

Authentication Devices

Authentication means a procedure enabling a payment service provider to verify identity of payment service users or eligibility of use of a specific payment instrument, and application of personalized security features pertaining to individual payment service users.

Authorization means acceptance of closing or execution of a banking transaction, instruction for execution of a banking transaction, or provision of a financial service.

Strong customer authentication means authentication based on the use of two or more elements, which are knowledge, ownership and characteristic features of the user of payment services, while knowledge is what only the user of payment services knows (e.g. password), ownership is what owned or held only by the user of the payment services (e.g. the SMS code is the property of the mobile phone) and the distinctive features specify the user of the payment services (e.g. physical biometrics). These elements are independent from each other and created in such a way that the violation of one element does not affect the reliability of the other elements or the confidentiality of the authentication data.

Internet Banking is active for 15 minutes after the last connection to the Internet Banking server. The system logs you off correctly after this time limit elapses.

Authentication Devices

An authentication device is primarily the client number and mailer or the Digipass 270, Digipass 275, Digipass mobile authentication calculators, Mobile application - Privatbanka mobile that are used for user authentication of requirements to carry out transactions.

1. Client Number

Each user of Internet Banking has a unique access code, the client number. The client number is an authentication identifier, i.e. a bank-defined five or six digit unique number that is listed in the Agreement on the Electronic Exchange of Data via Electronic Distribution Channels that establishes the Internet Banking service.

Authorisation Devices

An authentication device is password, Digipass 270, Digipass 275, Digipass mobile authentication calculators, Mobile application - Privatbanka mobile that are used for user authentication and authorization of requirements to carry out transactions.

2. Password

The first password is specified in the mailer. A mailer is a discreet envelope with an inserted letter or an electronic document in PDF format, which is used for the safe transfer of security and identification signs, in particular the password for access to electronic banking to the user of the electronic bank card or the PIN for the authorization of payments by payment card to the holder of a valid card. Mailer, an electronic document in PDF format for access to electronic banking, is sent to the user's verified email address and encrypted with a one-time password, which is distributed as an SMS to the user's verified phone number. When you first log in, the system prompts you to change your password (at least 8 characters and maximum of 15 characters).

3. Privatbanka SMS code

The Privatbanka SMS code is a unique 8-digit alphanumeric code (capital letters combined with numbers), sent as an SMS to the mobile phone number of the electronic banking user, which he specified in the electronic banking contract, or entered it in Internet banking (IB). The SMS code, combined with the password, is used to verify (authenticate) the user and approve (authorize) active operations.

In this context, we would like to ask you to check the mobile phone number that you have entered in Internet banking. The correct mobile phone number is a key prerequisite for the proper delivery of the SMS code, so please pay adequate attention to this requirement.

4. DIGIPASS 270



The authentication calculator Digipass 270 allows you to use two applications:

Application 1 – calculation of authentication code for authentication of the client to the bank

Application 2 – calculation of the MAC code when authorizing payment orders or other transactions in which the bank requires a higher degree of security

First start of the calculator Digipass 270:

- Press the button „◀“ in the lower right corner, hold and simultaneously press the padlock at the bottom left.
- The display shows: „- - - - PIN“. Enter the default PIN – 1111.
- The display shows: „- - - - NEW PIN“. Enter your new 4-digit PIN.
- The display shows: „- - - - PIN CONF“. Re-enter your new PIN.
- The display shows for two seconds: „NEW PIN CONF“ and then: „APPLI -“.

The authentication calculator is ready for use.

Turning on calculator Digipass 270:

- Press the button „◀“ in the lower right corner, hold it and simultaneously press the padlock at the bottom left.
- Enter your PIN. If the PIN is correct, the display shows: „APPLI -“.

To change the PIN for Digipass 270:

- Press the button „◀“ in the lower right corner, hold it and simultaneously press the padlock at the bottom left.
- Enter your PIN. If the PIN is correct, the display shows: „APPLI -“.
- Hold down button „◀“, until the display shows: „- - - - NEW PIN“
- Enter your new 4-digit PIN. The display shows: „- - - - PIN CONF“.
- Re-enter your new PIN. The display shows for two seconds: „- - - - NEW PIN CONF“ and then „APPLI -“.

