

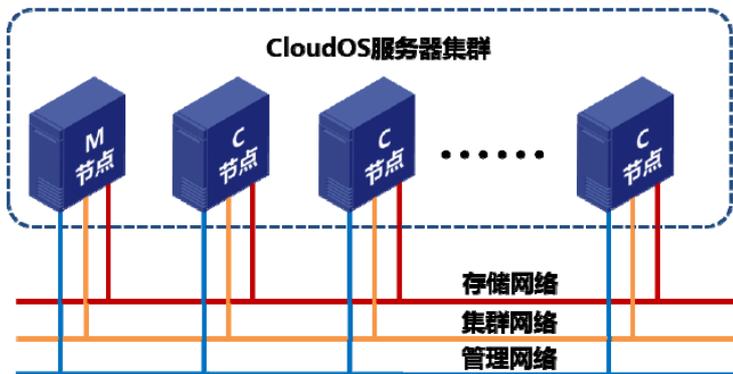
# CloudOS E3105H03集群部署中一个节点在节点正常的情况下所有pod异常问题解决方法

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## 组网及说明

CloudOS版本E3105H03集群物理机部署，共享存储使用IPSAN，ONEStor作为后台存储，拓扑如下图（1）所示：

图1-2 集群模式



其中集群网络与管理网络通过电口二合一，存储网为万兆光口；

## 问题描述

CloudOS集群部署，在所有节点都是Ready的状态下，有一个node节点所有的pod状态都出现异常，具体情况如下图所示：

```
[root@esx: E3105 Cluster] -# pod | grep -v "Running"
NAMESPACE   NAME                STATUS    RESTARTS   AGE   IP              NODE
default     alert-portalc-45b6  1/1      Terminating 0     2d    10.101.1       10.179.0
default     alert-service-1a445 1/1      Terminating 0     2d    10.101.1       10.179.0
default     azaa-core-rc-0b77j  1/1      Terminating 0     2d    10.101.1       10.179.0
default     bingo-service-rc-f3083 1/1      Terminating 0     2d    10.101.1       10.179.0
default     cancer-core-rc-b5wkk 0/1      Terminating 0     2d    10.101.1       10.179.0
default     cas-proxy-core-rc-rh3g2 1/1      Terminating 0     2d    10.101.1       10.179.0
default     cellowerrc-rc12s  1/1      Terminating 0     2d    10.101.1       10.179.0
default     cloudkitty-core-rc-6167z 0/1      Terminating 0     2d    10.101.1       10.179.0
default     cloudoc-alertmanagerrc-mb0u4 1/1      Terminating 0     2d    10.101.1       10.179.0
default     cloudoc-busmanagerrc-cv7rh 0/1      Terminating 0     2d    10.101.1       10.179.0
default     cloudoc-cmb-service-rc-8a6xp 0/1      Terminating 0     2d    10.101.1       10.179.0
default     cloudoc-monitor-configrc-5p9n6 0/1      Terminating 0     2d    10.101.1       10.179.0
default     cloudoc-portalc-rc-k4z7d 1/1      Terminating 0     2d    10.101.1       10.179.0
default     cloudoc-prometheus-wr19z2-v2kx6 0/2      Terminating 0     2d    10.101.1       10.179.0
default     cloudoc-rsa-1drc-16162 1/1      Terminating 0     2d    <none>         10.179.0
default     cloudoc-rsa-305drc-858m4 1/1      Terminating 0     2d    10.101.12      10.179.0
default     cococm-rc-2h855  1/1      Terminating 0     2d    10.101.12      10.179.0
default     container-exporterrc-hd7ct 1/1      Terminating 0     2d    10.101.12      10.179.0
default     db-exporterrc-tb41 1/1      Terminating 0     2d    10.101.12      10.179.0
default     elasticsearch-rc2-9f18p 1/1      Terminating 0     2d    10.101.12      10.179.0
default     elasticsearch-rc2-196zt 0/1      Pending      0     2d    <none>         10.179.0
default     glancerc-p02dw  1/1      Terminating 6     10d   10.179.0       10.179.0
