Secret Monero Bridge Command Line Interface (CLI)
version 1.0-beta2

November 14, 2021

The Secret Monero Bridge CLI enables users to make deposits and withdrawals over the Secret Monero Bridge without having to use a web application and the Keplr browser extension wallet.
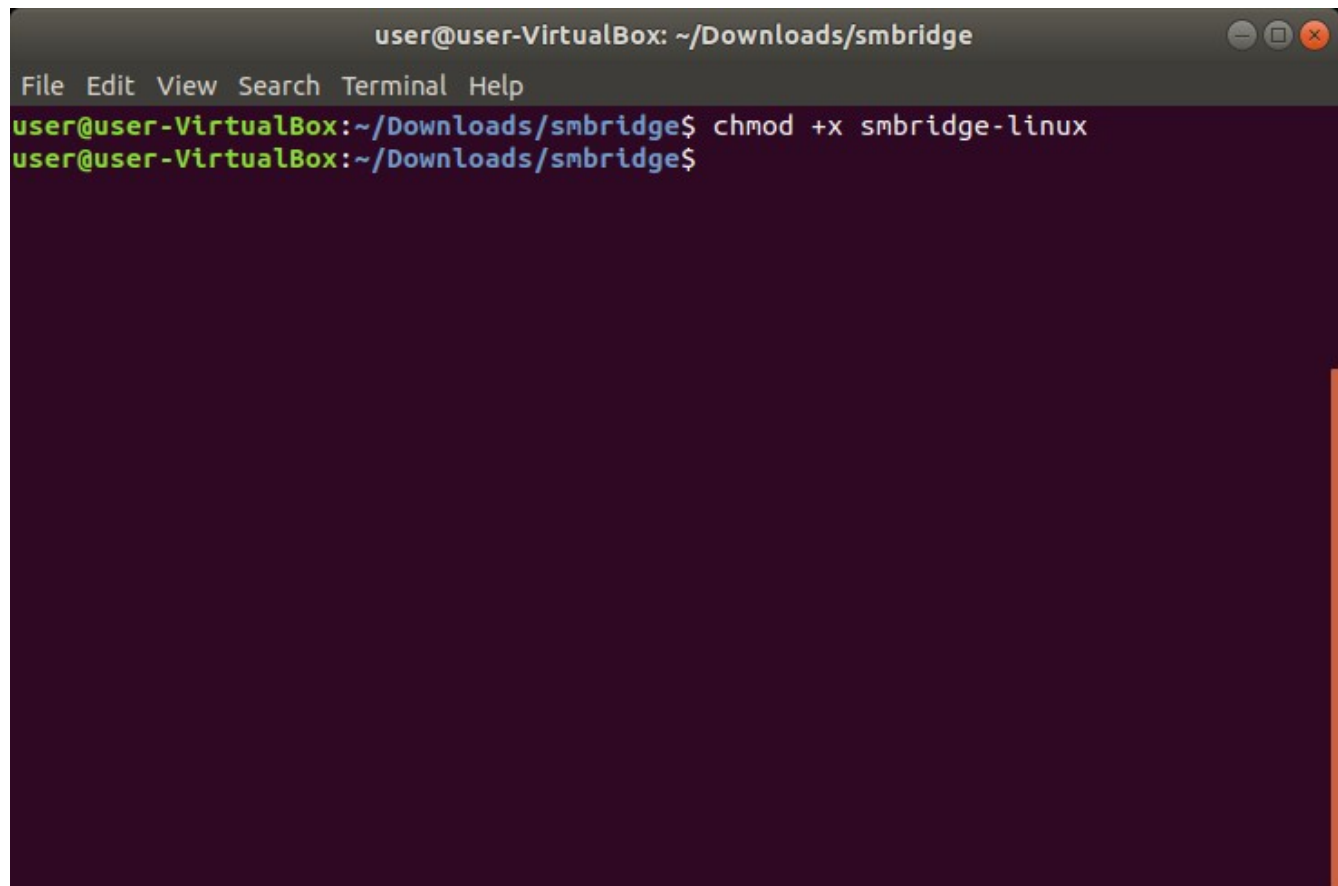
The only dependencies are:
- access to the Secret Network via an operational *secretcli* (version 1.2.0+) instance
- The ability to send an email message (preferably anonymously)

The Secret Monero Bridge CLI can be found at: https://github.com/maxkoda-cpu/Secret-Monero-Bridge-CLI

The source code and binaries for popular platforms (Linux, Mac, and Windows) can be found at the github repository.

Examples shown in this document are for the Linux platform. The Linux binary needs to be executable (chmod +x smbridge-linux).

