P1305 BankID 2.1 Dialog transitions

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DOCUMENT CONTROL

Version	Date	Author	Change description
0.1	21.01.14	Kjetil Rohde Jakobsen	First draft
0.2	29.01.14	Kjetil Rohde Jakobsen	Describe UserProfile alternative flows. Ensure entire doc is in English. Split authentication into multiple flowcharts to improve readability. Modified transition descriptions based on input from Nets.
0.3	30.01.14	Ina Espås	QA of document and flows. Reorganising some parts: Moved Cancelling authentication to follow Authentication. Modified transition descriptions thru QA and specifying details.
1.0	31.01.14	Kjetil Rohde Jakobsen	Updated document to version 1.0
1.01	10.02.14	Kjetil Rohde Jakobsen	Updated flowcharts for Authentication successful, Authentication password change and Signing to reflect new UDDs. Updated description of signing transition 1 with information about ShowUnderstanding flag.
1.02	23.01.2015	Ina Espås	Updatet flowcharts and text for Signing (new functionality)
1.03	28.01.2015	Ina Espås	Updated drawing and text Signing and Netpay.
1.04	19.06.2015	Flemming Lauritzen	Updated chapter 3 with the new preloader state for both the flow chart and the descriptions.
1.05	24.06.2015	Flemming Lauritzen	Updated all flow charts with loading page. Also some minor fixes throughout the flow chart descriptions due to the loading page increment.
1.06	10.08.2015	Flemming Lauritzen	Updated the flow for sign action.
1.1	26.02.2016	Ståle Raknes	Introducing HA2 to the flow
1.19	04.03.2016	Ina Espås	QA and HA2 corrections
1.99	13.03.2016	Ina Espås	Corrections after QA from BankID. Imported and adjusted to a "clean" template because of ustability
1.2	15.03.2016	Ina Espås	Final version after last QA by BankID.
1.21	09.05.2016	Ina Espås, Kenneth Endestad	Updated with new terminology for OTP. Introduced HA Service
1.3	10.05.2016	Ina Espås	Final QA final version
1.31	24.05.16	Helge Brakstad	Updated flowcharts with new names for HA lists.
1.32	30.05.16	Helge Brakstad	Updated header bitmap, Changed Smart HA to HA2 and Simple HA to HA1
1.33	20.09.16	Helge Brakstad	Updated flowcart and text Signing with loading document dialog (Sign2 Fase1)
1.34	04.10.16	Helge Brakstad	Updated flowchart and text Signing with s_loading_documents

1 Introduction

The following chapters describe the flow between the views in the BankID 2.1 client for each of the 4 possible BankID Actions: AUTHENTICATION, SIGNING, NETPAY and CHANGE PASSWORD.

The different actions can in turn use several different HA services.

Ha Service

General term for the various HA services that can be used. These HA services are divided into the following groups:

- HA1 (Traditional one-time-password code-unit)
- HA2 (HA2 service)
- Challenge HA (Scratch card)
- **BIM HA** (BankID på Mobil)

Ha List

Used as a common name for dialog showing a list of the users available HA services where the user must select the HA service to be used. Applies where the user has at least one unused HA service, or when the user wants to switch to another available HA service.

There might be screens that do not have a UDD reference by its own. These are variants of other UDDs. An example of this is information screen for BIM HA that waits for the user to press next to continue process of authentication. Information and description of these is to be found in Chapter 6.

2 **AUTHENTICATION**

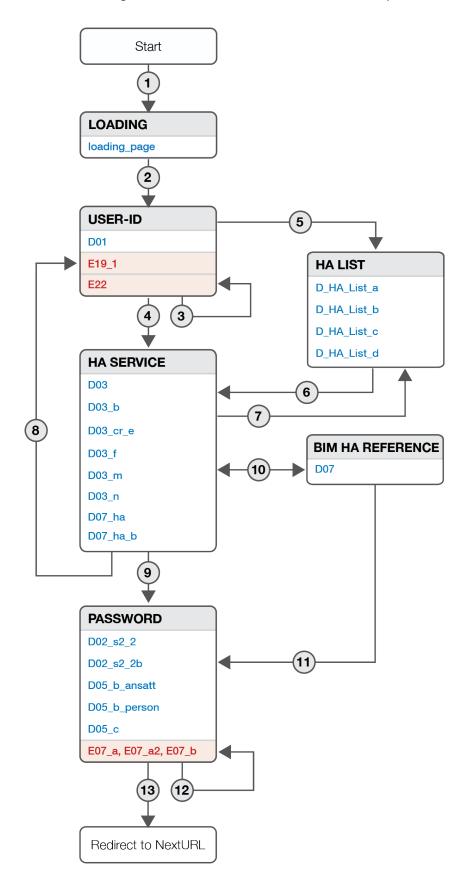
In order to improve readability, the authentication flow has been split into two separate diagrams, focusing on two different use cases within the authentication flow. These use cases are

- Standard authentication flow (2.1)
- Authentication including a user-initiated or forced password change (2.3)

In addition, this chapter describes the flow if the merchant application has initiated the BankID client using UserProfile.

