Corporate Digital Banking
Enhancement Of Expired Password Flow, Email Content And Eye Icon To Password Field
CR23005

for

IBAM, BSNeBiz and BSNeBiz Mobile

Business Requirement and Functional Document

(PENRIL/BSN/BRFD_BSNEBIZ(P2)037)
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00	18/12/2023	Initial Release	Aziana Jaafar Quality Engineer	Nurul Athirah Quality Engineer	Norhaidah Dasuki Senior Manager

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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 **Enhancement of Expired Password Flow, Email Content And Eye Icon To Password Field.** 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		
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Section A: Introduction

1   Introduction

This document served as the business requirement and system specification of implementing **Enhancement of Expired Password Flow, Email Content And Eye Icon To Password Field** 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 **Enhancement of Expired Password Flow, Email Content And Eye Icon To Password Field**. 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

Enhancement Of Expired Password Flow, Email Content And Eye Icon To Password Field.

This module will enhance the expired password, email content and add eye icon for BSNeBIZ Web, BSNeBiz Mobile Application and IBAM. This module will help user to understand the flow.

1. **Expired Password Flow**
   To update current expired password flow to new password flow. (tambah diagram) Assuming that users will quickly grasp any changes made to the password management process and willingly follow the new steps for updating expired passwords.

2. **Email Content**
   To update email content following (tambah ayat)

3. **Eye Icon Password Field**
   Explain eye icon Design and implementation of the eye icon feature take into account accessibility standards, ensuring that all users, including those with disabilities, can benefit from the feature. (Explain Function eye icon one click one view)

1.3 Impact Modules

To update impact module section

System	Modules	Features	Description
BSNeBiz	Password Flow	Module	• To change the user's BSNeBiz password updating flow after it has expired.
	Email Content	Table	• To update the current email content for a temporary password
	Eye Icon	Table	• To update current Login screen by adding "Eye" icon with one time click to allow user to view entered password and OTP in IBAM and BSNeBiz.
BSNeBiz - Mobile	Password Flow	New Screen	• To change the user's BSNeBiz password updating flow after it has expired.
	Eye Icon	Table	• To update current Login screen by adding "Eye" icon with one time click to allow user to view entered password and OTP in IBAM and BSNeBiz.
IBAM	Password Flow	Navigation	• To change the user's BSNeBiz password updating flow after it has expired.
	Eye Icon	Field	• To update current Login screen by adding "Eye" icon with one time click to allow user to view entered password and OTP in IBAM and BSNeBiz.

Table 1: Enhancement – 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).
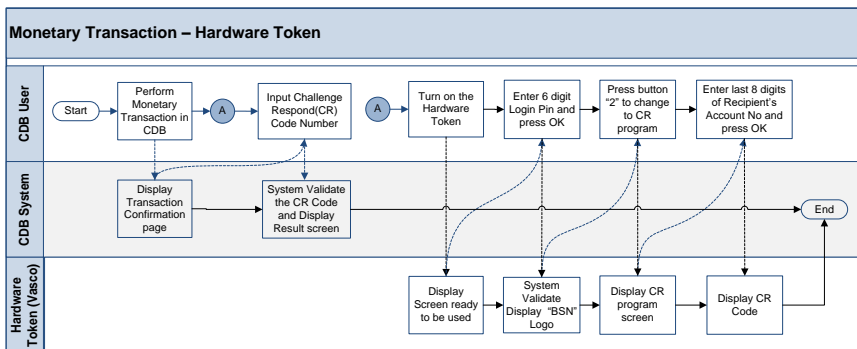
2.1.1 Process Flow

Diagram 1: Hardware Token Flow Diagram

BRFD: CR22005 – Enhancement of Expired Password, Email Content and Eye Icon for password field

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.
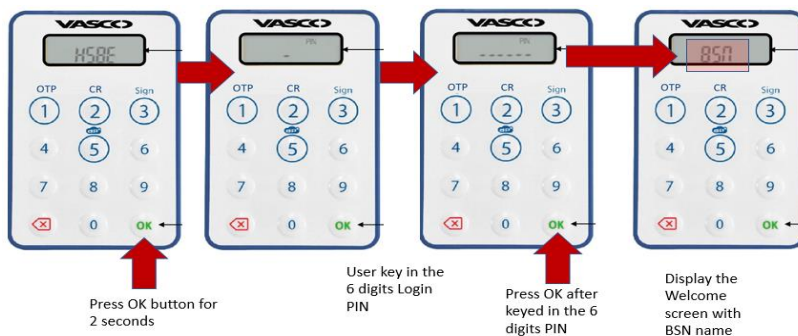3. BSN logo will be displayed on the token screen.

