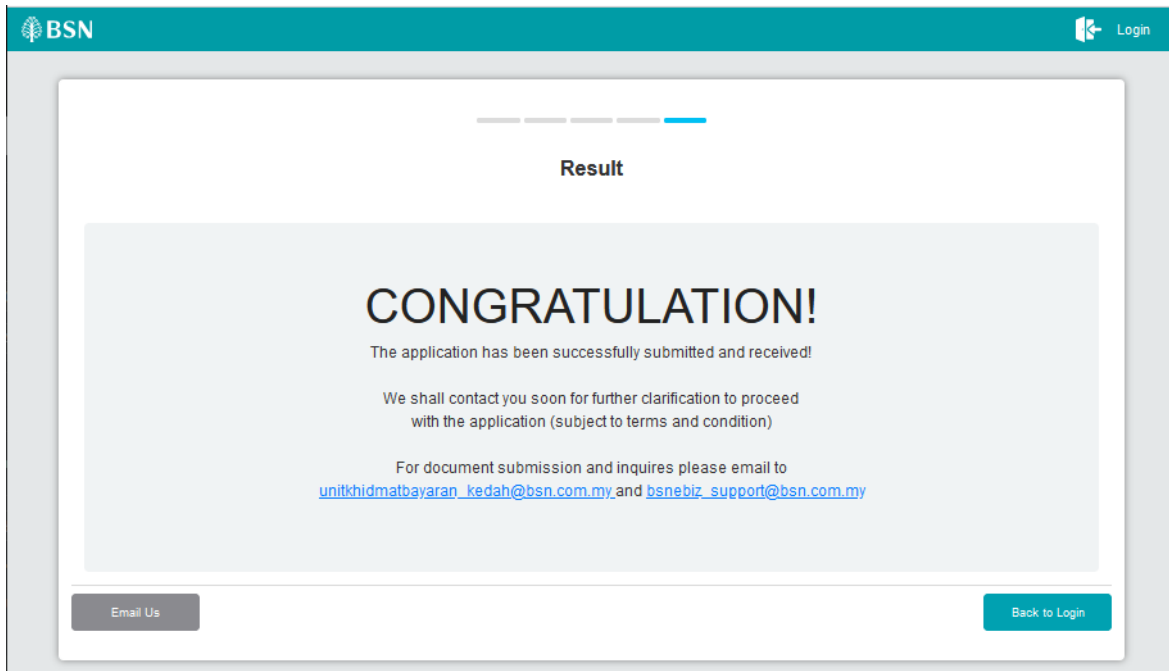


Figure 26 : BSNeBiz New Application > Result page

1.6 Process of testing – New Application – To update the Contact Us screen

This test scenario simulates concurrent users for New Application – To update the Contact Us screen. This test depends on below test case to be executed:

1.6.1 [TC-UCS-AOS-1] – New Application Page – Step 1 (ibNewApplicationFormStep1.action)

In this stage, the CDB connects to:

- a) DBO DB Schema

The DBO fetches:

- IB_SERVICE_INFO. IB_SERVICE_INFO contains some notes or announcements.

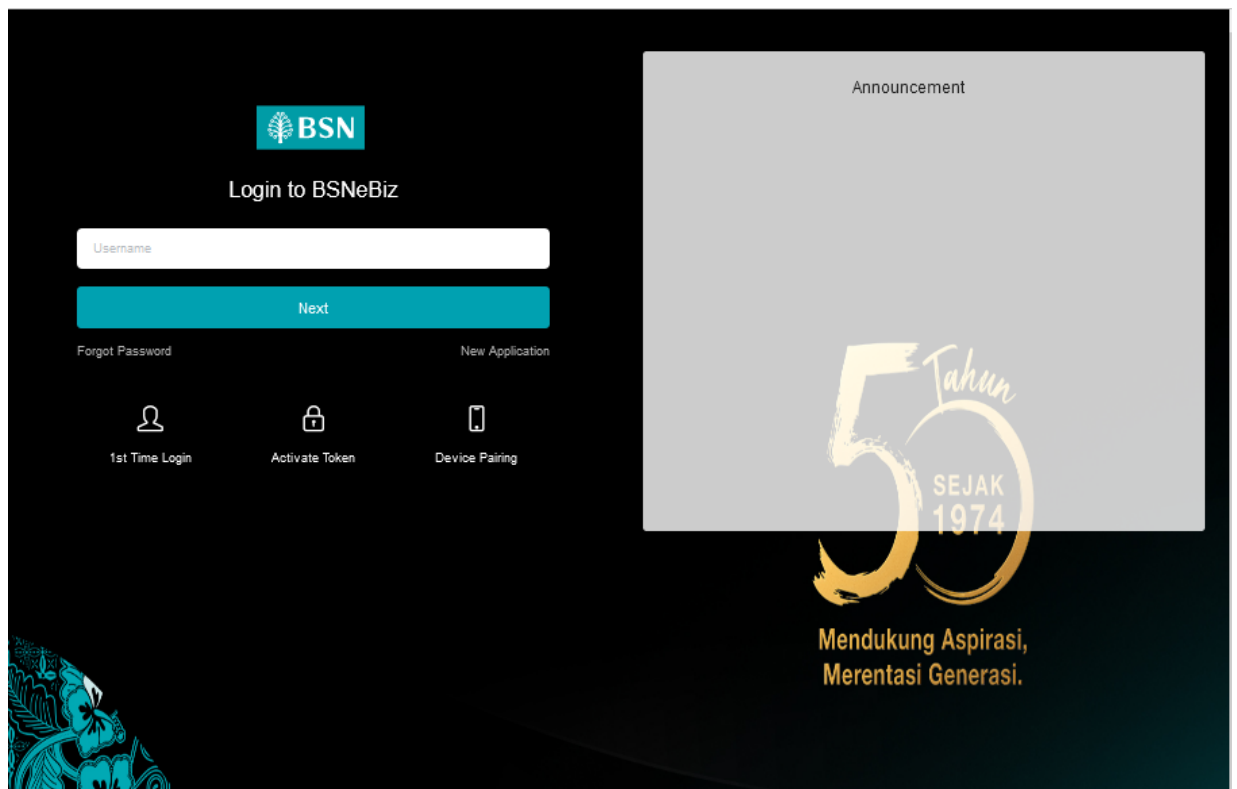


Figure 27 : BSNeBiz Login page

1.6.2 [TC-UCS-AOS-2] - New Application Organization and Information Form Page – Step 2 (ibNewApplicationFormStep2.action)

In this stage, the CDB connects to New Application Organization and Information Form page:

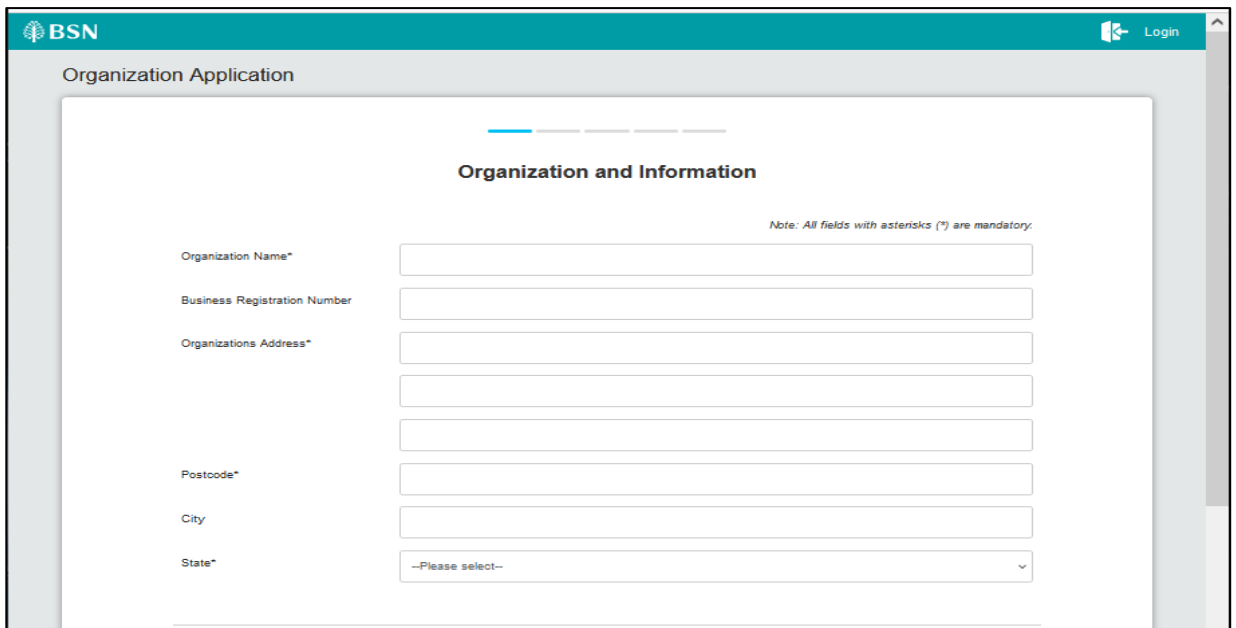


Figure 28 : BSNeBiz New Application > Organization and Information page

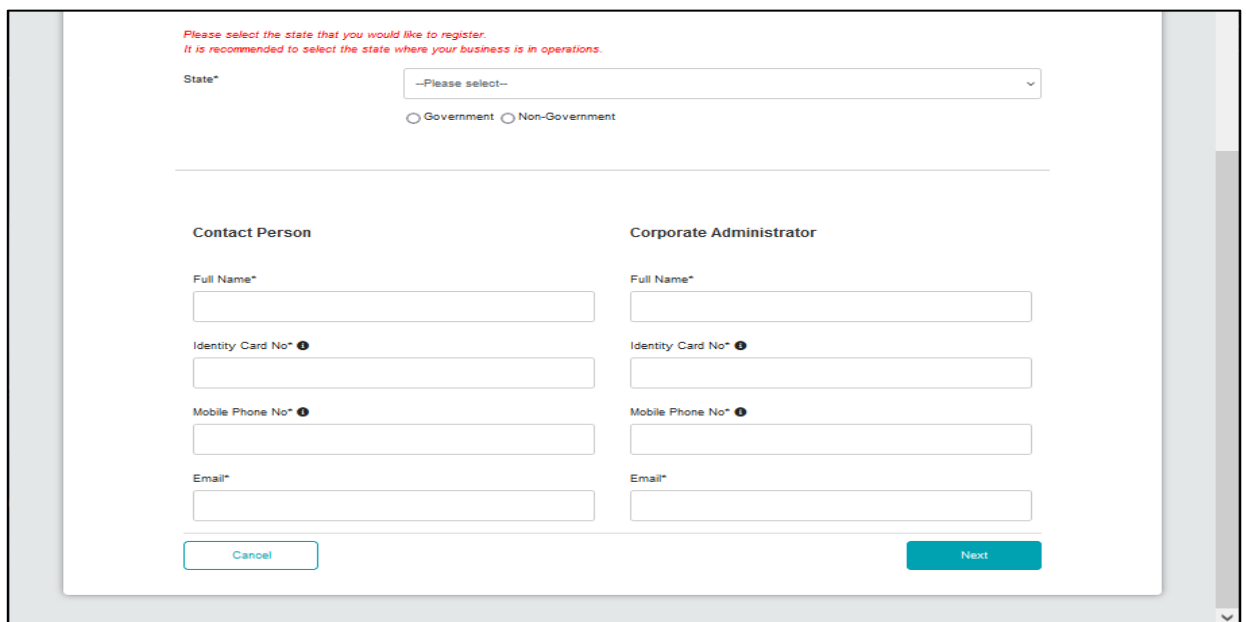


Figure 29 : BSNeBiz New Application > Organization and Information page

1.6.3 [TC-UCS-AOS-3] - New Application Services and Access Type Form Page – Step 3 (ibNewApplicationFormStep3.action)

In this stage, the CDB connects to:

- a) DBO DB Schema

The DBO fetches:

- Table BIB_LHDN_EMPLOYER_NO. Table BIB_LHDN_EMPLOYER_NO contains id number validation details.

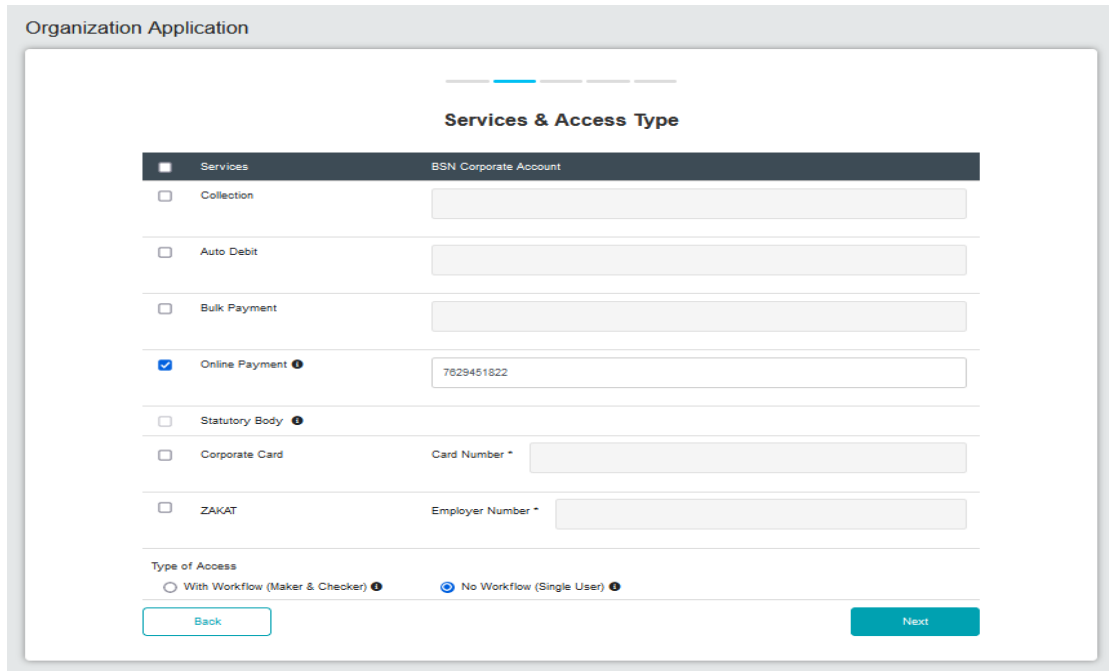


Figure 30 : BSNeBiz New Application > Services and Access Type page

1.6.4 [TC-UCS-AOS-4] - New Application Confirmation Form Page – Step 4 (ibNewApplicationFormStep4.action)

In this stage, the CDB connects to New Application Confirmation Form Page:

