



**Corporate Digital Banking
DuitNow Online Banking (DOB)
for
IBAM, BSNeBiz and BSNeBiz Mobile**

Business Requirement and Functional Document

(PENRIL/BSN/BRFD_BSNEBIZ(P2)037)

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Document Amendment Log

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00	18/12/2023	Initial Release	Aziana Jaafar Quality Engineer	Nurul Athirah Quality Engineer	Norhaidah Dasuki Senior Manager

Table of Content

Document Amendment Log	2
Table of Content	3
Business Requirement & Functional Acceptance	4
Section A: Introduction	5
1 Introduction	5
1.1 Objective	5
1.2 Assumptions.....	6
1.3 DuitNow Online Banking Diagram	7
1.4 Impact Modules	10
2 Secure Verification for Monetary Transaction at BSNeBiz	11
2.1 Hardware Token (Vasco).....	11
2.1.1 Process Flow	11
2.1.2 Screen Flow	12
2.2 Mobile Token	14
2.2.1 Process Flow	14
2.2.2 Screen Flow	14
Section B: BSNeBiz	17
3 SOW03: BSNeBiz – DuitNow Online Banking (DOB)	17
3.1 SOW03.3 Enhancement at BSNeBiz.....	17
3.1.1 SOW03.3.1 DOB Interface for Web	Error! Bookmark not defined.
3.1.2 SOW03.3.2 Authorization.....	17
3.1.3 SOW03.3.3 Transaction History	Error! Bookmark not defined.
3.2 SOW03.4: BSNeBiz (Mobile)	Error! Bookmark not defined.
3.2.1 SOW03.4.1 DOB Interface for Mobile	Error! Bookmark not defined.
3.2.2 SOW03.4.2 Authorization.....	Error! Bookmark not defined.
3.2.3 SOW03.4.3 BSNeBiz Transaction History	Error! Bookmark not defined.
Section C: Internet Banking Application Manager (IBAM)	Error! Bookmark not defined.
4 New Enhancement at Internet Banking Application Manager (IBAM) Error! Bookmark not defined.	
4.1 SOW03.5: Enhancement on existing module at IBAM	Error! Bookmark not defined.
4.1.1 SOW03.5.1 Content – Service Info	Error! Bookmark not defined.
4.1.2 SOW03.5.2 BSNeBiz Transaction Enquiry	Error! Bookmark not defined.
4.1.3 SOW03.5.3 BSNeBiz Report.....	Error! Bookmark not defined.



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Business Requirement & Functional Acceptance

I/We hereby verify that this Business Requirement & Functional consist of all the requirements requested by BANK SIMPANAN NASIONAL. The implemented system will fulfill ONLY this requirement.

I/We also hereby AGREE that this satisfies our entire requirement for **DuitNow Online Banking (DOB)**

Any future changes to this agreed scope would be treated as an enhancement to the system. Any future changes to the project timeline will be subjected to the final approval of the project steering committee.

BANK SIMPANAN NASIONAL:

Approved by	Role	Signature	Date

Penril Datability (M) Sdn. Bhd.:

Approved by	Role	Signature	Date
Norhaidah Bt Md Dasuki	Senior Manager, Profesional Service		
Najmi Bin Pasarudin	Senior Software Engineer		

Section A: Introduction

1 Introduction

This document served as the business requirement and system specification of implementing **DuitNow – DOB (DuitNow Online Banking)** in BSNeBiz and IBAM system, which is customer able to make monetary transaction to Own Account, Intrabank and Interbank Account via online.

This document shall explain all the features and functionalities, which is elaborating with screen captures, process flow, descriptions, input fields specifications and error messages. **All screen designs provided in this document are samples and only illustration purpose for easy understanding. The screen designs are not final.**

1.1 Objective

The objective of this document is to capture user requirements of transactional and administration modules of implementing **DuitNow Online Banking**. This document will facilitate development and implementation of the mentioned modules of Internet Banking System for BSNeBiz.

The base line features description and screen designs will become a reference blueprint for the development team to develop the transactional and administration module. Hence, it is crucial that all stakeholders need to ensure the correctness and adequacy of the requirements captured in this document.

All stakeholders involved are expected to review and sign off this document before the development start. By signing off the document, the stakeholder has endorsed the correctness and accuracy and adequacy of the requirements documented in this document.

1.2 Assumptions

DuitNow Online Banking (DOB)

1. DuitNow Online Banking / Wallet is a real time online payment service which enables Payers to transact securely using their Internet Banking and Mobile Banking. This service supports the real-time switching and routing of payment transactions between the Merchant and Debiting Participant.
2. The Parties involved in the DuitNow Online Banking / Wallet Service are:-
 - a) **Payer**
Individual, companies, body corporate, businesses, government agencies, statutory bodies, societies and other Customers that initiates Payment to Merchant via DuitNow Online Banking.
 - b) **Merchant**
Businesses that registered with the Companies of Malaysia, sole proprietor and partnership, government agencies, statutory bodies, societies, and other entities that receive funds from Payer using DuitNow Online Banking / Wallet. Merchant shall establish an acquiring relationship with any Crediting Participant in order to use DuitNow Online Banking/Wallets Services. DuitNow Online Banking Flow Diagram