2.1 Standard authentication flow

The following flow chart documents the transitions involved in the authentication flow, and ignores use cases involving cancellation of the BankID transaction and password change.



- 1. At startup, the loading page dialog is presented.
- 2. D01 is the dialog where the user enters the User-ID, unless the merchant application has implemented UserProfile.
- 3. The user has entered no User-ID or one that is too short (less than 11 digits), and the E22 dialog is displayed.
- 4. The last used HA service will be used, unless in **one** of the following situations:
 - a. If the user has a new HA service that is never used, a HA list will be presented.
 - b. If user has both a PersonBankID and an EmployeeBankID the user must select which BankID Type and a related HA service to be used in order to continue.
 - c. If HA2 is selected, the dialog D07_ha will be displayed until the user interaction with the mobile device is finished.
 - d. If BIM HA is selected and the user only has one BIM HA service, pressing the call-to-action button will cause the dialog D07 to be displayed until the user interaction with the mobile device is finished. The user can go back to choose another HA service (7).
 - e. If BIM HA is selected and the user has multiple BIM HA services, the user will be prompted to enter his mobile phone number before the D07 dialog is displayed, until the user interaction with the mobile device is finished.
- 5. If the end user has more than one HA service available and at least one of those have not been used, a HA List is provided to the user to choose from. The list is sorted:
 - a. New HA service(s) are first in list
 - b. HA service in user profile is second in list
 - c. The rest of the HA service(s) are ordered by last used
- 6. The user has selected a HA service in the list.
 - a. If HA2 is selected, the dialog D07_ha will be displayed until the user interaction with the mobile device is finished.
 - b. If BIM HA is selected and the user only has one BIM HA service, pressing the call-to-action button will cause the dialog D07 to be displayed until the user interaction with the mobile device is finished. The user can go back to choose another HA service.
 - c. If BIM HA is selected and the user has multiple BIM HA services, the user will be prompted to enter his mobile phone number before the D07 dialog is displayed, until the user interaction with the mobile device is finished.
- 7. The user can go back to choose another HA service in the list from D03_b, D03_cr_e, D03_m, D03_n and D07_ha.
- 8. Either the HA code or the User-ID is incorrect, and the user is returned to the initial step in the flow and displayed the E19_1 "Incorrect data entered" dialog.

- 9. Depending on the HA service selected by the user and the type of BankID in use, one of the listed dialogs will request the user to input his BankID password.
- 10. If BIM HA is selected and the user only has one BIM HA service, pressing the call-to-action button will cause the dialog D07 to be displayed until the user interaction with the mobile device is finished. If the user has multiple BIM HA services, the user will be prompted to enter his mobile phone number before the D07 dialog is displayed.
- 11. As the user has completed the interaction with the mobile device, one of the listed dialogs will request the user to input his BankID password.
- 12. The user entered the wrong password, but the HA code and the User-ID were correct.
- 13. The user entered the UserID, HA code and password correctly, and is authenticated.
 - a. If a callback method was provided in the initialisation of the BankID client, this method will be called and the client will terminate.
 - b. If no callback method was provided, but a NextURL was provided by the client, the document containing the BankID 2.0 client will be redirected to the NextURL and the client will terminate.
 - c. If no callback method and no NextURL were provided, the client will terminate silently.

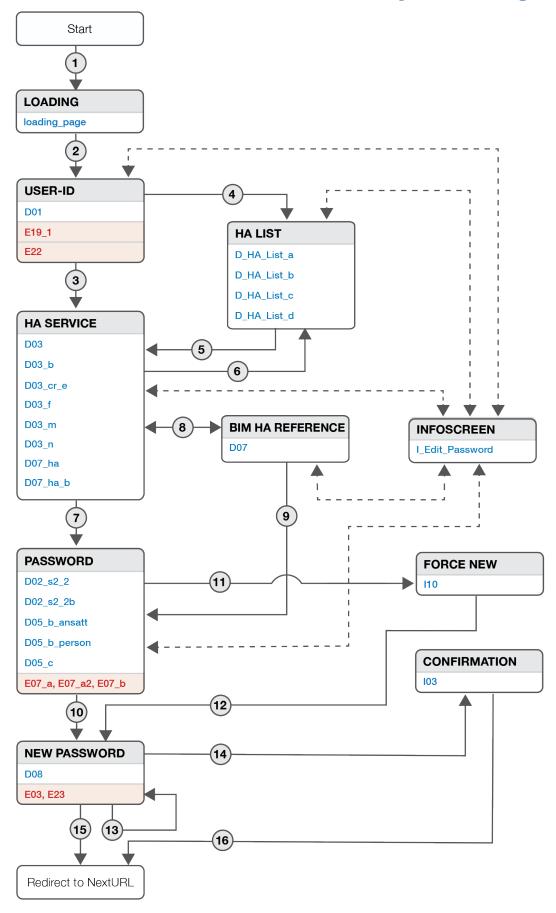
Cancelling Authentication in the different states are described in chapter 2.4

