Assigning Cisco Integrated Management Controller (CIMC) IP address via DHCP

Contents

Introduction

Outlined are recovery steps for CIMC access whenever an RMA for a motherboard is performed resulting
in no VGA output from that affected box. If there is no KVM (Keyboard, Video, Mouse) access then we are unable to
connect to CIMC to perform firmware operational activities.

Problem

RMA is performed for UCS C-Series motherboard replacement.
New RMA'd motherboard has lower firmware and thus unable to support new V4 CPUs.
Without KVM access the engineer is unable to access the CIMC to flash a higher version BIOS to support the V4 CPUs.

This can result in unnecessary RMAs for older CPUs and/or replacement motherboards.

Solution

If BIOS does not support the installed new V4 CPUs then it will not pass the Power On Self Test (POST) and it will not have VGA output.
Without KVM access locally, you cannot set the new motherboard CIMC IP to flash BIOS from the KVM.
The CIMC IP address default is set to DHCP. CIMC is accessible, even if C-Series server does not complete the POST.

The server is shipped with these default settings:

- The NIC mode is Shared LOM EXT.

  Shared LOM EXT mode enables the 1-Gb Ethernet ports and the ports on any installed Cisco virtual interface card (VIC) to access Cisco Integrated Management Interface (Cisco IMC). If you want to use the 10/100/1000 dedicated management ports to access Cisco IMC, you can connect to the server and change the NIC mode as described in Step 1 of the following procedure.
- The NIC redundancy is active-active. All Ethernet ports are utilized simultaneously.
- DHCP is enabled .
- IPv4 is enabled.

http://www.cisco.com/c/en/us/td/docs/unified_computing/ucs/c/hw/C220M4/install/C220M4/install.html

Follow These Steps to assign CIMC IP via DHCP from Factory Default Settings:

1. Connect the Shared LOM(Port 1) on the back of the server to the device acting as a DHCP server.
2. Reboot the C-Series.
3. If you are obtaining a DHCP lease from an upstream device, confirm with the network administrator the IP address that is assigned to the host. Then browse that IP address via HTTPS to configure the CIMC further.
4. Alternatively, we can connect a Microsoft Windows laptop to act as a DHCP server. Choose any port that is available within Shared Lom (LOM Port 1 or Port 2) but NOT THE DEDICATED CIMC "M" Port.**(Steps Below)**

Configure IP Settings in Windows:

In Windows 7 you configure network settings as follows.

Please note that other Windows versions will have different ways to get to network settings.

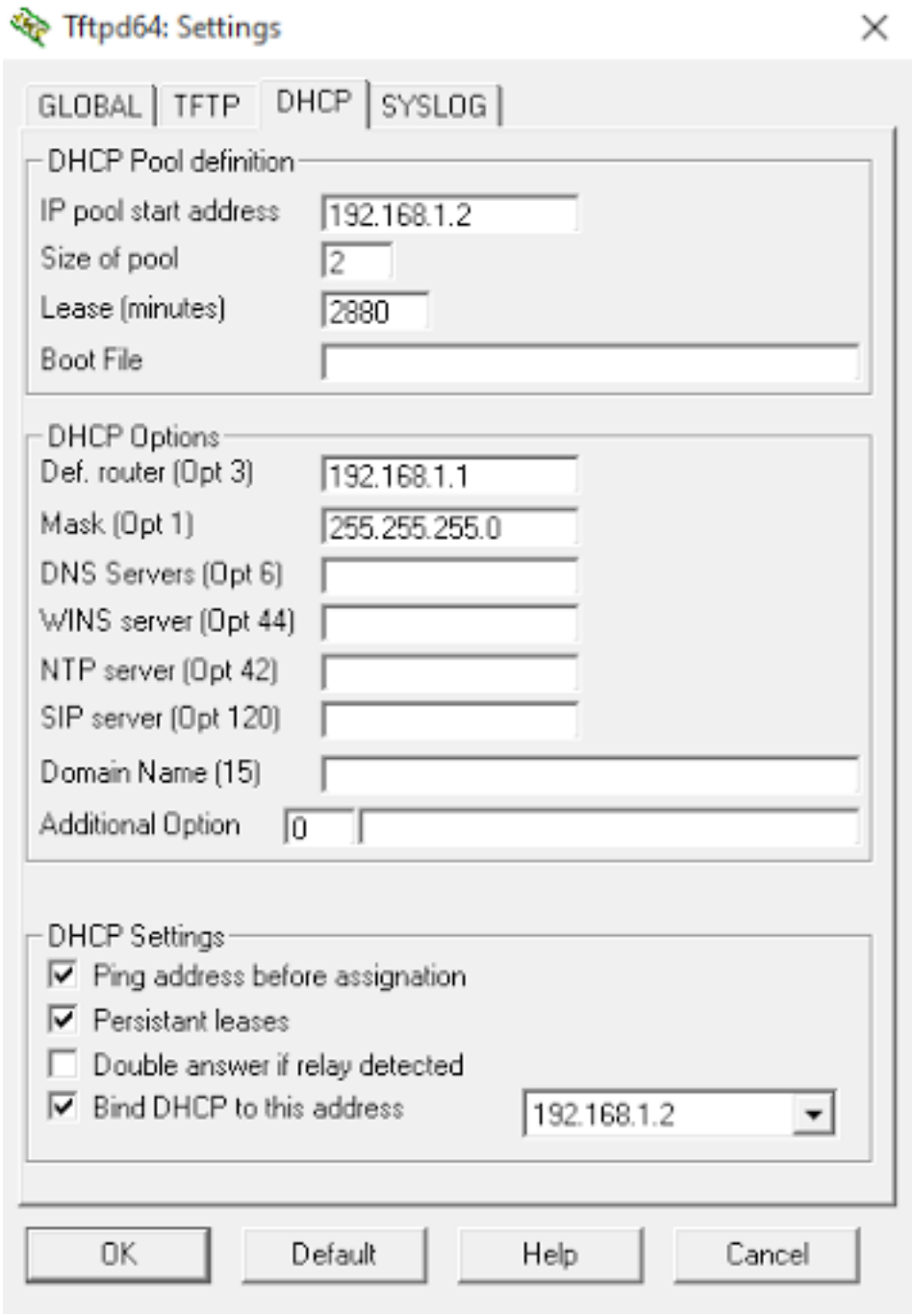
Go to Control Panel > Network and Sharing Center > Local Area Connection > Properties > Internet Protocol Version