1.3 DuitNow Online Banking Diagram

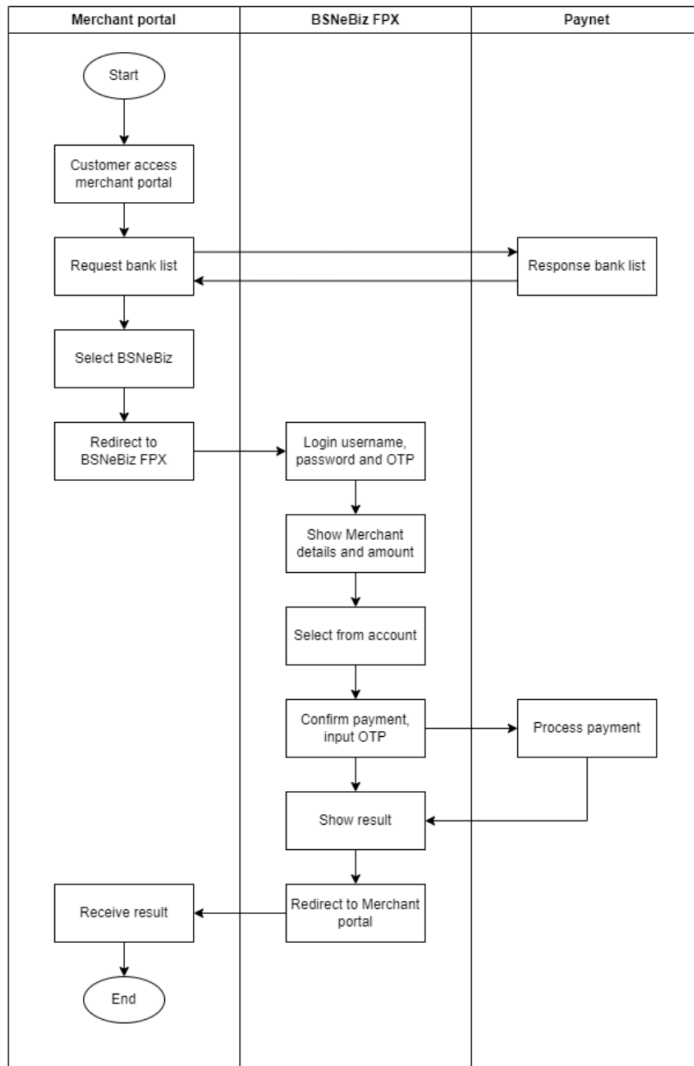


Diagram 1: Single User perform transaction

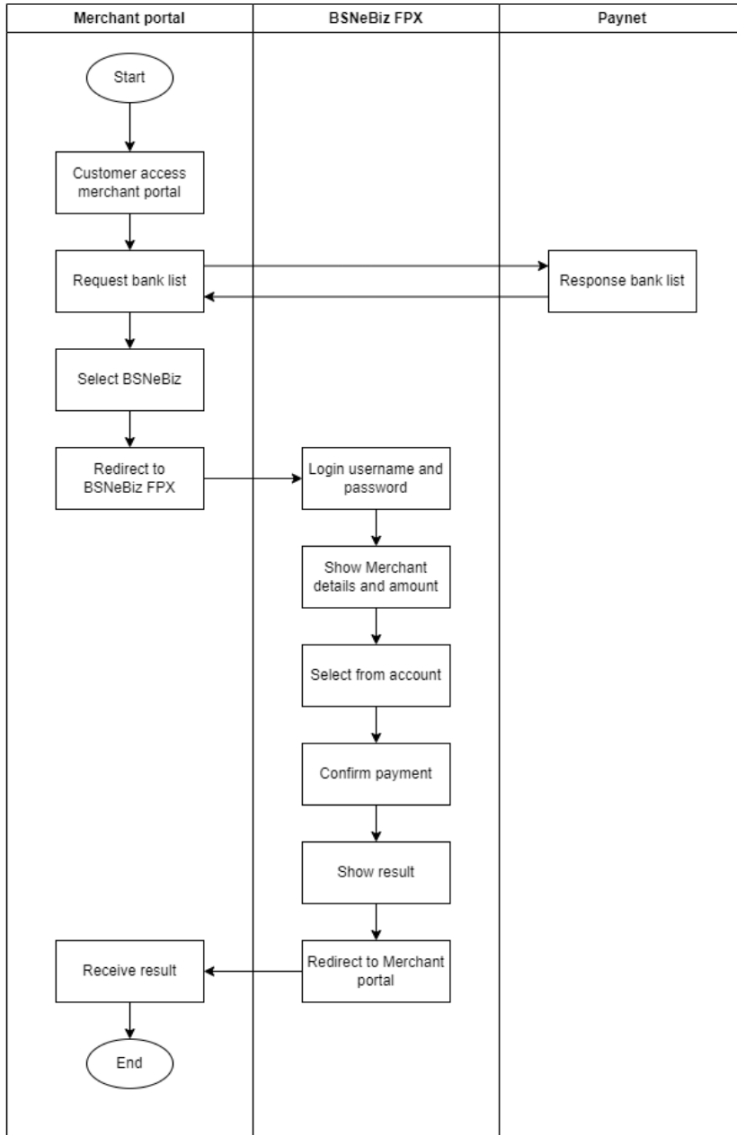


Diagram 2: Initiator (Company with workflow) perform transaction

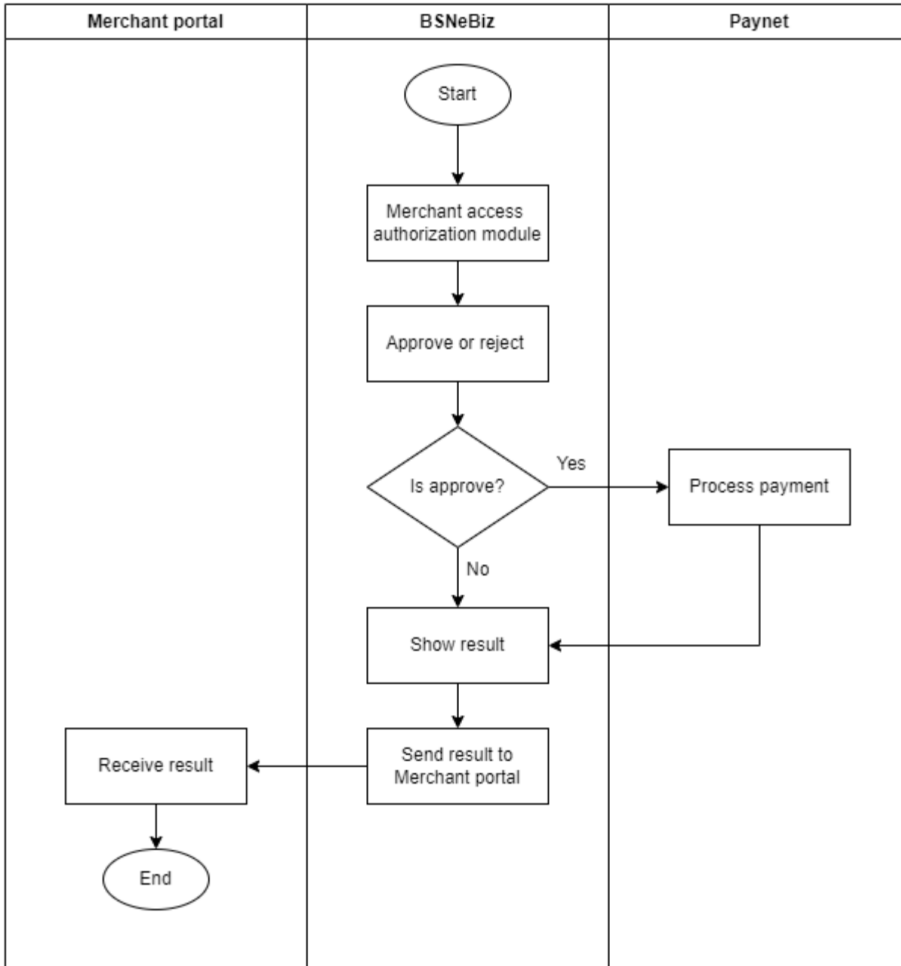


Diagram 3: Approver authorize the request flow diagram

1.4 Impact Modules

To update impact module section

System	Modules	Features	Description
BSNeBiz	DOB interface	New Screen	<ul style="list-style-type: none"> To add new screen cover for DOBW
	Authorization	Table	<ul style="list-style-type: none"> To add RPP – DuitNow online bankin to authorization list
	Transaction history	Table	<ul style="list-style-type: none"> To display the transactions done using DuitNow online bankin
BSNeBiz - Mobile	DOB interface screen	New Screen	<ul style="list-style-type: none"> To add new screen cover for DOBW
	Authorization	Table	<ul style="list-style-type: none"> To authorize transaction of DuitNow Pay to Proxy for Verifier and Approver <ul style="list-style-type: none"> ➤ Transfer Bulk Payment
	Push notification	Module	<ul style="list-style-type: none"> To allow user to decide whether to approve to Reject a tranaction
	Transaction history	Table	<ul style="list-style-type: none"> To display the transaction done using DuitNow online bankin
IBAM	BBE - Content – Service Info	Navigation	<ul style="list-style-type: none"> To add new service info in Content – Service Info for RPP - DuitNow online bankin
	CBE – BSNeBiz Transaction Enquiry	Field	<ul style="list-style-type: none"> To update BSNeBiz transaction enquiry to include RPP - DuitNow online bankin transaction To differentiate the channel of transaction
	CBE - BSNeBiz Report	Dropdown	<ul style="list-style-type: none"> To create new report in IBAM

Commented [AR1]: BSN to update on what report

Table 1: DuitNow – Impact Module

2 Secure Verification for Monetary Transaction at BSNeBiz