2.2 Authentication using User Profile

If the merchant application initiates the BankID 2.0 using UserProfile (entry of User-ID and/or HA service in the merchant application so that re-entry of these inputs is unnecessary), the user will enter the application in one of the HA service dialogs.

If the user provides an incorrect HA code after initiating the BankID transaction with UserProfile, the standard authentication flow is resumed, the user returned to the User-ID, and displayed the E19_1 "Incorrect data entered" dialog.

2.3 Authentication with user-initiated or forced password change



The flow chart documents the transitions involved in the authentication flow if the user chooses to initiate a password change from within the BankID 2.0 client's menu, or if a flag has been set forcing the user to change his/her password.

This flow chart ignores use cases where the authentication flow is interrupted by incorrect input by the end user, causing the client to transition to previous dialogs in the authentication flow.

- 1. At startup, the loading page dialog is presented.
- 2. D01 is the dialog where the user enters the User-ID, unless the merchant application has implemented UserProfile (see chpt. 2.2)
- 3. The last used HA service will be used, unless in one of the following situations:
 - a. If the user has a new HA service that is never used, a HA list will be presented.
 - b. If user has both a PersonBankID and an EmployeeBankID the user must select which BankID Type and a related HA service to be used in order to continue.
 - c. If HA2 is selected, the dialog D07_ha will be displayed until the user interaction with the mobile device is finished.
 - d. If BIM HA is selected and the user only has one BIM HA service, pressing the call-to-action button will cause the dialog D07 to be displayed until the user interaction with the mobile device is finished. The user can go back to choose another HA service (7).
 - e. If BIM HA is selected and the user has multiple BIM HA services, the user will be prompted to enter his mobile phone number before the D07 dialog is displayed, until the user interaction with the mobile device is finished.
- 4. If the end user has more than one HA service available and at least one of those have not been used, a HA List is provided to the user to choose from. The list is sorted:
 - a. New HA service(s) are first in list
 - b. HA service in user profile is second in list
 - c. The rest of the HA service(s) are ordered by last used
- 5. The user has selected a HA service in the list.
 - a. If HA2 is selected, the dialog D07_ha will be displayed until the user interaction with the mobile device is finished.
 - b. If BIM HA is selected and the user only has one BIM HA service, pressing the call-to-action button will cause the dialog D07 to be displayed until the user interaction with the mobile device is finished. The user can go back to choose another HA service.
 - c. If BIM HA is selected and the user has multiple BIM HA services, the user will be prompted to enter his mobile phone number before the D07 dialog is displayed, until the user interaction with the mobile device is finished.
- The user can go back to choose another HA service in the list from D03_b, D03_cr_e, D03_m, D03_n and D07_ha.

