Manual of LATEBRA LIGHT

Introduce

Latebra Light is application for confidential messaging on your mobile device (smartphone or tablet). Only users of Latebra Light or Latebra can read your message. Latebra Light applies the original crypto algorithm for all kind of messages: E-mail/ SMS/ MMS. A unique crypto-key is used for encryption and has to be attached to a message to decrypt it. There is a possibility to synchronize crypto-keys for several users i. e. to create one crypto-key for more than one application. In this case message exchange can be existed without crypto-key attachment after this synchronization.

Latebra provides more convenient and higher security level in comparing with Latebra Light. In particular, in Latebra generates array of personal crypto-keys where each crypto-key can be assigned to its own contact and used for encryption of messaging from/to this contact exclusively. This technology is free from necessity to send crypto-key with each your message.

1   Initial Setup

1.1   App Crypto-key Generation

The work with Latebra Light starts with a crypto-key generation which used for access to Application and message encryption/decryption. This crypto-key has name App Crypto-key.

You have to define usable alphabets, set security level and enter a codeword. More detail this procedure is explained below.

You have to remember this codeword, it's important.
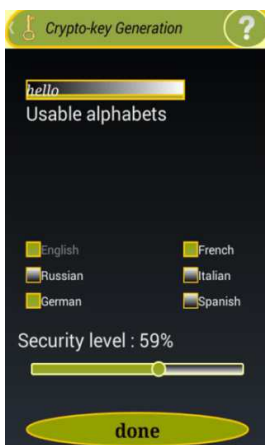
1.1.1   Codeword

First step in the procedure of App crypto-key generation will be choice of a codeword. This codeword will be a password for access to Latebra Light. Codeword provides not only access to Latebra Light but helps to restore App crypto-key. App crypto-key is used in message encryption. The longer codeword will be entered the longer crypto-key will be created and hence your encrypted message is more difficult to crack. Maximum codeword length is 10 symbols.

Codeword will have to include numerals and Roman characters only without diacritical marks, but last symbol cannot be a numeral. Codeword can be a phrase not only word. Codeword should be remembered. (Previous codeword(s) can be useful for decryption of such messages which you forgot to decrypt before App crypto-key update).

Figure 1.1 Crypto-key generation

1.1.2   Usable Alphabets

Crypto algorithm of Latebra Light uses alphabets of English language and language of mobile device (smartphone or tablet) localization as alphabetical base on default. When you use or plan to use other languages in your messages you will have to expand list of usable languages. In other case the characters which are missed on these alphabets cannot be encrypted.

1.1.3   Security Level

You can manage security level by using seek bar in Latebra Light from 1% till 99%.

Remember!!! The more security level you will set the more time will be needed for encryption/decryption.

1.1.4   App Crypto-key

The App Crypto-Key generation will be finalized by double click on "Done" after as you have defined Usable Alphabets, set Security Level and typed Codeword. Next, you have to define the mode usage of your codeword: would it be requested every time at startup the Application

!!! We recommend the mode: "request a codeword upon startup".

Figure 1.2 Dialog definition of usage mode for codeword

You can exchange your App crypto-key for crypto-key sent by your correspondent as an attachment to his(her) message when you accept it. It will mean your crypto-keys are synchronized. After finalizing this procedure the codeword which are used for generation crypto-key is displayed. You have to memorize this codeword. This codeword will be used as password.

This synchronization gives you the possibility to exchange messages with your correspondent(s) without attaching crypto-key to your messages.

1.2 E-mail Accounts Connection

The following step after App crypto-key generation is E-mail account connecting to Latebra Light. Latebra Light will be turn into E-mail client with possibility of encryption/decryption. You have to type address of your E-mail (Gmail or Yandex only), your password and click button "Save" and then "Done" to activate. In present time Latebra Light connects directly to Gmail and Yandex only. With other E-mail services Latebra Light can work through copy&paste exclusively. When Latebra Light doesn't connect with E-mail accounts, inside Latebra Light naturally you can directly work with SMS/MMS. If initial setup is finished, you can start to work with Latebra Light.

In any time initial settings can be changed by using "Settings" . It's here where you always can change active E-mail account, connect some new accounts, change and restore your App crypto-key.

Figure 1.3 E-mail accounts selection

2 Work with Messages

In present time users of Gmail and Yandex can work with Latebra Light more effectively than others, Latebra Light will be E-mail client with encryption/decryption functionality for them.

To start your work with messages click on button "Messaging" and initialize dialog menu where You can define in what kind of messages you are interesting: SMS/MMS or/and E-mail, all or encrypted messages exclusively. For example, if you check "SMS/MMS messages" and "encrypted messages only" it will mean you will work with encrypted SMS/MMS messages.

Message list will be produced and represented. Select a message from the list, click on it and following actions will be enabled: 1) creating message list received from selected message address by click on button "Messaging" ; 2) deleting selected message (SMS only) ; 3) loading selected message into Editor for viewing, encrypting/decrypting sending and responding

.

You can create and send a new message both encrypted and not encrypted by click on action button "New" and manage E-mail accounts by click on button "Account Management" .

