

Manual

System requirements

Python 2.7

For server user can modify IP address and port number in file “Config” . Default addresses are:

127.0.0.1 35521

127.0.0.1 35523

127.0.0.1 35525

127.0.0.1 35527

127.0.0.1 35529

127.0.0.1 35531

127.0.0.1 35533

127.0.0.1 35535

This port is connected by server.

Server

This system assume that each key is different.

Set up server

```
$ python Node.py
```

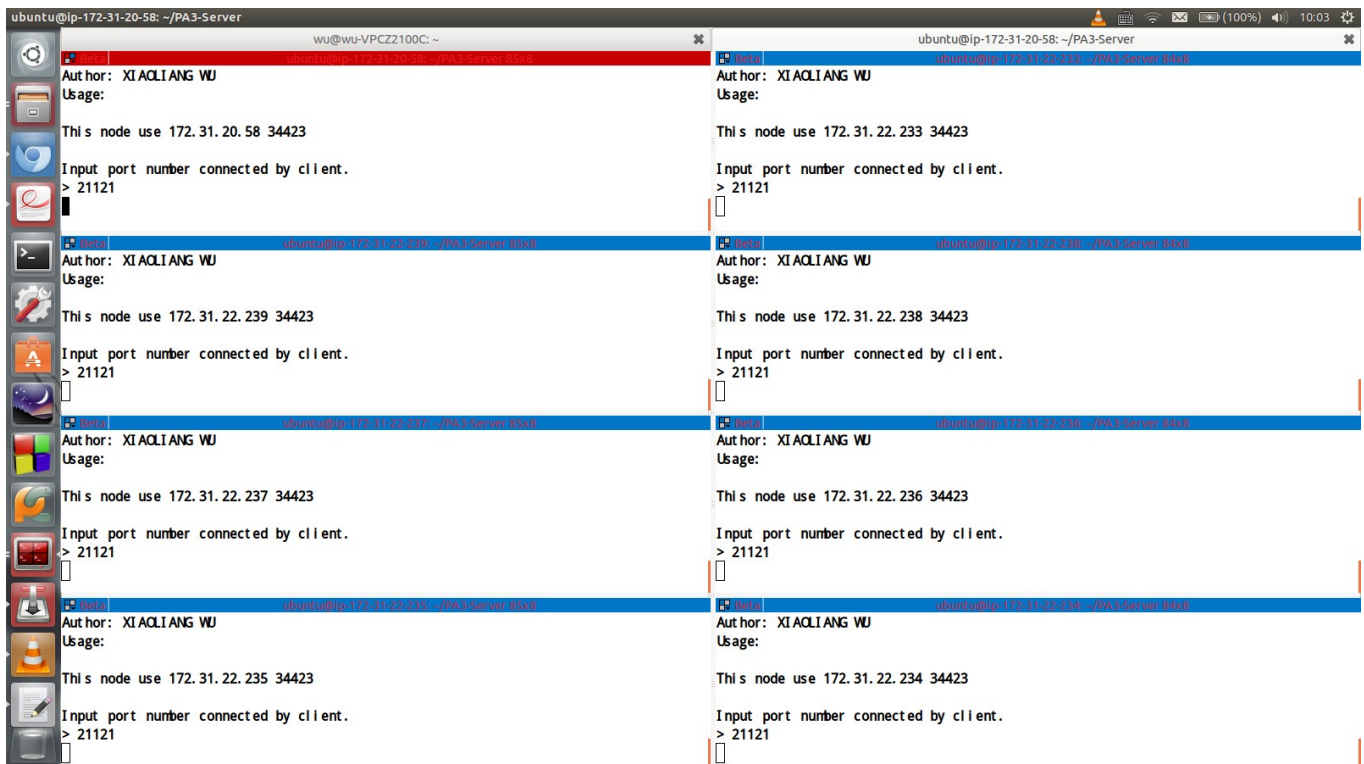
Input Port number connected by client

Servers can connect with each other through port that is defined in “Config” file.

If client want to connect with one server, the port number is that is input by user.

Resilience

Every node hash table have a replica in next node. For example: $0 \rightarrow 1, 1 \rightarrow 2, 2 \rightarrow 3, 3 \rightarrow 4, 4 \rightarrow 5, 5 \rightarrow 6, 6 \rightarrow 7, 7 \rightarrow 0$.



Client

Set up Client

\$python Peer.py

Input port number, other client can connect to this port to download files.

Input server IP address

Input server port number for client

Input command

Register file

Register file to server.

> 0 [FILE ABSOLUTE PATH]

eg. > 0 ~/testfile

Put operation success.

Return register result

Search file

Look up files that name is KEYWORD.

> 1 [KEYWORD]

eg. > 1 testfile

172.31.31.0:6666/home/ubuntu/testfile

Return file URL

Download file

Download file according URL.

> 2 [FILE URL]

eg. > 2 172.31.31.0:6666/home/ubuntu/testfile

Return download result

FILE URL from look up obtain

10K register operations

10K register operation

> Test_register

eg. > Test_register

Return time.

10K look up operations

Use this command after using Test_register

10K look up operation

> Test_lookup

eg. > Test_lookup

Return time.

10K obtain opeartions

Use this command after using Test_register

10K obtain time, each file less 10KB

> Test_obtain [URL]

eg. > Test_obtain 172.31.31.0:6666/home/ubuntu

Return time.

Help document

Print guideline

> Peer -help

Exit

Exit system.

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