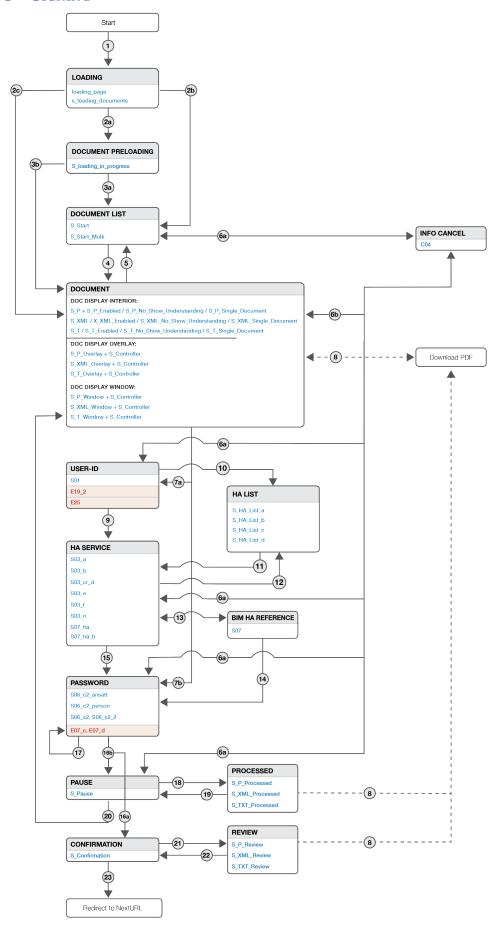
- 7. Depending on the HA service selected by the user and the type of BankID in use, one of the listed dialogs will request the user to input his BankID password.
- 8. If BIM HA is selected and the user only has one BIM HA service, pressing the call-to-action button will cause the dialog D07 to be displayed until the user interaction with the mobile device is finished. If the user has multiple BIM HA services, the user will be prompted to enter his mobile phone number before the D07 dialog is displayed.
- 9. As the user has completed the interaction with the mobile device, one of the listed dialogs will request the user to input his BankID password.
- 10. The user has initiated a password change by selecting "Change password" in the BankID 2.0 client's menu at any previous step in the authentication flow.
- 11. A flag has been set by the issuing bank for the user to renew his/her password, resulting that the user is displayed a dialog informing the user of the need to change the BankID password.
- 12. The user has pressed the call-to-action button in the dialog informing the user of a need to change password.
- 13. The users new password does not match the criteria, or was not confirmed correctly.
- 14. The IO3 dialog is displayed, confirming to the user that the password has been changed.
- 15. The user ticked the "Keep existing password" checkbox in the "Change password" dialog. (Only available if the password change is user-initiated). The user is authenticated.
 - a. If a callback method was provided in the initialisation of the BankID client, this method will be called and the client will terminate.
 - b. If no callback method was provided, but a NextURL was provided by the client, the document containing the BankID 2.0 client will be redirected to the NextURL and the client will terminate.
 - c. If no callback method and no NextURL were provided, the client will terminate silently.
- 16. The user is authenticated after a successful password change.
 - a. If a callback method was provided in the initialisation of the BankID client, this method will be called and the client will terminate.
 - b. If no callback method was provided, but a NextURL was provided by the client, the document containing the BankID 2.0 client will be redirected to the NextURL and the client will terminate.
 - c. If no callback method and no NextURL were provided, the client will terminate silently.

2.4 Cancelling authentication

There is no flow chart for cancelling the authentication transaction, but all dialogs have a "Cancel BankID" menu item. If the end user selects this menu item from anywhere inside the authentication flow, a transition is made to a confirmation dialog (CO3), asking the user to confirm the cancellation. If the user chooses to confirm, the transaction is aborted.

- 1. If a callback method was provided in the initialisation of the BankID client, this method will be called and the client will terminate.
- If no callback method was provided, but a NextURL was provided by the client, the document containing the BankID 2.0 client will be redirected to the NextURL and the client will terminate.
- 3. If no callback method and no NextURL were provided, the client will terminate silently.

3 SIGNING



- At startup the loading page dialog is presented. As soon as the init sign request is sent to the client proxy server the s_loading_documents dialog is presented.
- 2. Which dialog to be presented next depends on whether the document list contains a PDF-document, the number of documents to be signed, the presence of a broadcast message, and the document display mode and confirmation settings.
 - a. If there is at least one PDF-document to be signed the document preloading dialog is presented.
 - b. The document list dialog is presented if any of the following is true:
 - i. There are multiple documents to be signed
 - ii. There is a broadcast message
 - iii. The document display mode is set to window
 - iv. Confirmation is set
 - c. Otherwise the document dialog is presented.
- 3. When all documents are preloaded the next dialog is automatically presented without the need for user interaction.
 - a. The document list dialog is presented if any of the criteria described in 2b is true.
 - b. Otherwise the document dialog is presented.
- 4. The document to be signed is presented. The merchant can select between three different settings on how to display documents, called document display mode (docDisplayMode). The selected mode is used for all documents in any given signing process.
 - Document display mode interior displays the document inside the client with BankID header and footer. This setting works best for short documents or within a large BankID client.
 - Document display mode overlay displays the document as an overlay above
 S_controller where the BankID info is. This setting works well if extra space is needed to display the document.
 - c. Document display mode window opens the document in a new window or tab. The S_controller, where the BankID info is displayed, acts as the mother window. This setting works well if extra space is needed to display the document and/or to allow the user to resize the document window.
- 5. The user can return to the document list by clicking the Back button. The button will only be present when signing multiple documents.
- 6. The user can open the menu and choose "Cancel signing".

