# **LightningPeach Wallet: User Guide**



# Table of Contents

| Introduction  | 3  |
|---|----|
| General description                                   | 3  |
| Possible issues                                       | 3  |
| Creating wallet account                               | 4  |
| Main menu   | 8  |
| Lightning   | 9  |
| Regular Payment                                       | 9  |
| Stream Payment  | 10 |
| History   | 10 |
| Onchain   | 12 |
| Regular Payment                                       | 12 |
| History   | 13 |
| Channels  | 14 |
| Creating new channel                                  | 14 |
| Channel list  | 15 |
| Address book  | 17 |
| Creating a contact                                    | 17 |
| Contact list  | 17 |
| Profile   | 19 |
| How to  | 21 |
| add funds to onchain balance                          | 21 |
| create regular lightning payment                      | 21 |
| create stream lightning payment                       | 21 |
| make regular onchain payment                          | 22 |
| reset password  | 22 |
| associate your Bitcoin wallet with LightningPeach one | 24 |
| Appendix I. Messages                                  | 25 |

### Introduction

#### **General description**

LightningPeach wallet is a free cross-platform desktop Lightning Network wallet. It simplifies the process of making micro payments, which are processed seamlessly thanks to user-friendly application and built-in payment server solution.

#### **Common features**

The LightningPeach wallet supports the following features, which have already become common for existing Lightning Network wallets:

- Sending & receiving payments within the Lightning Network using payment request.
- Sending & receiving onchain payments. Regular transactions within Bitcoin blockchain.
- Transaction history. Details on payments that are sent and received with your wallet account are kept in history section, so you can always have access to them when it is needed.
- Payment request. You can generate kind of invoice and send it to another person to pay it.
- Custom channel opening. You can create custom channel by specifying Lightning ID and host IP of a peer.

#### **Unique features**

- Sending & receiving payments within the Lightning Network using Lightning
   ID. Works only between LightningPeach users.
- Stream payments between LightningPeach users. Stream payments can be useful in cases when per second charges are more appropriate than regular payments (for example, voice and video calls with per second charge). Works only between LightningPeach users.
- Address book. With the help of address book, you can specify clear and convenient contact names. This is very useful as later you can select them on the Lightning page, thus no need to copy & paste, remember or keep Lightning ID somewhere on paper or PC.

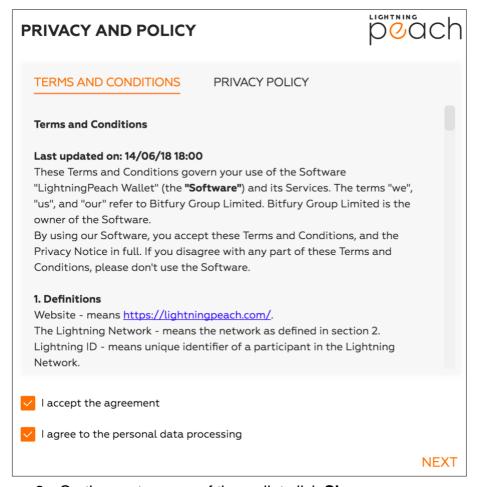
#### Possible issues

During installation antivirus or firewall can block some features of the wallet and ask for additional permissions. You should grant requested permissions for the LightningPeach application. This is necessary for the proper work of the wallet.

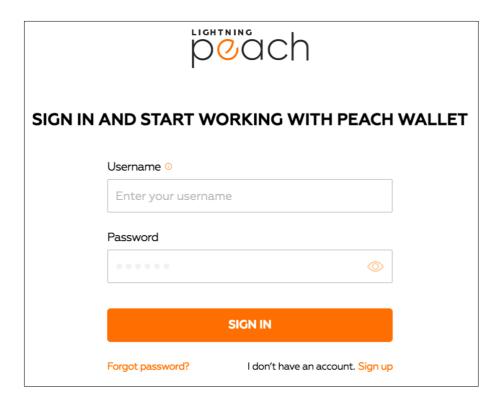
# **Creating wallet account**

If you don't have an account yet or want to create a new one, then you need to go through the process of signing up:

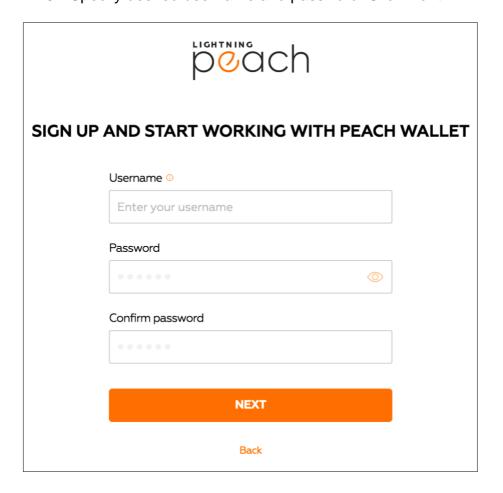
1. On the first screen you can see the "Terms and Conditions" and "Privacy Policy" documents. Read them carefully. Below the text there are 2 check boxes. The first one "I accept the agreement" is mandatory. By selecting it you acknowledge that you have read and understood terms and conditions of the both documents. The second check box "I agree to the personal data processing" is optional. By selecting it you agree to the processing of your personal data, this will help us to improve our product. After reading and selecting check boxes, click **NEXT**.



2. On the next screen of the wallet click **Sign up**.

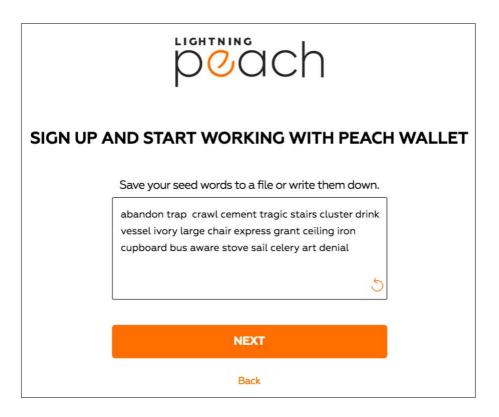


3. Specify desired username and password. Click Next.

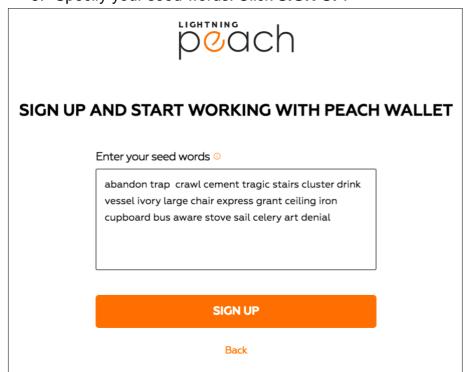


4. The system will offer you seed words (they are needed to recover access to wallet account). You can click regenerate button to change them. Write them down or save to a file and click **Next**.

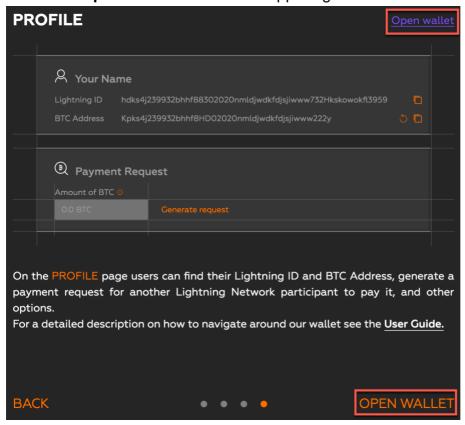
Important! On the next screen you will need to specify these seed words.



5. Specify your seed words. Click SIGN UP.



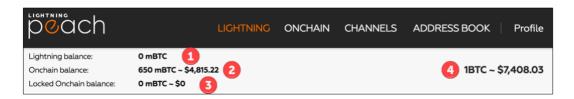
6. First synchronization can take some time. You can read guided tour while synchronization is in progress. When synchronization is finished, you will see the **Open wallet** button in the upper right corner.



