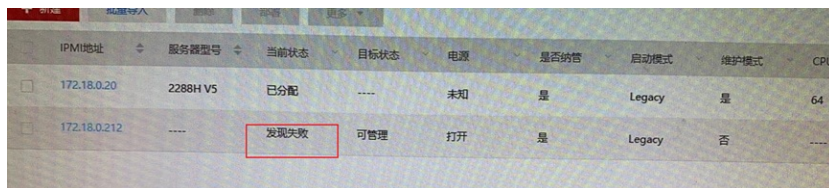


知 某局点cloudos5132P03裸金属发现失败

刘路 2022-06-30 发表

问题描述

某局点使用华为的2288H V5部署裸金属，在os界面点击发现后一段时间就会报发现失败。



	IPMI地址	服务器型号	当前状态	目标状态	电源	是否纳管	启动模式	维护模式	CPU
☐	172.18.0.20	2288H V5	已分配	----	未知	是	Legacy	是	64
☐	172.18.0.212	----	发现失败	可管理	打开	是	Legacy	否	----

过程分析

1、要使服务器能够正确的发现和部署，服务器需要满足如下条件：

添加节点时选择的启动模式和服务器上的启动模式一致；

接入管理网的网卡的网络启动功能（PXE）已开启。

经排查，现场这两项都是符合要求的。

2、查看裸金属计算节点上的发现日志，/var/ironic-inspector/xxx.log，在故障时间点里打印发现超时。怀疑是现场网络或者服务异常问题，导致计算节点与裸金属之间通信不畅。

```
1484 INFO werkzeug [-] 172.18.1.99 - - [22/Jun/2022 18:46:27] "GET /v1/introspection/9a4d6200-61f2-405a-b070-03f21736f7c8 HTTP/1.1" 200 -
1484 ERROR ironic_inspector.node_cache [-] Introspection for nodes [u'b01b52f5-c2a7-4596-b5f5-35c692d5d04b'] has timed out
1484 INFO ironic_inspector.node_cache [-] [node: b01b52f5-c2a7-4596-b5f5-35c692d5d04b state waiting] Updating node state: waiting --> error
1484 WARNING ironic_inspector.node_cache [-] Node 9a4d6200-61f2-405a-b070-03f21736f7c8 was deleted from Ironic, dropping from Ironic Inspector database
```

3、让现场连接带外管理口查看服务器的实际状态，发现其没有dhcp获取到地址，一直在初始化和建立连接中：

```
Intel(R) Boot Agent 40G v1.0.66
Copyright (C) 1997-2016, Intel Corporation

CLIENT MAC ADDR: 8C 2A 8E 11 22 3C GUID: 8E112239 8C2A B5FB EC11 02483AE2
DHCP.....
PXE-M0F: Exiting Intel Boot Agent.

Intel(R) Boot Agent 40G v1.0.66
Copyright (C) 1997-2016, Intel Corporation

PXE-E61: Media test Failure, check cable
PXE-M0F: Exiting Intel Boot Agent.

Intel(R) Boot Agent XE v2.4.32
Copyright (C) 1997-2018, Intel Corporation

Initializing and establishing link...
```

4、服务器没有获取到地址，存在三种可能：

裸金属计算节点DHCP服务异常；

网络环境配置存在问题；

服务器配置或硬件存在问题。

首先检查一下DHCP服务是否正常，在裸金属计算节点后台输入命令：

```
systemctl status openstack-ironic-inspector-dnsmasq.service
```

```
[root@ironic-computer ~]# systemctl status openstack-ironic-inspector-dnsmasq.service
● openstack-ironic-inspector-dnsmasq.service - PXE boot dnsmasq service for Ironic Inspector
   Loaded: loaded (/usr/lib/systemd/system/openstack-ironic-inspector-dnsmasq.service; enabled; vendor preset: disabled)
   Active: failed (Result: exit-code) since Wed 2022-06-22 17:09:15 CST; 3h 6min ago
     Jun 22 17:09:14 ironic-computer systemd[1]: Starting PXE boot dnsmasq service for Ironic Inspector...
     Jun 22 17:09:15 ironic-computer dnsmasq[1485]: listening on lo[*]: 127.0.0.1
     Jun 22 17:09:15 ironic-computer dnsmasq[1485]: dnsmasq: unknown interface eth1
     Jun 22 17:09:15 ironic-computer systemd[1]: openstack-ironic-inspector-dnsmasq.service: control process exited, code=exited status=2
     Jun 22 17:09:15 ironic-computer systemd[1]: Failed to start PXE boot dnsmasq service for Ironic Inspector.
     Jun 22 17:09:15 ironic-computer systemd[1]: Unit openstack-ironic-inspector-dnsmasq.service entered failed state.
     Jun 22 17:09:15 ironic-computer systemd[1]: openstack-ironic-inspector-dnsmasq.service failed.
[root@ironic-computer ~]# systemctl restart openstack-ironic-inspector-dnsmasq.service
[root@ironic-computer ~]# systemctl status openstack-ironic-inspector-dnsmasq.service
● openstack-ironic-inspector-dnsmasq.service - PXE boot dnsmasq service for Ironic Inspector
```