Press OK button for 2 seconds

User key in the 6 digits Login PIN

Press OK after keyed in the 6 digits PIN

Display the Welcome screen with BSN name

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.
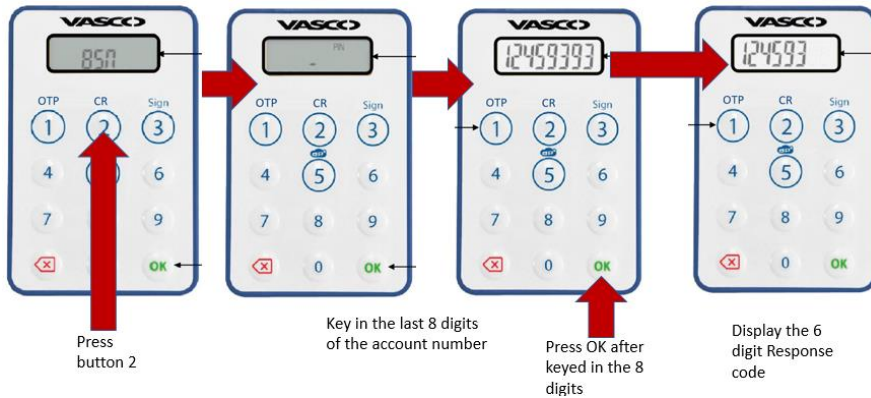3. Press OK and Challenge Response code will be displayed.

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.
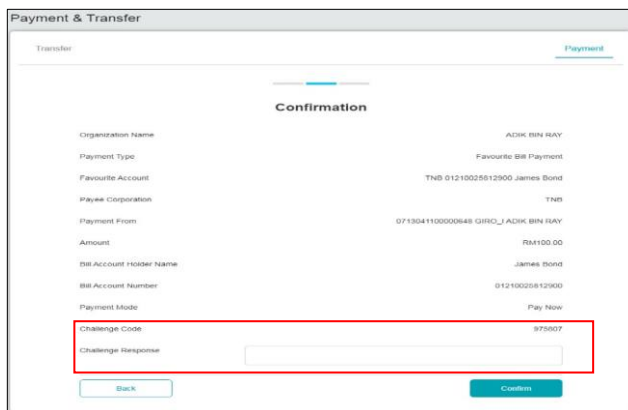

Figure 4: Confirmation page for Hardware Token verification

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.
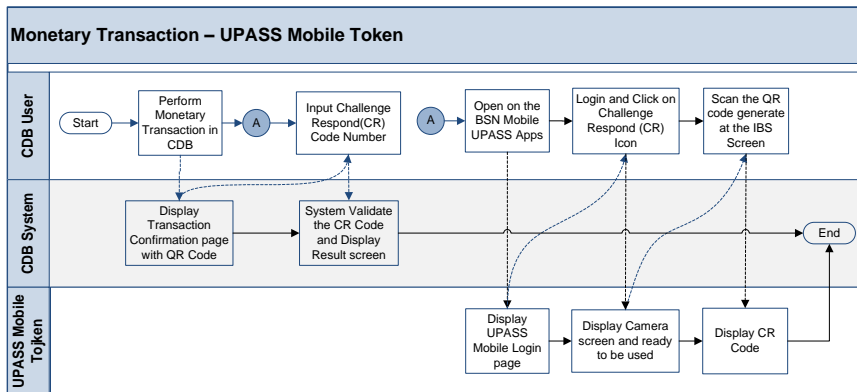
2.2.1 Process Flow

Diagram 2:: 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.
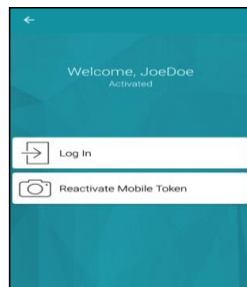

Figure 5: Mobile Apps screen

Step 2:

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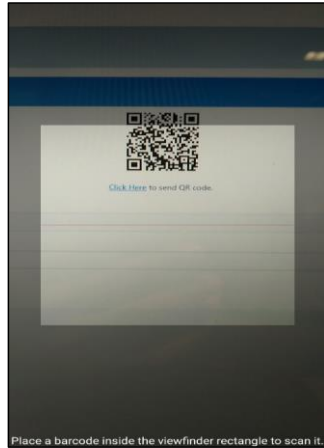2. User scans the QR code generated at IBS confirmation screen.

Figure 6: Mobile Apps QR Scan screen

Step 3:

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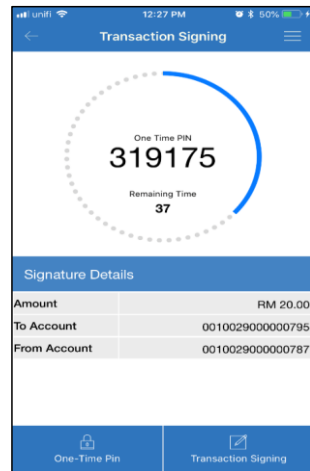

Figure 7: Challenge Response Code display Screen

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.