Further authorizations require only username and password.

### Main menu

The interface of the LightningPeach wallet application consists of 5 parts: Lightning, Onchain, Channels, Address book and Profile.



Under the wallet menu there is information on Lightning balance (1), Onchain balance (2), Locked Onchain balance (3), and current bitcoin exchange rate (4).

# Lightning

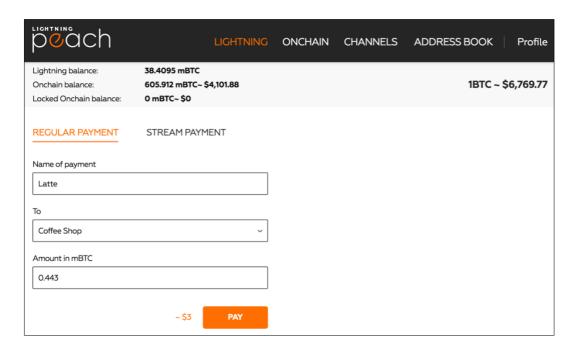
On this page you can create payments within the Lightning Network and view transaction history of such payments.

There are two types of lightning payments: regular and stream.

### **Regular Payment**

Allows you to create lightning payments.

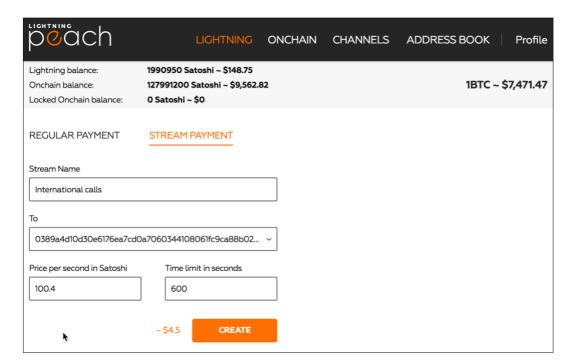
Important! Before making a payment make sure you have open channels.



| Field           | Description  |  |  |  |
|-----------------|--|--|--|--|
| Name of payment | Optional. Name of payment. Later this name will be used in History of payments.  |  |  |  |
| То              | Mandatory. Recipient of payment (LightningPeach users only).  Possible variants:  Specify Lightning ID; Select contact from the Address book; Specify payment request in the following format: <lightning id="">@<host ip="">.</host></lightning>      |  |  |  |
| Amount in       | Mandatory. Amount of payment in selected Bitcoin denomination: BTC, mBTC, satoshi (BTC – Bitcoin; mBTC – millibitcoin, 1 BTC = 1000 milibitcoins = 100 000 000 satoshi). Active only if you pay by Lightning ID or to a contact from the Address book. |  |  |  |

#### **Stream Payment**

Allows you to create stream payments. Can be useful in cases when per second charge is more appropriate than regular one. For example, it can be useful for voice and video calls with per second (per minute) charge.



| Field                 | Description   |
|-----------------------|---|
| Stream Name           | Optional. Specify name for stream payment. Later this name will be used in History of payments.                         |
| То                    | Mandatory. Recipient of payment. Possible variants: specifying Lightning ID or selecting contact from the Address book. |
| Price per second in   | Mandatory. Price per second in selected Bitcoin denomination.   |
| Time limit in seconds | Maximum number of seconds for this payment.   |

#### **History**

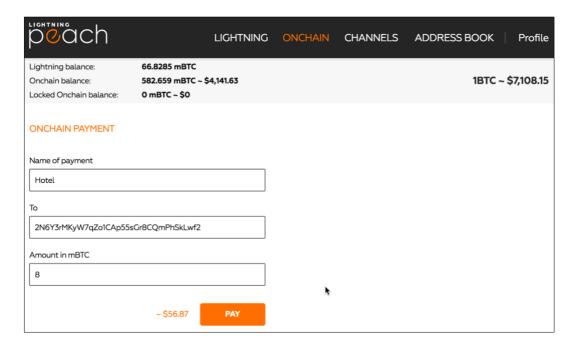
Here you can see history of transactions made within the Lightning Network.