该服务的确异常，尝试手动重启一下该服务，命令为：

```
systemctl restart openstack-ironic-inspector-dnsmasq.service
```

```
[root@ironic-computer ~]# systemctl restart openstack-ironic-inspector-dnsmasq.service
[root@ironic-computer ~]# systemctl restart openstack-ironic-inspector-dnsmasq.service
● openstack-ironic-inspector-dnsmasq.service - PXE boot dnsmasq service for Ironic Inspector
   Loaded: loaded (/usr/lib/systemd/system/openstack-ironic-inspector-dnsmasq.service; enabled; vendor preset: disabled)
   Active: active (running) since Fri 2022-06-24 16:25:31 CST; 4s ago
     Main PID: 74569 (dnsmasq)
    Memory: 876.0K
    CGroup: /system.slice/openstack-ironic-inspector-dnsmasq.service
            └─74569 /sbin/dnsmasq --conf-file=/etc/ironic-inspector/dnsmasq.conf (code=exited, status=0/SUCCESS)

Jun 24 16:25:31 ironic-computer dnsmasq[74569]: started, version 2.76 DNS disabled
Jun 24 16:25:31 ironic-computer dnsmasq-dhcp[74569]: compile time options: IPV6 GNU-getopt DBus no-i18n IDN DHCPv6 no-Lua TFTP no-contrack ipset auth nettle
Jun 24 16:25:31 ironic-computer dnsmasq-dhcp[74569]: DHCP, IP range 172.18.5.100 -- 172.18.5.200, lease time 1h
Jun 24 16:25:31 ironic-computer systemd[1]: Started PXE boot dnsmasq service for Ironic Inspector.
Jun 24 16:25:31 ironic-computer dnsmasq-dhcp[74569]: DHCP, sockets bound exclusively to interface eth1
Jun 24 16:25:31 ironic-computer dnsmasq-tftp[74569]: TFTP root is /tftpboot
Jun 24 16:25:32 ironic-computer dnsmasq-dhcp[74569]: DHCPDISCOVER(eth1) 8c:2a:8e:11:22:3f
Jun 24 16:25:32 ironic-computer dnsmasq-dhcp[74569]: DHCPOFFER(eth1) 172.18.5.100 8c:2a:8e:11:22:3f
Jun 24 16:25:32 ironic-computer dnsmasq-dhcp[74569]: DHCPREQUEST(eth1) 172.18.5.100 8c:2a:8e:11:22:3f
Jun 24 16:25:32 ironic-computer dnsmasq-dhcp[74569]: DHCPACK(eth1) 172.18.5.100 8c:2a:8e:11:22:3f ubuntu
Hint: Some lines were ellipsized, use -l to show in full.
[root@ironic-computer ~]#
```

待服务正常后再次执行发现操作，在带外口还是显示没有分配到dhcp地址。让现场用个人电脑连接进行测试，发现是能dhcp获取到地址的，说明现场计算节点的dhcp服务和网络层面应该是没有问题，应该是服务器配置或硬件存在问题。

5、硬件侧问题解决后再次点击发现，此次带外管理界面可以正常获取到地址。等相关组件安装完成后发现成功。

PXE-E61: Media test failure, check cable
PXE-M0F: Exiting Intel Boot Agent.

Intel(R) Boot Agent 40G v1.0.66
Copyright (C) 1997-2016, Intel Corporation

CLIENT MAC ADDR: 8C 2A 8E 11 22 3F GUID: 8E112239 8C2A B5FB EC11 0
CLIENT IP: 172.18.5.100 MASK: 255.255.255.0 DHCP IP: 172.18.5.4
GATEWAY IP: 172.18.5.4

PXELINUX 4.05 0x581e199a Copyright (C) 1994-2011 H. Peter Anvin et
IPXE entry point found (we hope) at 99F8:0106 via plan A

UNDI code segment at 99F8 len 4A10

UNDI data segment at 927F len 7790

Getting cached packet 01 02 03

My IP address seems to be AC120564 172.18.5.100
ip=172.18.5.100:172.18.5.4:172.18.5.4:255.255.255.0
BOOTIF=01-8c-2a-8e-11-22-3f
SYSUUID=3922118e-2a8c-fbb5-ec11-02483ae242db

TFTP prefix:

Trying to load: pxelinux.cfg/default

Loading ironic-deploy-new.kernel.....

Loading ironic-deploy-new.initramfs.....