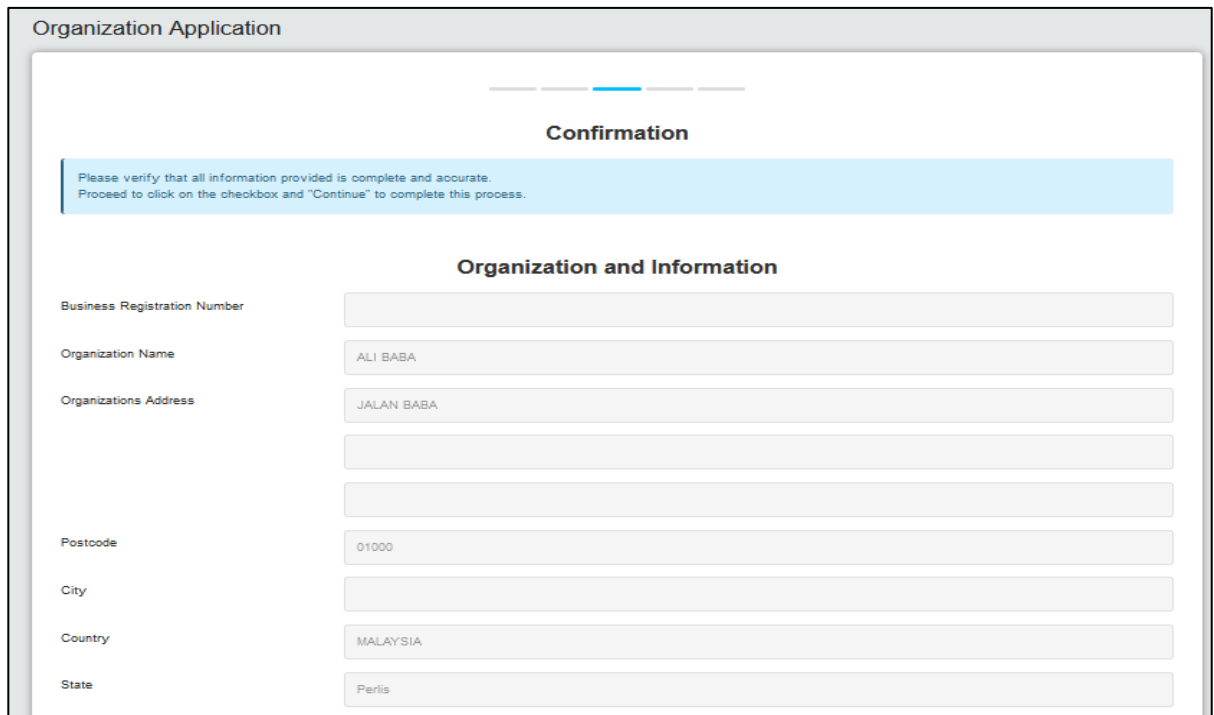


Figure 31 : BSNeBiz New Application > Confirmation page

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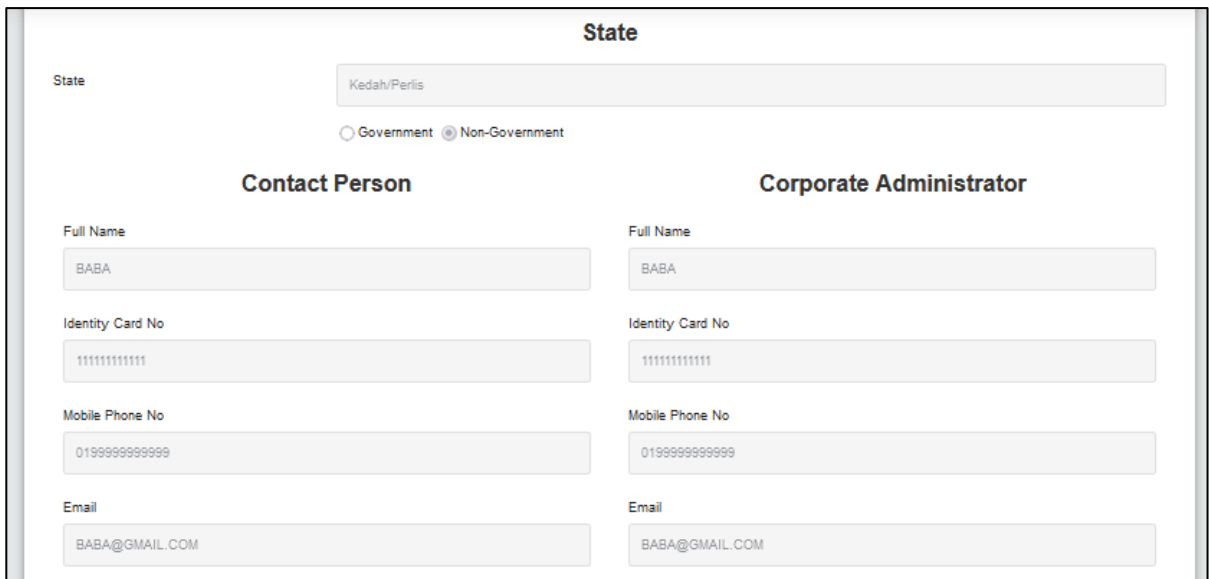


Figure 32 : B BSNeBiz New Application > Confirmation page

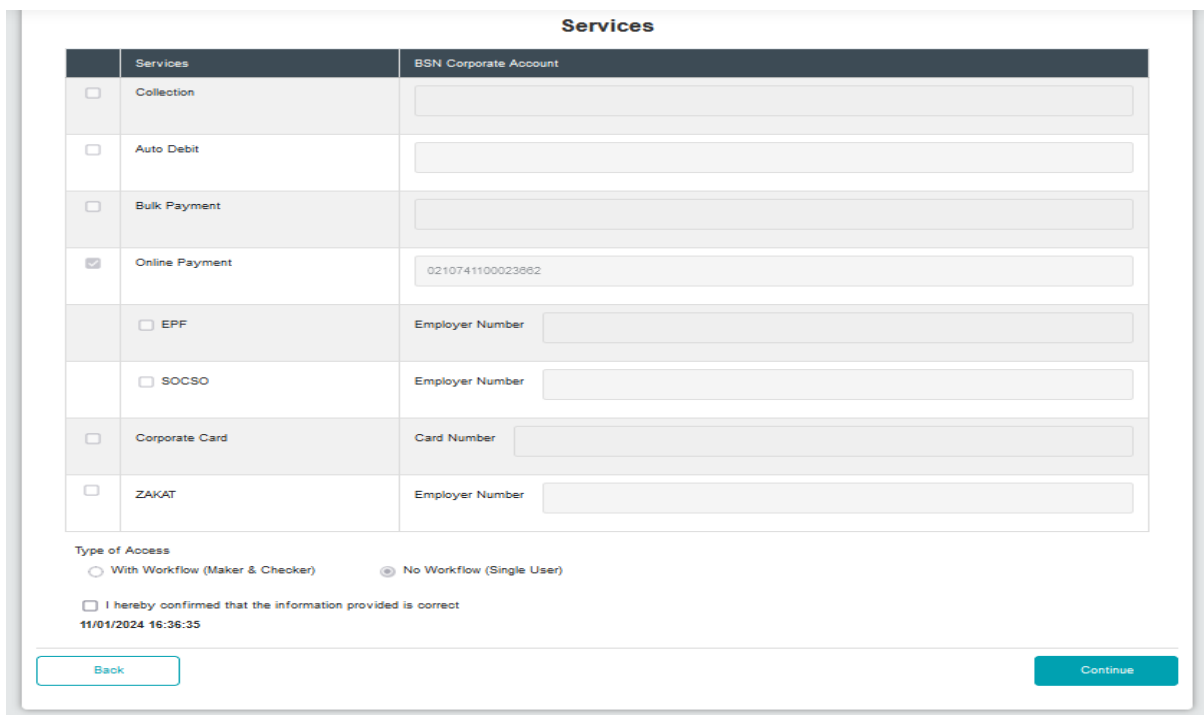


Figure 33 : BSNeBiz New Application > Confirmation page

1.6.5 [TC-UCS-AOS-5] - New Application Terms & Conditions Page – Step 5 (BSN_TnC.pdf)

In this stage, the CDB connects to:

- a) SACDA947 Server

The SACDA947 fetches:

- BSN folder. BSN folder contains BSN_TNC.pdf file for Terms And Condition of BSNeBIZ pdf.

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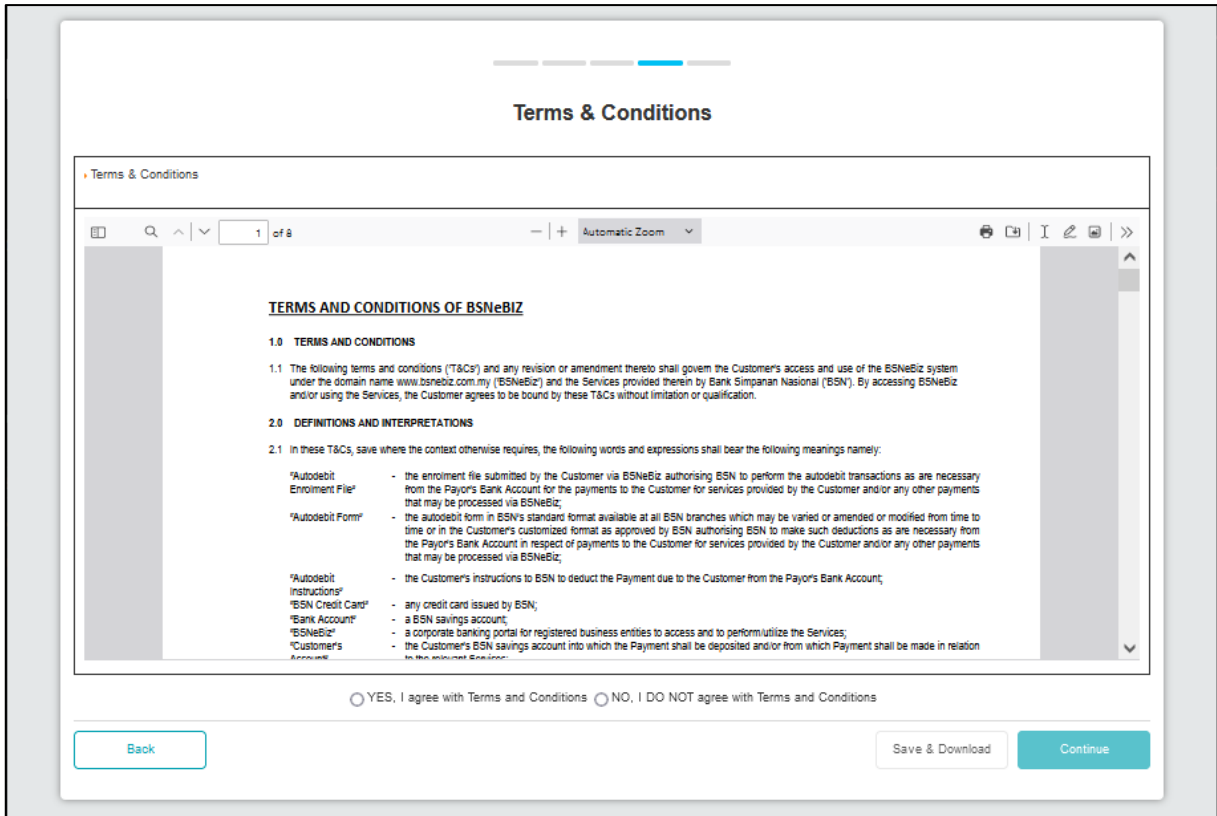


Figure 34: BSNeBiz > New Application > Terms and Condition screen

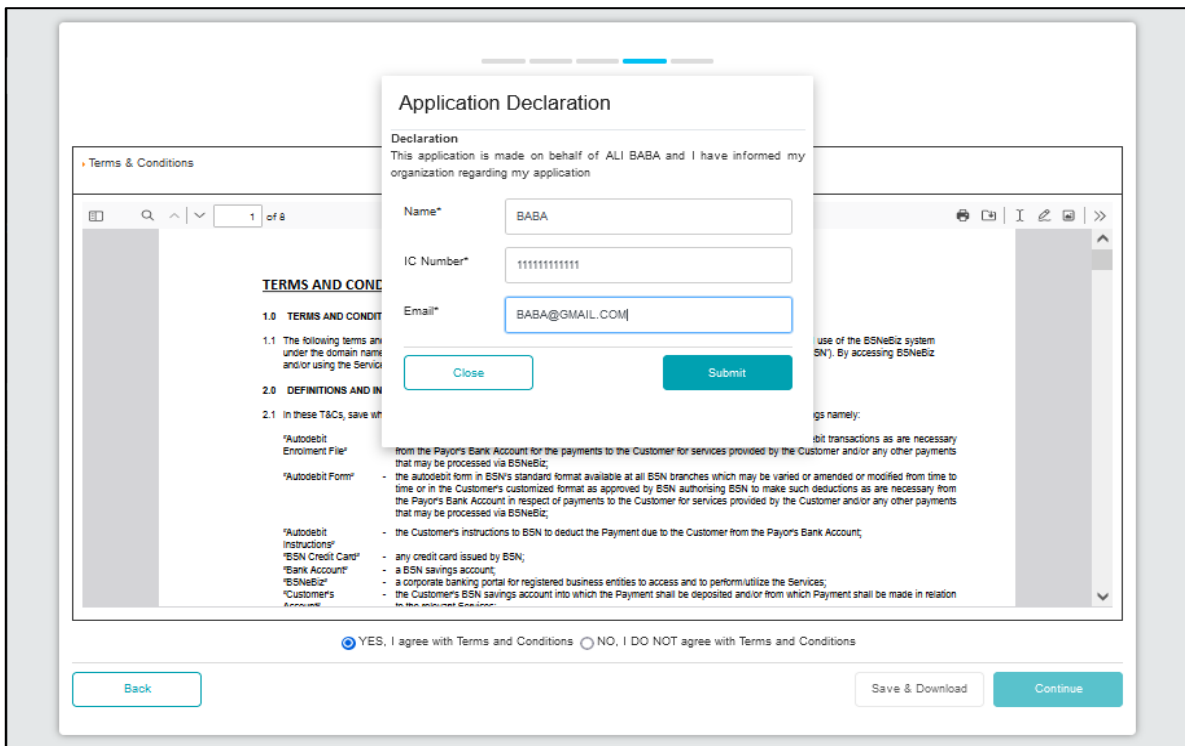


Figure 35: BSNeBiz > New Application > TNC >Application declaration popup

1.6.6 [TC-UCS-AOS-6] - New Application Save and Download Declaration Pdf Page – Step 6 (ibNewApplicationFormModal.action)

In this stage, the CDB connects to:

- a) SACDA947 Server

The SACDA947 fetches:

- BSN folder. BSN folder contains BSN_TNC.pdf file for Terms And Condition of BSNeBIZ pdf.