| Field           | Description  |
|-----------------|--|
| Name of payment | Name of payment. Click on the name of the column to sort payments by name.   |
| Amount          | Amount of payment in selected Bitcoin denomination. For stream payment spent amount and time are displayed.  |
| Туре            | Type of payment: regular or stream. If stream payment is not finished it is marked with icon ▶ – stream payment is currently stopped or ■ – stream payment is in progress at the moment, clicking stop button ■ will finish stream beforehand. Click on the name of the column to sort payments by type. |
| То              | Recipient of the payment. Possible values: Lightning ID or name of a contact from the Address book.  |
| Date            | Date and time of transaction creation. Click on the name of the column to sort payments by date.   |

### **Onchain**

On this page you can create payments within the Bitcoin blockchain and view transaction history of such payments.



### **Regular Payment**

Allows you to create onchain payments in selected Bitcoin denomination.

| Field           | Description   |
|-----------------|---|
| Name of payment | Optional. Name of payment. Later this name will be used in History of payments. |
| То              | Mandatory. Recipient of payment. Possible values: bitcoin address.              |
| Amount in       | Mandatory. Amount of payment in selected Bitcoin denomination.                  |

### **History**

Here you can see history of transactions made within the Bitcoin blockchain network.



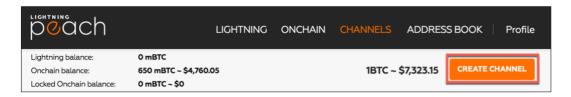
| Field           | Description   |
|-----------------|---|
| Name of payment | Name of payment. Click on the name of the column to sort payments by name.  |
| Amount          | Amount of payment in selected Bitcoin denomination.   |
| То              | Recipient of payment. Possible values: bitcoin address.   |
| Confirmations   | Number of transaction confirmations.  |
| Transaction ID  | Unique transaction identifier that can be used in Bitcoin transaction explorer. It can be copied by clicking on Transaction ID. |
| Date            | Date and time of transaction creation. Click on the name of the column to sort payments by date.                                |

#### **Channels**

On this page you can create new channel and view list of existing channels.

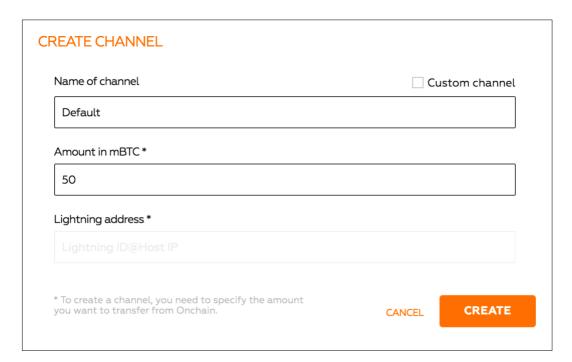
### **Creating new channel**

To create new channel, click the **Create Channel** button.



New window appears. You can create channel with default settings or a custom one (if you know the Lightning ID and host IP of a peer / hub).

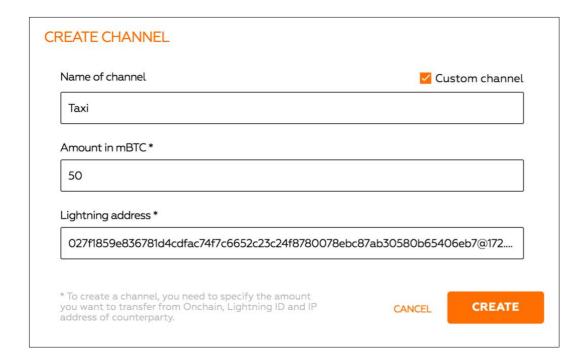
Default channel creation requires the following information:



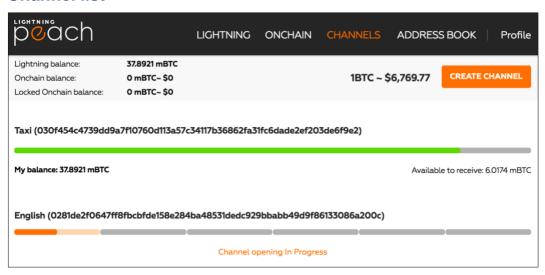
| Field           | Description   |
|-----------------|---|
| Name of channel | Name for a new channel.   |
| Amount in       | The amount you want to transfer for this channel from your onchain balance. |

If you would like to create custom channel, select the **Custom channel** check box. Here, apart from name of a channel and its amount, you need to specify Lightning ID and host IP in the following format:

<Lightning ID>@<Host IP>.