default     host-exporterrc-ggwrh 1/1      Terminating 0     2d    <none>         10.179.0
default     influxdb-exporterrc-4v5q 1/1      Terminating 0     2d    10.101.1       10.179.0
default     influxdb-relayrc2-5x4wd 1/1      Terminating 0     2d    10.101.1       10.179.0
default     influxdb-relayrc2-192zt 0/1      ContainerCreating 0     10d   10.101.1       10.179.0
default     influxdbrc2-0l9p9 0/1      ContainerCreating 0     2d    <none>         10.179.0
default     influxdbrc2-q2c5w 0/1      ContainerCreating 0     2d    <none>         10.179.0
default     ironicrc-c2bpx  1/1      Terminating 0     10d   10.101.1       10.179.0
default     iux-exporterrc-3kx65 0/1      Terminating 0     2d    10.101.1       10.179.0
default     jujube-rc-d26tt  1/1      Terminating 0     2d    10.101.1       10.179.0
default     keystone-rc-lw1am 0/1      Terminating 0     2d    <none>         10.179.0
default     lemon-core-rc-48kjp 0/1      Terminating 0     2d    <none>         10.179.0
default     leo-core-rc-141b2 0/1      Terminating 0     2d    <none>         10.179.0
default     manilarc-grx7d  0/1      Terminating 0     2d    <none>         10.179.0
default     memcachedrc1-j9pjc 0/1      Terminating 0     2d    <none>         10.179.0
default     middleware-exporterrc-kkz6g 0/1      Terminating 0     2d    <none>         10.179.0
default     milk-rc-7ummk  0/1      Terminating 0     2d    <none>         10.179.0
default     mysql-node2-32xk6 0/1      Terminating 0     2d    <none>         10.179.0
default     mysql-node2-1k6fs 1/1      Terminating 0     2d    <none>         10.179.0
default     neutronserverrc-mckpz 0/1      ContainerCreating 0     10d   10.101.1       10.179.0
default     oshellp-cl9p7  0/1      Terminating 0     2d    <none>         10.179.0
default     papaya-rc-54kgt  0/1      Terminating 0     2d    <none>         10.179.0
default     plum-rc-83clv  0/1      Terminating 0     2d    <none>         10.179.0
default     rabbitrc-41tq  0/1      Terminating 0     2d    <none>         10.179.0
default     rabbitrc-9t31s 1/1      Terminating 0     2d    <none>         10.179.0
default     redis-sentinel2-jnr2m 0/1      ContainerCreating 0     10d   10.101.1       10.179.0
default     redis-sentinel2-nd0fg 0/1      Pending      0     2d    <none>         10.179.0
default     redisrc2-4l9sw  1/1      Terminating 0     2d    <none>         10.179.0
default     redisrc2-1xt5g  0/1      Pending      0     2d    10.179.0       10.179.0
default     smp-exporterrc-64h6e 0/1      Terminating 0     10d   10.179.0       10.179.0
```