Help

You can get help by typing: ./smbridge-linux -h


```
user@user-VirtualBox: ~/Downloads/smbridge
File  Edit  View  Search  Terminal  Help
user@user-VirtualBox:~/Downloads/smbridge$ ./smbridge-linux -h
Usage: smbridge-linux <command> [options]

Commands:
  smbridge-linux d  Enter a Deposit
  smbridge-linux w  Enter a Withdrawal
  smbridge-linux f  Lookup current fee

Options:
  -h, --help      Show help                                    [boolean]
  -v, --version   Show version number                          [boolean]
user@user-VirtualBox:~/Downloads/smbridge$
```

Bridge Fee:

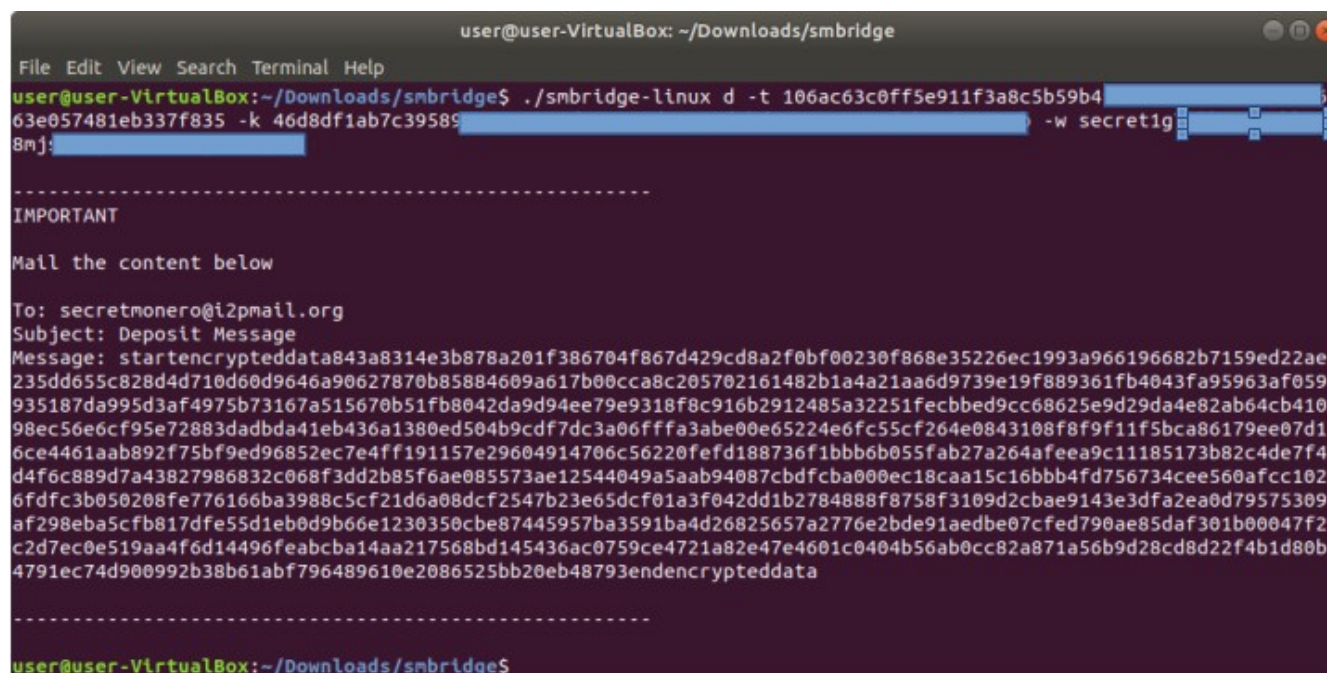You can view the current bridge fee by typing: ./smbridge-linux f


```
user@user-VirtualBox: ~/Downloads/smbridge
File  Edit  View  Search  Terminal  Help
user@user-VirtualBox:~/Downloads/smbridge$ ./smbridge-linux f
0.01
user@user-VirtualBox:~/Downloads/smbridge$
```

Deposit:

You can make a deposit by typing: ./smbridge-linux d -t <txid> -k <txkey> -w <secret_wallet_address>

The deposit payment must be sent over the Monero network prior to issuing the deposit command with the Secret Monero Bridge CLI. The Secret Monero Bridge CLI deposit command does not make a Monero deposit payment. It simply provides a proof-of-payment for a prior deposit payment.

Some values presented below have been redacted to preserve privacy. Portions of the Monero txid, txkey, and the secret wallet address have been redacted.

