

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.

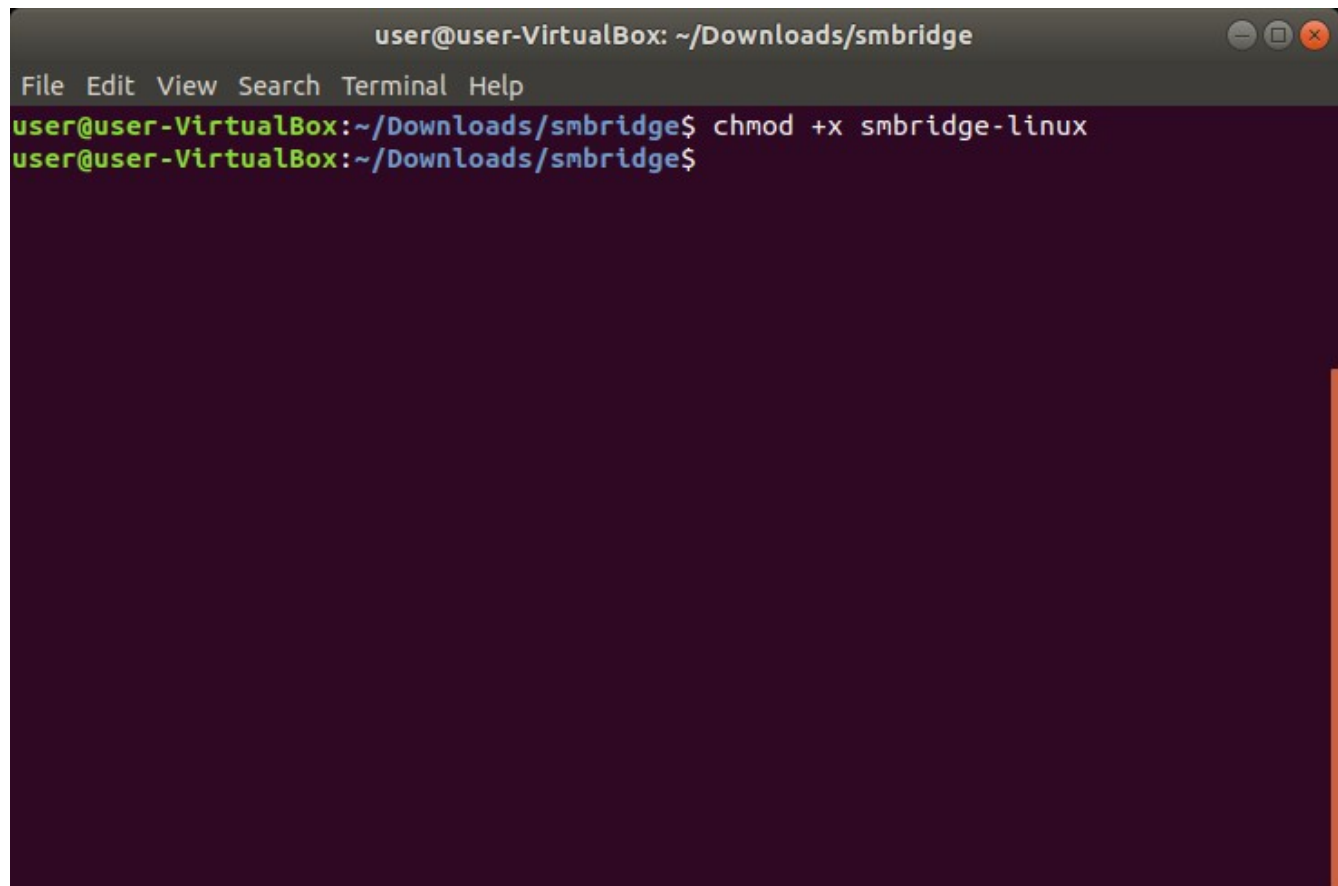
The only dependencies are:

- 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`).



```
user@user-VirtualBox: ~/Downloads/smbridge
File Edit View Search Terminal Help
user@user-VirtualBox:~/Downloads/smbridge$ chmod +x smbridge-linux
user@user-VirtualBox:~/Downloads/smbridge$
```

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`

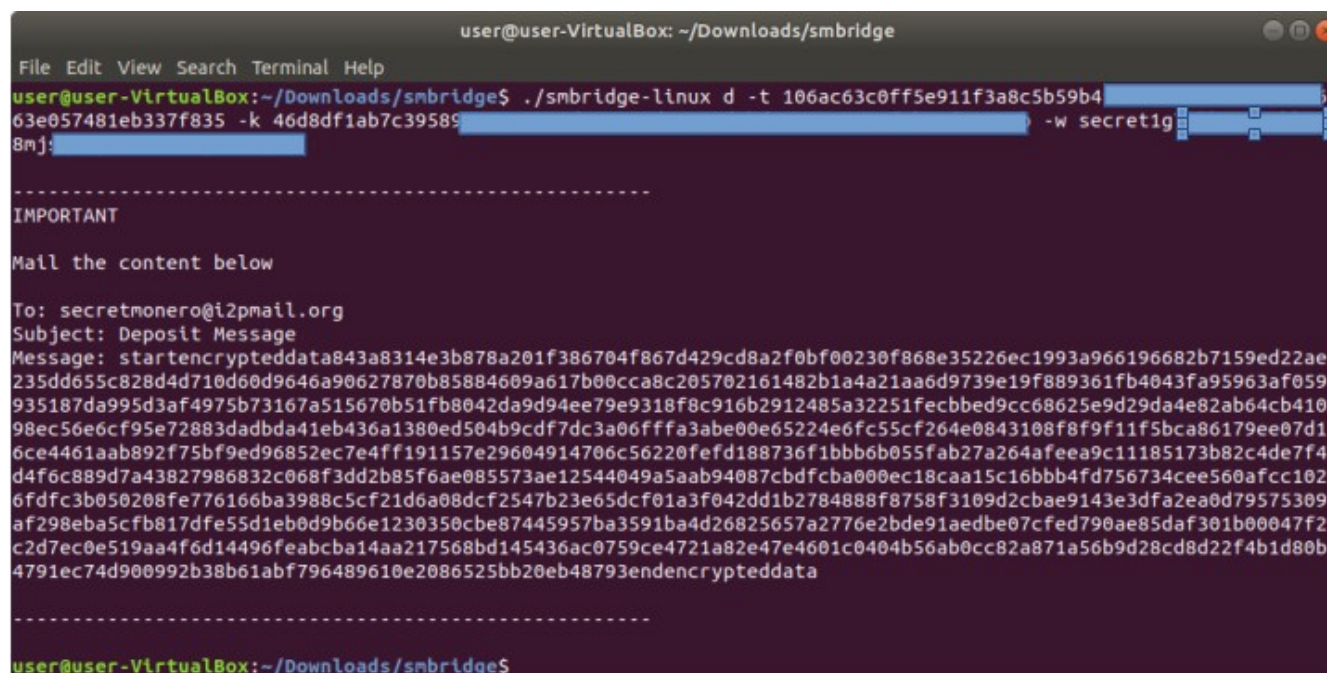
```
user@user-VirtualBox: ~/Downloads/smbridge
File Edit View Search Terminal Help
user@user-VirtualBox:~/Downloads/smbridge$ ./smbridge-linux f
0.01
user@user-VirtualBox:~/Downloads/smbridge$
```