## 过程分析

1. 查看主机节点是否都是处于Ready状态，命令：`kubectl gets nodes`
2. 在所有节点都正常的情况下，查看k8s的相关服务是否正常，`systemctl status kube-flanneld`、`systemctl status kube-kubelet` 和 `systemctl status kube-proxy`服务；
3. 最后查看docker服务是否正常，`systemctl status docker`，发现docker服务中有code字节异常，如下图所示：

```
[root@es105-cluster1 ~]# systemctl status docker
docker.service - Docker Application Container Engine
Loaded: loaded (/usr/lib/systemd/system/docker.service; enabled; vendor preset: disabled)
Active: active (running) since Tue 2018-12-18 17:09:52 CST; 2 months 26 days ago
Docs: https://docs.docker.com
Process: 3289 ExecStartPost=/sbin/ifconfig docker0 promisc (code=exited, status=0/SUCCESS)
Process: 3022 ExecStartPre=/usr/sbin/brctl delbr docker0 (code=exited, status=1/FAILURE)
Process: 3010 ExecStartPre=/usr/sbin/ip link set dev docker0 down (code=exited, status=1/FAILURE)
Main PID: 3026 (dockerd)
Group: /system.slice/docker.service
CGroup: /system.slice/docker.service
├─ 3026 /usr/bin/dockerd -H tcp://0.0.0.0:2375 -H unix:///var/run/docker.sock --insecure-registry=10.179.0.11:9999 --bip=10.1
├─ 3686 docker-containerd-shim f3a28b02594be1a5fda6692fc4882080e648e267290282516db7b31ae4b /var/run/docker/libcontainerd
├─ 3764 docker-containerd-shim 58c132054966f720e3a7e18e50bd9229c7090d43725b7c7d6a2734407c2107f /var/run/docker/libcontainerd
├─ 3875 docker-containerd-shim 61534e4db370217fae115b9093661837a78934e3b6920c49e6a926476e6c0b /var/run/docker/libcontainerd
├─ 17365 docker-containerd-shim 27742f9167136414bb688d1c5477e34f198cc16917890c5152162839ff0d471d /var/run/docker/libcontainerd
├─ 23713 docker-containerd-shim fa7a3add0bd0c7c13dec6dada94bd5b68ed6a5b5e47b7f09427f012541ddd854 /var/run/docker/libcontainerd
├─ 96078 docker-containerd-shim dd9eafcf47df47888b1c40f3a42636e4360f964a36ea0d8538b383e1fbd1e16 /var/run/docker/libcontainerd
├─ 96247 docker-containerd-shim d8f2f061ec712308721125b47c21fa7e289f21bfadb7ac7d3ca42ab9ce4f88175 /var/run/docker/libcontainerd
├─ 96404 docker-containerd-shim 676421ef9c0b4638594b156b3aad77484a88f46791469a260f596257e5d89b5b /var/run/docker/libcontainerd
├─ 96532 docker-containerd-shim 0c72a789c28949242c702b7430718d1335994440c4b752b2116e4f9685b36e457 /var/run/docker/libcontainerd
├─ 96650 docker-containerd-shim 4928646e4e401637fe716938789e683d0cf61ced81c40496e19289a621431 /var/run/docker/libcontainerd
└─ 96784 docker-containerd-shim 68b7596b9f006a574d326fe86898d4706f7dc1e1805e4b3ba132049a554c7470 /var/run/docker/libcontainerd
```