BSN

penril datability
(m) sdn bhd

Payment & Transfer

Transfer   Payment

Confirmation

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

Challenge Code	205507
Challenge Response	

Back   Confirm

Figure 8: Confirmation page for Mobile Token verification

Section B: BSNeBiz

3 SOW01.0: Enhancement at BSNeBiz

3.1   SOW01.1 New Enhancement for expired password flow
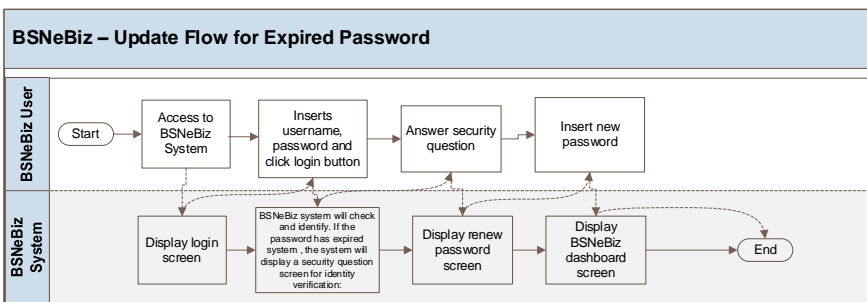
3.1.1 Process Flow

Diagram 3: Update flow for Expired password

3.1.2 Screen Flow

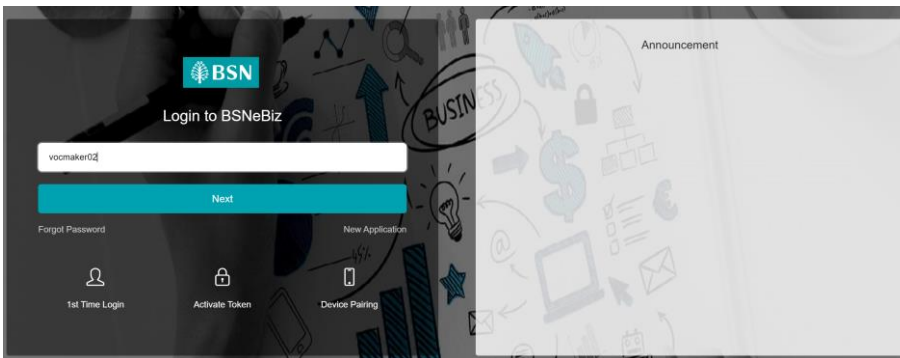*Step 1: (login)*

1. BSNeBiz user fills in their username and clicks next

Figure 9: Login Screen

Input Specification:

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

Table 2: 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.

2. Once the password is entered, click the "Login" button to proceed
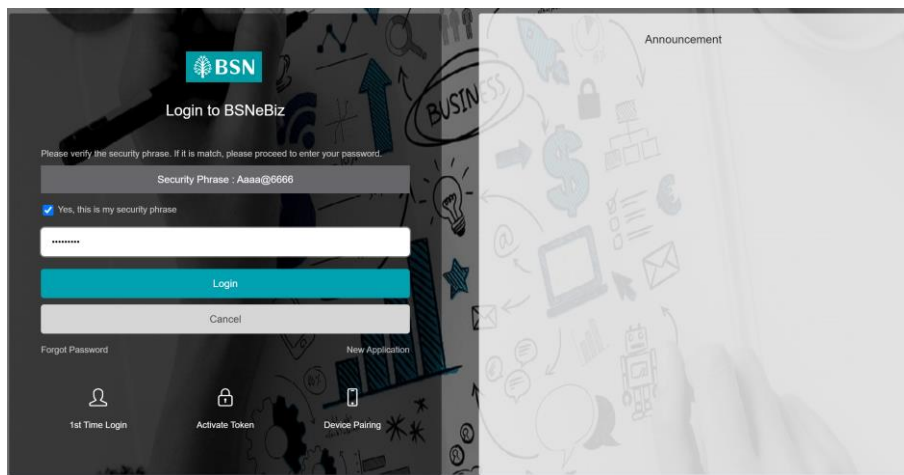
Figure 10: Login screen (insert password)

Input Specification:

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

Table 4: BSNeBiz – Login 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

<div align="center">Table 5: BSNeBiz – Login Screen Actions</div>

Step 3 (security question)

1. BSNeBiz system will check and verify the BSNeBiz user's password status. If the user's password has expired, the system will force user to update new password by display a security question screen for identity verification.
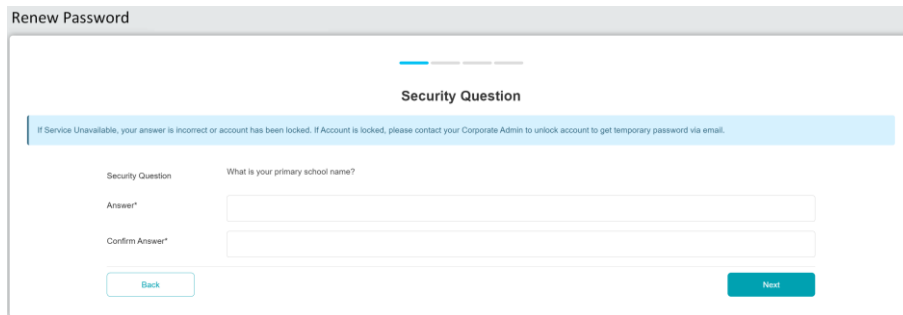
<div align="center">Figure 11: Security Question screen</div>