#### **Channel list**



The list of channels contains active and not active opened channels, and opening channels with the following information:

- Name of a channel, in the brackets Lightning ID or name of a contact (if you have it in your Address book) is specified.
- My balance amount that you can send via this channel (available only for active open channels).
- Available to receive amount that you can receive through this channel (available only for active open channels).

You can copy Lightning ID of the channel by clicking on it. Then you can paste it in Regular or Stream Payment section to make a payment to the Lightning ID of that channel.

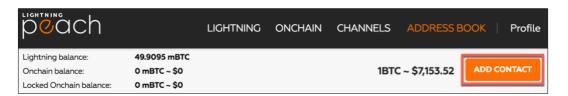
While pointing to the name of a channel you can see the **Close** button. Click this button if you don't need this channel anymore, available balance will be added to your onchain balance (when confirmed on Bitcoin blockchain).

### Address book

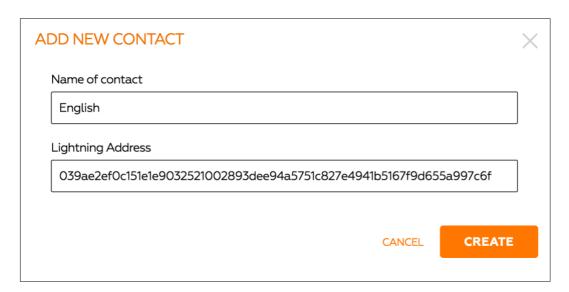
On this page you can manage your contact list of Lightning addresses.

### **Creating a contact**

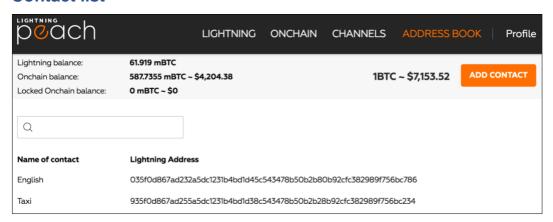
To create new contact, click the **Add contact** button.



A new window will appear, where you can specify a name of the contact and Lightning ID.



#### **Contact list**

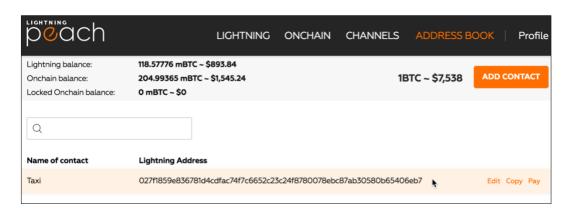


Contact list contains contacts with the following information:

- Name of a contact.
- Lightning Address Lightning ID.

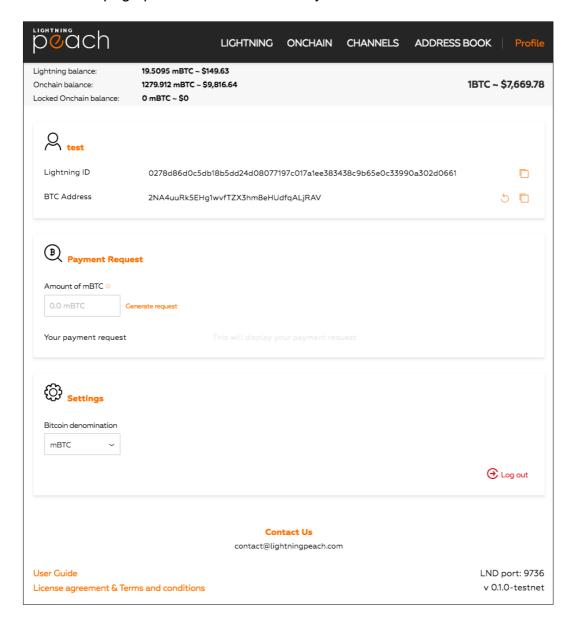
When pointing to the name of contact you see the following options:

- Edit allows to change a name of a contact or delete it from your Address book.
- Copy copies Lightning ID to clipboard.
- Pay when you click this button you are redirected to the **Lightning** page, where this contact is already filled in the **To** field. You just need to specify name and amount of payment.



### **Profile**

The Profile page provides information on your wallet account.



| Field  | Description   |  |  |  |
|--|---|--|--|--|
| Lightning ID   | Your lightning ID. You can copy it by clicking the corresponding button |  |  |  |
| BTC Address  | Your BTC address. You can copy it or generate a new one.                |  |  |  |
| Payment Request – here you can create new payment request. Other users of the Lightning Network will have possibility to pay generated invoice (one payment for each request). |   |  |  |  |
| Amount of  | Specify amount of payment in selected Bitcoin denomination.             |  |  |  |
| Generate request   | Create payment request.   |  |  |  |
| Your payment request   | Payment request. You can copy it and submit to a payer.                 |  |  |  |
| Settings – here you can change Bitcoin denomination.   |   |  |  |  |

| Bitcoin denomination | Select one of the possible Bitcoin denominations: BTC, mBTC, satoshi (BTC – Bitcoin; mBTC – millibitcoin, 1 BTC = 1000 millibitcoins = 100 000 000 satoshi). |
|----------------------|--|
| Log out              | Log out from this account.   |

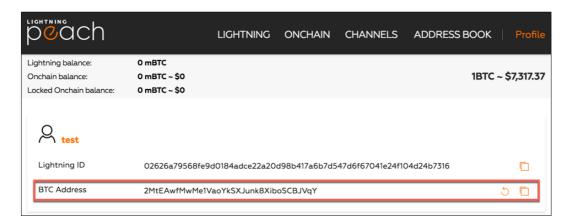
At the bottom of the page you can see contact information of wallet developer company; link to the User Guide; link to the "License agreement" and "Terms and conditions" documents; port allocated to current wallet for rpc connection with LND; and current version of the LightningPeach wallet application.

#### How to...

#### ... add funds to onchain balance

One of the steps required before using all advantages of the Lightning Network is adding funds to your Onchain balance. Follow the steps below to accomplish this task.

1. Open the **Profile** page. Find there the **BTC Address** field and copy it by clicking the corresponding button



2. Copied address can be used for funding via the most convenient way: another wallet or exchange.

### ... create regular lightning payment.

Regular lightning payments can be useful when you need to make an ordinary payment as quickly as possible.

- 1. Open the **Lightning** page.
- 2. Open the Regular payment tab.
- 3. Specify a name of payment (optional), recipient (can be taken from contact list or from the list of opened channels) and amount of payment.
- 4. Click Pay.
- 5. Pop-up with details of your payment appears. Check data and if everything is correct click **Pay**.

#### ... create stream lightning payment.

Stream lightning payments can be useful when there is a need in services with per second charge. It can be voice calls or any other kind of a service that has per second billing. For this you need to create stream lightning payment and launch it when you need to pay for stream service:

- 1. Open the **Lightning** page.
- 2. Open the **Stream payment** tab.
- 3. Specify a name of stream payment (optional), recipient (can be taken from contact list or from the list of opened channels), price per second and time limit in seconds.

- 4. Click Pay.
- 5. Pop-up with details of your payment appears. Check data and if everything is correct click **Pay**.
- 6. The payment appears in **History** section of the page and will marked as Start button ► (in the **Type** column). All unfinished stream payments are displayed in the beginning of the list.
- 7. To launch stream payment click Start button ▶. Now you will see that time is counting and amount in BTC is also changing in correspondence with time. The button now is displayed as paused ■. You can click the pause button to pause stream payment.
  - To stop stream beforehand click stop button ■, type of payment will be changed to "stream".
- 8. When time limit of payment is finished, type of payment is changed to "stream" and will be moved in a list according to creation date.