- a. The CO4 dialog is displayed, asking the user to confirm the cancellation of the signing process. Confirming the cancellation terminates the client. Selecting the "Close" button in CO4 returns the user to the previous dialog.
- b. If document display mode is overlay or window, the user can Close the document page or window and return to the main dialog (s_controller).
- 7. When the user has viewed a document and clicks next, he/she will sign the document by:
 - a. Entering User-ID, and verifying with HA service and Password for the first document.
 - b. Entering Password for any subsequent documents.
- 8. A copy of the PDF-file can be downloaded from any S_P dialog.
- 9. The user entered a User-ID and pressed the call-to-action button. The last used HA service will be used, unless in one of the following situations:
 - a. If the user has a new HA service that is never used, a HA list will be presented.
 - b. If user has both a PersonBankID and an EmployeeBankID the user must select which BankID Type and related HA service to be used in order to continue.
 - c. If HA2 is selected, the dialog S07_ha will be displayed until the user interaction with the mobile device is finished.
 - d. If BIM HA is selected and the user only has one BIM HA service, pressing the call-to-action button will cause the dialog S07 to be displayed until the user interaction with the mobile device is finished. The user can go back to choose another HA service (6).
 - e. If BIM HA is selected and the user has multiple HA services, the user will be prompted to enter his mobile phone number before the S07 dialog is displayed, until the user interaction with the mobile device is finished.
- 10. If the end user has more than one HA service available and at least one of those have not been used, a HA List is provided to the user to choose from. The list is sorted:
 - a. New HA service(s) are first in list
 - b. HA service in user profile is second in list
 - c. The rest of the HA service(s) are ordered by last used
- 11. The user has selected a HA service in the list.
 - a. If HA2 is selected, the dialog S07_ha will be displayed until the user interaction with the mobile device is finished.
 - b. If BIM HA is selected and the user only has one BIM HA service, pressing the call-to-action button will cause the dialog S07 to be displayed until the user interaction with the mobile device is finished. The user can go back to choose another HA service.

- c. If BIM HA is selected and the user has multiple BIM HA services, the user will be prompted to enter his mobile phone number before the S07 dialog is displayed, until the user interaction with the mobile device is finished.
- 12. The user can go back to choose another HA service in the list from S03_b, S03_cr_e, S03_m, S03_n, S07_ha.
- 13. If BIM HA is selected and the user only has one BIM HA service, pressing the call-to-action button will cause the dialog S07 to be displayed until the user interaction with the mobile device is finished. If the user has multiple BIM HA services, the user will be prompted to enter his mobile phone number before the S07 dialog is displayed.
- 14. As the user has completed the interaction with the mobile device, one of the listed dialogs will request the user to input his BankID password.
- 15. The user has successfully provided a HA code. Depending on the HA service selected by the user and the type of BankID in use, one of the listed dialogs will request the user to input his BankID password.
- 16. The user has successfully provided a password.
 - a. The confirmation dialog is displayed when the last document has been processed and any of the following is true:
 - i. There are more than one document being processed
 - ii. The show confirmation setting is true
 - b. If the user is signing several documents, the document list (S_Pause) dialog is displayed in between signing each document.
- 17. The user entered an incorrect password.
- 18. The user can choose to review any processed document during the signing action.
- 19. Closing takes the user back to S_Pause.
- 20. Selecting a document from the list will present the user with the document to be signed. Similar to item no. 4.
- 21. The user can choose to review any document when the signing is finished.
- 22. Closing review takes the user back to S_Confirmation.
- 23. Signing is finished
 - a. If a callback method was provided in the initialisation of the BankID client, this method will be called and the client will terminate.
 - b. If no callback method was provided, but a NextURL was provided by the client, the document containing the BankID 2.0 client will be redirected to the NextURL and the client will terminate.



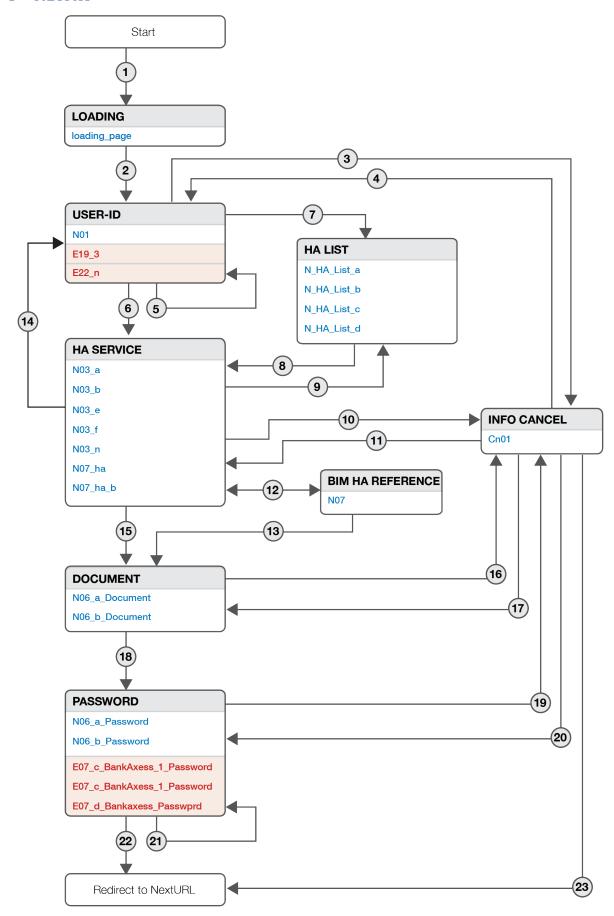
c. If no callback method and no NextURL were provided, the client will terminate silently.

