

# ChainMaker集群快速搭建指南

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## ChainMaker集群快速搭建指南

准备

- 一键集群节点证书及配置生成
- 一键安装包制作
- 一键集群启动

## 准备

- 源码获取并进入脚本目录

```
$ git clone --recursive git@git.code.tencent.com:ChainMaker/chainmaker-go.git
$ cd chainmaker-go/scripts
```

## 一键集群节点证书及配置生成

- 执行下面命令将生成单链4节点的集群证书和配置

生成的证书及配置文件位于目录：`chainmaker-go/build`

默认生成的配置文件，适用于集群的单机启动，如果需要在不同机器启动节点，请修改配置模板文件：`chainmaker-go/config/config_tpl/chainconfig/bc_4_7.yml`，将 `127.0.0.1` 修改为具体机器IP，再执行 `prepare.sh` 脚本

```
$ ./prepare.sh
invalid params
Usage:
prepare.sh node_cnt(1/4/7) chain_cnt(1-4) p2p_port_prefix(default:1130) rpc_port_prefix(default:1230)
eg1: prepare.sh 4 1
eg2: prepare.sh 4 1 1130 1230

$ ./prepare.sh 4 1
begin check params...
begin generate certs, cnt: 4
begin generate node1 config...
begin generate node2 config...
begin generate node3 config...
begin generate node4 config...
```

## 一键安装包制作

- 执行下面命令，将进行 `ChainMaker` 主程序的编译，并结合上一步生成的配置文件和证书，打包合成安装包

生成的安装包位于目录：`chainmaker-go/build/release`

```
$ ./build_release.sh
```

- 安装包目录结构

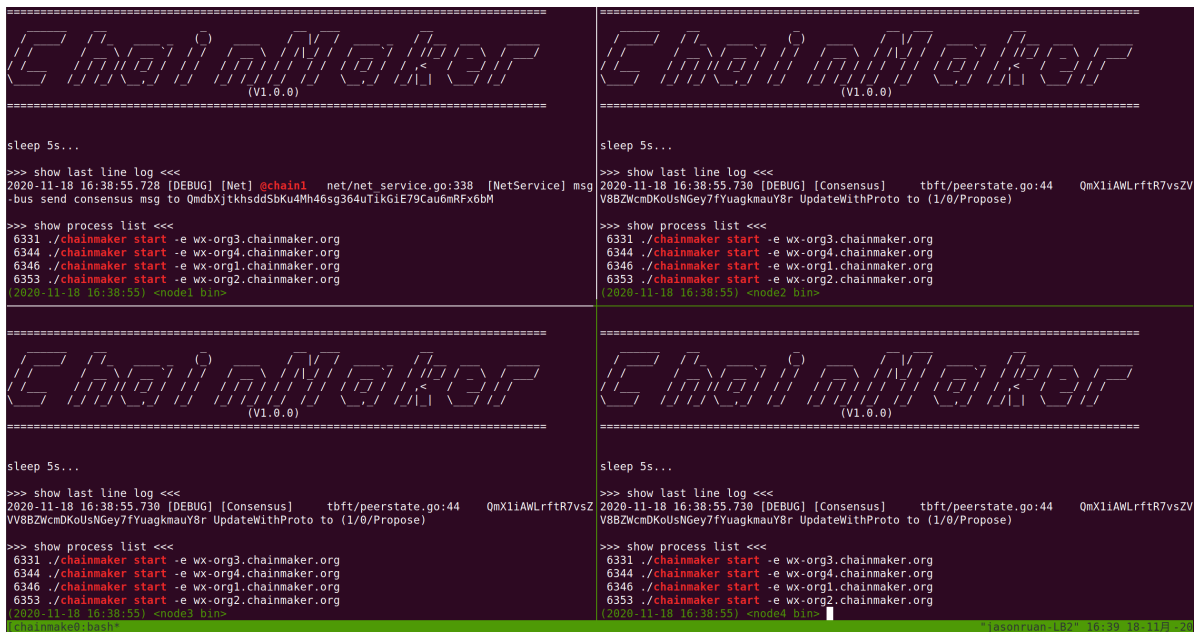
chainmaker-go/build/release

- chainmaker-V1.0.0-wx-org1.chainmaker.org-20201118161129-x86\_64.tar.gz
- chainmaker-V1.0.0-wx-org2.chainmaker.org-20201118161129-x86\_64.tar.gz
- chainmaker-V1.0.0-wx-org3.chainmaker.org-20201118161129-x86\_64.tar.gz
- chainmaker-V1.0.0-wx-org4.chainmaker.org-20201118161129-x86\_64.tar.gz
- crypto-config-20201118161129.tar.gz

## 一键集群启动

```
$ ./cluster_quick_start.sh
```

- 执行该脚本，将复用当前终端，开启4个会话，并打印最后一行日志及进程信息，便于观察进程启动是否正常



The image displays four terminal windows arranged in a 2x2 grid, each showing the ChainMaker (V1.0.0) startup process. Each window begins with a stylized ASCII art logo for 'ChainMaker (V1.0.0)' followed by a 'sleep 5s...' command. Subsequently, the user enters the command '>>> show last line log <<<', which displays the last line of the log, such as '[Net] @chain1 net/net service.go:338 [NetService] msg -bus send consensus msg to QmddXjtkhsdd5bKu4Mh46sg364uTik6iE79Cau6mRFxbM' for node 1. Then, the user enters '>>> show process list <<<', which lists the running processes for each node, including './chainmaker start -e wx-org3.chainmaker.org' for node 1, './chainmaker start -e wx-org4.chainmaker.org' for node 2, './chainmaker start -e wx-org1.chainmaker.org' for node 3, and './chainmaker start -e wx-org2.chainmaker.org' for node 4. The terminal windows are titled 'chainmaker@chain1', 'chainmaker@chain2', 'chainmaker@chain3', and 'chainmaker@chain4'.

- 要实现上面效果，需要安装[tmux](#)，如不安装，还可以采用 normal 方式，启动集群

执行该脚本，将直接解压各节点安装包，调用bin目录下的restart.sh脚本进行启动

```
$ ./cluster_quick_start.sh normal
```