PIN is required as the second level security authentication for BSNeBiz Role’s Single User and Approver when perform any monetary transactions via online. PIN is a six random digits temporary security code, which is generated and verified by the authentication server.

There are two types of Secure Verification assign to the user by Corporate Admin:

- A. Hardware Token (Vasco)
- B. Mobile Token

2.1 Hardware Token (Vasco)

Hardware token from VASCO is physical device that will be used by Single User and Approver to authorize a monetary transaction using the “Transaction Singing” function; also known as Challenge Response (CR).

2.1.1 Process Flow

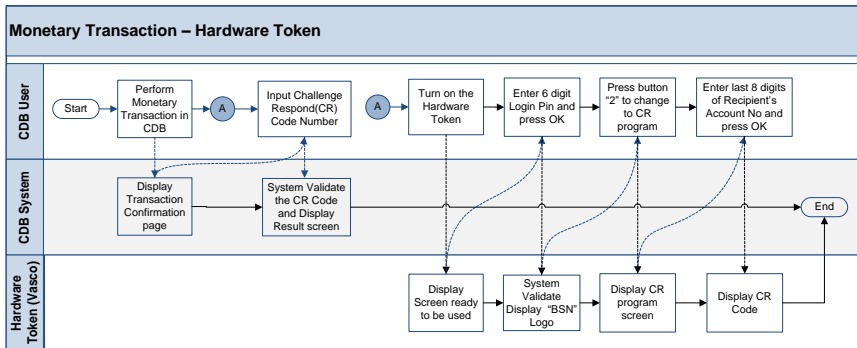


Diagram 4: Hardware Token Flow Diagram

2.1.2 Screen Flow

Step 1:

1. When user in Transaction Confirmation page, BSNeBiz system will required Challenge Response code to proceed the transaction
2. User needs to use Hardware Token to generate the Challenge Response code.



Figure 1: Hardware Token

Step 2:

1. Users press OK button for 2 seconds to turn on the Token.
2. User key in the 6 digits login PIN (User Password) and press OK.
3. BSN logo will be displayed on the token screen.

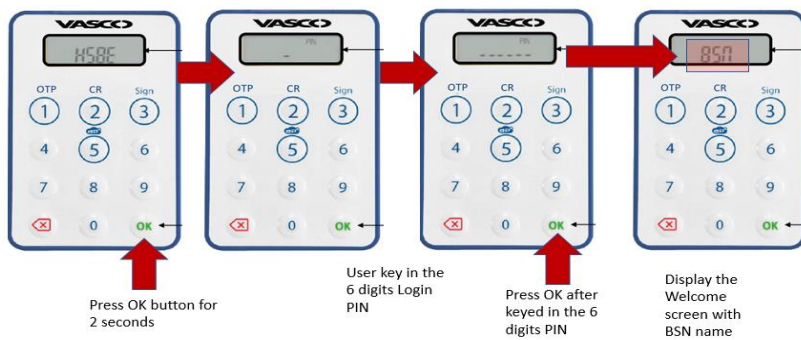


Figure 2: Turn on Token Flow

Step 3:

1. User press button 2 to change to Challenge Response program.
2. User key in the last 8 digits of recipient account number for Challenge Response.
3. Press OK and Challenge Response code will be displayed.

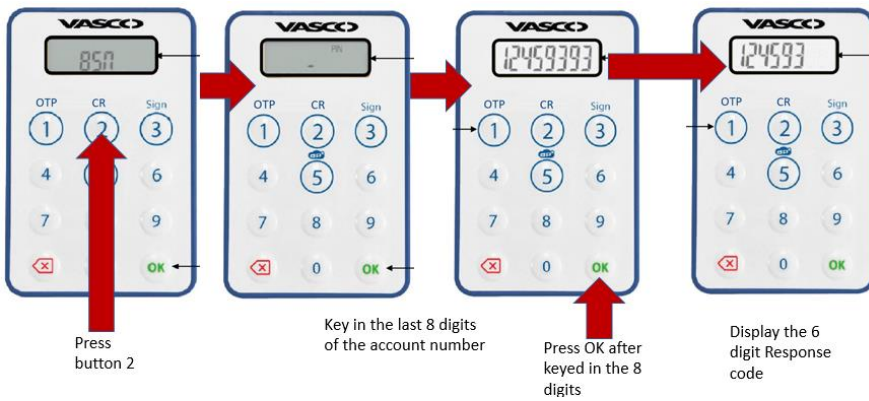


Figure 3: Get Challenge Response Code Flow

Step 4:

1. User use generated Challenge Response from the Token and input to the Challenge Response field in BSNeBiz – Transaction Confirmation pages.

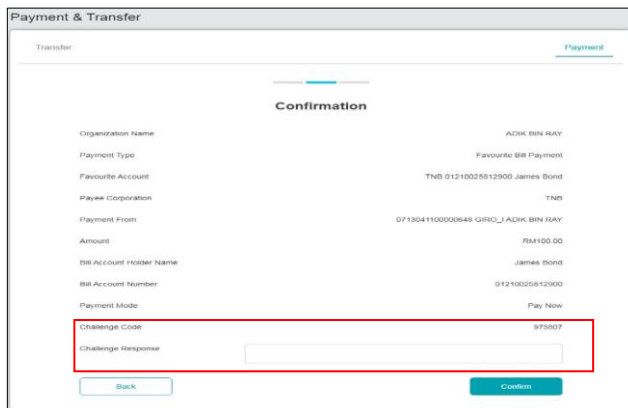


Figure 4: Confirmation page for Hardware Token verification

2.2 Mobile Token

Mobile Token is a mobile application that has the same functionalities as the VASCO Hardware Token using mobile phone features and serves the same usage purpose.

