10/19/23. 8:43 AM Blueventure: Blockchain Lab

Blueventure: **Blockchain Lab**

Track-and-Trace Blockchain Workshop for Hyperledger

X

▼ Create a Hyperledger Fabric Network

Fabric 2.2 (BETA)

- Create Network & Member
- Accept invite and create Supplier member

Congratulations

- Setup Development Environment
- ▼ Set up a Fabric client

Network configuration

Update Cloud9 Networking

Create VPC endpoint

- Configure client instance
- AWS account access

Open AWS console (us-east-1)

Get AWS CLI credentials

Exit event

Event dashboard > Set up a Fabric client > Configure client instance > Verify configuration

Verify configuration

Check that all the environment variables are set properly:

env | sort

ð

You should see output like:

- AWS_DEFAULT_REGION=us-east-1
- BUCKET_NAME=n-d5jk2e3npjan7gvigtb5uxoqe4-certs
- CASERVICEENDPOINT=ca.m-tftwizjugve3jk2d2mmaonzice.n-d5jk2e3npjan7gvigtb5uxoqe4.managedblockchain.us-east-1.amazonaws.com:30002
- GOPATH=/home/ec2-user/go
- GOROOT=/usr/local/go
- HISTCONTROL=ignoredups
- HISTSIZE=1000
- HOME=/home/ec2-user
- HOSTNAME=ip-XXX-XX-XXX.ec2.internal
- 10 LANG=en_US.UTF-8
- LESSOPEN=||/usr/bin/lesspipe.sh %s 11
- line=export TEST_CHANNEL_NAME=\$(echo \$MEMBER_NAME | tr '[\:upper:]' '[\:lower:]')channel
- 13 LOGNAME=ec2-user
- 14 LS COLORS=... # suppressed for brevity's sake
- 15 MAIL=/var/spool/mail/ec2-user
- MEMBER ADMIN=rtadmin
- 17 MEMBER AWS ID=123456789012
- MEMBERID=m-TFTWIZJUGVE3JK2D2MMAONZICE
- MEMBER_NAME=Retailer 19
- NETWORKID=n-D5JK2E3NPJAN7GVIGTB5UX0QE4 20
- 21 ORDERERNOPORT=orderer.n-d5jk2e3npjan7gvigtb5uxoqe4.managedblockchain.us-east-1.amazonaws.com
- ORDERER=orderer.n-d5jk2e3npjan7gvigtb5uxoqe4.managedblockchain.us-east-1.amazonaws.com:30001
- PATH=/usr/local/go/bin:/usr/local/go/bin:/usr/local/bin:/usr/local/bin:/usr/local/sbin:/home/ec2-user/.local/bin:/home/ec2-user/.local/bin:/home/ec2-user/.local/sbin:/home/ec2-user/.l
- 24 PEER1ENDPOINT=nd-ant7m5xpwreb7pxbkkgokxly4y.m-tftwizjugve3jk2d2mmaonzice.n-d5jk2e3npjan7gvigtb5uxoqe4.managedblockchain.us-east-1.amazv
- PEER1ENDPOINTNOPORT=nd-ant7m5xpwreb7pxbkkgokxly4y.m-tftwizjugve3jk2d2mmaonzice.n-d5jk2e3npjan7gvigtb5uxoqe4.managedblockchain.us-east-1
- 26 PEER1ID=nd-ANT7M5XPWREB7PXBKKGOKXLY4Y
- PEER2ENDPOINT=nd-vjsxnxx7wbb27d4mcf27wpkswa.m-tftwizjugve3jk2d2mmaonzice.n-d5jk2e3npjan7gvigtb5uxoqe4.managedblockchain.us-east-1.amazv
- PEER2ENDPOINTNOPORT=nd-vjsxnxx7wbb27d4mcf27wpkswa.m-tftwizjugve3jk2d2mmaonzice.n-d5jk2e3npjan7gvigtb5uxoqe4.managedblockchain.us-east-1
- PEER2ID=nd-VJSXNXX7WBB27D4MCF27WPKSWA
- 30 PWD=/home/ec2-user
- RETAILER AWS ID=123456789012
- RETAILERID=m-TFTWIZJUGVE3JK2D2MMAONZICE
- 33 SHELL=/bin/bash
- 34 SHLVL=1
- SSH_CLIENT=XXX.XX.XX.XX 37878 22 35
- SSH_CONNECTION=XXX.XX.XX.XX 37878 XXX.XX.XX.XXX 22
- 37 SSH TTY=/dev/pts/0
- SUPPLIER_AWS_ID=123456789013









1/2





Track-and-Trace Blockchain Workshop for Hyperledger Fabric 2.2 (BETA)

- Create a Hyperledger Fabric Network
 - Create Network & Member
 - Accept invite and create Supplier member

Congratulations

- Setup Development Environment
- ▼ Set up a Fabric client

Network configuration

Update Cloud9 Networking

Create VPC endpoint

- Configure client instance
- ▼ AWS account access

Open AWS console (us-east-1)

Get AWS CLI credentials

Exit event

```
SUPPLIERID=m-IKIKOKXHWRE4PHEAI5OUR6M2KU

TERM=screen

TEST_CHANNEL_NAME=retailerchannel

USER=ec2-user

XDG_RUNTIME_DIR=/run/user/1000

XDG_SESSION_ID=269
```

Specifically, make sure that you have values for CASERVICEENDPOINT, MEMBER_NAME, NETWORKID, MEMBERID, PEER1ID, PEER1ID, PEER1ENDPOINT, and PEER2ENDPOINT.

Use curl to verify that the CA endpoint resolves.

```
1 curl "https://$CASERVICEENDPOINT/cainfo" -k -s | jq
```

If the curl attempt succeeded, you should see something like:

```
ð
     {
       "result": {
         "CAName": "m-ILUWOSUGQZEBHGRMZCKABK73M4",
4
         "CAChain": "LS0tLS1CRUdJTiBDRVJUSUZJQ0FURS0tLS0tCk1JSUNxakNDQWxHZ0F3SUJBZ0lVTVU4bmFER1FSOGtsbk5jdVpYMWd0ZThkU0pnd0NnWUlLb1pJemowRUF
         "IssuerPublicKey": "CgJPVQoEUm9sZQoMRW5yb2xsbWVudE1EChBSZXZvY2F0aW9uSGFuZGx1EkQKIFSq91rq0zGNSCIWEPcTXsyRinsCF4zDnHSxqUDXC3j9EiB45eZ
         "IssuerRevocationPublicKey": "LS0tLS1CRUdJTiBQVUJMSUMgS0VZLS0tLS0KTUhZd0VBWUhLb1pJemowQ0FRWUZLNEVFQUNJRFlnQUVrUn1jRG5UekcvRkE2L2NGV
7
         "Version": "1.4.7"
8
       },
9
       "errors": [],
10
       "messages": [],
11
       "success": true
12
```

If the connection fails, you will not see any output. It takes a few minutes after creating the VPC endpoint before it becomes fully operational. If the initial attempt fails, keep trying for a few minutes before troubleshooting further. If you are unable to connect to the Fabric CA, double-check your network settings to ensure that the client Amazon EC2 instance has connectivity with the VPC Endpoint. In particular, ensure that the security groups associated with both the VPC Endpoint and the client Amazon EC2 instance have inbound and outbound rules that allow traffic between them.



(1)