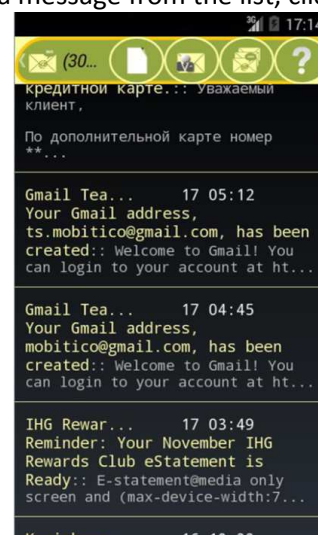**Figure 2.1 Dialog menu for message selection**

Figure 2.2 Messaging

2.1 Editor

The Latebra Light Editor used for creation of new and response messages besides viewing.

The Editor can be called up by 3 ways:

1) Click on selected message and load it into the Editor.

2) Click on button "New" ▯ and call up the Editor where you can create, encrypt and send a new message.

3) Click on button "Editor" ✎ in main Latebra Light window and call up the Editor for all types of activity.
The Editor provides following functionality:
1) viewing; 2) creating and editing; 3) encrypting/decrypting; 4) saving; 5) sending; 6) Internet connecting by web-links;

2.1.1 Message Encryption

If you would like to provide confidentiality of your messaging you will just have to click on button "Encryption" 🔒 and encrypt a message. Remember - your correspondents have to have Latebra or Latebra Light also.

E**ncrypted** message will be done by yours App crypto-key or crypto-key attached to message which will be sent to you. If you need to respond you just have to click on button "Reply" ↩ and to use your App or sent crypto-key.

Figure 2.3 Editor with encrypted message

2.1.2 Message Decryption

D**ecrypted** message will be provided by the click on the button "Decryption" 🔓 . Decryption will be done in one click by crypto-key attached to the received message or your App crypto-key.
You can exchange your own App crypto-key on crypto-key attached to a received message. It means you synchronized your App crypto-key with crypto-key of your correspondent.

Figure 2.4 Editor with decrypted message

2.1.3 Save Draft

Prepared message will be saved as a Draft with an address from address input line by click on button "Save" 💾.
Remember: New Draft will replace the previous Draft with the same address. New draft without address will replace old without address accordingly.

2.1.4 Open Draft

Click on button "Open" 📄 to open as a Draft the last saved message with an address from address input line. When the address input line is empty, the last saved message without any address will be opened.

2.1.5 Send Message

A message will be sent to an address from the address input line by click on button "Send" ✉→ . When you send encrypted message, the crypto-key will be offered for sending.
WE RECOMMEND SENDING CRYPTO-KEY IN FIRST TIME ONLY. IT INCREASES SECURITY LEVEL OF YOUR MESSAGING.

2.1.6 Address Input Line

In the answer mode, the address of a recipient will put in Address Input Line automatically. In case of new message you can input any address in Address Input Line manually or through search procedure.

Using contact data suggestions helps you enter any address from your "Contacts". If need address or/and addressee are absent in "Contacts" you will be forced to enter it manually.

Figure 2.5 General prompt

Figure 2.6 Address prompt

2.1.7 Work with E-mail Services Using Copy&Paste

If you don't use Gmail or Yandex but use another E-mail services the functionality of Latebra Light will be restricted for you, you will not use Latebra Light as Email client with the possibility encryption/decryption in one click. You have to use copy&paste for message exchanging between Latebra Light and another E-mail clients.

You will be forced to copy encrypting E-mail message and paste it in Latebra Light Editor. If this E-mail message includes crypto-key you can decrypt it in one click. If not, more typically, you additionally will have to copy and paste sender's address (or type it manually) to address input line.
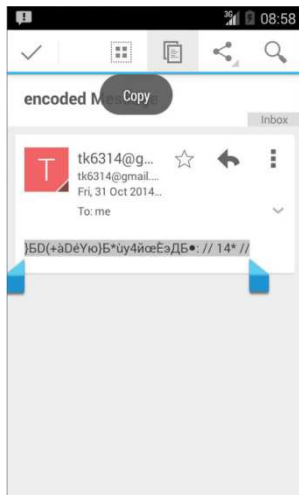

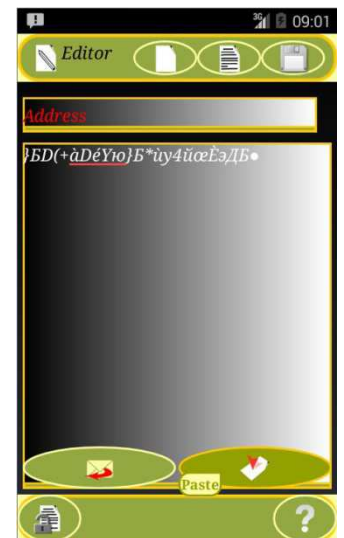**Figure 3.7 Copied message from standard E-mail client Editor**

Figure3.8 Latebra Light copy&pasted message

3   Settings

Initial setup in any time can be changed by click on button "Settings" ⚲ . Settings provide: 1) checking connected E-mail account parameters or creating a new connection; 2) generation a new App crypto-key; 3) restoring previous App crypto-key if you remember previous codeword and approximate time of generation. Item 1) can be fulfilled if you are Gmail or Yandex user.

Remember: after changing of App crypto-key, all things earlier encrypted are impossible to decrypt. We recommend decrypting all before App crypto-key changing.

If you forgot these recommendations you can temporary restore App crypto-key by using corresponding codeword and then decrypt all things needful.