2.2.1 Process Flow

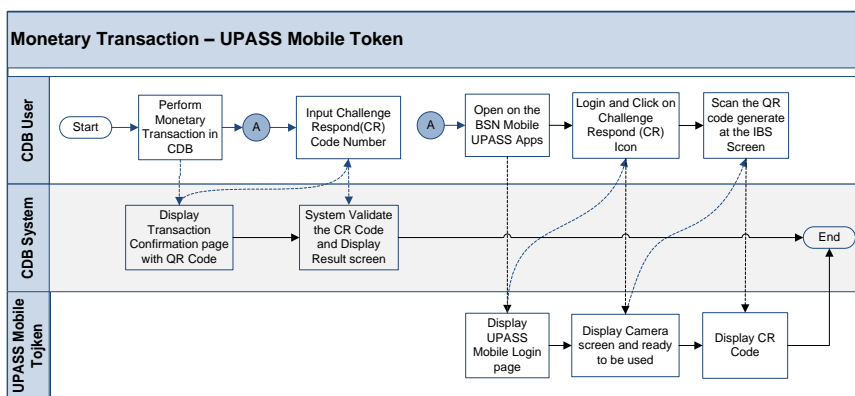


Diagram 5:: Mobile Token Flow Diagram

2.2.2 Screen Flow

Step 1:

1. When user in Transaction Confirmation page with QR code.
2. User needs to use Mobile Apps to scan the QR code to generate the Challenge Response code.

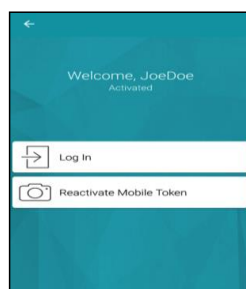


Figure 5: Mobile Apps screen

Step 2:

1. User Login to the Mobile apps and Click on Challenge Respond icon.
2. User scans the QR code generated at IBS confirmation screen.

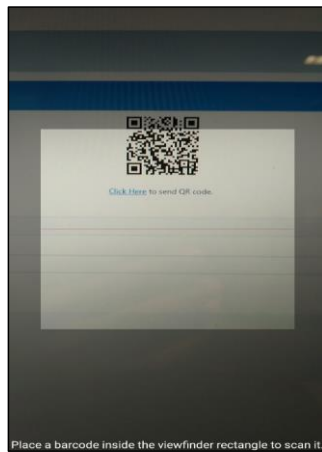


Figure 6: Mobile Apps QR Scan screen

Step 3:

1. BSN Application generate and display the Challenge Response code to be used.

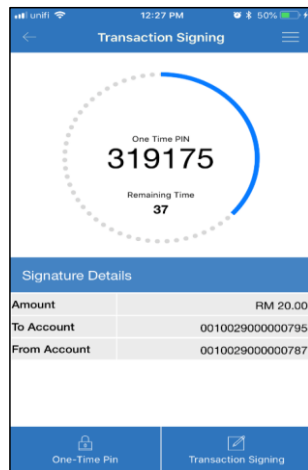
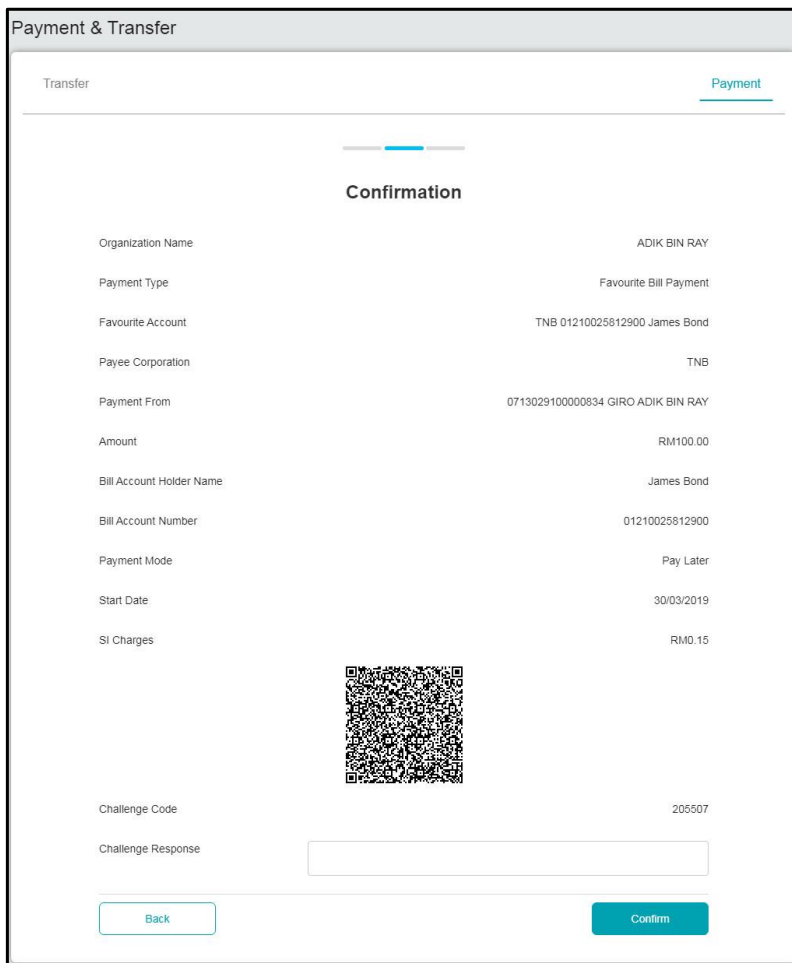


Figure 7: Challenge Response Code display Screen

Step 4:

1. User use generated Challenge Response from the Mobile Token App and input to the Challenge Response field in BSNeBiz – Transaction Confirmation pages.



The screenshot displays a 'Confirmation' page for a payment transaction. At the top, there are tabs for 'Transfer' and 'Payment'. The main content area is titled 'Confirmation' and lists the following details:

Organization Name	ADIK BIN RAY
Payment Type	Favourite Bill Payment
Favourite Account	TNB 01210025812900 James Bond
Payee Corporation	TNB
Payment From	0713029100000834 GIRO ADIK BIN RAY
Amount	RM100.00
Bill Account Holder Name	James Bond
Bill Account Number	01210025812900
Payment Mode	Pay Later
Start Date	30/03/2019
SI Charges	RM0.15

Below the details is a QR code. Underneath the QR code, the 'Challenge Code' is 205507. There is a text input field for the 'Challenge Response'. At the bottom of the page, there are two buttons: 'Back' and 'Confirm'.