Example of corresponding network settings are shown below:

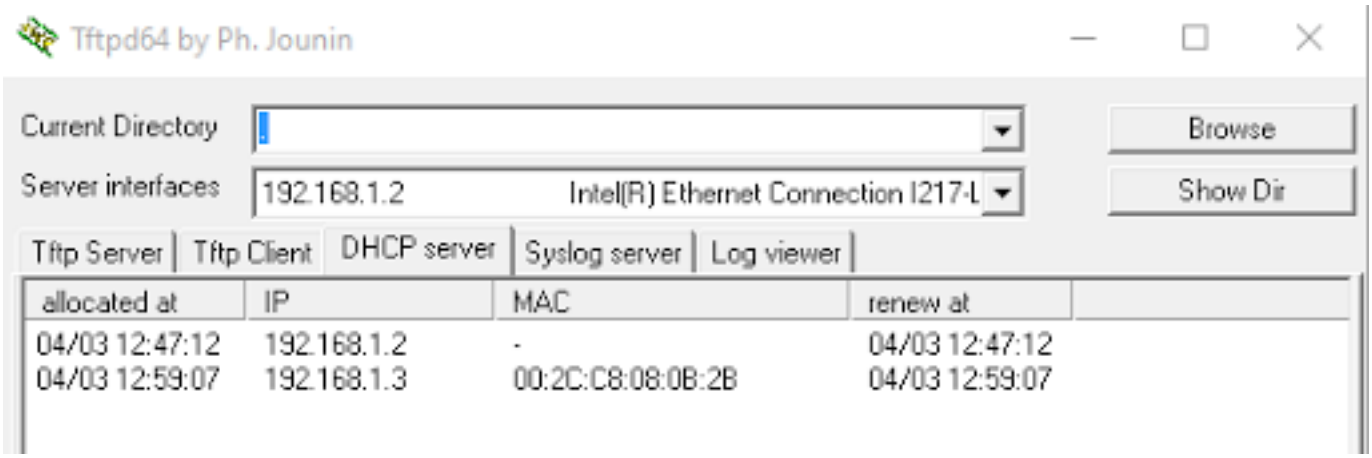
```
IP Address 192.168.1.2

Subnet Mask: 255.255.255.0
```

Assign IP Address via DHCP using TFTP32d/TFTP64d:

1. Download TFTP32d/TFTP64d
2. Configure DHCP server settings to distribute IP addresses on the same local subnet as the laptop NIC.



1. Ensure to Bind DHCP to the laptop NIC.
2. When the server boots, you should see an IP address assigned in the DHCP log. You can also check the arp table on the laptop.



*****PLEASE CONFIRM THAT WINDOWS FIREWALL IS DISABLED OR THIS WILL NOT WORK*****