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.



```
user@user-VirtualBox: ~/Downloads/smbriidge
File Edit View Search Terminal Help
user@user-VirtualBox:~/Downloads/smbriidge$ ./smbridge-linux d -t 106ac63c0ff5e911f3a8c5b59b4[redacted]
63e057481eb337f835 -k 46d8df1ab7c39589[redacted] -w secret1g[redacted]
8mj:[redacted]

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IMPORTANT

Mail the content below

To: secretmonero@i2pmail.org
Subject: Deposit Message
Message: startencrypteddata843a8314e3b878a201f386704f867d429cd8a2f0bf00230f868e35226ec1993a966196682b7159ed22ae
235dd655c828d4d710d60d9646a90627870b85884609a617b00cca8c205702161482b1a4a21aa6d9739e19f889361fb4043fa95963af059
935187da995d3af4975b73167a515670b51fb8042da9d94ee79e9318f8c916b2912485a32251fecbbed9cc68625e9d29da4e82ab64cb410
98ec56e6cf95e72883dadbd41eb436a1380ed504b9cdf7dc3a06fffa3abe00e65224e6fc55cf264e0843108f8f9f11f5bca86179ee07d1
6ce4461aab892f75bf9ed96852ec7e4ff191157e29604914706c56220fef8188736f1bbb6b055fab27a264afeea9c11185173b82c4de7f4
d4f6c889d7a43827986832c068f3dd2b85f6ae085573ae12544049a5aab94087cbdfc00ec18caa15c16bbb4fd756734cee560afcc102
6fdfc3b050208fe776166ba3988c5cf21d6a08dcf2547b23e65dcf01a3f042dd1b2784888f8758f3109d2c0bae9143e3dfa2ea0d79575309
af298eba5c9fb817dfe55d1eb0d9b66e1230350cbe87445957ba3591ba4d26825657a2776e2bde91aedbe07cfed790ae85daf301b00047f2
c2d7ec0e519aa4f6d14496feabcb14aa217568bd145436ac0759ce4721a82e47e4601c0404b56ab0cc82a871a56b9d28cd8d22f4b1d80b
4791ec74d900992b38b61abf796489610e2086525bb20eb48793endencrypteddata

-----

user@user-VirtualBox:~/Downloads/smbriidge$
```

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: `./smbbridge-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$ ./smbbridge-linux w -w secretcli
-a 0.110 -n 4Kc
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 ***

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IMPORTANT -- ACTION REQUIRED TO COMPLETE TRANSACTION

Mail the content below

To: secretmonero@i2pmail.org
Subject: Withdrawal Message
Message: startencrypteddata744b53b3e61a0356ee2aab6f89cda772c45eabc66381bdde482a35a80b242eef8b88
f793823ccedd000aa0e748447f2697d6338d33e5942d441e3d5a9d99413ae83af71424146750e25a447b395ff40425e0f1db87af82f5e0f437dee69bbc4d30e0ead2ec0
312a09438670c47a59f0513bf806f9087701a7059397f7f1087a6077e3da54f75c0bd7c0a6fce7e8a5ffaecac6b3a8620a5e6f80ff2f0e0b5c75e08bd28b9b8ae1e19a53
71f1a1fd6c11444688b9174ad36bdcf5fc95372a12089ff42e3c5768b66a2ddc92cb081ea2faf77db7830831fbc5c8098f8af26fd487b3b98f7aa076ad3abc6ff1bbf94
1eed311b6e77b9b168dd1591ebe425921b175023e0f387ce40a966b797408e0725c1e39102a027d09dcdbc4de862e4191377fbd1cafbb0c56d4b3249d51535113ed605f
6c62e0588068301f7adb0a52617b75813ccc6653962e3112cb95ef49b209d67f1150402dd373797ec5cd3668b1f07dd36ce7c05bc180d6f0403dda1bfe0d1b0a8aeac25
f614d491c37521fc23a0d79eeb121c149de6f1902ed161b050592ffaa90f2bf8955eab4de0e4a1b3774cf26568bbca17e57d0b5bd09a8f44e580f2809230ee9ed7d0611
4920a8821c816f717f173ee30b70519017aeac72b4af65466c4eb377678c433d1377bc5753e605e9c8db87289de9f69224c9c8078f5c0a9547a0c40b02646d6f2a1f41f0
0890d208e31endencrypteddata

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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.