Figure 8: Confirmation page for Mobile Token verification

Section B: BSNeBiz

3 SOW01: BSNeBiz – DuitNow Online Banking

3.1 SOW01.1 New Enhancement for Password

3.1.1 SOW01.1.1 Update flow for expired password

3.1.1.1 Process Flow

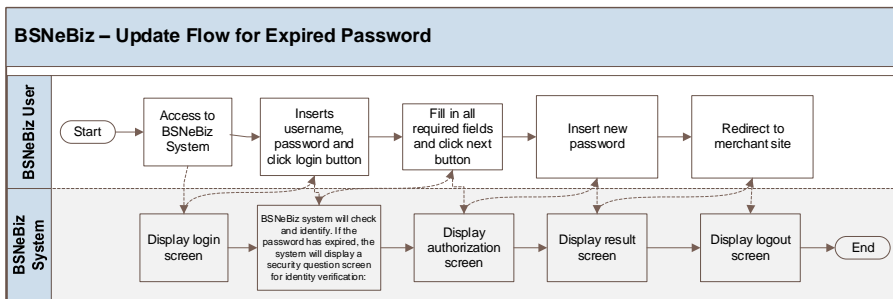


Diagram 6: DOB Update flow for Expired password

3.1.1.2 Screen Flow

Step 1: (login)

1. BSNeBiz user fills in their username and clicks next

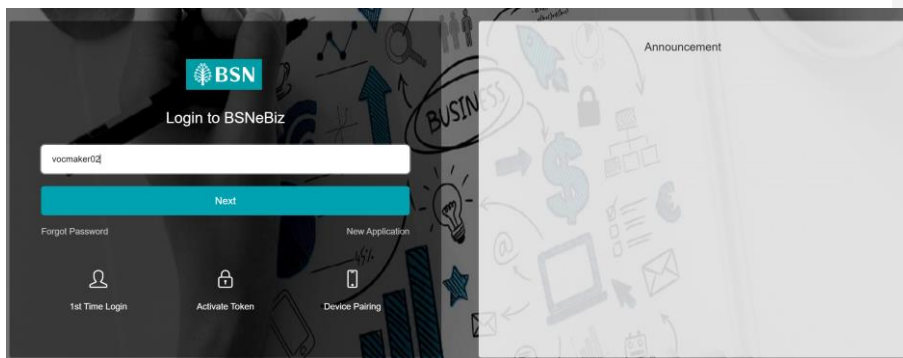


Figure 9: Customer insert username

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Input Specification:

No	Field	Field Type	Rule	Description	Required
1.	Username	Textbox	Alphanumeric	Allow user to insert username	Yes

Table 2: DOB – Details Screen Input Specification

Action:

No	Action	Type	Description
1.	Next	Button	This action will go next Page
2.	Login	Button	This action will go to Detail Screen Page

Table 3: BSNeBiz – Details Screen Fill Details Actions

Step 2: (insert password)

1. BSNeBiz user fills in their password.

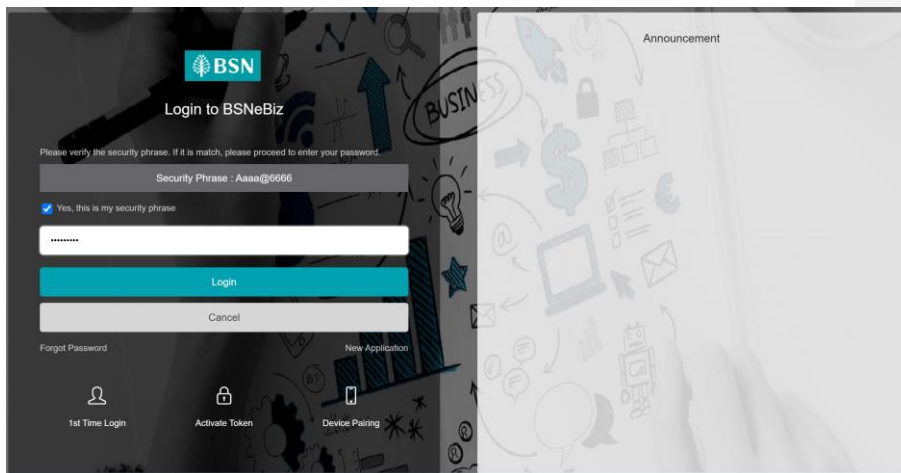


Figure 10: Customer insert Password.

Input Specification:

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No	Field	Field Type	Rule	Description	Required
1.	Password	Textbox	Alphanumeric	Allow user to insert password	Yes

Table 4: BSNeBiz – Details Screen Input Specification

Action:

No	Action	Type	Description
1.	Next	Button	This action will go next Page
2.	Login	Button	This action will go to Detail Screen Page

Table 5: BSNeBiz – Details Screen Fill Details Actions

Step 3 (identify)

1. BSNeBiz system will check and identify the BSNeBiz user's status. If the user's password has expired, the system will display a security question screen for identity verification: BSNeBiz user fills in their password to login into BSneBiz

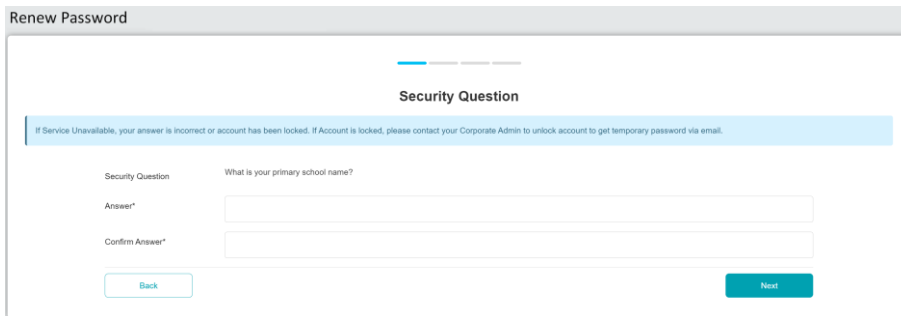


Figure 11: Identification

Input Specification:

No	Field	Field Type	Rule	Description	Required
1.	Security Question	Drop Down List	Must Select One	Specify security question	Yes
1.	Answer	Textbox	Alphanumeric	Allow user to insert the answer	Yes
2.	Confirm Answer	Textbox	Alphanumeric	Allow user to insert answer	Yes

Table 6: DOB – Details Screen Input Specification

Action:

No	Action	Type	Description
1.	Next	Button	This action will go next Page
2.	Back	Button	This action will go to previous Page

Table 7: DOB – Details Screen Fill Details Actions

Step 4 (check and verify)

1. BSNeBiz system will check and verify the inserted answer. If the answer is correct, the system will display the renew password screen.