### 解决方法

利用命令重启docker服务，具体命令如下：systemctl docker restart 输入命令之后发现问题解决

```
[root@es105-cluster1 ~]#
[root@es105-cluster1 ~]#
[root@es105-cluster1 ~]# kubectl get node
NAME                STATUS AGE VERSION
10.1                Ready 129d v1.6.7+995136c3078cc
10.1                Ready 129d v1.6.7+995136c3078cc
10.1                Ready 129d v1.6.7+995136c3078cc
[root@es105-cluster1 ~]#
[root@es105-cluster1 ~]# systemctl status docker
docker.service - Docker Application Container Engine
Loaded: loaded (/usr/lib/systemd/system/docker.service; enabled; vendor preset: disabled)
Active: active (running) since Fri 2018-03-15 17:23:19 CST; 15min ago
Docs: https://docs.docker.com
Process: 269385 ExecStartPost=/sbin/ifconfig docker0 promisc (code=exited, status=0/SUCCESS)
Process: 267411 ExecStartPre=/usr/sbin/brctl delbr docker0 (code=exited, status=0/SUCCESS)
Process: 267408 ExecStartPre=/usr/sbin/ip link set dev docker0 down (code=exited, status=0/SUCCESS)
Main PID: 267430 (dockerd)
Group: /system.slice/docker.service
CGroup: /system.slice/docker.service
├─ 267430 /usr/bin/dockerd -H tcp://0.0.0.0:2375 -H unix:///var/run/docker.sock --insecure-registry=10.179.0.11:9999
├─ 267863 docker-containerd -l unix:///var/run/docker/libcontainerd/docker-containerd.sock --shim docker-containerd
├─ 269336 docker-containerd-shim fa7a3add0bd0c7c13dec6dada94bd5b68ed6a5b5e47b7f09427f012541ddd854 /var/run/docker/libcontainerd
├─ 270413 docker-containerd-shim 5d6e94971ef48e46e2cc93f68ac2755724fd8e2c93c6504b129b25fb73a25609 /var/run/docker/libcontainerd
├─ 270413 docker-containerd-shim cca5b570ad47eb3ee6f4664db760054990ff3dd8ef675161c4ca37955d810158 /var/run/docker/libcontainerd
├─ 270487 docker-containerd-shim 5d6e94971ef48e46e2cc93f68ac2755724fd8e2c93c6504b129b25fb73a25609 /var/run/docker/libcontainerd
├─ 270694 docker-containerd-shim 678050a3e20c702b45abd2a70973ac75730915f5f0ba96129a106b4b03d2bc0b /var/run/docker/libcontainerd
├─ 270734 docker-containerd-shim 135eaa74353a0c362c46373bfa54525a9573677460a52e3501b8f5e260264062 /var/run/docker/libcontainerd
├─ 270734 docker-containerd-shim 055ca35164fd27279ee3a54e66d9962584d7ab126556d05a2711b5d010461a /var/run/docker/libcontainerd
```

```
default      tee-core-rc-0x8j      1/1      Running 5      5d      10.101.0.61      10.179.0.11
default      manilarc-lmsv5       1/1      Running 5      5d      10.101.0.63      10.179.0.11
default      maxscalerc-2q24q    1/1      Running 0      89d     10.101.0.3       10.179.0.11
default      memcachedrc1-2388q  1/1      Running 0      5d      10.101.61.4      10.179.0.11
default      mha-manager-cmkjn    1/1      Running 0      89d     10.101.0.4       10.179.0.11
default      middleware-exporterrc-g9flw 1/1      Running 2      5d      10.101.61.10    10.179.0.11
default      milk-cdn-rc-hjmsw    1/1      Running 0      1h      10.101.12.9     10.179.0.11
default      milk-rc-n5l4l        1/1      Running 0      5d      10.101.61.21    10.179.0.11
default      mysql-node1-5njyx    1/1      Running 0      5d      10.101.61.28    10.179.0.11
default      mysql-node2-95tqf    1/1      Running 0      2d      10.101.12.5     10.179.0.11
default      mysql-node3-b3lln    1/1      Running 0      89d     10.101.0.6       10.179.0.11
default      netsecuity-core-rc-dd86c 1/1      Running 0      1h      10.101.12.10    10.179.0.11
default      neutronagentrc-rdpr9 1/1      Running 0      89d     10.101.0.7       10.179.0.11
default      neutronserverrc-9q2j3 1/1      Running 5      5d      10.101.0.64     10.179.0.11
default      novarc-h5l0m         1/1      Running 0      89d     10.101.0.8       10.179.0.11
default      ol-help-cvc10        1/1      Running 0      5d      10.101.61.19    10.179.0.11
default      olive-rc-kfh3l       1/1      Running 0      1h      10.101.12.11    10.179.0.11
default      papaya-rc-w77ff      1/1      Running 0      5d      10.101.0.67     10.179.0.11
default      parametrdrc-wndth    1/1      Running 0      89d     10.101.0.10     10.179.0.11
default      piscos-core-rc-fgr2l 1/1      Running 5      40d     10.101.0.45     10.179.0.11
default      plum-rc-1xdp6        1/1      Running 0      5d      10.101.61.18    10.179.0.11
default      pomelo-core-rc-0wldd 1/1      Running 5      40d     10.101.0.46     10.179.0.11
default      postareslrc-4211s    1/1      Running 0      89d     10.101.0.12     10.179.0.11
default      rabbit1rc-tsg5z       1/1      Running 2      5d      10.101.61.30    10.179.0.11
default      rabbit2rc-mwjbw       1/1      Running 0      2d      10.101.12.6     10.179.0.11
default      rabbit3rc-23eww      1/1      Running 0      89d     10.101.0.11     10.179.0.11
default      redis-sentinel1-ph9hf 1/1      Running 0      5d      10.179.0.11     10.179.0.11
default      redis-sentinel2-jmr2m 1/1      Running 0      5d      10.179.0.12     10.179.0.11
default      redis-sentinel3-1s2d7 1/1      Running 0      89d     10.179.0.13     10.179.0.11
default      rediscrc1-ct9t        0/1      Running 0      5d      10.179.0.11     10.179.0.11
default      rediscrc2-4lpsw       0/1      Running 0      5d      10.179.0.12     10.179.0.11
default      rediscrc3-17817       1/1      Running 0      89d     10.179.0.13     10.179.0.11
default      sagittar1us-core-rc-kwgz0 1/1      Running 4      44d     10.101.0.40     10.179.0.11
```