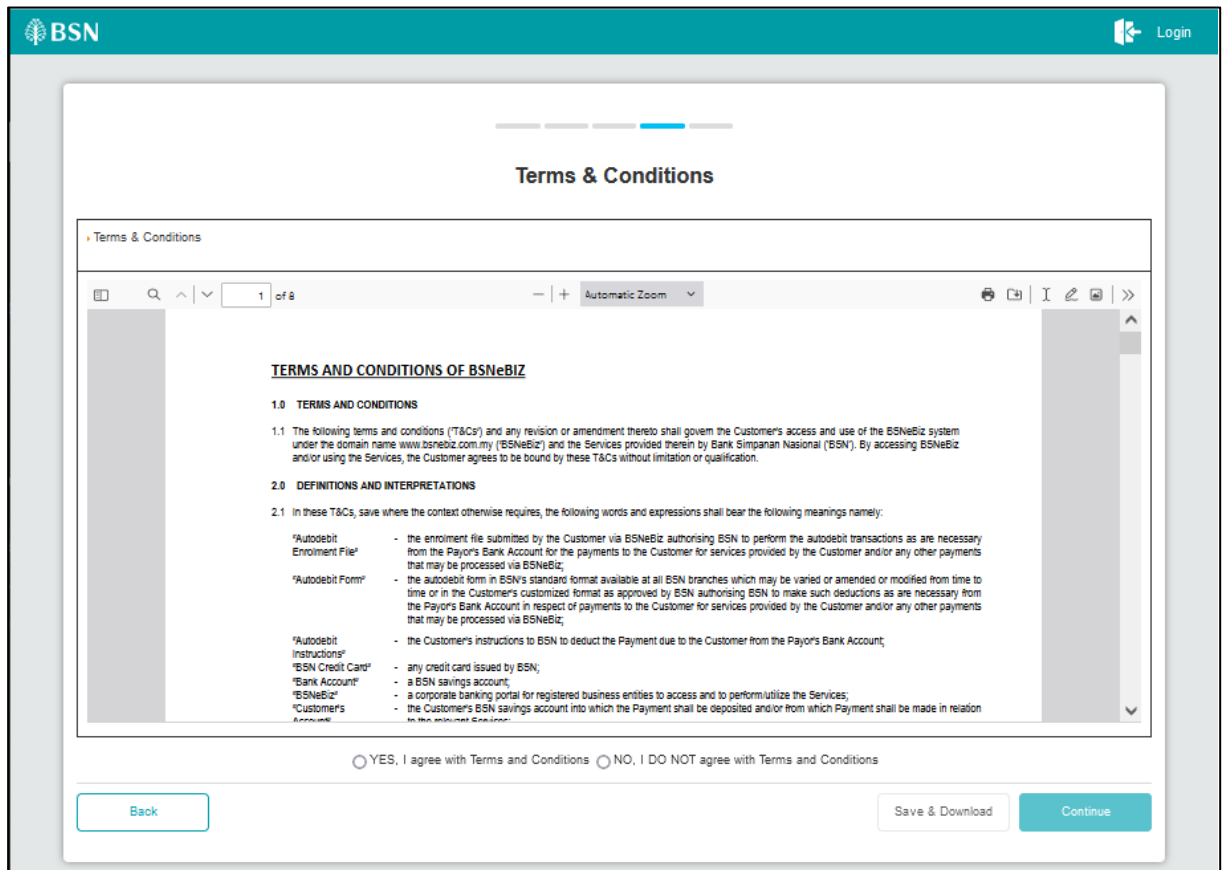


Figure 36: BSNeBiz > New Application > Terms and Condition screen

1.6.7 [TC-UCS-AOS-7] - New Application Save and Download Declaration Pdf Page – Step 7 (RegistrationSummaryPdfDownload.action)

In this stage, the CDB connects to:

- a) DBO DB Schema

The DBO fetches:

- Table BIB_APPLICATION_FORM. Table BIB_APPLICATION_FORM contains data for New Application Form details.

- b) SACDA947 Server

The SACDA947 fetches:

- IBAApplicationResources_en.properties. IBAApplicationResources_en.properties contain the Result page details.
- appConfig.file. appConfig file contains the email value inside Result page.

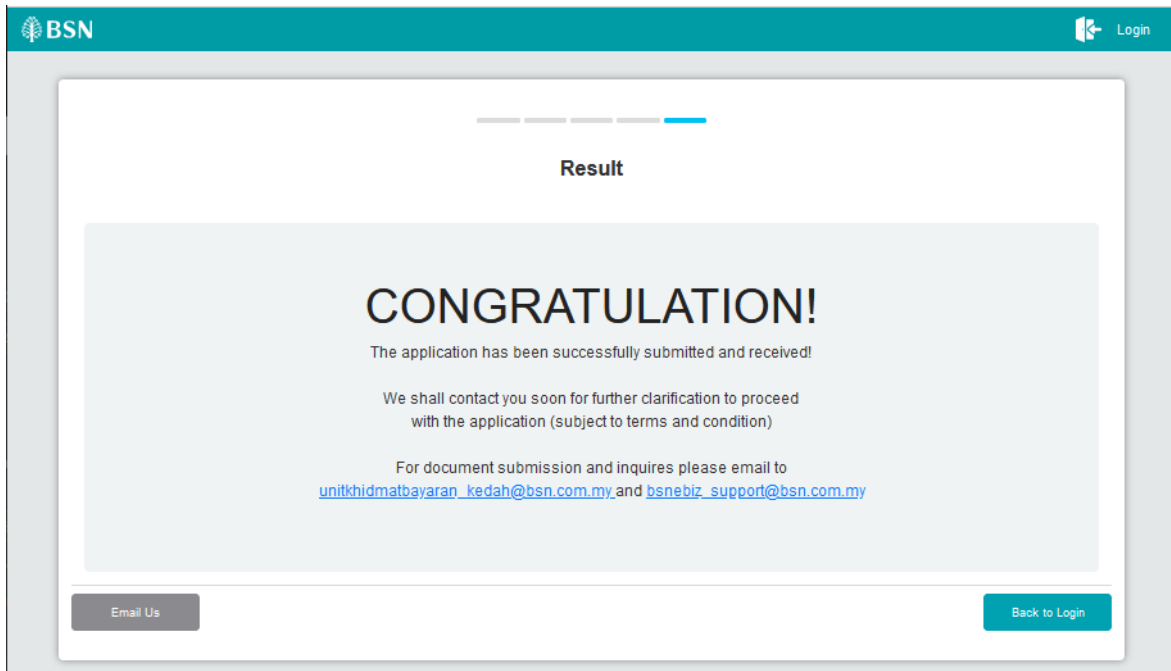


Figure 37 : BSNeBiz New Application > Result page

1.6.7 [TC-UCS-AOS-8] - New Application Email Us Page – Step 8 (ibNewApplicationFormStep5.action)

In this stage, the CDB connects to BSNeBiz New Application Email Us page:

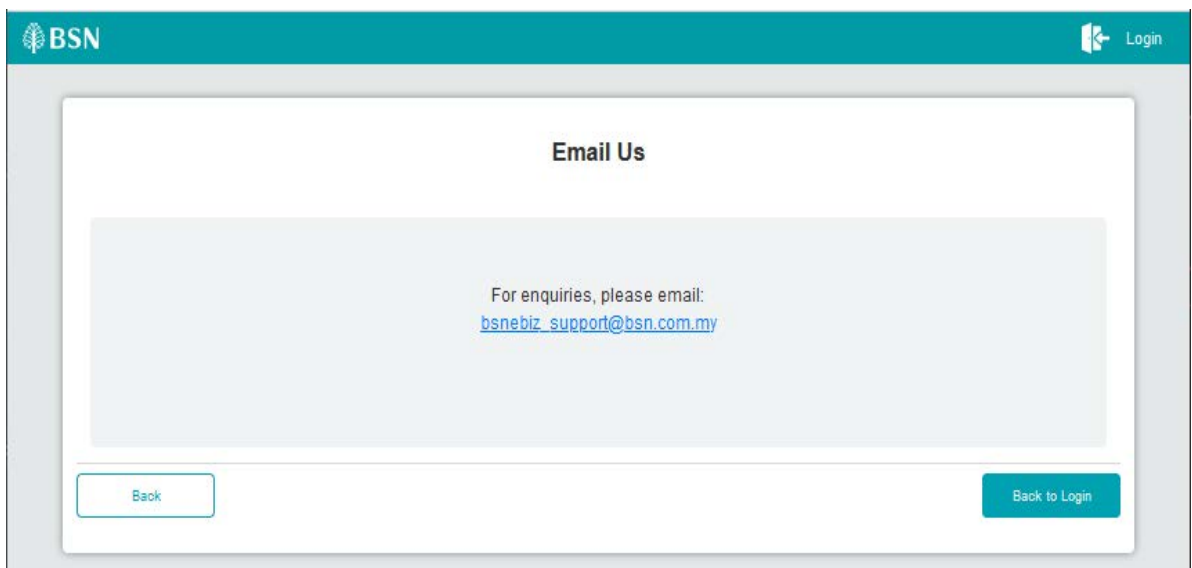


Figure 38 : BSNeBiz New Application > Email Us

1.7 Process of testing – IBAM – To add checkbox in order to facilitate the “call back” has been done

This test scenario simulates concurrent users for IBAM – To add checkbox in order to facilitate the “call back: has been done. This test depends on below test case to be executed:

1.7.1 [TC-ACF-AOS-1] – BSNeBiz Administration Login Page – Step 1 (ibPortalAccess.do)

In this stage, the CDB connects to:

- a) DBO DB Schema

The DBO fetches:

- IB_SERVICE_INFO. IB_SERVICE_INFO contains some notes or announcements.

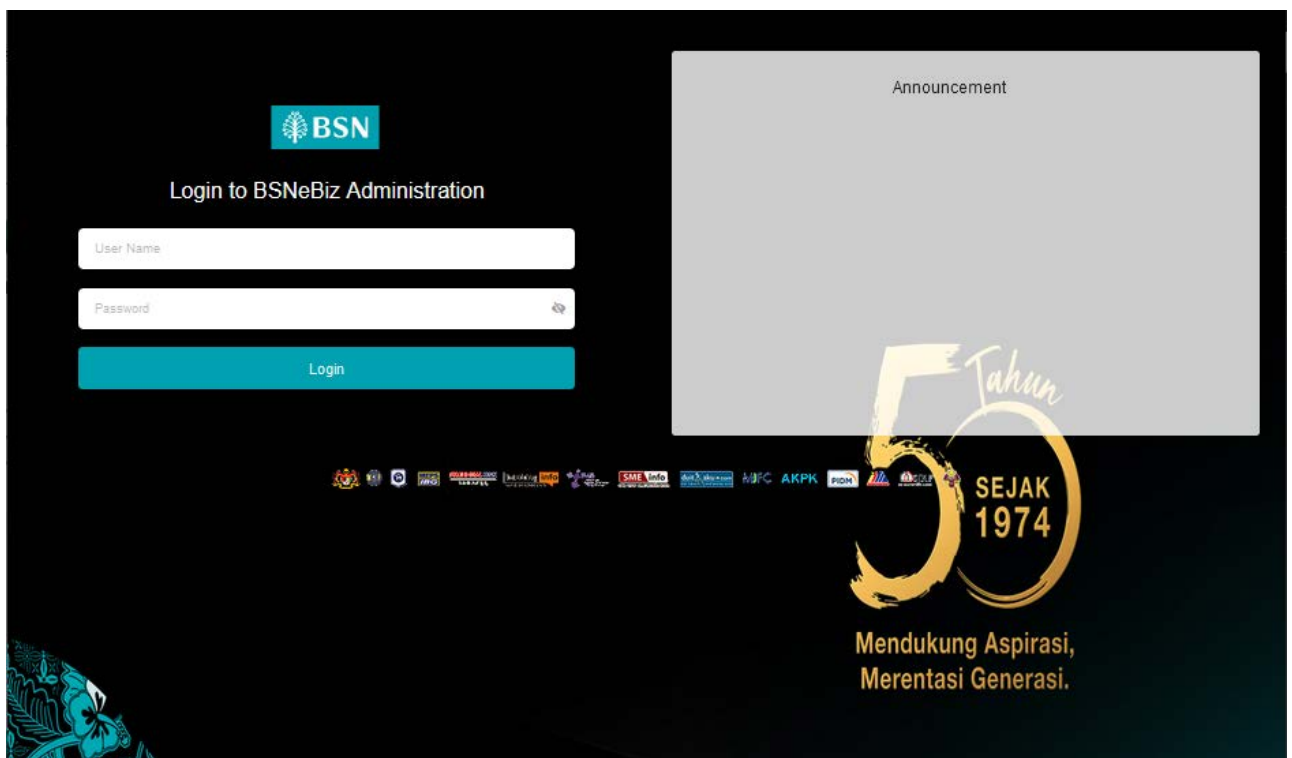


Figure 39 : BSNeBiz Administration Login page

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1.7.2 [TC-ACF-AOS-2] – BSNeBiz Administration Home Page – STEP 2 (ibPortalLogin.do)

In this stage, the CDB connects to BSNeBiz Administration Home page:

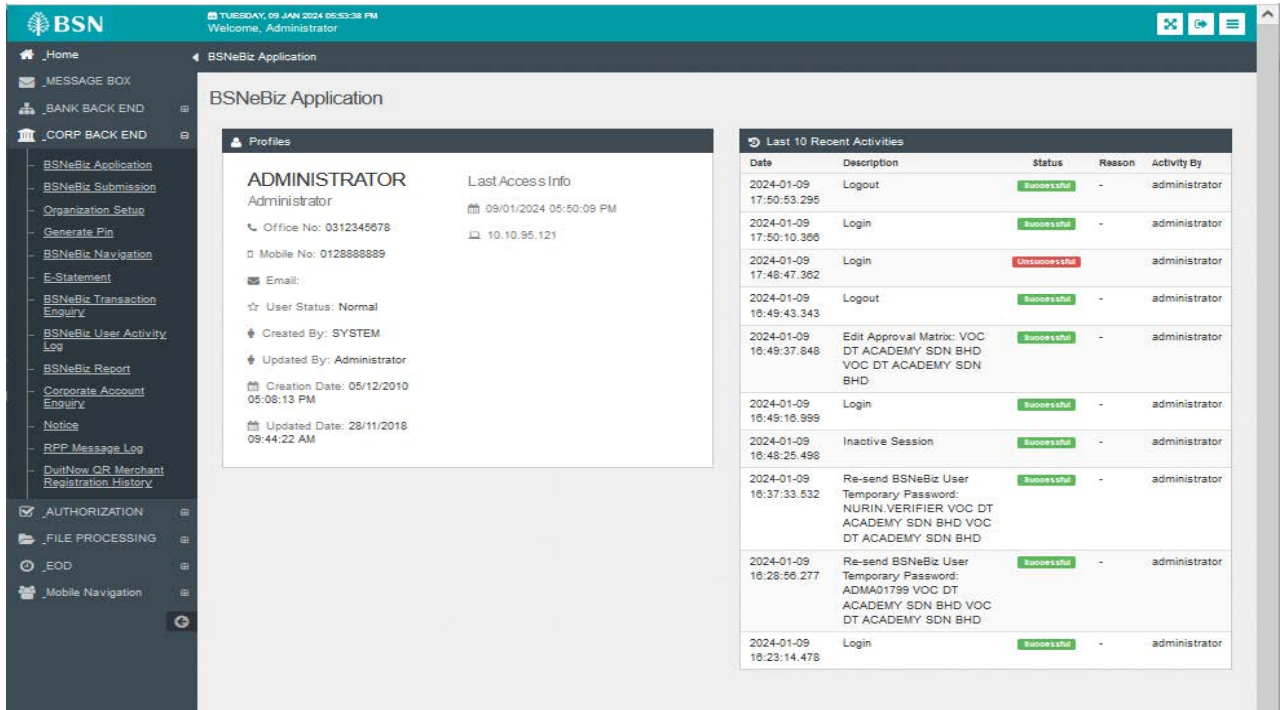


Figure 40 : BSNeBiz Administration Home page

1.7.3 [TC-ACF-AOS-3] – BSNeBiz Application Page – STEP 3 (applicationFormSearch.do)