### ... make regular onchain payment

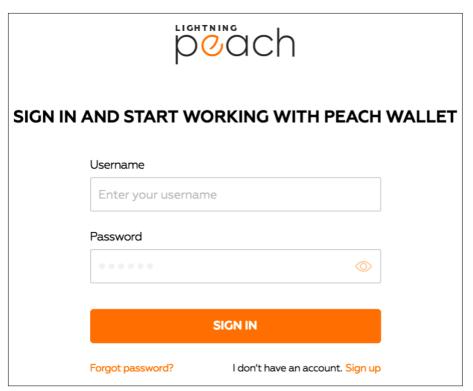
Regular onchain payments can be useful when you need to make one payment and there is no need in opening a separate channel for this one-time operation. For this you need to create regular onchain payment:

- 1. Open the **Onchain** page.
- 2. Specify the **Name of payment** (optional), recipient in the **To** field (BTC address of recipient) and amount of payment.
- 3. Click Pay.
- 4. Pop-up with details of your payment appears. Check data and if everything is correct click **Pay**.

#### ... reset password

If you forgot your password use the following steps to reset it and regain access to your account.

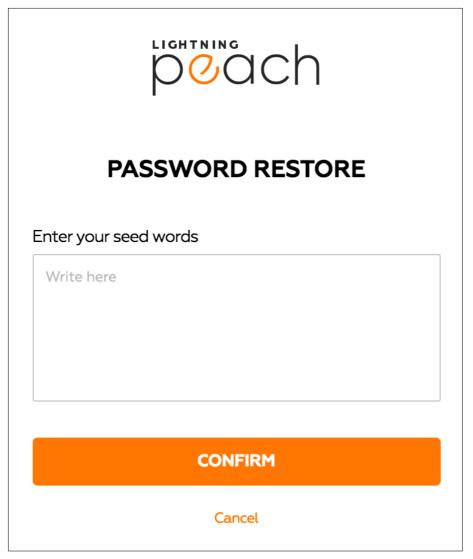
1. Open the wallet account.



- 2. Click the Forgot password? link.
- 3. Specify new username and new password. Click Sign up.



4. On the next page specify seed words associated with your wallet account.



5. If provided information is correct, you will be redirected to your wallet account.

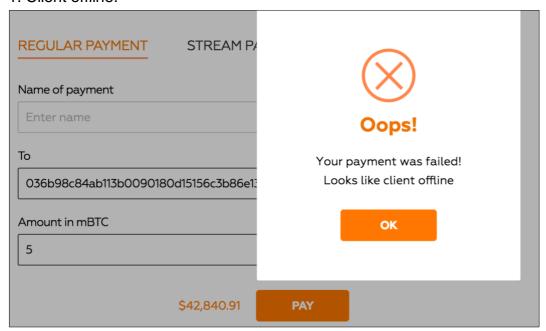
#### ... associate your Bitcoin wallet with LightningPeach one

If you want to use your existing Bitcoin wallet for Lightning payments, you can associate it with LightningPeach wallet account. To achieve this, please follow the password recovery procedure and use seed words from your Bitcoin wallet.

# **Appendix I. Messages**

While using the LightningPeach wallet you can see different messages, both, success and error ones. Success messages inform you about the positive outcome of your actions (can be payment or entity creation). Error messages are used to inform user that something went wrong (also can suggest how to fix it). Some error messages are described below.

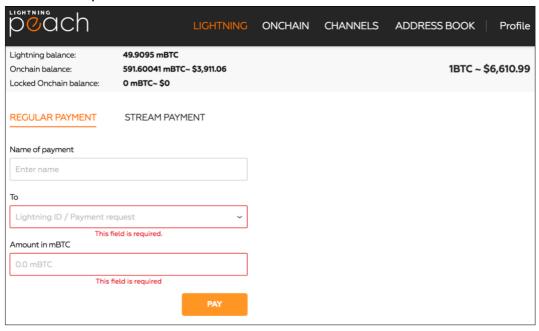
1. Client offline.