As described in item no. 6 the user can cancel the process at any point, except in S_confimation. When S_confirmation is displayed the signings process is finished.

3.1 Signing User Profile

If the merchant application initiates the BankID 2.0 using UserProfile (entry of User-ID and/or HA service in the merchant application, so that re-entry of these inputs is unnecessary), the transition from Document is directly to one of the HA service dialogs, skipping User-ID input.

4 NETPAY



- 1. At startup the loading page dialog is presented.
- 2. NO1 is the second dialog in the payment flow, and is where the user enters the User-ID.
- The user opens the menu and chooses "Cancel payment". The Cn01 dialog is displayed, asking the user to confirm the cancellation of the payment process. Confirming the cancellation terminates the client.
- 4. Selecting the "Back" button in Cn01 returns the user to the previous dialog.
- 5. The user entered a User-ID with less than 11 digits, and the E22_n dialog is displayed.
- 6. The user entered a User-ID and pressed the call-to-action button. The last used HA service will be used, unless in one of the following situations:
 - a. If the user has a new HA service that is never used, a HA list will be presented.
 - b. If user has both a PersonBankID and an EmployeeBankID the user must select which BankID Type and a related HA service to be used in order to continue.
 - c. If the HA2 is selected, the dialog N07_ha will be displayed until the user interaction with the mobile device is finished.
 - d. If BIM HA is selected and the user only has one BIM HA service, pressing the call-to-action button will cause the dialog N07 to be displayed until the user interaction with the mobile device is finished. The user can go back to choose another HA service (6).
 - e. If BIM HA is selected and the user has multiple BIM HA services, the user will be prompted to enter his mobile phone number before the N07 dialog is displayed, until the user interaction with the mobile device is finished.
- 7. If the end user has more than one HA service available and at least one of those have not been used, a HA List is provided to the user to choose from. The list is sorted:
 - a. New HA service(s) are first in list
 - b. HA service in user profile is second in list
 - c. The rest of the HA service(s) are ordered by last used
- 8. The user has selected a HA service in the list.
 - a. If HA2 is selected, the dialog N07_ha will be displayed until the user interaction with the mobile device is finished.
 - b. If BIM HA is selected and the user only has one BIM HA service, pressing the call-to-action button will cause the dialog N07 to be displayed until the user interaction with the mobile device is finished. The user can go back to choose another HA service.
 - c. If BIM HA is selected and the user has multiple BIM HA services, the user will be prompted to enter his mobile phone number before the NO7 dialog is displayed, until the user interaction with the mobile device is finished.

- 9. The user can go back to choose another HA service in the list from N03_b, N03_cr_e, N03_m, N03_n, N07_ha.
- 10. The user opens the menu and chooses "Cancel payment". The Cn01 dialog is displayed, asking the user to confirm the cancellation of the payment process. Confirming the cancellation terminates the client.
- 11. Selecting the "Back" button in Cn01 returns the user to the previous dialog.
- 12. If BIM HA is selected and the user only has one BIM HA service, pressing the call-to-action button will cause the dialog N07 to be displayed until the user interaction with the mobile device is finished. If the user has multiple BIM HA services, the user will be prompted to enter his mobile phone number before the N07 dialog is displayed.
- 13. As the user has completed the interaction with the mobile device, one of the listed dialogs will request the user to input his BankID password.
- 14. Either the HA code or the User-ID is incorrect, and the E19_3 "Incorrect data entered" dialog is displayed.
- 15. The payment text is displayed to the user. Clicking on the call-to-action button takes the user to the password input dialog.
- 16. The user opens the menu and chooses "Cancel payment". The Cn01 dialog is displayed, asking the user to confirm the cancellation of the payment process. Confirming the cancellation terminates the client.
- 17. Selecting the "Back" button in Cn01 returns the user to the previous dialog.
- 18. The user is requested to enter password in one of the "Enter password" dialogs listed.
- 19. If the user opens the menu and chooses "Cancel payment", the Cn01 dialog is displayed.
- 20. Selecting the "Back" button in Cn01 returns the user to the previous dialog.
- 21. The user has entered an incorrect password, but both the HA code and the User-ID is correct.
- 22. The user entered the User-ID, HA code and the password correctly, and the payment process is completed successfully.
 - a. If a callback method was provided in the initialisation of the BankID client, this method will be called and the client will terminate.
 - b. If no callback method was provided, but a NextURL was provided by the client, the document containing the BankID 2.0 client will be redirected to the NextURL and the client will terminate.
 - c. If no callback method and no NextURL were provided, the client will terminate silently.
- 23. The user cancelled the payment.