Display Specification:

No	Field	Field Type	Description
1.	Security Question	Text field	Specify security question

<div align="center">Table 6: Security Question Screen Display Specification</div>

Input Specification:

No	Field	Field Type	Rule	Description	Required
1.	Answer	Textbox	Alphanumeric	Allow user to insert the answer	Yes
2.	Confirm Answer	Textbox	Alphanumeric	Allow user to insert answer	Yes

<div align="center">Table 7: Security Question Screen Input Specification</div>

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 8: Security Question Screen 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.
2. BSNeBiz user insert new password and confirm new password.
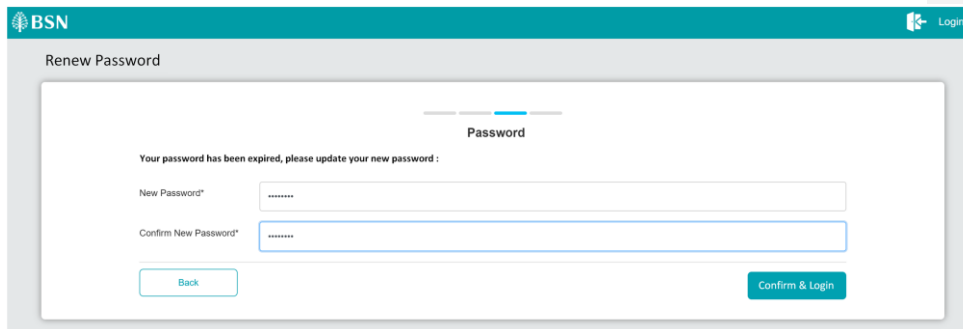3. BSNeBiz user click confirm and login.

Figure 12: Customer insert New Password

Input Specification:

No	Field	Field Type	Rule	Description	Required
1.	New Password	Textbox	Alphanumeric **At least 8 character	Allow user to insert New Password	Yes
2.	Confirm New Password	Textbox	Alphanumeric **must be the same with the new password	Allow user to insert Confirm New Password	Yes

Table 9: 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 10: Details Screen Fill Details Actions

List of error message

No	Event	Error Description
1.	Enter less than 8 characters/digit	Must be at least 8 characters / digit
2.	• Insert only uppercase character • Insert only lowercase character • Insert only alphabet • Insert invalid special character	Password must contain a combination of upper and lower case alphabet characters, at least 1 number, and allow special characters (@#$%^&+=)

Table 11: Table Renew Password Screen available error message

Step 5 (Login to BSNeBiz)

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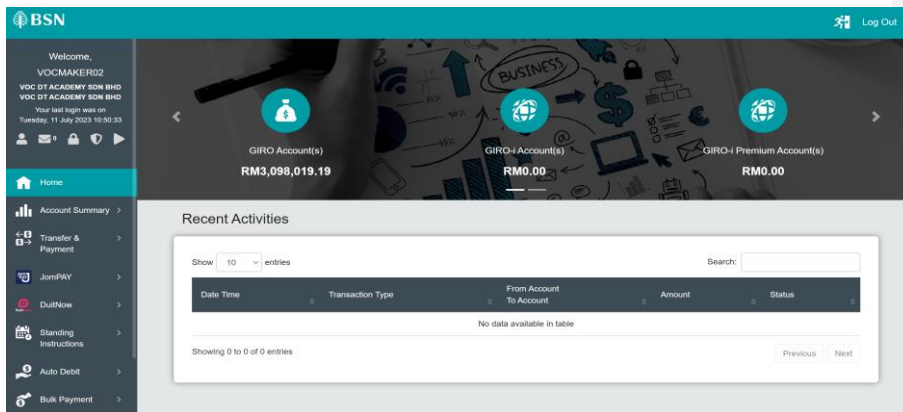

