# Dump Server

Dump server temporarily stores messages sent from one user to another. All messages are always encrypted, so we are less concerned with message security in transit - we "dump" everything in one place, and then the recipient can get the messages addressed to them, and only the recipient will be able to decrypt the message.

Dump server interacts with the identity registry on the block chain. It performs two functions: send and receive, which work as follows:

- When a user sends a message, the dump server would use the identity registry to verify the identity of the sender (make sure that the private key they use corresponds to the public key in the identity registry). Then, the server would accept the message and store it in the local data directory.
- When a user receives a message, they must first prove their identity by presenting a valid signature. The server would return one message per call, until there are no more messages.

## Running Dump Server

The easiest way to run dump server is as follows:

```
$ ubikom-dump --data-dir=some_directory --lookup-server-url=""
```

- You must specify –data-dir argument - this is where dump server stores the encrypted messages.
- –lookup-server="" tells dump server to disable the legacy identity registry lookups. This will go away later, when we finish transition to Ethereum-based identity registry.

Some other flags to know:

–log-level controls logging (can be debug, info, warn, error);

–log-no-color disables fancy color log output (good when you save log to a file);

–network controls the Ethereum network dump server connects to. For now, the default is Sepolia test network, to be changed to mainnet later. The valid arguments are "sepolia" (default), "main", or an explicit node address starting with "http://".

–contract-address defines the contract address on the blockchain - you probably don't need to change this one.

## Running Dump Server With Legacy Identity Registry

Going forward, the identity registry in Ethereum blockchain will be the only source of truth. During the transition, however, we must support the clients registered via the legacy identity registry. We actually have two legacy registries:

- The identity registry based on our own blockchain (this one is more recent).
- The identity registry implemented as a server (the older one).

To run the dump server with those as a fallback, specify –lookup-server-url like so:

```
$ ubikom-dump --data-dir=some_directory \
  --lookup-server-url="alpha.ubikom.cc:8825"
...
12/26 21:46:15 WRN using legacy lookup service url=alpha.ubikom.cc:8825
12/26 21:46:15 WRN using legacy blockchain url=http://18.223.40.196:8545
...
```

You will see the warnings in the logs. You will also see a warning each time dump server fails to resolve an identity using the Ethereum-based blockchain and has to fallback on the legacy identity registry.