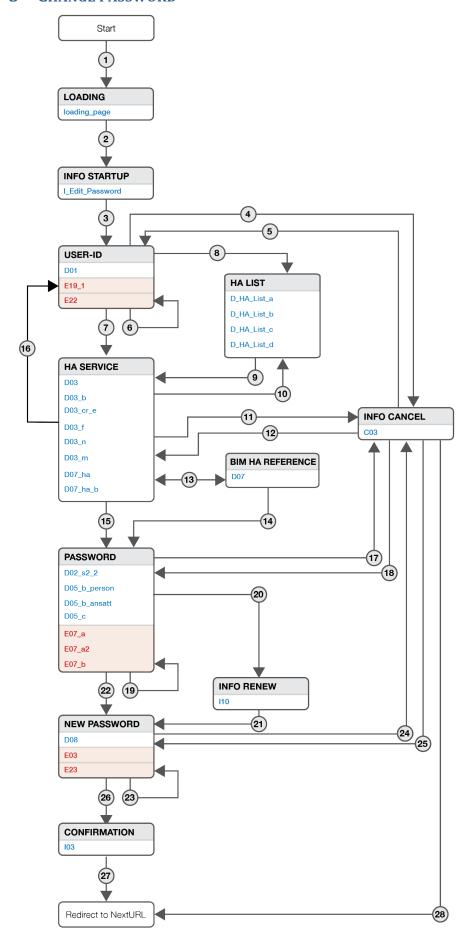


- a. If a callback method was provided in the initialisation of the BankID client, this method will be called and the client will terminate.
- b. If no callback method was provided, but a NextURL was provided by the client, the document containing the BankID 2.0 client will be redirected to the NextURL and the client will terminate.
- c. If no callback method and no NextURL were provided, the client will terminate silently.

4.1 NetPay User Profile

If the merchant application initiates the BankID 2.0 using UserProfile (entry of User-ID and/or HA service in the merchant application so that re-entry of these inputs is unnecessary), step 1-4 is rendered obsolete and the user will enter the application in one of the HA service dialogs.

CHANGE PASSWORD



- 1. At startup the loading page dialog is presented.
- 2. Next, a message is displayed saying that the user needs to complete a BankID authentication before being able to change the BankID password. Pressing the call-to-action button starts the authentication.
- 3. D01 is the dialog where the user enters the User-ID.
- 4. The user opens the menu and chooses "Cancel authentication". The CO3 dialog is displayed, asking the user to confirm the cancellation of the identification process. Confirming the cancellation terminates the client.
- 5. Selecting the "Back" button in CO3 returns the user to the previous dialog.
- 6. The user has entered a User-ID that is too short (less than 11 digits), and the E22 dialog is displayed.
- 7. The user entered a User-ID and pressed the call-to-action button. The last used HA service will be used, unless in one of the following situations:
 - a. If the user has a new HA service that is never used, a HA list will be presented.
 - b. If user has both a PersonBankID and an EmployeeBankID the user must select which BankID Type and a related HA service to be used in order to continue.
 - c. If HA2 is selected, the dialog D07_ha will be displayed until the user interaction with the mobile device is finished.
 - d. If BIM HA is selected and the user only has one BIM HA service, pressing the call-to-action button will cause the dialog D07 to be displayed until the user interaction with the mobile device is finished. The user can go back to choose another HA service (6).
 - e. If BIM HA is selected and the user has multiple BIM HA services, the user will be prompted to enter his mobile phone number before the D07 dialog is displayed, until the user interaction with the mobile device is finished.
- 8. If the end user has more than one HA service available and at least one of those have not been used, a HA List is provided to the user to choose from. The list is sorted:
 - a. New HA service(s) are first in list
 - b. HA service in user profile is second in list
 - c. The rest of the HA service(s) are ordered by last used
- 9. The user has selected a HA service in the list.
 - a. If HA2 is selected, the dialog D07_ha will be displayed until the user interaction with the mobile device is finished.
 - b. If BIM HA is selected and the user only has one BIM HA service, pressing the call-to-action button will cause the dialog D07 to be displayed until the user interaction with the mobile device is finished. The user can go back to choose another HA service.