In this stage, the CDB connects to BSNeBiz Application page:

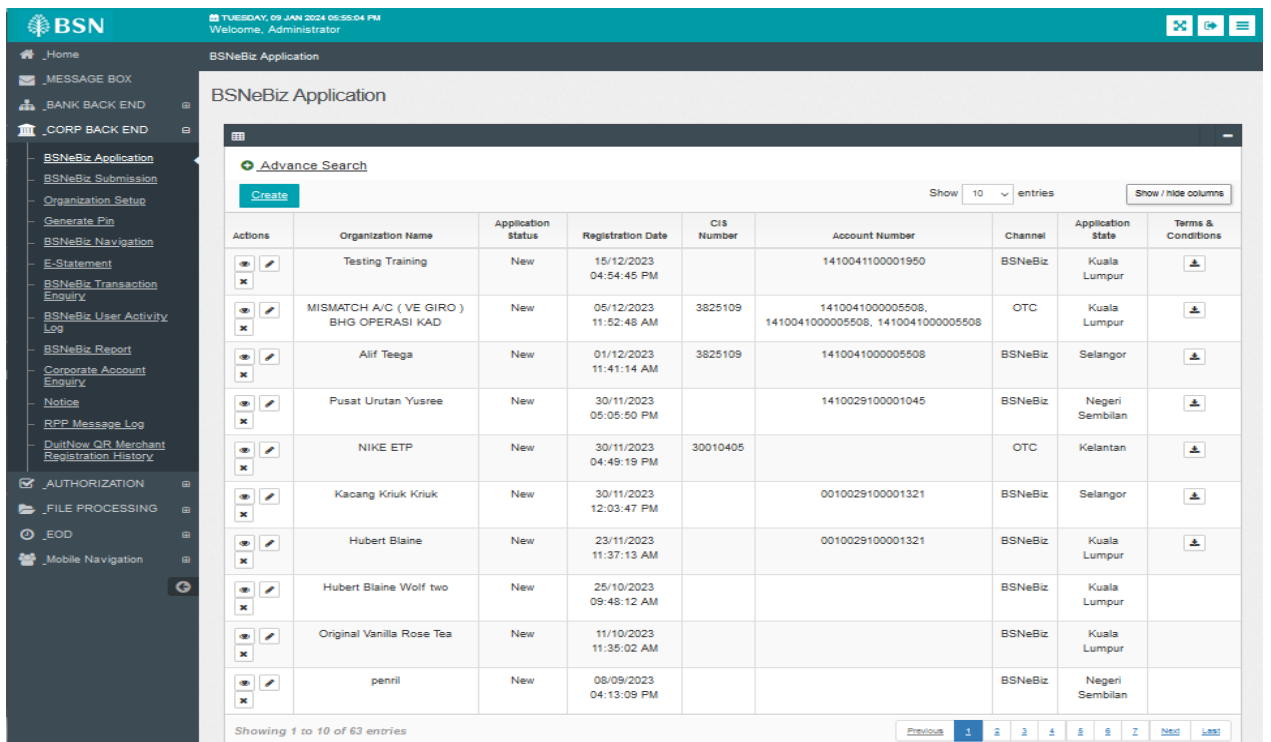


Figure 41 : BSNeBiz Application page

1.7.4 [TC-ACF-AOS-4] – BSNeBiz Application Page – STEP 4 (applicationFormCreate.do)
In this stage, the CDB connects to BSNeBiz Application - Create page:

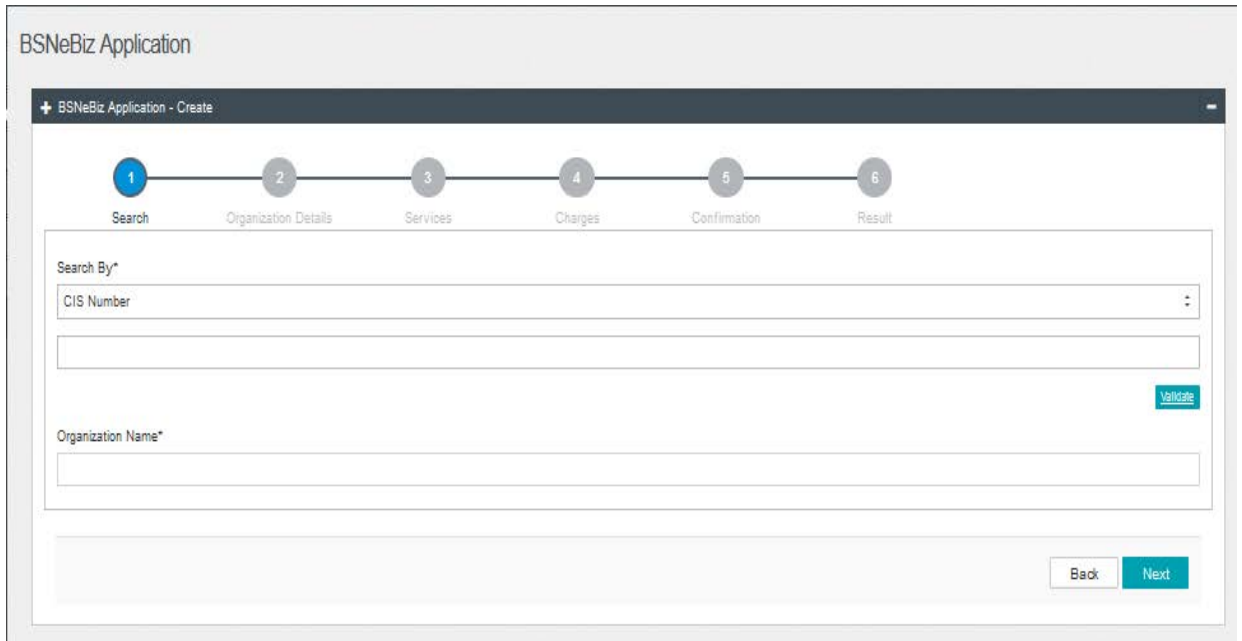


Figure 42 : BSNeBiz Application - Create page

1.7.5 [TC-ACF-AOS-5] – BSNeBiz Application Search ByPage – STEP 5 (applicationFormCreateStep2.do)

In this stage, the CDB connects to BSNeBiz Application - Create (Search by) page:

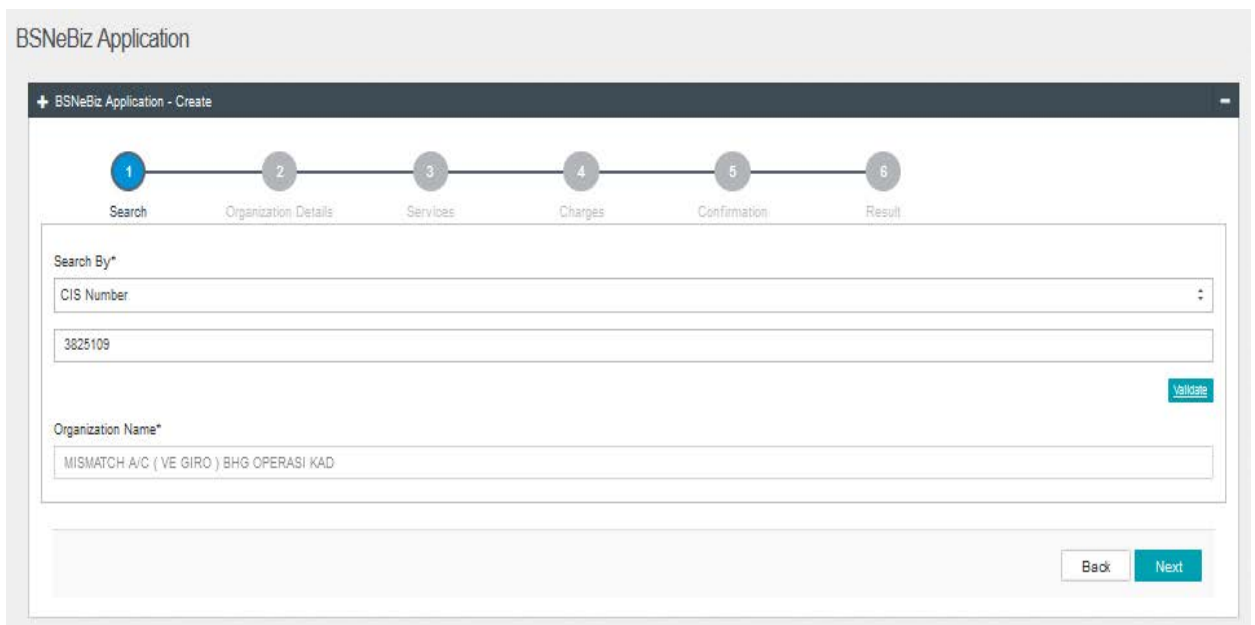
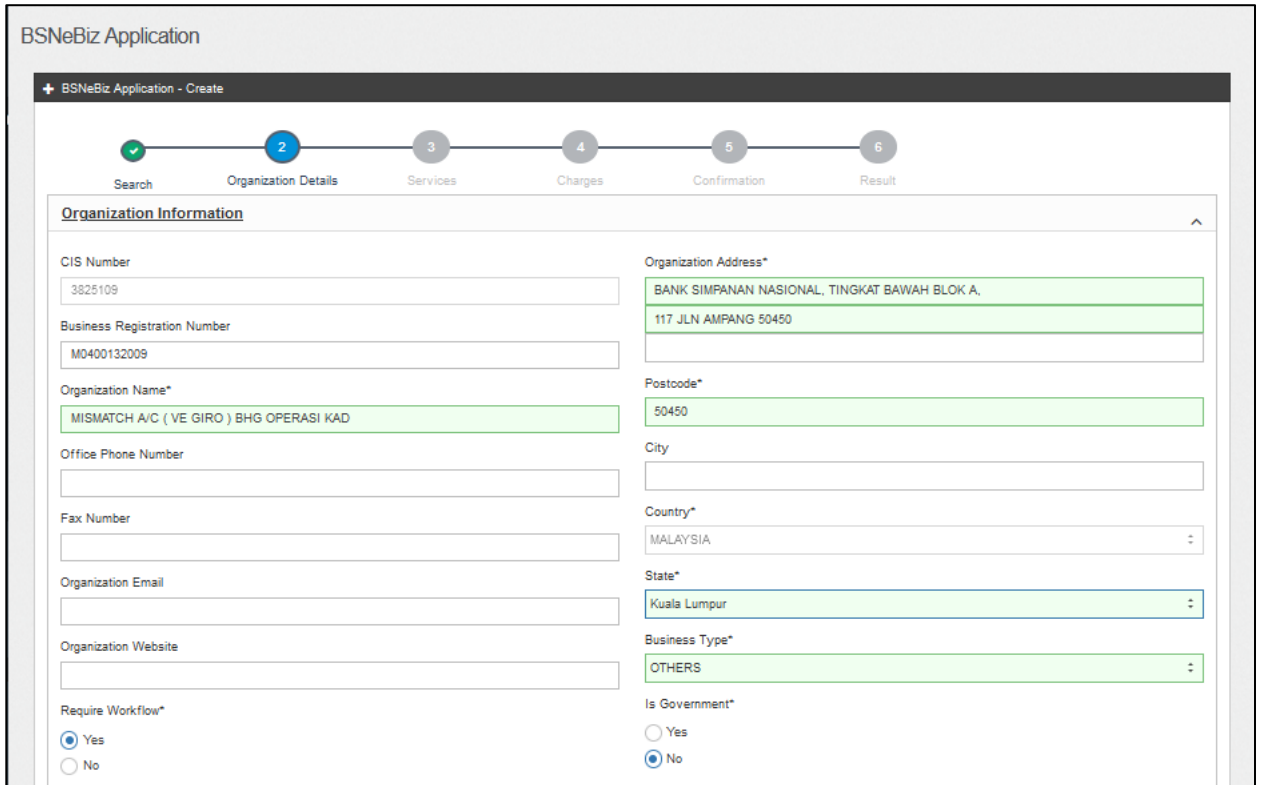


Figure 43 : BSNeBiz Application - Create (Search by)

1.7.6 [TC-ACF-AOS-6] – BSNeBiz Application Create (Organization Details) Page – STEP 6 (applicationFormCreateStep3.do)

In this stage, the CDB connects to BSNeBiz Application – Create (Organization Detail) page:



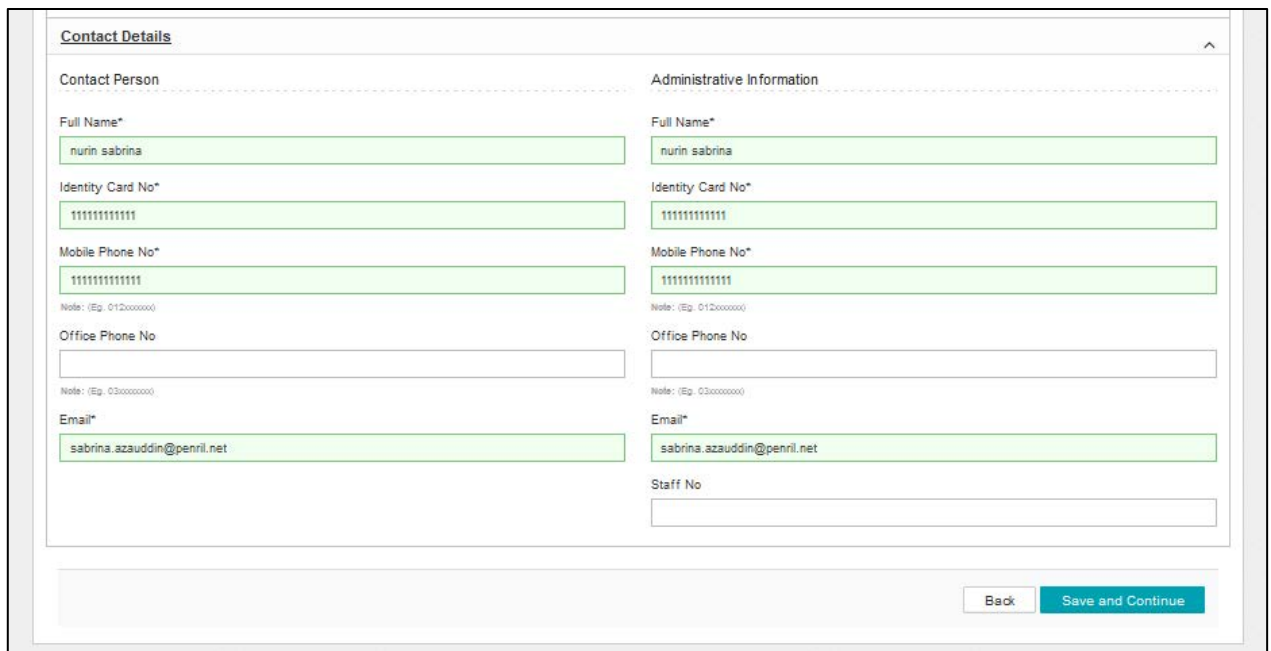
BSNeBiz Application - Create

Progress: 1. Search (Completed), 2. Organization Details (Current), 3. Services, 4. Charges, 5. Confirmation, 6. Result