**When appears:** When recipient is either offline or is not a user of the LightningPeach wallet.

**How to solve:** Ask recipient to sign in to the wallet account or sign up if recipient doesn't have account yet.

### 2. Not all required fields are filled.



When appears: When some field is not filled.

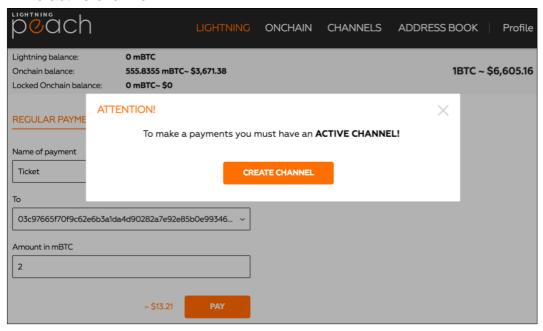
How to solve: Fill all required fields.

#### 3. Insufficient funds

| peach                       | LIGHTNING                   | ONCHAIN | CHANNELS | ADDRESS BOOK   Profile |
|-----------------------------|-----------------------------|---------|----------|------------------------|
| Lightning balance:          | 49.9095 mBTC                |         |          |                        |
| Onchain balance:            | 591.60041 mBTC~ \$3,911.06  |         |          | 1BTC ~ \$6,610.99      |
| Locked Onchain balance:     | 0 mBTC~ \$0                 |         |          |                        |
|                             |                             |         |          |                        |
| REGULAR PAYMENT             | STREAM PAYMENT              |         |          |                        |
| Name of payment             |                             |         |          |                        |
| Enter name                  |                             |         |          |                        |
| To 0281de2f0647ff8fbcbfde15 | 8e284ba48531dedc929bbabb4 ~ |         |          |                        |
|                             |                             |         |          |                        |
| Amount in mBTC              |                             |         |          |                        |
| 100                         |                             |         |          |                        |
| Insufficient fur            | ds on Lightning balance     |         |          |                        |
|                             | ~\$661.1 PAY                |         |          |                        |

**When appears:** When making payment and there are not enough funds on balance. **How to solve:** Specify an amount that correspond to wallet balance and fill the field correctly.

#### 4. No active channel



When appears: When making payment and there are no channels created. How to solve: <u>Create channel</u> either by clicking the **Create channel** button within pop-up or open the **Channels** page on your own.

#### 5. Payment amount exceeded

| podch   |  | LIGHTNING      | ONCHAIN       | CHANNELS       | ADDRESS BOO   | OK   Profile    |
|---|--|----------------|---------------|----------------|---------------|-----------------|
| Lightning balance:<br>Onchain balance:<br>Locked Onchain balance: | 49.9095 mBTC<br>591.60041 mBTC-<br>0 mBTC~ \$0 | ~ \$3,911.06   |               |                | 1BT           | °C ~ \$6,610.99 |
| Q test  |  |                |               |                |               |                 |
| Lightning ID  | 03c97665f70f9                                  | 9c62e6b3a1da4d | 90282a7e92e85 | b0e993465ef340 | 8e6d7a6c9f774 |                 |
| BTC Address   | 2NAyuKQteB8                                    | A1ibjbTCK4oDHC | WwwfYoizC9    |                |               | 5 🗖             |
| B Payment Reques  | st   |                |               |                |               |                 |
| Amount of mBTC o  |  | <b>b</b>       |               |                |               |                 |
|   | nerate request                                 |                |               |                |               |                 |
| Payment 50 mBTC is too large<br>Your payment request              | e. Max payment allow                           |                |               |                |               |                 |
| rour payment request  |  |                |               |                |               |                 |

**When appears:** When creating payment request. **How to solve:** Reduce amount of payment request.