- c. If BIM HA is selected and the user has multiple BIM HA services, the user will be prompted to enter his mobile phone number before the D07 dialog is displayed, until the user interaction with the mobile device is finished.
- 10. The user can go back to choose another HA service in the list from D03_b, D03_cr_e, D03_m, D03_n, D07_ha.
- 11. The user selected "Cancel authentication" from the menu, and is displayed the CO3 dialog.
- 12. The user selected "Back" in the CO3 dialog, and is returned to the previous dialog.
- 13. If BIM HA is selected and the user only has one BIM HA service, pressing the call-to-action button will cause the dialog D07 to be displayed until the user interaction with the mobile device is finished. If the user has multiple BIM HA services, the user will be prompted to enter his mobile phone number before the D07 dialog is displayed.
- 14. The user interaction with the mobile device is finished.
- 15. Depending on the HA service selected by the user and the type of BankID in use, one of the listed dialogs will request the user to input his BankID password.
- 16. Either the HA code or the User-ID is incorrect, and the user is returned to the initial step in the flow and displayed the E19_1 "Incorrect data entered" dialog.
- 17. The user selected "Cancel authentication" from the menu, and is displayed the C03 dialog.
- 18. The user selected "Back" in the CO3 dialog, and is returned to the previous step in the dialog.
- 19. The user entered an incorrect password, but the User-ID and HA code were correct.
- 20. Renew. The "informUser" flag is set.
- 21. The user pressed the Call-to-action button in i10.
- 22. The user has entered User-ID, HA service and password correctly, and is taken to the D08 dialog.
- 23. The users new password does not match the criteria, was not confirmed correctly, or is identical to the existing password.
- 24. The user selected "Cancel authentication" from the menu, and is displayed the CO3 dialog.
- 25. The user selected "Back" in the CO3 dialog, and is returned to the previous step in the dialog.
- 26. The IO3 dialog is displayed, confirming to the user that the password has been changed.
- 27. The user is authenticated after a successful password change, and the client is terminated.

 Redirect to NextURL.
- 28. The user cancelled the operation, and the client is terminated. Redirect to NextURL.

6 GENERAL DIALOGS

There are a number of dialogs that are part of the BankID 2.0 client, but are not part of the main user flows described above. These are described in the following section.

6.1 Error dialogs

After submitting data or initiation of a call to FOI/Merchant, if an error does occur, the user will be presented an error message stating the reason of the session termination.

Error messages that are not described in the above flows are:

6.1.1 Error E04_1

A non-descriptive error informing the user that something has gone wrong, and to try again after restarting the browser. Contains a specific BID error code.

6.1.2 E04_3

A non-descriptive error informing the user that something has gone wrong, and to try again after deleting temporary files. Contains a specific BID error code.

6.1.3 E04_4

A non-descriptive error informing the user that something has gone wrong, and to try again after updating the browser. Contains a specific BID error code.

6.1.4 E04_5

A non-descriptive error informing the user that something has gone wrong, asking the user to contact the bank that has issued the BankID, referring to a specific BID error code.

6.1.5 E04_6

A non-descriptive error informing the user that something has gone wrong, and to try again after updating the browser. Contains a specific BID error code.

6.1.6 E04_7

A non-descriptive error informing the user that something has gone wrong, and to try again in 10 minutes. Contains a specific BID error code.

6.1.7 E17

Error message informing the user that the BankID has been blocked due to too many incorrect passwords entered. Informs the user to contact the issuer of the BankID.

6.1.8 E20

Error message informing the user that the HA service has been blocked due to too many incorrect HA codes being entered. Informs the user to contact the issuer of the BankID.

6.1.9 E21

Error message informing the user that the merchant is not identified, and to contact the bank.

6.1.10 E24

Non-descriptive error saying that something has gone wrong, asking the user to try again.

6.1.11 E26

Message from the HA service to the end user.

6.1.12 E30

Error message informing the user that the service requires PersonalBankID. Assumes that the user has attempted to use an EmployeeBankID with a merchant only supporting PersonalBankIDs.

6.1.13 E31

Error message informing the user that the service requires EmployeeBankID. Assumes that the user has attempted to use a PersonalBankID with a merchant only supporting EmployeeBankIDs.

6.1.14 E32

Error informing the user that an error has occured during initialisation of the client. Asking the user to close all browsers and try again. If the error continues to occur, to contact the issuing bank.

6.1.15 E34

Error message informing the user that the client is unable to redirect the user to the location specified by the merchant application.

6.2 Informational dialogs

In addition to the above described flows, there are a number of informational pages available in the BankID 2.0 client.

6.2.1 Cert View Merchant

Page displaying the merchant's PKI certificate. Should be made available to the user from the initial BankID dialog.

6.2.2 Cert View Personal

Page displaying the end user's personal BankID certificate. Should be made available to the user after successfully providing a User-ID and HA code.

6.2.3 Cert View Employee

Page displaying the end user's Employee BankID certificate. Should be made available to the user after successfully providing a User-ID and HA code.

6.2.4 Privacy Policy

Page providing the end user information about BankID's privacy policies.

6.2.5 Broadcast popover

Page displaying a message from BankID Norge to the end user in the initial BankID dialog. This message may be suppressed by the merchant application.

6.2.6 Broadcast details

Page displaying a the detailed message from BankID Norge if the user clicks on the Broadcast popover in the initial BankID dialog. This message may be suppressed by the merchant application.