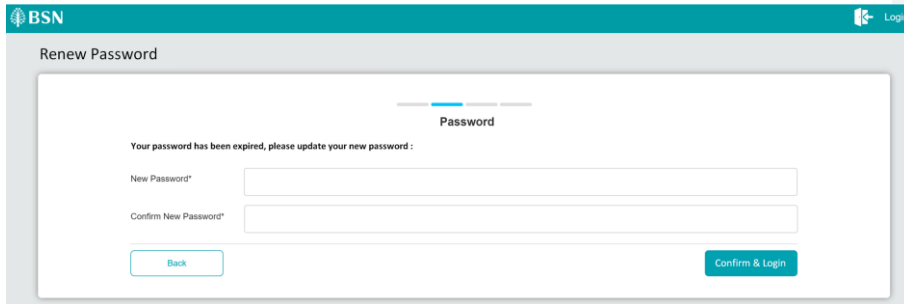


Figure 12: Customer insert Password and OTP

Input Specification:

No	Field	Field Type	Rule	Description	Required
1.	New Password	Textbox	Alphanumeric	Allow user to insert New Password	Yes
2.	Confirm New Password	Textbox	Alphanumeric	Allow user to insert Confirm New Password	Yes

Table 8: DOB – Details Screen Input Specification

Action:

No	Action	Type	Description
1.	Next	Button	This action will go next Page
2.	Back	Button	This action will go to Previous Page

Table 9: DOB – Details Screen Fill Details Actions

Step 5 (insert new password)

1. BSNeBiz user will insert the new password.

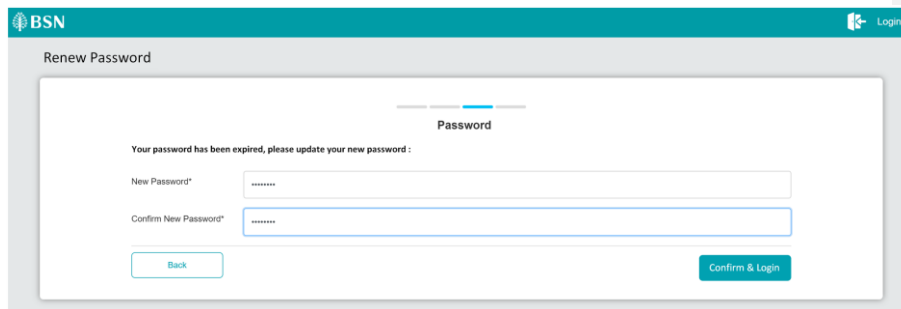


Figure 13: Customer insert the new password

Input Specification:

No	Field	Field Type	Rule	Description	Required
1.	New Password	Textbox	Alphanumeric	Allow user to insert New Password	Yes
2.	Confirm New Password	Textbox	Alphanumeric	Allow user to insert Confirm New Password	Yes

Table 10: DOB – Details Screen Input Specification

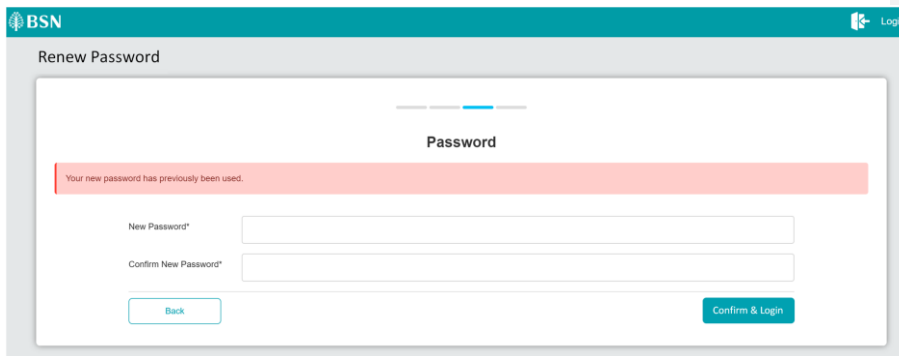
Action:

No	Action	Type	Description
1.	Confirm Login	Button	This action will go Detail Screen Page
2.	Back	Button	This action will go to Previous Page

Table 11: DOB – Details Screen Fill Details Actions

Step 5A (insert new password)

1. The BSNeBiz system will verify the new password. If the password is the same as before, the system will display the error message.
2. Other error message ****Password must contain a combination of upper and lower case alphabet characters, at least 1 number, and allow special characters (@#\$\$%^&+=) And must be at least 8 characters / digit**



Input Specification:

No	Field	Field Type	Rule	Description	Required
1.	New Password	Textbox	Alphanumeric	Allow user to insert New Password	Yes
2.	Confirm New Password	Textbox	Alphanumeric	Allow user to insert Confirm New Password	Yes

Table 12: DOB – Details Screen Input Specification

Action:

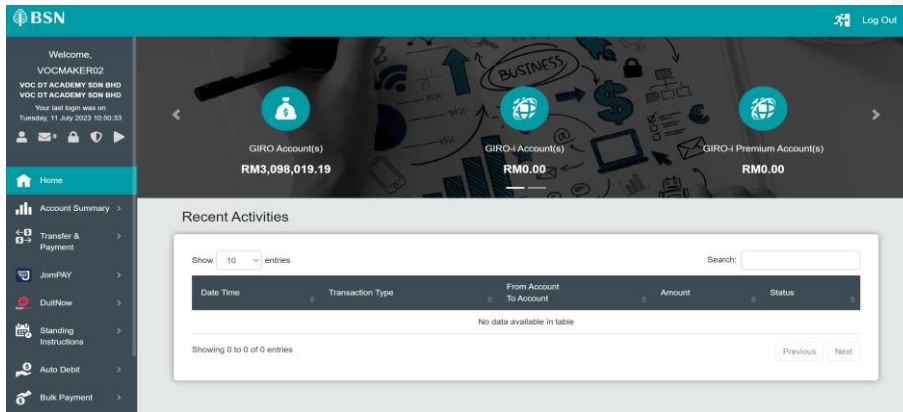
No	Action	Type	Description
1.	Confirm Login	Button	This action will go Detail Screen Page
2.	Back	Button	This action will go to Previous Page

Table 13: DOB – Details Screen Fill Details Actions

Step 5B (insert new password)

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- The system will redirect the user to the BSNeBiz landing page if the inserted password meets all the requirements.