Figure 13: BSNeBiz landing page

3.2 SOW01.2 Receive Temporary password Email

3.2.1 Process Flow

BSNeBIz – Receive Temporary Email

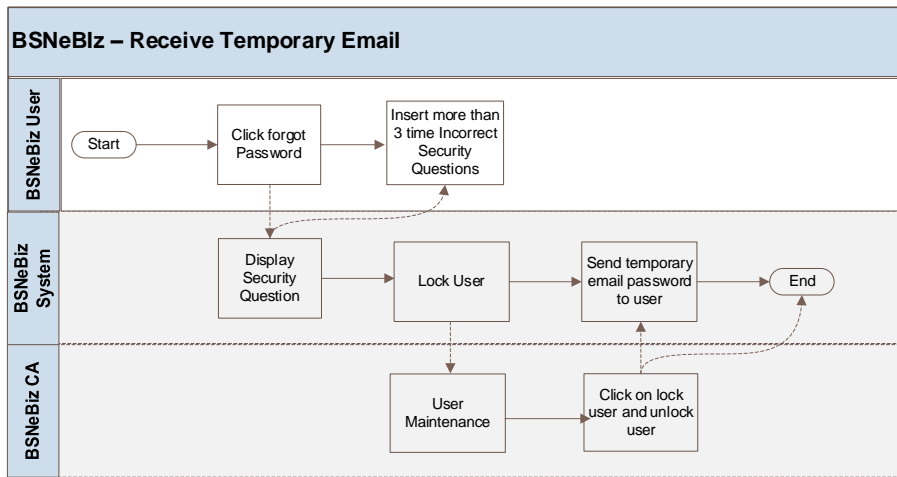|	
BSNeBiz User	Start → Click forgot Password → Insert more than 3 time Incorrect Security Questions
BSNeBiz System	Display Security Question → Lock User → Send temporary email password to user → End
BSNeBiz CA	User Maintenance → Click on lock user and unlock user

Diagram 7: Temporary Password flow

3.2.2 Screen Flow

1. Old Email for temporary password

Dear Sir/Madam,

Thank you for choosing BSN BSNeBiz services.
Please find your Temporary Password to your User ID that was sent separately in another email:

Temporary Password: [**PASSWORD**]
Organization Code: [**ORGCODE**]
Account No: [**ACCOUNTNUMBER**]

This is a computer generated email, no signature is required. Thank you.

Regards,
Bank Simpanan Nasional

Figure 16: Sample previous mail for temporary password

2. New Email for temporary password

a) System will generate Temporary password and send to user via email
b) Upon request, you will receive a temporary password via email.

Dear Sir/Madam,

Please find your temporary password for your user ID that was sent separately in another email:

Temporary Password: 522974
Organization Name : DECOREALM SDN. BHD.
Account Number : 0713941100029396,
Organization ID : H6971,
Organization Code : H6971700,H6971200,H6971580,
Important Notes:

To reset your password, kindly follow following steps:-

Step 1 : Perform a login with the provided temporary password
Step 2 : Create a new password to reset your current one.
Step 3 : Your password reset was successful. Please sign in to BSNeBiz.

This is a computer generated email. Please do not reply to this email.
Disclaimer: This is a computer generated email. No signature is required.

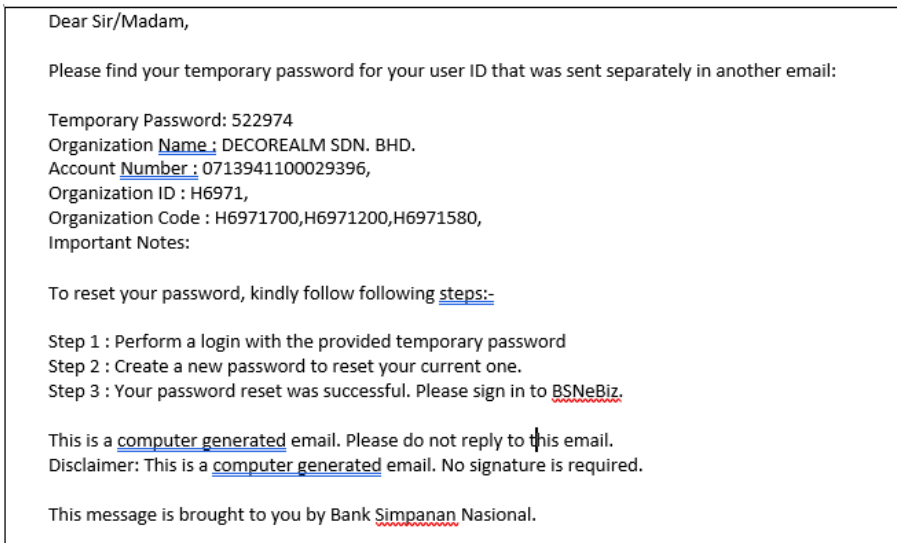This message is brought to you by Bank Simpanan Nasional.

Figure 14: New temporary password email

3 SOW02.0: New Enhancement – Add Eye Icon to Password Field (BSNeBiz , IBAM and Mobile)

This feature allows Users to utilize the eye icon to reveal their entered password.