Organization Information

CIS Number	3825109	Organization Address*	BANK SIMPANAN NASIONAL, TINGKAT BAWAH BLOK A, 117 JLN AMPANG 50450
Business Registration Number	M0400132009	Postcode*	50450
Organization Name*	MISMATCH A/C (VE GIRO) BHG OPERASI KAD	City	
Office Phone Number		Country*	MALAYSIA
Fax Number		State*	Kuala Lumpur
Organization Email		Business Type*	OTHERS
Organization Website		Is Government*	<input type="radio"/> Yes <input checked="" type="radio"/> No
Require Workflow*	<input checked="" type="radio"/> Yes <input type="radio"/> No		

Figure 44 : BSNeBiz Application - Create (Organization Details)



Contact Details

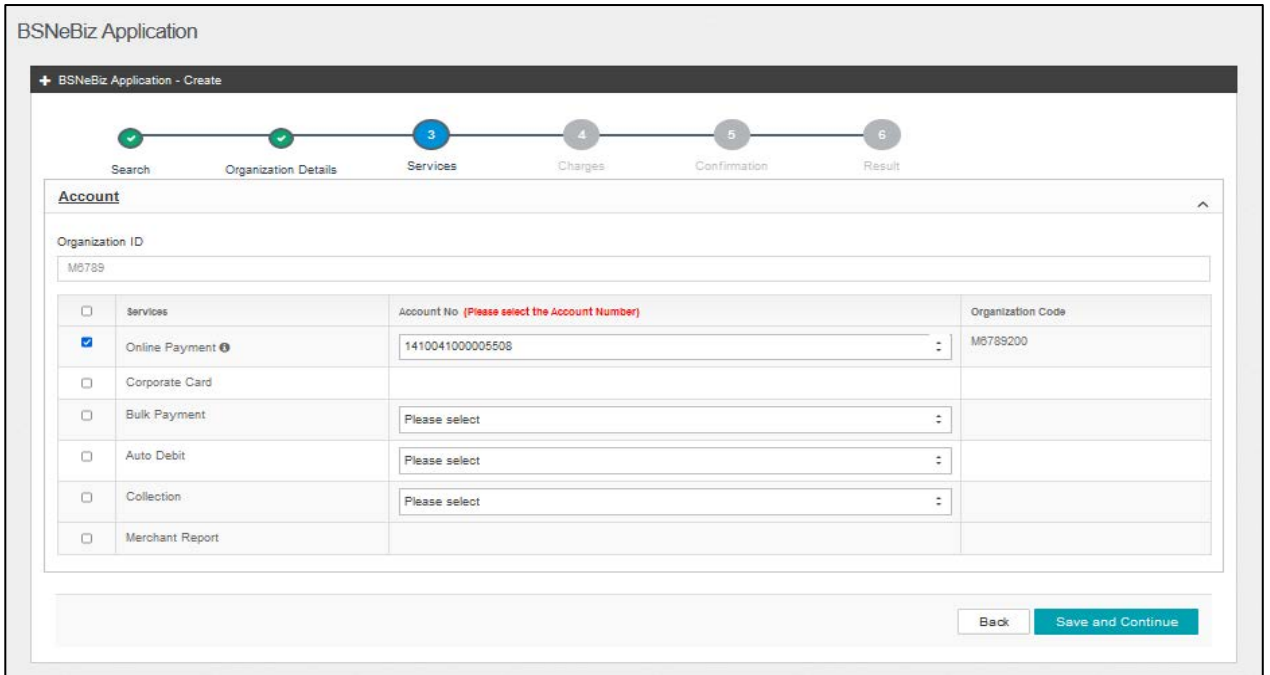
Contact Person	Administrative Information
Full Name*	Full Name*
nurin sabrina	nurin sabrina
Identity Card No*	Identity Card No*
111111111111111111	111111111111111111
Mobile Phone No*	Mobile Phone No*
111111111111111111	111111111111111111
Note: (Eq. 012xxxxxxxx)	Note: (Eq. 012xxxxxxxx)
Office Phone No	Office Phone No
Note: (Eq. 03xxxxxxxx)	Note: (Eq. 03xxxxxxxx)
Email*	Email*
sabrina.azauddin@penril.net	sabrina.azauddin@penril.net
	Staff No

Buttons: Back, Save and Continue

Figure 45 : BSNeBiz Application - Create (Organization Details)

1.7.7 [TC-ACF-AOS-7] – BSNeBiz Application Create (Services) Page – STEP 7 (applicationFormCreateStep4.do)

In this stage, the CDB connects to BSNeBiz Application – Create (Services) generate Organization ID page:



services	Account No. (Please select the Account Number)	Organization Code
<input checked="" type="checkbox"/> Online Payment	1410041000005508	M8789200
<input type="checkbox"/> Corporate Card		
<input type="checkbox"/> Bulk Payment	Please select	
<input type="checkbox"/> Auto Debit	Please select	
<input type="checkbox"/> Collection	Please select	
<input type="checkbox"/> Merchant Report		

Figure 46 : BSNeBiz Application – Create (Services) page

1.7.8 [TC-ACF-AOS-8] – BSNeBiz Application Create (Services) Page – STEP 8 (applicationFormCreateStep5.do)

In this stage, the CDB connects to BSNeBiz Application – Create (Services) page:

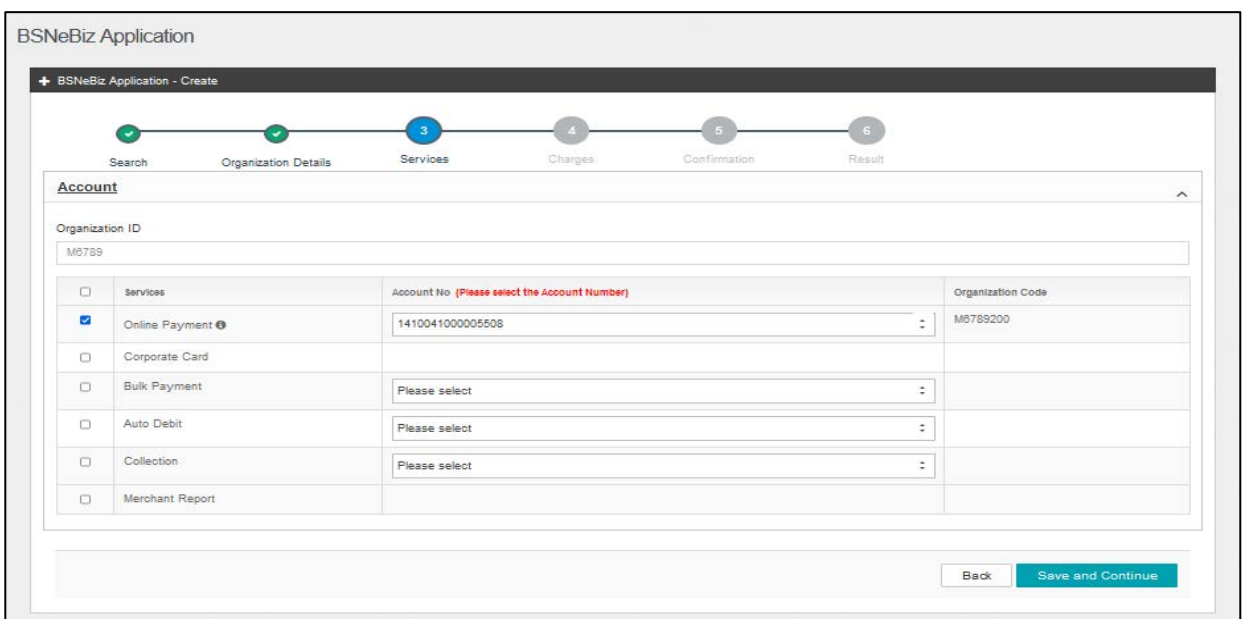
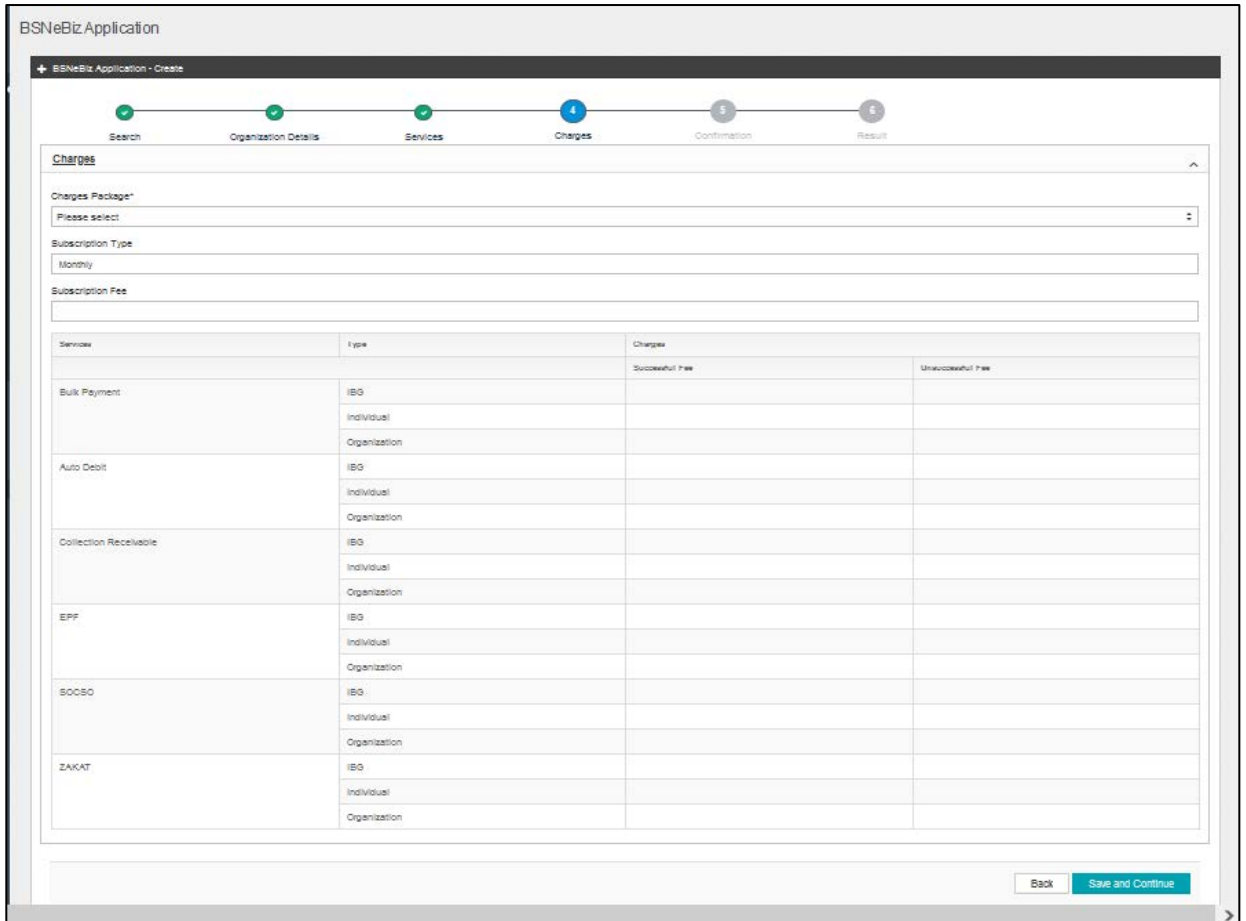


Figure 47 : BSNeBiz Application – Create (Services) page

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1.7.9 [TC-ACF-AOS-9] – BSNeBiz Application Create (Charges) Page – STEP 9 (applicationFormCreateStep6.do)

In this stage, the CDB connects to BSNeBiz Application – Create (Charges) select Charges Package page:

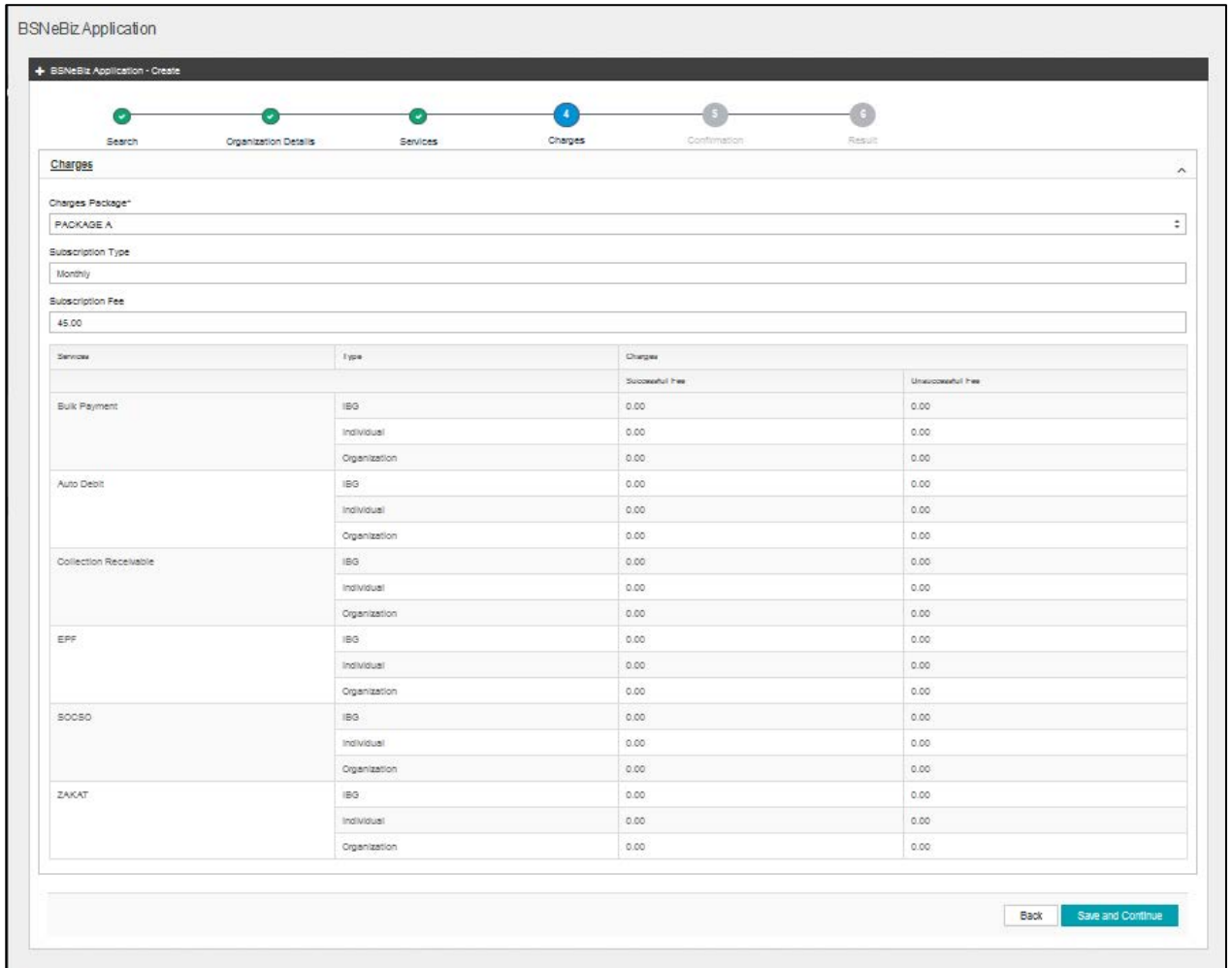


Services	Type	Charges	
		Successful Fee	Unsuccessful Fee
Bulk Payment	IBO		
	Individual		
	Organization		
Auto Debit	IBO		
	Individual		
	Organization		
Collection Receivable	IBO		
	Individual		
	Organization		
EPP	IBO		
	Individual		
	Organization		
BOCSO	IBO		
	Individual		
	Organization		
ZAKAT	IBO		
	Individual		
	Organization		