Input Specification:

No	Field	Field Type	Rule	Description	Required
1.	Entries	Drop Down List	Must Select <ul style="list-style-type: none"> 10 25 50 100 	Specify whether the latest transaction	Optional
1.	Search	Textbox	Alphanumeric	User able to search account number	Optional

Table 14: DOB – Details Screen Input Specification

Display Field:

No	Field	Format	Description
1.	From account	Alphanumeric	Shows the Account number
2.	Merchant Name	Text	Shows the Merchant Name
3.	Payment Reference	Numeric	Shows the reference set by the BSNeBiz user to perform a transaction



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3.1.2 SOW01.1.2 Receive Email

3.1.2.1

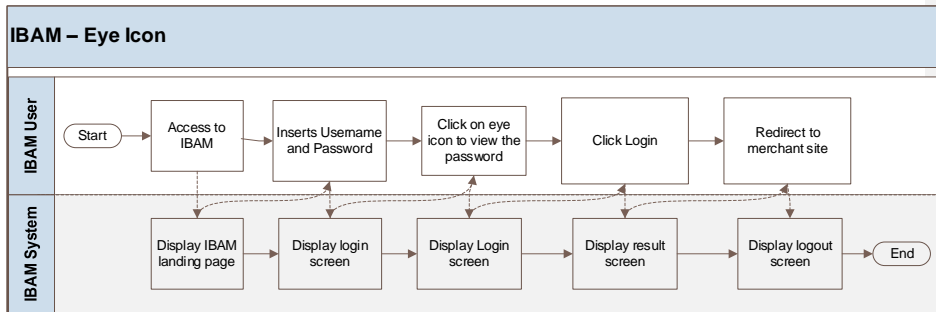
3.1.2.2

3 SOW02: New Enhancement Password Eye Icon

This feature allows BSneBiz user to learn the flow of passwords.

3.2 SOW02.1 IBAM

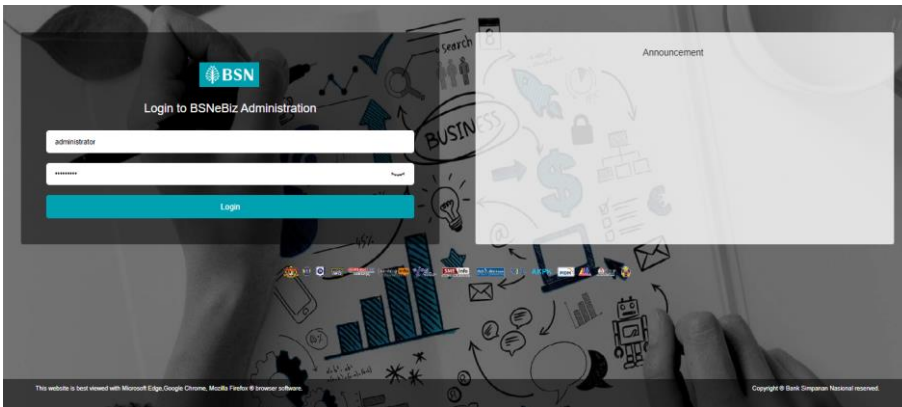
3.2.1 Process Flow



3.2.2 Screen Flow

Step 1: (login)

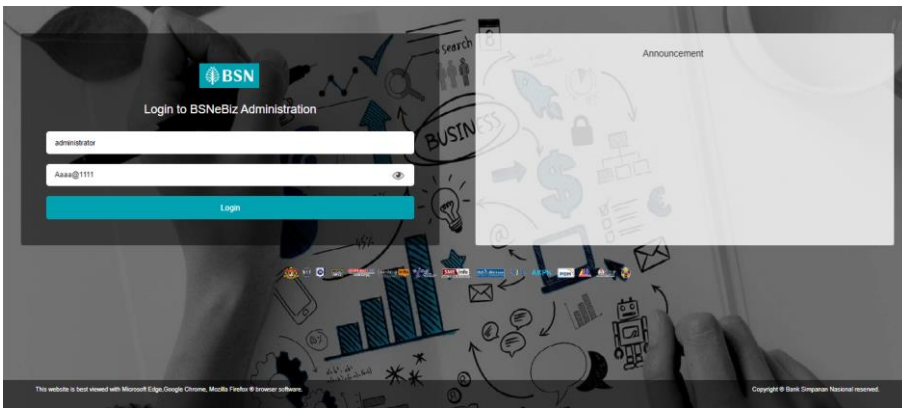
- IBAM user fills in their username and password.



Step 2: (View Eye Icon)

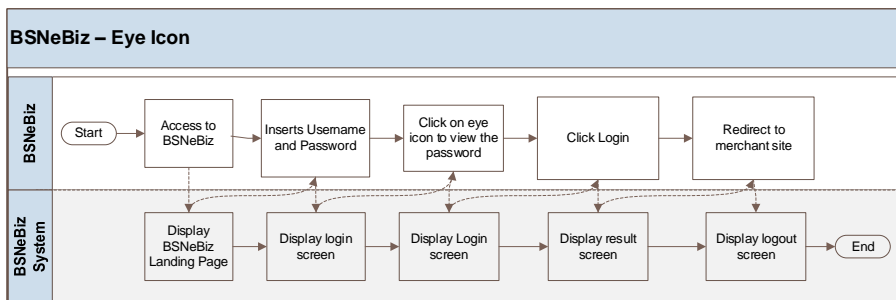
- Click on the eye icon (located on the right side of the password field).

2. Upon clicking, the eye icon may change its appearance, indicating that the password is now visible.
3. The password will be momentarily displayed in plain text.



3.3 SOW02.2 BSNeBiz Web

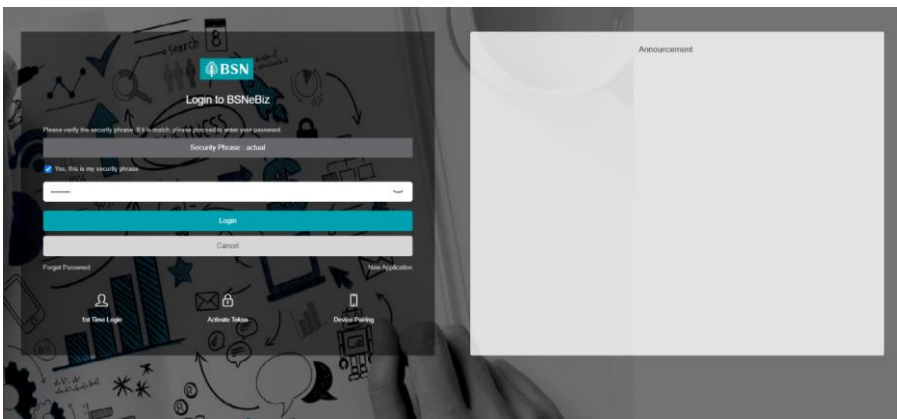
3.3.1 Process Flow



3.3.2 Screen Flow

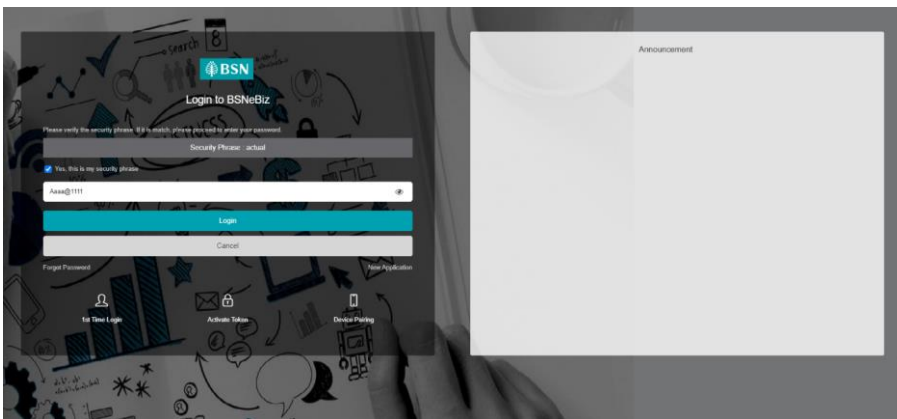
Step 1:

1. BSNeBiz User fill in their username and password.



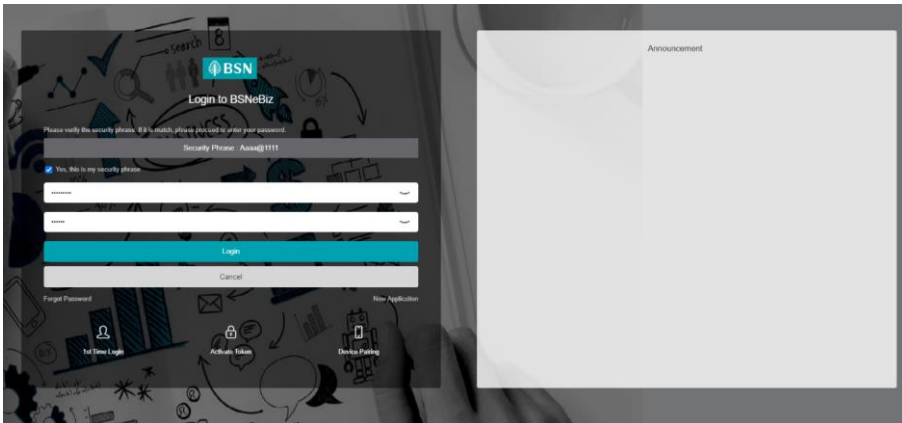
Step 2: (View Eye Icon)

1. Click on the eye icon (located on the right side of the password field).
2. Upon clicking, the eye icon may change its appearance, indicating that the password is now visible.



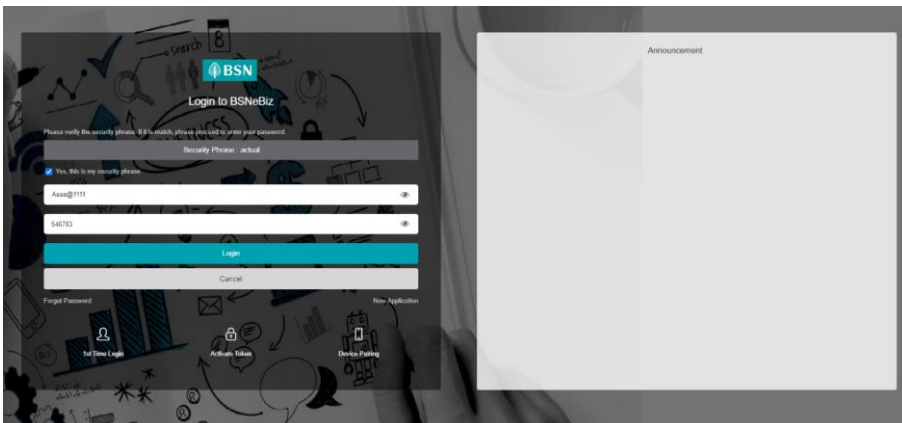
Step 3:

1. Insert the same password entered in the previous step into the "Reconfirm Password" field.



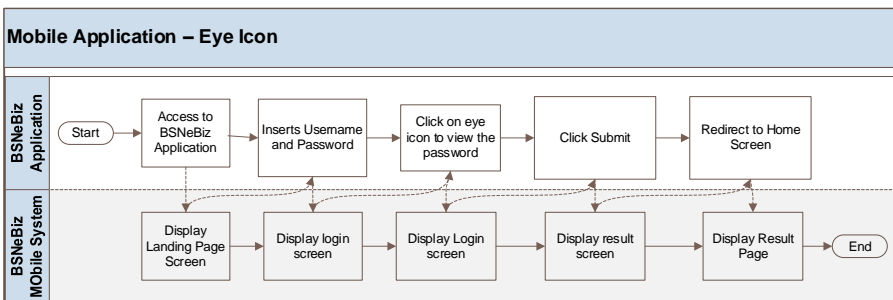
Step 4:

1. User click on this eye icon to temporarily view the entered password and click login to the next page.



3.4 SOW02.3 Mobile Application

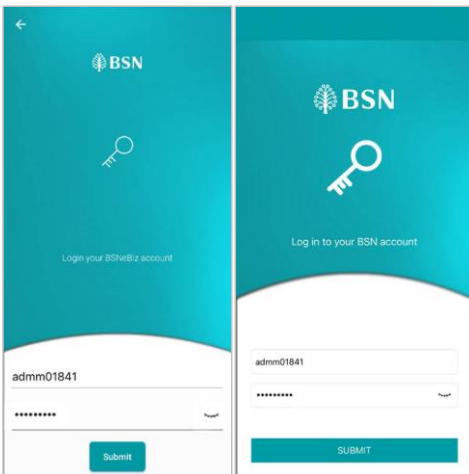
3.4.1 Process Flow



3.4.2 Screen Flow

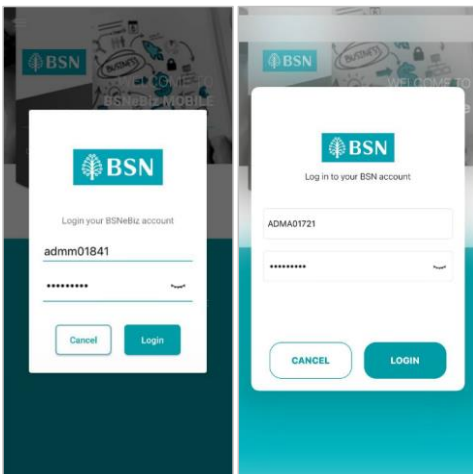
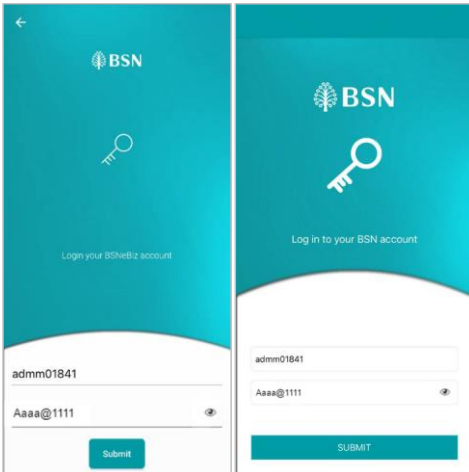
Step 1:

1.





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