3.3   SOW02.1 Enhancement at IBAM

To add Eye Icon function at password field

3.3.1   Process Flow

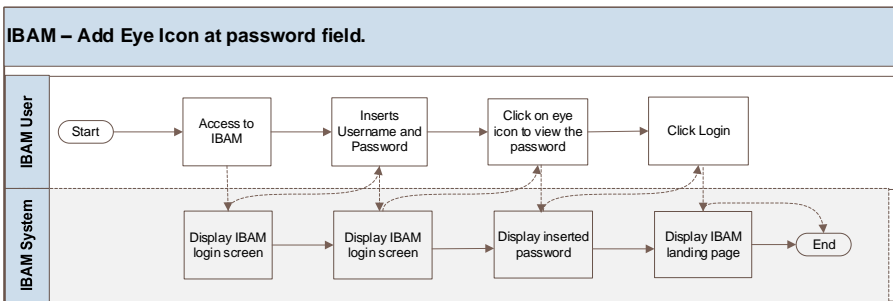**IBAM – Add Eye Icon at password field.**

Diagram 8:IBAM Login Flow

3.3.2   Screen Flow

Step 1: (login)

2.   IBAM user fills in their username and password.

Figure 15: IBAM Login Page Screen

Input Specification:

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

Table 16: IBAM 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
3.	Eye Icon	Button	This action will view the password

Table 17: IBAM Login Screen Actions

Step 2: (View Eye Icon)

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

2. Upon clicking, system will display inserted password.
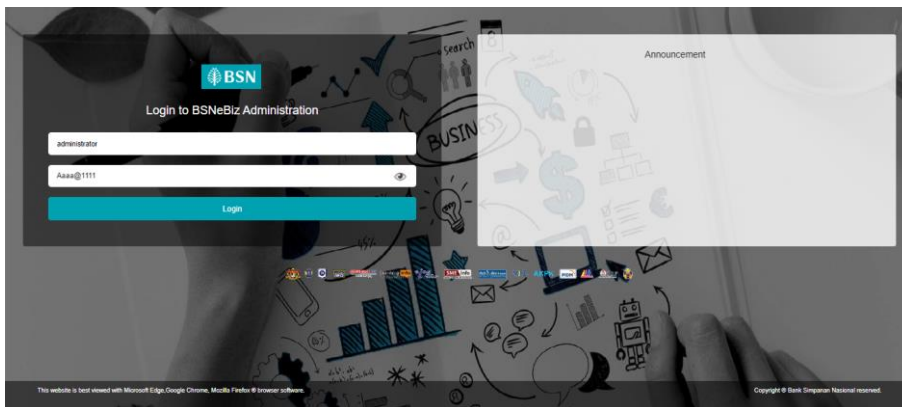
3. The password will be momentarily displayed.

Figure 16: IBAM Login screen

Input Specification:

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

Table 18: IBAM Login 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
3.	Eye Icon	Button	This action will view the password

Table 19: IBAM Login Screen Actions

3.4 SOW02.2 Enhancement at BSNeBiz Web

To add Eye Icon function at password field

3.4.1 Process Flow

BSNeBiz – Add Eye Icon at password field.

Diagram 9: **BSNeBiz Web Eye Icon**

Commented [NA3]: Update font, and make sure every new process dekat new page

Commented [NA4]: Update process, tak ada "redirect to merchant site" and takada logout. Ni process login. Cukup cerita sampai **display BSNeBiz Dashboard <--- ganti dekat display result then end**
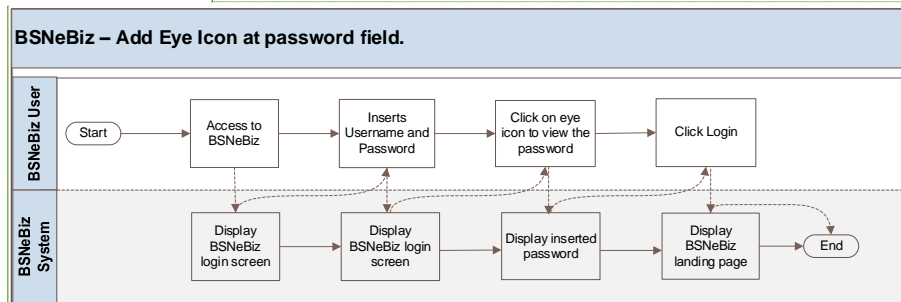
3.4.2 Screen Flow

Step 1:

1. Insert username

Figure 17: BSNeBiz Login Screen

- Private & Confidential -

Input Specification:

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

Table 20: Details Screen Input Specification

Action:

No	Action	Type	Description
1.	Cancel	Button	This action will go to Previous page
2.	Login	Button	This action will go to Detail Screen Page
3.	Eye Icon	Button	This action will view the password

Table 21: Details Screen Fill Details Actions

Step 2: (Insert password)