Email information is provided to enable transferring proof-of-payment information. The email proof-of-payment information is provided in an RSA encrypted string (*text between the startencrypteddata…..endencrypteddata markers).*

The *Message* text should be included in the body of the email.

The email message should be sent to the email address specified in the *To:* reference.

The *Subject* is optional.

Once the email is received, an automated process verifies the proof of payment and sXMR is minted (amount of XMR transferred minus bridge fee) and deposited to the secret_wallet_address specified in the command.

The mailbox receiving these proof-of-payment email messages is on the I2P network. To maintain anonymity, it is recommended that the sender use an anonymous email service to avoid leaving metadata traces.

Withdraw:

You can make a withdrawal by typing: ./smbridge-linux w -w <secret_wallet_address> -a <amount> -m <monero_wallet_address>

The withdraw command uses the local *secretcli* to transfer the specified amount of sXMR to the Secret Monero Bridge multi-signature account

Some values presented below have been redacted to preserve privacy. Portions of the Monero wallet address and the secret wallet address have been redacted.

```
user@user-              :~/              cli/test$ ./smbridge-linux w -w secret1q
-a 0.110 -m 4Akc
Confirm amount: 0.11 = 110000000000 atomic units, current fee is 0.01 (Y/n) Y
*** INFORMATIONAL ONLY SecretCLI CMD ECHO---------->
{"height":"0","txhash":"08D82CEDA49106C4EED4FD8FA124B6F206C07DA3A044A33CF3341FA3FE8AF97F","codespace":"","code":0,"data":"","raw_log":"
[]","logs":[],"info":"","gas_wanted":"0","gas_used":"0","tx":null,"timestamp":""}

<---------- END CMD ECHO - INFORMATIONAL ONLY ***




                    ----------------------------------------------
                    IMPORTANT -- ACTION REQUIRED TO COMPLETE TRANSACTION

                    Mail the content below

                    To: secretmonero@i2pmail.org
                    Subject: Withdrawal Message
                    Message: startencrypteddata744b53b3e61a0356ee2aab6f89cda772c45eabc66381bdde482a35a80b242eef8b88
f793823cced068aa0e748447f2697d6338d33e5942d441e3d5a9d99413ae83af71424146750e25a447b395ff40425e0f1db87af82f5e6f437dee69bbc4d30e60ead2ec0
312a09438670c47a59f0513bf886f9887701a7859397f7f1087a6877e3da54f75c8bd7c0a6fce7e8a5ffaeac6b3a8620a5e6f88ff2f0e0b5c75e08bd28b9b8ae1e19a53
71f1a1fd6c11444688b9174ad36bdcf5fc95372a12089ff42e3c5768b66a2ddc92cb081ea2faf77db7830831fbc5c8098f8af26fd487b3b98f7aa076ad3abc6ff1bbf94
1eed311b6e77b9b168dd1591ebe425921b175023e0f387ce40a966b797408e0725c1e39102a027d09dcdbc4de862e4191377fbd1cafbb8c56d4b3249d51535113ed605f
6c62e0588068301f7adb0a52617b75813ccc6653962e3112cb95ef49b209d67f1150402dd373797ec5cd3668b1f07dd36ce7c05bc180d6f0403dda1bfe0d1b0a8aeac25
f614d491c37521fc23a0d79eeb121c149de6f1902ed161b050592ffaa90f2bf8955eab4de0e4a1b3774cf26568bbca17e57d0b5bd09a8f44e580f2809230ee9ed7d0611
4920a8821c816f717f173ee30b70519017aeac72b4af65466c4eb377678c433d1377bc5753e605e9cdb87289de9f69224c9c8078f5c0a9547a0c40b02646d6f2a1f41f0
0896d208e31endencrypteddata

                    ----------------------------------------------

user@user                                     /cli/test$
```

The command will request verification of the amount of the withdrawal (shown in decimal and atomic units).

The command will echo the txhash (from the Secret Network) of the sXMR transfer transaction. This txhash is presented for informational purposes.

Email information is provided to enable transferring proof-of-payment information. The email proof-of-payment information is provided in an RSA encrypted string (*text between the startencrypteddata…..endencrypteddata markers).*

The *Message* text should be included in the body of the email.

The email message should be sent to the email address specified in the *To:* reference.

The *Subject* is optional.

Once the email is received, an automated process verifies the proof of payment and the sXMR is burned and the corresponding amount (amount specified minus bridge fee) of XMR is transferred to the Monero address specified in the command.

The mailbox receiving these proof-of-payment email messages is on the I2P network. To maintain anonymity, it is recommended that the sender use an anonymous email service to avoid leaving metadata traces.