



Hyperledger Fabric Performance Benchmarking v2.5- Prerequisites & Installation

Prerequisites & Installation

E Before you begin, ensure you have the following software installed on your system:

1. Operating Systems:

- Ubuntu Linux Jammy 22.04 (LTS)
- macOS

2. Required Tools:

- **cURL**: The latest version
- **Git**
- **Docker**
- **Docker Compose**:
- **Go**: 1.23.1
- **Node.js**: 20
- **npm**: 10

Installation Steps

1. Install cURL

```
1 sudo apt-get install curl  
2
```

2. Update Package List

```
1 sudo apt update  
2
```

3. Node Installation using NVM

```
1 curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.39.3/install.sh | bash  
2  
3 source ~/.bashrc  
4  
5 nvm list-remote  
6  
7 nvm install 18  
8  
9 nvm list  
10
```

4. Install npm

```
1 sudo apt-get install npm  
2
```

5. Install Python

```
1 sudo apt-get install python  
2
```

6. Install and Upgrade Docker & Docker Compose Install Docker

```
1 # Add Docker's official GPG key:  
2 sudo apt-get update  
3 sudo apt-get install ca-certificates curl  
4 sudo install -m 0755 -d /etc/apt/keyrings  
5 sudo curl -fsSL https://download.docker.com/linux/ubuntu/gpg -o /etc/apt/keyrings/docker.asc  
6 sudo chmod a+r /etc/apt/keyrings/docker.asc  
7  
8 # Add the repository to Apt sources:  
9 echo \  
10 "deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.asc]  
https://download.docker.com/linux/ubuntu \  
11 $(. /etc/os-release && echo "$VERSION_CODENAME") stable" | \  
12 sudo tee /etc/apt/sources.list.d/docker.list > /dev/null  
13 sudo apt-get update  
14  
15  
16 # Install the Docker packages - (This was the latest 5:27.1.1-1~ubuntu.24.04~noble)  
17 sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin  
18  
19
```

7. Try to run

```
1 docker run hello-world  
2
```

8. If you are getting permission error, run below command

```
1 sudo usermod -aG docker $USER && newgrp docker  
2
```

9. Validate if docker is working fine using following command

```
1 docker run hello-world  
2  
3 # you will be able to see    ---> Hello from Docker!  
4  
5
```

10. Docker compose - Install using the repository

```
1 sudo apt-get update  
2 sudo apt-get install docker-compose-plugin  
3
```

11. Upgrade Packages

```
1 sudo apt-get upgrade
```

2

12. Verify All Versions

```
1 curl -V  
2 npm -v  
3 docker version  
4 docker-compose version  
5 go version  
6 python -V  
7 node -v  
8
```

13. Install Fabric Samples, Binaries & Docker Images

```
1 curl -sSLO https://raw.githubusercontent.com/hyperledger/fabric/main/scripts/install-fabric.sh && chmod +x install-fabric.sh  
2 ./install-fabric.sh -h  
3 ./install-fabric.sh --fabric-version 2.5.5 -c 1.5.7  
4 export PATH=$PATH:/home/ubuntu/fabric-samples/bin  
5  
6
```

14. Run Test Network in Fabric Sample

```
1 ./network.sh createChannel -ca -s couchdb  
2 ./network.sh deployCC  
3
```

15. Configure Remote SSH Extension in VS Code **Install the Remote - SSH extension by Microsoft.** To connect, use:

```
1 ssh ubuntu@<public IP>  
2
```

16. Install Go Lang

```
1  
2 sudo snap install go --classic  
3
```