Figure 48 : BSNeBiz Application - Create (Charges) page

1.7.10 [TC-ACF-AOS-10] – BSNeBiz Application Create (Charges) Page – STEP 10 (applicationFormCreateStep7.do)

In this stage, the CDB connects to BSNeBiz Application – Create (Charges) page:



BSNeBiz Application - Create

Progress: Search (✓) Organization Details (✓) Services (✓) **Charges (4)** Confirmation (5) Result (6)

Charges

Charges Package*: PACKAGE A

Subscription Type: Monthly

Subscription Fee: 45.00

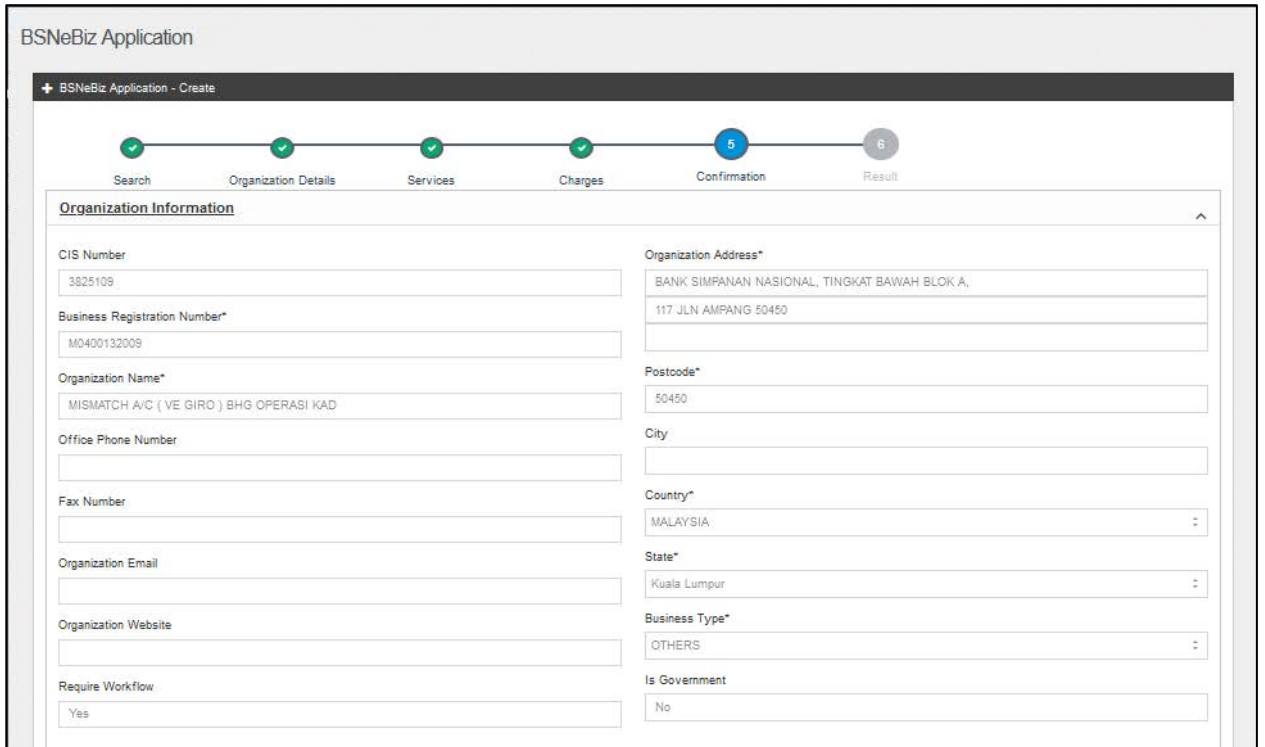
Services	Type	Charges	
		Successful Fee	Unsuccessful Fee
Bulk Payment	IBG	0.00	0.00
	Individual	0.00	0.00
	Organization	0.00	0.00
Auto Debit	IBG	0.00	0.00
	Individual	0.00	0.00
	Organization	0.00	0.00
Collection Receivable	IBG	0.00	0.00
	Individual	0.00	0.00
	Organization	0.00	0.00
EPF	IBG	0.00	0.00
	Individual	0.00	0.00
	Organization	0.00	0.00
SOCSO	IBG	0.00	0.00
	Individual	0.00	0.00
	Organization	0.00	0.00
ZAKAT	IBG	0.00	0.00
	Individual	0.00	0.00
	Organization	0.00	0.00

Buttons: Back, Save and Continue

Figure 49 : BSNeBiz Application - Create (Charges) page

1.7.11 [TC-ACF-AOS-11] – BSNeBiz Application Create (Confirmation) Page – STEP 11 (applicationFormCreateStep8.do)

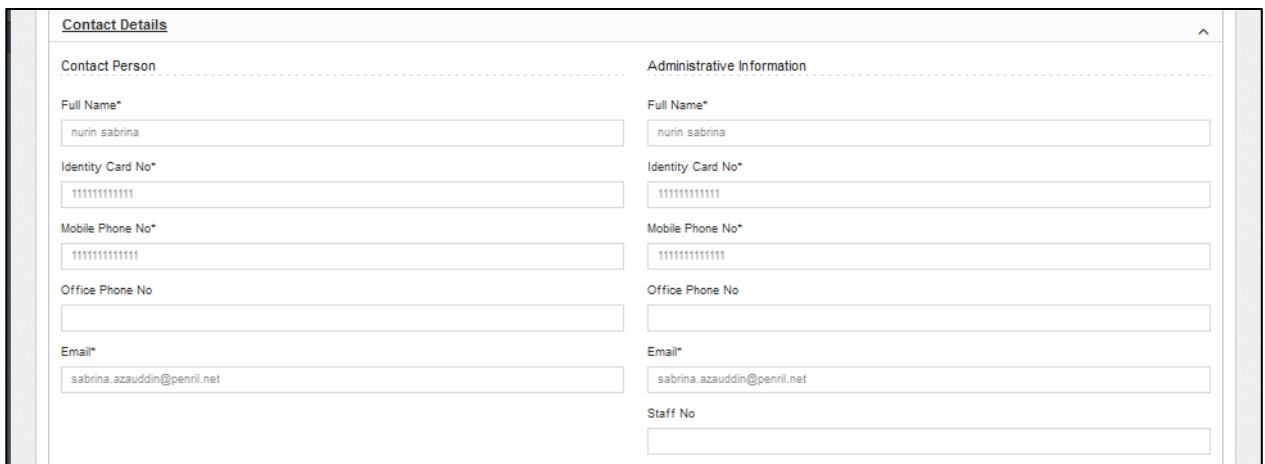
In this stage, the CDB connects to BSNeBiz Application – Create (Confirmation) page:



The screenshot shows the 'BSNeBiz Application - Create' confirmation page. At the top, a progress bar indicates the current step is 'Confirmation' (step 5), with previous steps 'Search', 'Organization Details', 'Services', and 'Charges' marked as completed. The main form area is titled 'Organization Information' and contains the following fields:

CIS Number 3825109	Organization Address* BANK SIMPANAN NASIONAL, TINGKAT BAWAH BLOK A, 117 JLN AMPANG 50450
Business Registration Number* M0400132009	Postcode* 50450
Organization Name* MISMATCH A/C (VE GIRO) BHG OPERASI KAD	City
Office Phone Number	Country* MALAYSIA
Fax Number	State* Kuala Lumpur
Organization Email	Business Type* OTHERS
Organization Website	Is Government No
Require Workflow Yes	

Figure 50 : BSNeBiz Application - Confirmation page



The screenshot shows the 'Contact Details' section of the confirmation page, divided into two columns: 'Contact Person' and 'Administrative Information'.

Contact Person	Administrative Information
Full Name* nurin sabrina	Full Name* nurin sabrina
Identity Card No* 111111111111	Identity Card No* 111111111111
Mobile Phone No* 111111111111	Mobile Phone No* 111111111111
Office Phone No	Office Phone No
Email* sabrina.azauddin@penril.net	Email* sabrina.azauddin@penril.net
	Staff No

Figure 51 : BSNeBiz Application - Confirmation page

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Account

Organization ID
M6789

Services	Account No	Organization Code
<input checked="" type="checkbox"/> Online Payment	1410041000005508	M6789200
<input type="checkbox"/> Corporate Card		
<input type="checkbox"/> Bulk Payment		
<input type="checkbox"/> Auto Debit		
<input type="checkbox"/> Collection		
<input type="checkbox"/> Merchant Report		

Figure 52 : BSNeBiz Application - Confirmation page

Charges

Charges Package
PACKAGE A

Subscription Type
Monthly

Subscription Fee
45.00

Services	Type	Charges	
		Successful Fee	Unsuccessful Fee
Bulk Payment	IBG	0.00	0.00
	Individual	0.00	0.00
	Organization	0.00	0.00
Auto Debit	IBG	0.00	0.00
	Individual	0.00	0.00
	Organization	0.00	0.00
Collection Receivable	IBG	0.00	0.00
	Individual	0.00	0.00
	Organization	0.00	0.00
EPF	IBG	0.00	0.00
	Individual	0.00	0.00
	Organization	0.00	0.00
SOCSO	IBG	0.00	0.00
	Individual	0.00	0.00
	Organization	0.00	0.00
ZAKAT	IBG	0.00	0.00
	Individual	0.00	0.00
	Organization	0.00	0.00

All required documents have been submitted by the company.

Figure 53 : BSNeBiz Application - Confirmation page

Remarks*

Back Save as PDF Submit

Figure 54 : BSNeBiz Application - Confirmation page

1.7.12 [TC-ACF-AOS-12] – BSNeBiz Application Create (Result) Page – STEP 12 (applicationFormCreateStep9.do)

In this stage, the CDB connects to BSNeBiz Application – Create (Result) page:

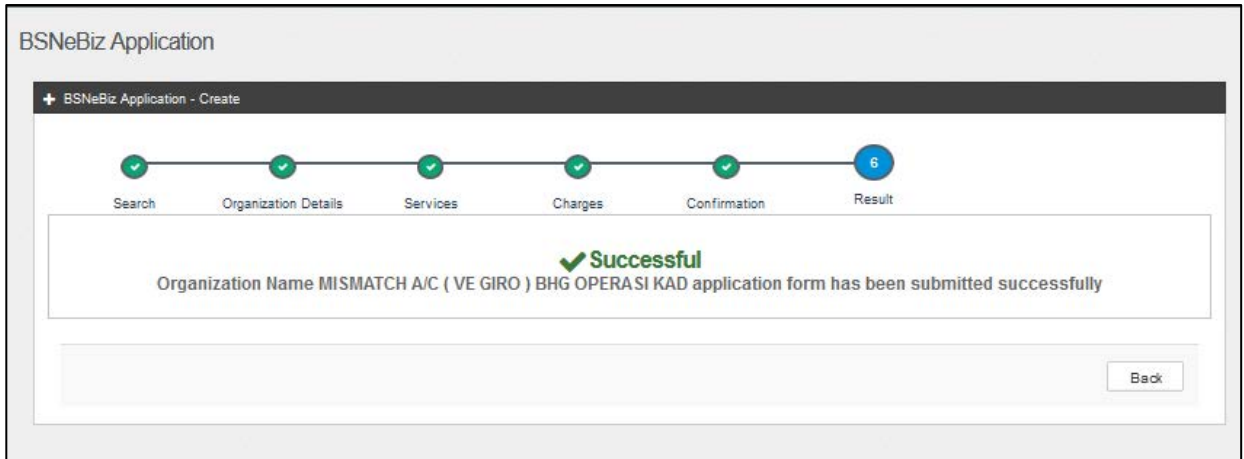


Figure 55 : BSNeBiz Application Result page

1.8 Tools: Apache JMeter 5.1.1 r1855137

Apache JMeter is pure Java open-source software with the purpose of load testing functional behaviour and measuring performance of web applications. This app is chosen because it is platform independent, easy to install and provides better visualization on test results.

2. Business Processes Involved

Adding Delete Functionality to IBAM > CBE BSNeBiz Application Module Process Flow

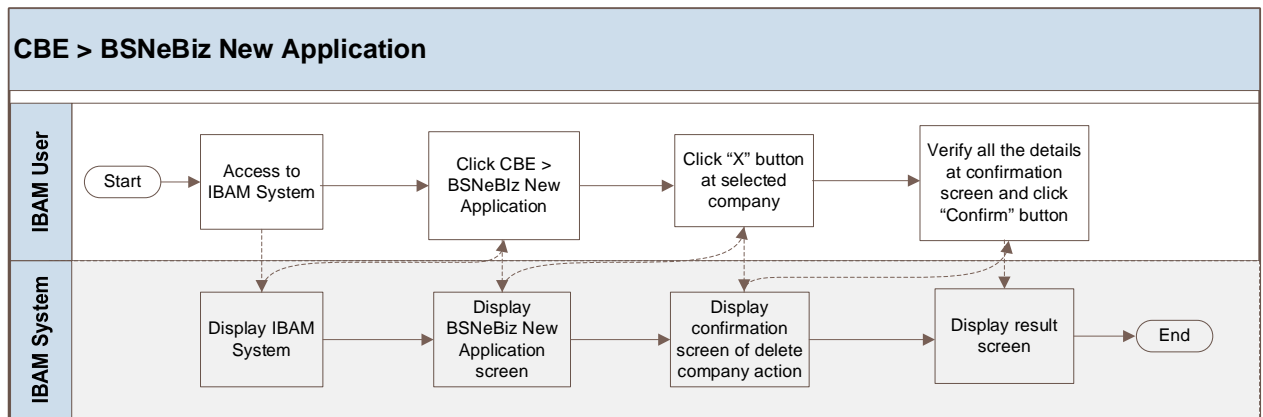


Diagram 1: Delete functionality at BSNeBiz New Application Process Flow

New Application – To add an account number field in the online payment row Process Flow