Application 1 - calculation of authentication code Digipass 270:

- Press the button „◀“ in the lower right corner, hold it and simultaneously press the padlock at the bottom left.
- Enter your PIN. If the PIN is correct, the display shows: „APPLI -“.
- Press the button „1“, the display shows eight characters of the authentication code.

Application 2 - calculation of the MAC code Digipass 270:

The MAC code is a check code of a report generated by the authentication device Digipass 270 in the Digital Signature mode, ensuring the possibility to verify the sender's identity and message integrity. The MAC code is used as the electronic equivalent of signing a payment order (for SEPA payments, regulated payments and cross-border payments) The authentication calculator calculates the MAC based on the hash code displayed on the Internet Banking screen when signing a particular transaction after choosing Digipass 270 device.

- Press the button „◀“ in the lower right corner, hold it and simultaneously press the padlock at the bottom left.
- Enter your PIN. If the PIN is correct, the display shows: „APPLI -“.
- Press the button „2“. The display shows: „ - - - - -“.
- Enter the Hash code (displayed on the Internet Banking screen).
- The display shows the eight characters of the MAC code.
- The displayed MAC code shall be filled in as the appropriate item in the form.

Note

In case you entered the wrong PIN, the display shows "FAIL n ^{PIN}" where n is the number of attempts to enter PIN. The calculator gets blocked after five unsuccessful attempts to enter your PIN. The display shows: 'LOCK PIN' and a seven-digit code. This code is used to unblock the calculator. The blocked calculator has to be brought in person to the branch of the bank where you have created your account for it to be unlocked.

EXAMPLE:

You are sending a payment order with a value:

- Press the button „◀“ in the lower right corner, hold it and simultaneously press the padlock at the bottom left.
- Enter your PIN. If the PIN is correct, the display shows: „APPLI -“.
- Press the button „2“. The display shows: „ - - - - -“. Enter the Hash code: 3298308640 (all the digits of the hash code displayed on the Internet Banking screen when signing a specific transaction by choosing the Digipass 270 device)
- The display shows the eight characters of the MAC code,
- The displayed MAC code shall be filled in as the appropriate item in the form.

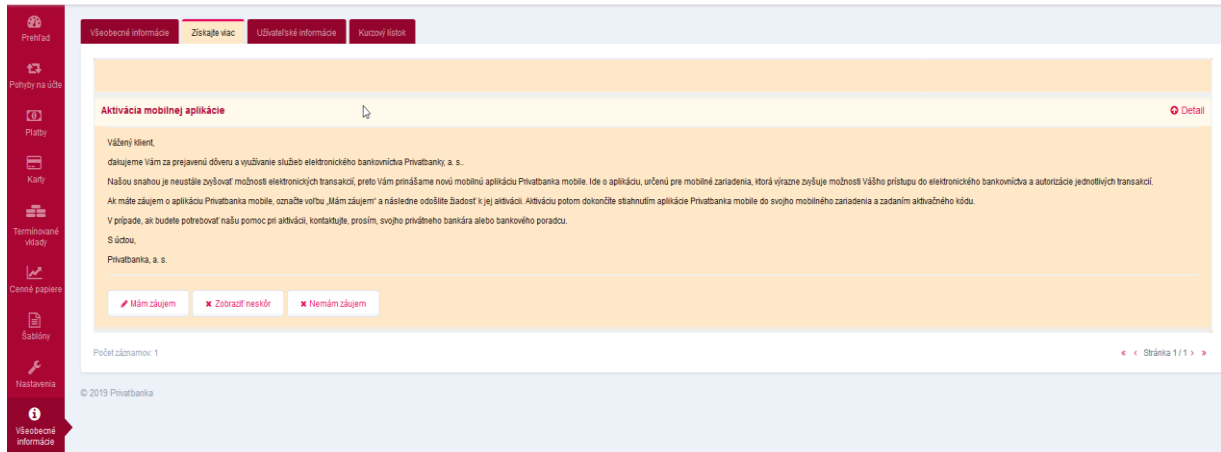
5. Privatbanka mobile (mobile application)

1. The client downloads a mobile application under the name "Privatbanka mobile" from the App Store or Google Play to his mobile phone:

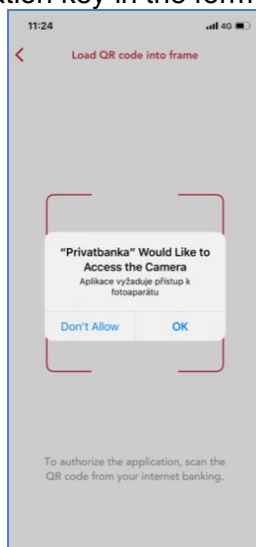


2. After downloading and installing the mobile application on the mobile phone, it is necessary to activate the mobile application before using it for the first time. The

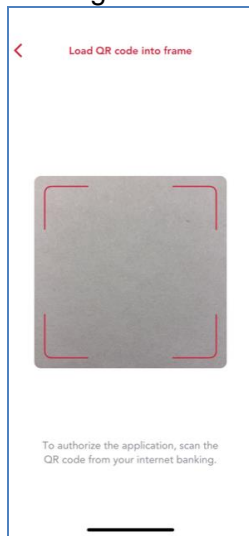
- activation of the mobile application is carried out by the client in the Internet banking environment.
3. After logging in to Internetbanking, the client performs the following steps using his login data:
 - a) After displaying the initial screen informing about the possibility of using the mobile application, he confirms his interest in installing the Privatbanka mobile mobile application and then



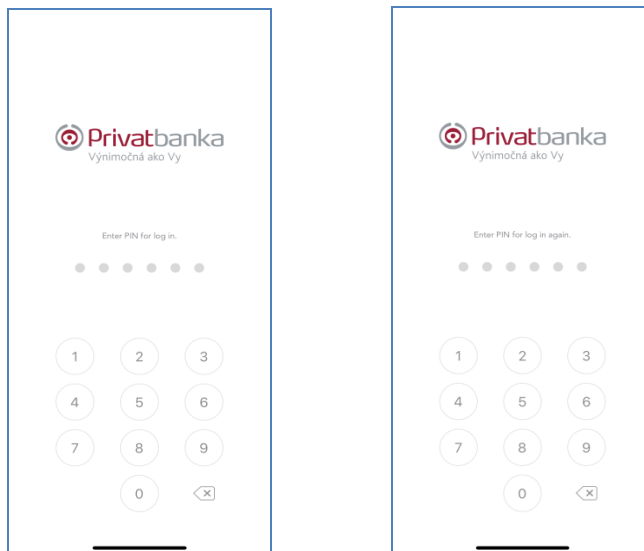
- b) through his existing authorization device (SMS code, DigipasMobile, Digipas 270...) confirms the installation of the Privatbanka mobile mobile application
 - c) subsequently, to display the activation QR key for activating the Privatbanka mobile mobile application, the client must enter:
 - i. your current password, which you use when entering Internet banking of bank
 - ii. authorization code from an existing authorization device
- After entering the correct authorization data, the activation QR key is displayed to the client for 1 minute. If the client does not have time to load the activation QR code through the mobile application, to display the activation key again, it is necessary to repeat the procedure to display the activation QR key for activating the Privatbanka mobile mobile application.
4. After displaying the activation QR key on the computer screen, the client on his mobile phone:
 - a) opens the Privatbanka mobile application,
 - b) allows the Privatbanka mobile application access to the camera to load the activation key in the form of a QR code,



c)reads the displayed activation key in the form of a QR code from the Internet banking screen that is displayed to him,