1. BSNeBiz system display password screen.

2. BSNeBiz User insert password and OTP.

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

4. Upon clicking, the eye icon may change its appearance, indicating that the password is now visible.
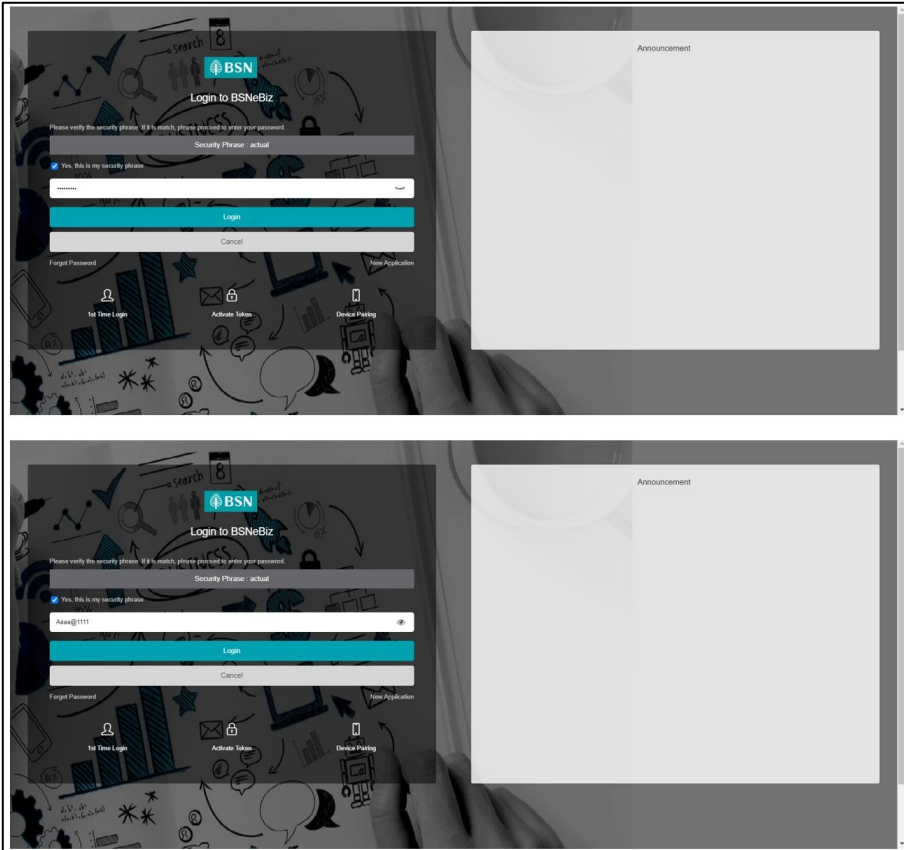
Figure 18: BSNeBiz Login Screen(Initiator)

- Private & Confidential -
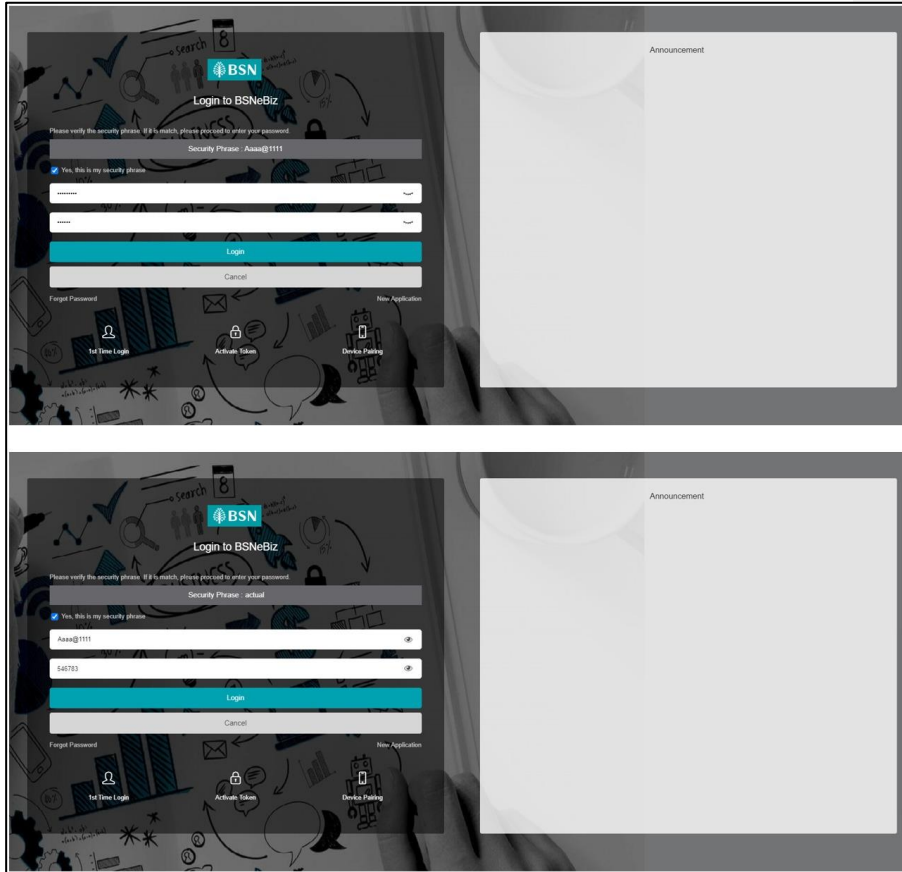
Figure 19: BSNeBiz Login Screen(Approver)

Input Specification:

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

Table 22: Details Screen Input Specification

Action:

No	Action	Type	Description
1.	Cancel	Button	This action will go to Previous page
2.	Login	Button	This action will go to Detail Screen Page
3.	Eye Icon	Button	This action will view the password

Table 23: Details Screen Fill Details Actions

3.5 SOW2.3 Enhancement at Mobile Application

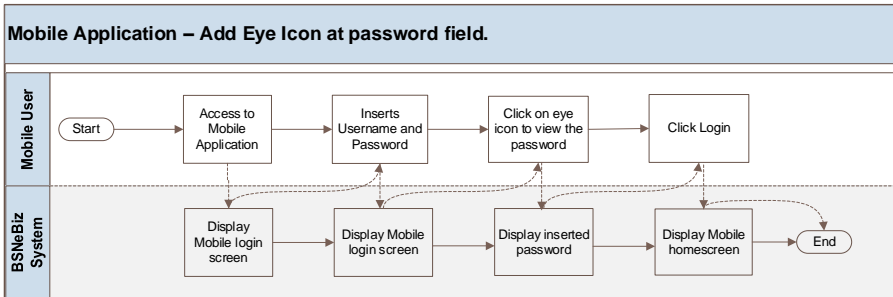To add Eye Icon function at password field

3.5.1 Process Flow

Diagram 10: Mobile Application Eye Icon flow

3.5.2 Screen Flow

First Time Login

Step 1:
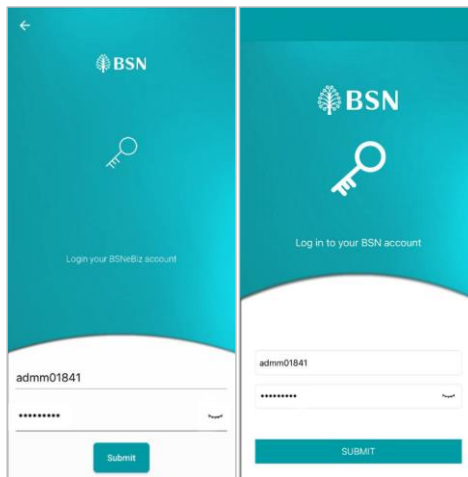
1. User insert username and password.

Figure 20: BSNeBiz Mobile Application Login Screen

Input Specification:

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

Table 28: Details Screen Input Specification

Action:

No	Action	Type	Description
1.	Submit	Button	This action will go to Homescreen

Table 29: Details Screen Fill Details Actions

Step 2:

1. User 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.
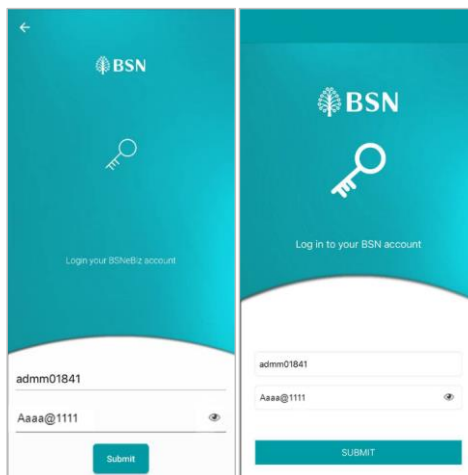

Figure 24: BSNeBiz Mobile Application Login Screen

Input Specification:

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

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

<p align="center">Table 12: Details Screen Input Specification</p>

Action:

No	Action	Type	Description
1.	Submit	Button	This action will go to Homescreen

<p align="center">Table 13: Details Screen Input Specification</p>

Login

Step 1:

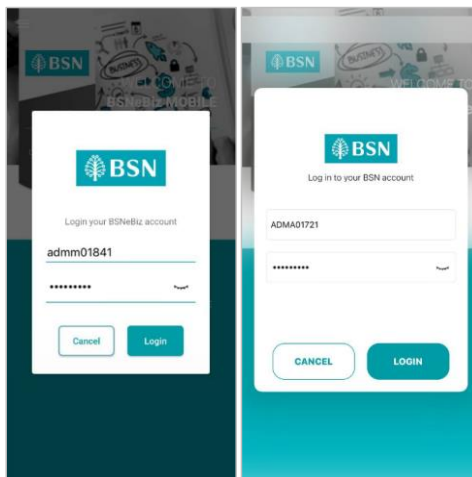1. User insert username and password

Figure 25: BSNeBiz Mobile Application Login Screen

Input Specification:

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

Table 31: Details Screen Input Specification

Action:

No	Action	Type	Description
1.	Submit	Button	This action will go to Homescreen

Table 14: Details Screen Fill Details Actions

Step 2:

1. User 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.

Figure 26: BSNeBiz Mobile Application Login Screen

Input Specification:

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

Table 32: Details Screen Input Specification

Action:

No	Action	Type	Description
1.	Submit	Button	This action will go to Homescreen

Table 33: Details Screen Fill Details Actions