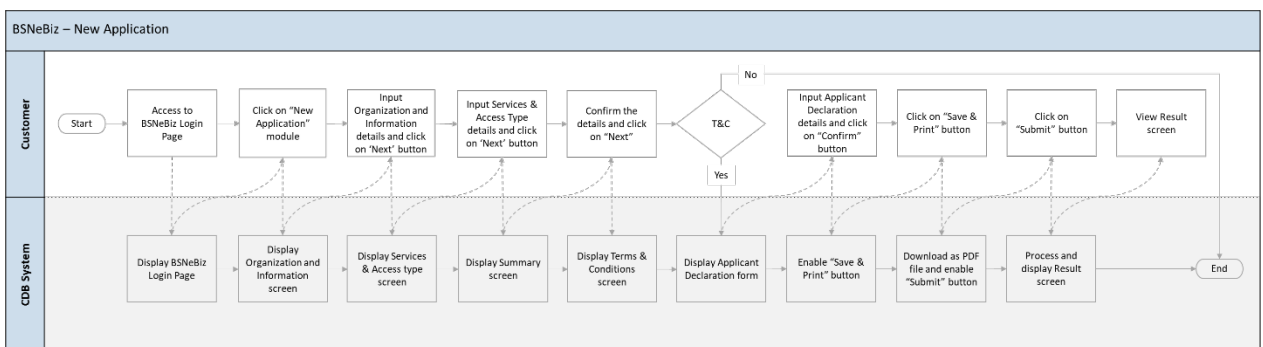


Diagram 2: New Application Process flow

New Application – Rearrange the services listing Process Flow

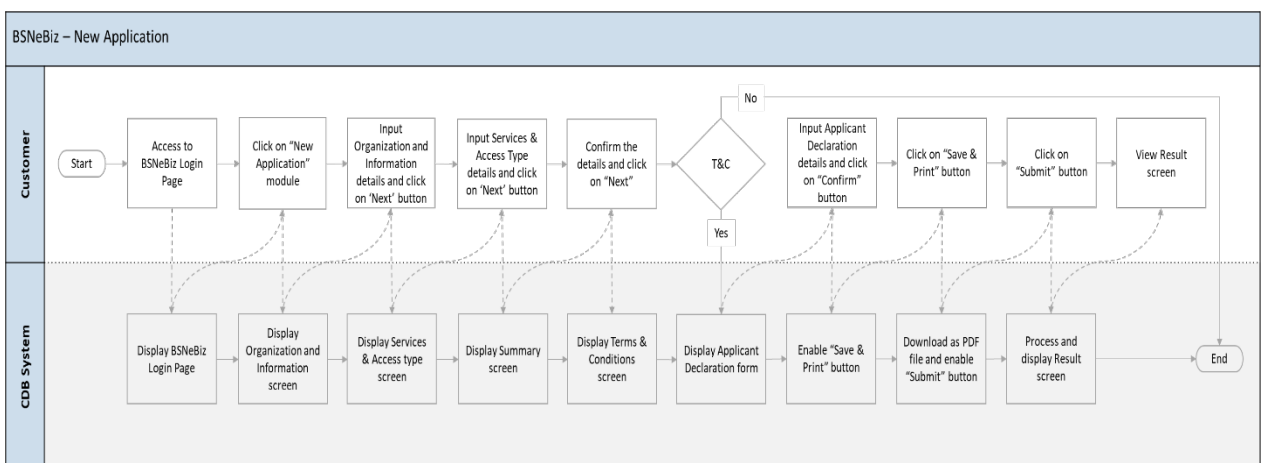


Diagram 3 : New Application Process Flow

Performance Report: CR23001 - Enhancement of New Application

New Application – To update the Contact Us Screen Process Flow

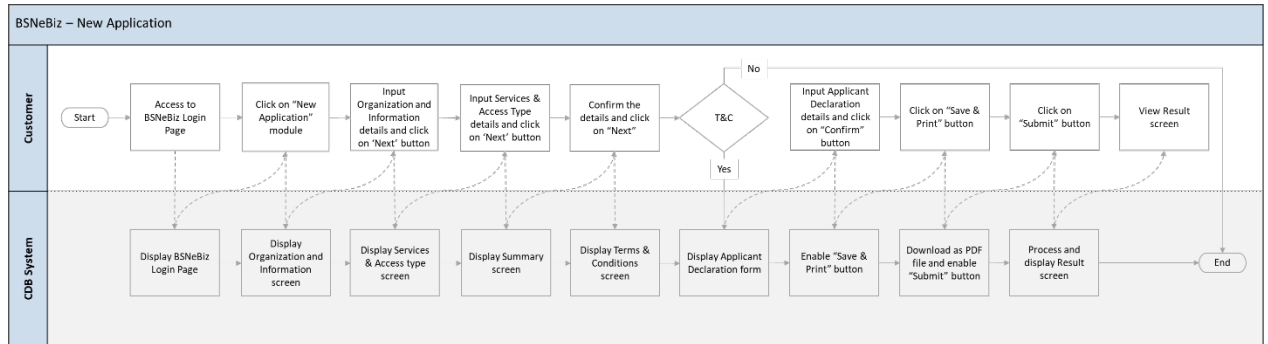


Diagram 4 : New Application Process Flow

IBAM – To add checkbox in order to facilitate the “call back” has been done Process Flow

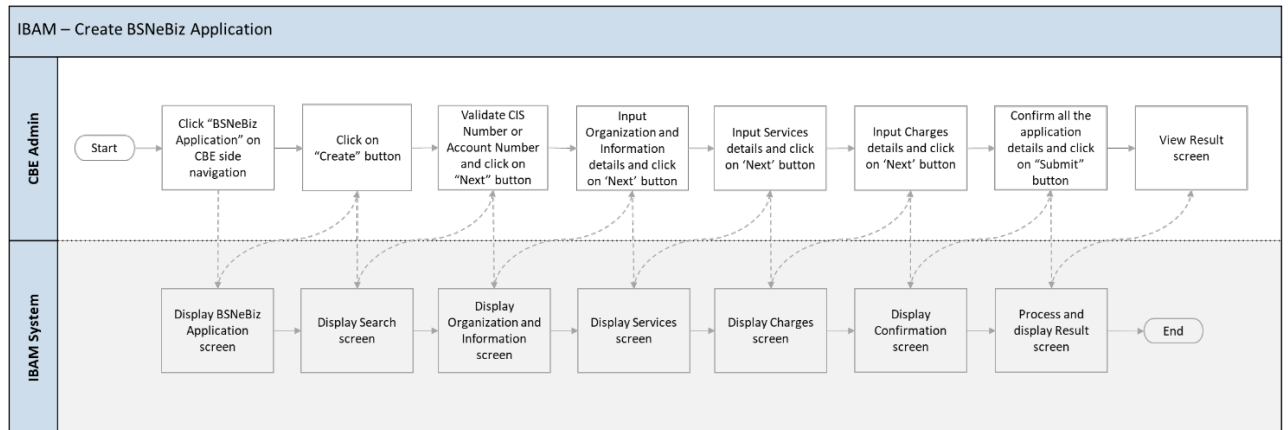


Diagram 5 : BSNeBiz Application(Create) Process Flow

This is a simplified flow diagram of load test flow scenarios representing Corporate Digital Banking Customers performing Delete Functionality to IBAM > CBE BSNeBiz Application Module and New Application process.

3. Performance Test Environment

Test Region	:	SIT Environment
Instance Testing	:	BSNeBIZ – SIT Environment Web : http://58.27.45.179:8080/bsn-cdb-sit/commonLogin
Apache JMeter	:	Version 5.6.2
Java Version	:	JDK 1.8

4. Test Scenario & Test Result with Explanation in Layman Terms

Testing Objective:

Bank would like to establish baseline (no. of concurrent users) of:

- A. IBAM – Adding Delete Functionality to IBAM > CBE BSNeBiz Application Module
- B. New Application – To have account number field at New Application Form
- C. New Application – Rearrange the services listing
- D. New Application – To update the Contact Us screen
- E. IBAM – To add checkbox in order to facilitate the “call back” has been done

A. IBAM – Adding Delete Functionality to IBAM > CBE BSNeBiz Application Module

To simulate the maximum number of requests to perform Enhancement of BSNeBIZ Application and Organization Setup with goal of:

- Error < 1%.
- Criteria of throughput (second / request) & TPS for each flow:
 - Login.do <5 second or >0.2 TPS
 - To proceed login process
 - PortalAccess <5 second or >0.2 TPS
 - To proceed login process
 - PotralLogin.do <5 second or >0.2 TPS
 - To load the IBAM Home Page
 - ApplicationFormDeleteComfirm.do <5 second or >0.2 TPS
 - To load the Confirmation page
 - DeleteApplicationFormResult.do <5 second or >0.2 TPS
 - To load the Application Declaration form page

I.Perform login service for 50 concurrent users

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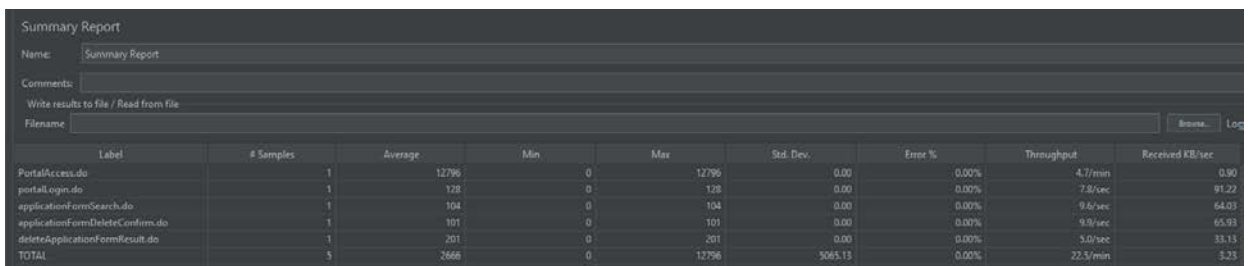
-Jmeter Execution Date: 23/01/2024

- Test Criteria
 - Perform transaction for 50 concurrent users for 1 loop
- Summary of Testing

The performance test result has passed/ not passed the test against the benchmarks that have been set above (such as number of concurrent users, error percentage, and throughput).
- Test Result
 - The JMeter result shows that the system can support 50 concurrent users to perform transactions with 0.00 % error. It takes 45 seconds to complete the transaction process for all users.
 - Throughput (min/request)

The system is capable of completing a http request within 1.2 s (fastest) and 18.9 s (slowest).
 - TPS (Transaction per Second)

The system is capable of performing 0.023 TPS (fastest) and 0.004 TPS (slowest).
 - The reasonable ramp-up period without any error is 60 seconds for 50 users.



Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec
PortalAccess.do	1	12796	0	12796	0.00	0.00%	4.7/min	0.90
portalLogin.do	1	128	0	128	0.00	0.00%	7.8/sec	91.22
applicationFormSearch.do	1	104	0	104	0.00	0.00%	9.6/sec	64.03
applicationFormDeleteConfirm.do	1	101	0	101	0.00	0.00%	9.9/sec	65.93
deleteApplicationFormResult.do	1	201	0	201	0.00	0.00%	3.0/sec	33.13
TOTAL	5	2666	0	12796	5065.13	0.00%	22.3/min	5.23

Image 1: JMeter Test Result - 50 Enhancement of BSNeBIZ users application and Organization Setup

B. BSNeBiz – To Add an Account Number Field in the Online Payment Row

To simulate the maximum number of requests to perform Enhancement of BSNeBIZ Application and Organization Setup with goal of:

- Error < 1%.
- Criteria of throughput (second / request) & TPS for each flow:
 - ibNewApplicationFormStep1.action <5 second or >0.2 TPS
 - This step is to load the page of IB
 - ibNewApplicationFormStep2.action <5 second or >0.2 TPS
 - To load the Organization and Information form page
 - ibNewApplicationFormStep3.action <5 second or >0.2 TPS
 - To load the Services and Access type form page
 - ibNewApplicationFormStep4.action <5 second or >0.2 TPS
 - To load the Confirmation page

Performance Report: CR23001 - Enhancement of New Application

- ibBSN_TnC.action <5 second or >0.2 TPS
 - To load the Application Declaration form page
- ibNewApplicationFormModal.action <5 second or >0.2 TPS
 - To load the Registration Summary page in PDF format
 - To save and download the Registration Summary page in PDF format
- RegistrationSummaryPdfDownload.action <5 second or >0.2 TPS
 - To load the Result page

I. Perform login service for 50 concurrent users

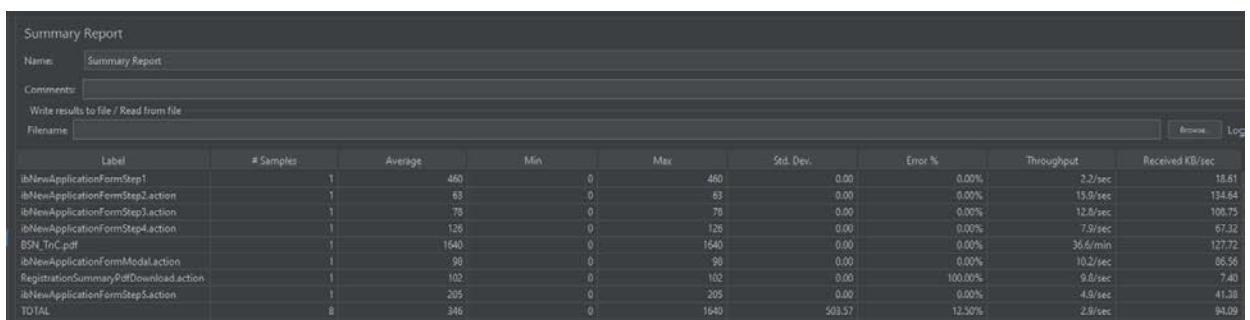
-Jmeter Execution Date: 23/1/2024

- Test Criteria
 - Perform transaction for 50 concurrent users for 1 loop
- Summary of Testing

The performance test result has passed/ not passed the test against the benchmarks that have been set above (such as number of concurrent users, error percentage, and throughput).
- Declaration
 - RegistrationSummaryPdfDownload.action caused error because of the interceptor token cannot capture and modify the HTTP request and responses. As token only allow one click per action, token interceptor cannot be applied at RegistrationSummaryPdfDownload.action while Save and Download button can be click multiple time per action.
 - Therefore, RegistrationSummaryPdfDownload.action have error in test result.
- Test Result
 - The JMeter result shows that the system can support 50 concurrent users to perform transactions with 12.50% error. It takes 181 seconds to complete the transaction process for all users.
 - Throughput (min/request)

The system is capable of completing a http request within 2.2 s (fastest) and 36.6 s (slowest).
 - TPS (Transaction per Second)

The system is capable of performing 0.454 TPS (fastest) and 0.027 TPS (slowest).
 - The reasonable ramp-up period without any error is 60 seconds for 50 users.



Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec
ibNewApplicationFormStep1	1	460	0	460	0.00	0.00%	2.2/sec	18.61
ibNewApplicationFormStep2.action	1	63	0	63	0.00	0.00%	15.9/sec	134.64
ibNewApplicationFormStep3.action	1	78	0	78	0.00	0.00%	12.6/sec	108.73
ibNewApplicationFormStep4.action	1	126	0	126	0.00	0.00%	7.9/sec	67.33
BSN_TnC.pdf	1	1640	0	1640	0.00	0.00%	36.6/min	127.72
ibNewApplicationFormModal.action	1	98	0	98	0.00	0.00%	10.2/sec	86.56
RegistrationSummaryPdfDownload.action	1	102	0	102	0.00	100.00%	9.8/sec	7.40
ibNewApplicationFormStep5.action	1	205	0	205	0.00	0.00%	4.9/sec	41.38
TOTAL	8	346	0	1640	503.57	12.50%	2.8/sec	94.09

Image 2: JMeter Test Result - 50 Enhancement of BSNeBIZ users application and Organization Setup

C. BSNeBiz – Rearrange the Service Listings

To simulate the maximum number of requests to perform Enhancement of BSNeBIZ Application and Organization Setup with goal of:

- Error < 1%.
- Criteria of throughput (second / request) & TPS for each flow:
 - `ibNewApplicationFormStep1.action` <5 second or >0.2 TPS
 - This step is to load the page of IB
 - `ibNewApplicationFormStep2.action` <5 second or >0.2 TPS
 - To load the Organization and Information form page
 - `ibNewApplicationFormStep3.action` <5 second or >0.2 TPS
 - To load the Services and Access type form page
 - `ibNewApplicationFormStep4.action` <5 second or >0.2 TPS
 - To load the Confirmation page
 - `BSN_TnC.pdf` <5 second or >0.2 TPS
 - To load the Application Declaration form page
 - `ibNewApplicationFormModal.action` <5 second or >0.2 TPS
 - To load the Registration Summary page in PDF format
 - To save and download the Registration Summary page in PDF format
 - `RegistrationSummaryPdfDownload.action` <5 second or >0.2 TPS
 - To load the Result page

- I. Perform login service for 50 concurrent users

Performance Report: CR23001 - Enhancement of New Application

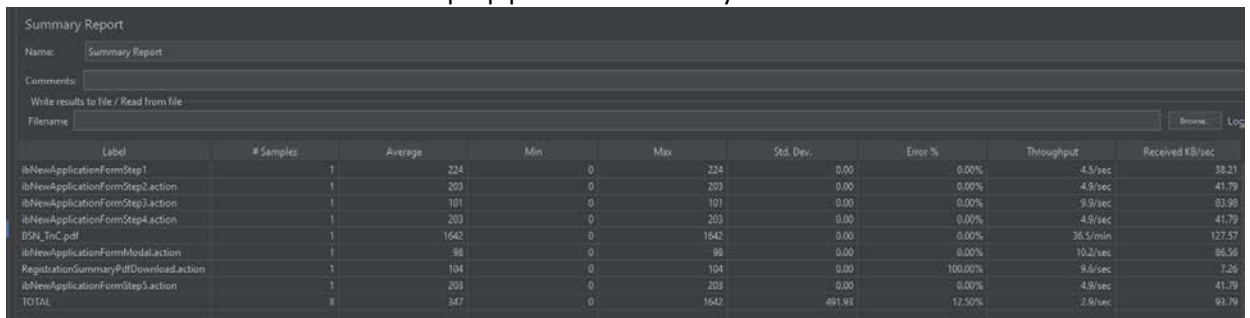
-Jmeter Execution Date: 23/01/2024

- Test Criteria
 - Perform transaction for 50 concurrent users for 1 loop
- Summary of Testing

The performance test result has passed/ not passed the test against the benchmarks that have been set above (such as number of concurrent users, error percentage, and throughput).
- Declaration
 - RegistrationSummaryPdfDownload.action caused error because of the interceptor token cannot capture and modify the HTTP request and responses. As token only allow one click per action, token interceptor cannot be applied at RegistrationSummaryPdfDownload.action while Save and Download button can be click multiple time per action.
 - Therefore, RegistrationSummaryPdfDownload.action have error in test result.
- Test Result
 - The JMeter result shows that the system can support 50 concurrent users to perform transactions with 12.50% error. It takes 60 seconds to complete the transaction process for all users.
 - Throughput (min/request)

The system is capable of completing a http request within 4.9 s (fastest) and 36.5 s (slowest).
 - TPS (Transaction per Second)

The system is capable of performing 0.345 TPS (fastest) and 0.101 TPS (slowest).
 - The reasonable ramp-up period without any error is 60 seconds for 50 users.



Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec
ibNewApplicationFormStep1	1	224	0	224	0.00	0.00%	4.5/sec	38.21
ibNewApplicationFormStep2.action	1	203	0	203	0.00	0.00%	4.9/sec	41.79
ibNewApplicationFormStep3.action	1	101	0	101	0.00	0.00%	9.9/sec	83.98
ibNewApplicationFormStep4.action	1	203	0	203	0.00	0.00%	4.9/sec	41.79
BSN TrnC.pdf	1	1642	0	1642	0.00	0.00%	36.5/min	127.57
ibNewApplicationFormModal.action	1	98	0	98	0.00	0.00%	10.2/sec	86.56
RegistrationSummaryPdfDownload.action	1	104	0	104	0.00	100.00%	9.6/sec	7.26
ibNewApplicationFormStep5.action	1	203	0	203	0.00	0.00%	4.9/sec	41.79
TOTAL	8	347	0	1642	491.94	12.50%	2.40/sec	93.79

Image 3: JMeter Test Result - 50 Enhancement of BSNeBIZ users application and Organization Setup

D. BSNeBiz – To Update the Contact Us Screen

To simulate the maximum number of requests to perform Enhancement of BSNeBIZ Application and Organization Setup with goal of:

- Error < 1%.
- Criteria of throughput (second / request) & TPS for each flow:
 - `ibNewApplicationFormStep1.action` <5 second or >0.2 TPS
 - This step is to load the page of IB
 - `ibNewApplicationFormStep2.action` <5 second or >0.2 TPS
 - To load the Organization and Information form page
 - `ibNewApplicationFormStep3.action` <5 second or >0.2 TPS
 - To load the Services and Access type form page
 - `ibNewApplicationFormStep4.action` <5 second or >0.2 TPS
 - To load the Confirmation page
 - `BSN_TnC.pdf` <5 second or >0.2 TPS
 - To load the Application Declaration form page
 - `ibNewApplicationFormModal.action` <5 second or >0.2 TPS
 - To load the Registration Summary page in PDF format
 - To save and download the Registration Summary page in PDF format
 - `RegistrationSummaryPdfDownload.action` <5 second or >0.2 TPS
 - To load the Result page
 - `ibNewApplicationFormStep5.action` <5 second or >0.2 TPS
 - To load the Registration Summary page in PDF format
 - To save and download the Registration Summary page in PDF format

I. Perform login service for 50 concurrent users

Performance Report: CR23001 - Enhancement of New Application

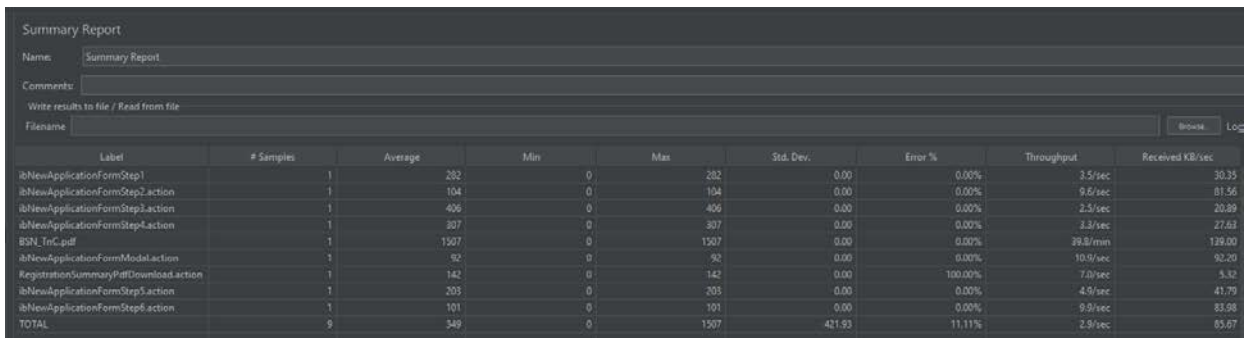
-Jmeter Execution Date: 23/01/2024

- Test Criteria
 - Perform transaction for 50 concurrent users for 1 loop
- Summary of Testing

The performance test result has passed/ not passed the test against the benchmarks that have been set above (such as number of concurrent users, error percentage, and throughput).
- Declaration
 - RegistrationSummaryPdfDownload.action caused error because of the interceptor token cannot capture and modify the HTTP request and responses. As token only allow one click per action, token interceptor cannot be applied at RegistrationSummaryPdfDownload.action while Save and Download button can be click multiple time per action.
 - Therefore, RegistrationSummaryPdfDownload.action have error in test result.
- Test Result
 - The JMeter result shows that the system can support 50 concurrent users to perform transactions with 11.11% error. It takes 60 seconds to complete the transaction process for all users.
 - Throughput (min/request)

The system is capable of completing a http request within 49.8 s (fastest) and 50.9 s (slowest).
 - TPS (Transaction per Second)

The system is capable of performing 0.4 TPS (fastest) and 0.025 TPS (slowest).
 - The reasonable ramp-up period without any error is 60 seconds for 50 users.



Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec
ibNewApplicationFormStep1	1	282	0	282	0.00	0.00%	3.5/sec	30.35
ibNewApplicationFormStep2.action	1	104	0	104	0.00	0.00%	9.6/sec	81.56
ibNewApplicationFormStep3.action	1	406	0	406	0.00	0.00%	2.5/sec	20.89
ibNewApplicationFormStep4.action	1	307	0	307	0.00	0.00%	3.3/sec	27.63
BSN_InC.pdf	1	1507	0	1507	0.00	0.00%	39.8/min	139.00
ibNewApplicationFormModel.action	1	92	0	92	0.00	0.00%	10.9/sec	92.20
RegistrationSummaryPdfDownload.action	1	142	0	142	0.00	100.00%	7.0/sec	5.32
ibNewApplicationFormStep5.action	1	203	0	203	0.00	0.00%	4.9/sec	41.79
ibNewApplicationFormStep6.action	1	101	0	101	0.00	0.00%	9.9/sec	83.98
TOTAL	9	349	0	1507	421.93	11.11%	2.9/sec	65.67

Image 4: JMeter Test Result - 50 Enhancement of BSNeBIZ users application and Organization Setup

E. IBAM – To Add Checkbox in Order to Facilitate the “Call Back” has Been Done

To simulate the maximum number of requests to perform Enhancement of BSNeBIZ Application and Organization Setup with goal of:

- Error < 1%.
- Criteria of throughput (second / request) & TPS for each flow:
 - ibPotralAccess.do <5 second or >0.2 TPS
 - This step is to load the page of IB

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- ibPortalLogin.do <5 second or >0.2 TPS
 - To load the IBAM Home Page
- applicationFormSearch.do <5 second or >0.2 TPS
 - To load the Services and Access type form page
- applicationFormCreate.do <5 second or >0.2 TPS
 - To load the Application page
- applicationFormCreateStep2.do <5 second or >0.2 TPS
 - To load the Application page Bypage
- applicationFormCreateStep3.do <5 second or >0.2 TPS
 - To load the Application Organization Detail form page
- applicationFormCreateStep4.do <5 second or >0.2 TPS
 - To load the Services page
- applicationFormCreateStep5.do <5 second or >0.2 TPS
 - To load the Services page
- applicationFormCreateStep6.do <5 second or >0.2 TPS
 - To load the Charges page
- applicationFormCreateStep7.do <5 second or >0.2 TPS
 - To load the Charges page
- applicationFormCreateStep8.do <5 second or >0.2 TPS
 - To load the Confirmation page
- applicationFormCreateStep9.do <5 second or >0.2 TPS
 - To load the Result page

I.Perform login service for 50 concurrent users

Performance Report: CR23001 - Enhancement of New Application

-Jmeter Execution Date:23/01/2024

- Test Criteria
 - Perform transaction for 50 concurrent users for 1 loop

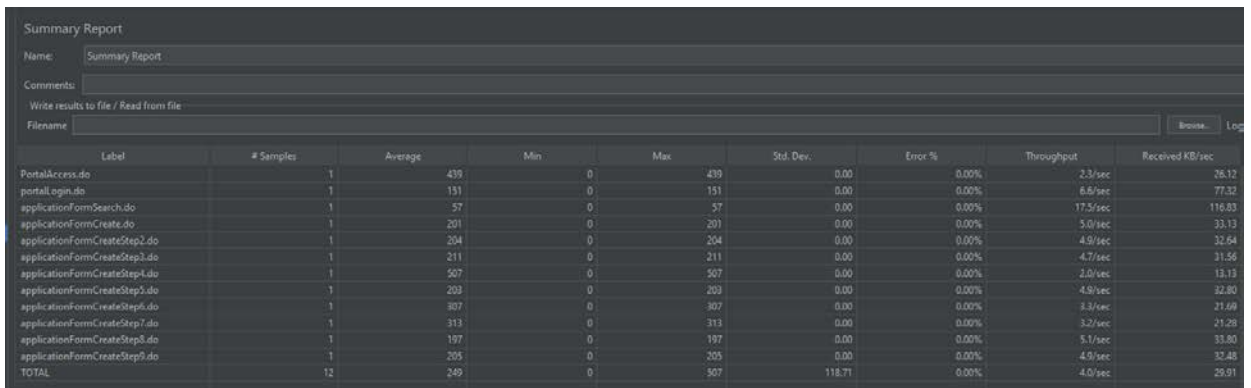
- Summary of Testing

The performance test result has passed/ not passed the test against the benchmarks that have been set above (such as number of concurrent users, error percentage, and throughput).

- Test Result
 - The JMeter result shows that the system can support 50 concurrent users to perform transactions with 0.00% error. It takes 60 seconds to complete the transaction process for all users.
 - Throughput (min/request)

The system is capable of completing a http request within 17.5 s (fastest) and 2.3 s (slowest).
 - TPS (Transaction per Second)

The system is capable of performing 0.5 TPS (fastest) and 0.057 TPS (slowest).
 - The reasonable ramp-up period without any error is 60 seconds for 50 users.



Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec
PortalAccess.do	1	439	0	439	0.00	0.00%	2.3/sec	26.12
portalLogin.do	1	151	0	151	0.00	0.00%	6.6/sec	77.32
applicationFormSearch.do	1	57	0	57	0.00	0.00%	17.5/sec	116.83
applicationFormCreate.do	1	201	0	201	0.00	0.00%	5.0/sec	33.13
applicationFormCreateStep2.do	1	204	0	204	0.00	0.00%	4.9/sec	32.64
applicationFormCreateStep3.do	1	211	0	211	0.00	0.00%	4.7/sec	31.56
applicationFormCreateStep4.do	1	507	0	507	0.00	0.00%	2.0/sec	13.13
applicationFormCreateStep5.do	1	203	0	203	0.00	0.00%	4.9/sec	32.80
applicationFormCreateStep6.do	1	307	0	307	0.00	0.00%	3.3/sec	21.68
applicationFormCreateStep7.do	1	313	0	313	0.00	0.00%	3.2/sec	21.28
applicationFormCreateStep8.do	1	197	0	197	0.00	0.00%	5.1/sec	33.80
applicationFormCreateStep9.do	1	205	0	205	0.00	0.00%	4.9/sec	32.48
TOTAL	12	249	0	507	118.71	0.00%	4.0/sec	29.91

Image 5: JMeter Test Result - 50 Enhancement of BSNeBIZ users application and Organization Setup