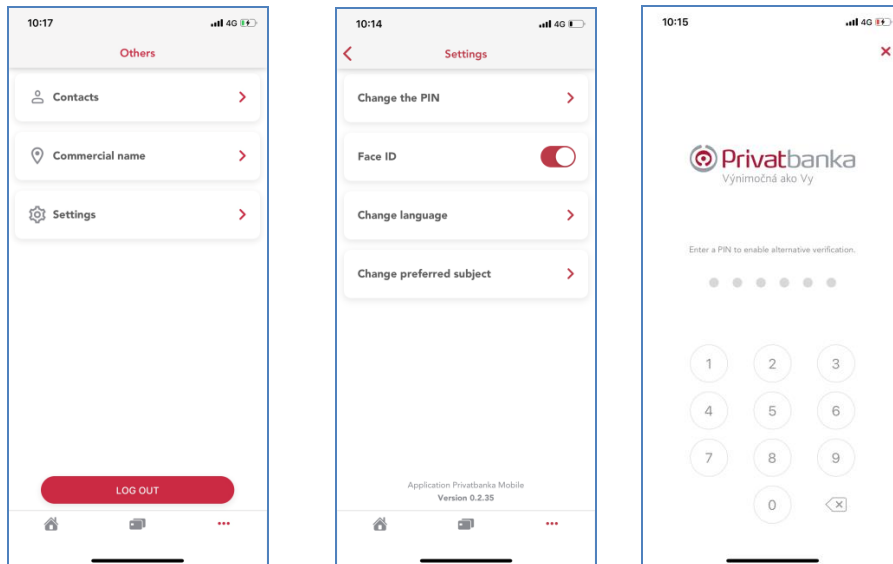


d)After reading the QR key, the client is then prompted to enter his 6-digit PINm, which will be used to log in to the mobile application, and to check, re-enter the 6-digit PIN, which will be used to log into the mobile application.



In addition to a 6-digit PIN code, clients can also use FaceID and fingerprint to log in.

5. The client completes the setup of the Privatbanka mobile mobile application on his mobile phone
6. If the client did not enable biometric authentication during the installation of the mobile application and his mobile device supports this functionality, he can do so additionally through the Settings option as follows:
 - a) The client clicks on the "... " symbol in the lower right corner of the display and gets to the Others screen,
 - b) The client clicks on Settings,
 - c) The client clicks on the use of Face ID biometrics and confirms this choice with a 6-digit PIN.



6. Digipass Mobile

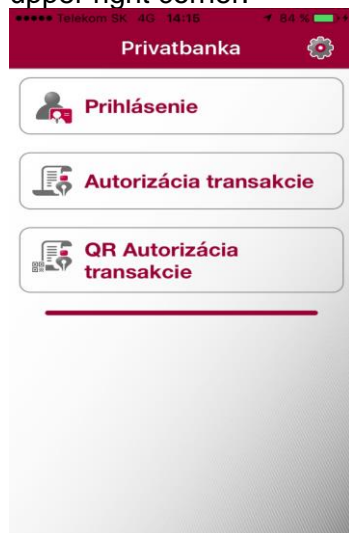
The application may be downloaded through the following links:



Main Menu

After the start, the application displays the initial menu of Privatbanka:

Application Settings may be accessed after clicking on the gear wheel icon situated in the upper right corner.



Logging in

The application offers a one-time password that is limited in time and allows logging into Internet Banking. After logging in via the Internet Banking web interface (after entering the login and password), you select the Digipass Mobile authorization facility. After entering the password for the Digipass Mobile, a password is displayed and you should use it to enter into the web interface and thus authorize the login. Subsequently, you may use the Internet Banking web interface with the limits associated with the Digipass Mobile authorization facility.

Authorization

The application will provide a one-time password limited in time that allows authorization (signature, acceptance) of a specific transaction. After entering the password into the Digipass Mobile application and copying the hash pertaining to the payment authorization within the Internet Banking web interface, the application will generate an authorization code for a specific payment.

QR authorization of a transaction

The application will enable scanning of the QR code allowing authorization of a specific transaction. The functionality is the same as in the preceding clause but in this case, it is not necessary to copy the HASH code of the transaction from the screen into the application. The application will scan via the device camera the HASH code from the QR code generated on the screen, then you should enter the password into the application, and the application will generate a numerical authorization code.

Note: The Digipass Mobile application will ask for confirmation of access to the camera upon the first use.

Application Settings

Password change

Upon selecting the Password Change option, three fields appear on the screen – the existing password is to be entered into the first field, the new password for the application is to be entered into the next two fields.

Note: The maximum password length is 8 characters.

Reactivation

Reactivation through manually entered data

After selecting this option, it is necessary to enter the licence serial number of the application, activation code, application password, and copy the application password. Your private banker or banking consultant will provide you with the information necessary for password reactivation.

Reactivation through scanning of activation data

After selecting this option, it is necessary to scan the reactivation data using the device camera and enter the application password and copy it. Your private banker or banking consultant will provide you with the information necessary for password reactivation.

Information about the Digipass application

After selecting this option, the application will display relevant information and several statistical data.

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