CiB
Troubleshooting Techniques

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iSHARE2 Support Team
CiB Hardware
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Power, Capabilities, and Performance in Four Inches Square

HIGHLIGHTED FEATURES
1. 5th generation Intel® Core™ i7-5557U processor
2. Two DDR3L SODIMM sockets (up to 16 GB, 1333/1600 MHz)
3. M.2 slot with flexible support for a 42, 50, or 80 mm SATA or PCIe® SSD
4. 1x SATA port for connection to 2.5” HDD or SSD
5. Intel® Dual Band Wireless-AC and Bluetooth® 4.0
6. Kensington lock support
7. Backpanel DC power connector (12V - 19V)
8. One Mini DisplayPort® version 1.2 supporting 8 channel digital audio (7.1 surround sound)
9. Intel® Gigabit LAN
10. 2x USB 3.0 ports on the back panel
11. Mini HDMI® port supporting HDMI 1.4a and 7.1 surround sound
12. Support for user-replaceable third-party lids
13. 2x USB 3.0 ports on the front panel (including one charging port)
14. Intel® HD Audio® via Headphone/Microphone jack
15. Consumer infrared sensor
CiB Start-up and Power

- LED Power Indicator
- No Power, Dead Unit

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Quick Check</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No Power, Dead Unit</strong></td>
<td>1. Verify power source.</td>
</tr>
<tr>
<td>• No power</td>
<td>2. Verify power cable.</td>
</tr>
<tr>
<td>• No LED</td>
<td>3. Listen closely for signs of activity from system including: rotating fans, hard drive or optical drive activity, startup chime, etc. If there is activity then go to the ‘Startup and Power Issues’ symptom flow.</td>
</tr>
<tr>
<td>• No fan spin</td>
<td></td>
</tr>
<tr>
<td>• No startup chime</td>
<td></td>
</tr>
<tr>
<td>• No image on external display</td>
<td></td>
</tr>
<tr>
<td>• No hard drive or optical drive</td>
<td></td>
</tr>
<tr>
<td>activity</td>
<td></td>
</tr>
<tr>
<td>• Caps Lock LED on wired keyboard</td>
<td></td>
</tr>
<tr>
<td>doesn’t light when pressed</td>
<td></td>
</tr>
</tbody>
</table>
VMHost Hypervisor

- Vmware ESXi start screen
- VMHost is configured to receive IP Address from DHCP server.
VMHost Customization

- Set static Network Configuration
- Press F2 to “Customize System”
- Insert Credentials
VMHost Customization

• Static Network Configuration

1. Click Configure Management Network
2. Click IP Configuration
3. Configure IP Address
Vmware Vsphere Client

• Connect to ESXi Host using Vsphere client

1. Insert IP Address
2. Insert User Name
3. Insert Password
4. Click Login
VMHost Overview

### General
- **Manufacturer:** Apple Inc.
- **Model:** Macmini, 2
- **CPU Cores:** 4 CPUs x 2.59 GHz
- **Processor Type:** Intel(R) Core(TM) i7-3720QM
- **CPU @:** 2.60 GHz
- **License:** VMware vSphere 5 Hypervisor - Licensed for 1 physical CPU...
- **Processor Sockets:** 1
- **Cores per Socket:** 4
- **Logical Processors:** 8
- **Hyper-Threading:** Active
- **Number of NICs:** 1
- **State:** Connected
- **Virtual Machines and Templates:** 3
- **vMotion Enabled:** N/A
- **VMware EVC Mode:** Disabled
- **vSphere HA State:** N/A
- **Host Configured for FT:** N/A
- **Active Tasks:** N/A
- **Host Profile:** N/A
- **Image Profile:** N/A
- **Profile Compliance:** N/A
- **DirectPath I/O:** Supported

### Resources
- **CPU usage:** 317 MHz
- **Capacity:** 4 x 2.59 GHz
- **Memory usage:** 14805,00 MB
- **Capacity:** 16290,22 MB

#### Storage
- **Drive Type** | **Capacity** | **Free**
- datastore1 | Non-SSD | 924,00 GB | 548,49 GB
- datastore2 | Non-SSD | 931,25 GB | 929,12 GB

#### Network
- **type**
  - EXTERNAL Network: Standard port group
  - INTERNAL Network: Standard port group

#### Fault Tolerance
- **Fault Tolerance Version:** 5.0.0-5.0.0-5.0.0
  - Refresh Virtual Machine Counts
- **Total Primary VMs:** 0
- **Powered On Primary VMs:** 0
- **Total Secondary VMs:** 0
- **Powered On Secondary VMs:** 0

#### Host Management
- Manage this host through VMware vCenter.
Host Tabs Overview

- The Virtual Machines tab displays information about the State, Space, CPU and Memory resources of the virtual machines.
Host Tabs Overview

• The Performance tab displays performance information about the utilization of resources for the host and virtual machines.
Host Tabs Overview

- The Configuration tab displays host configuration information.
Virtual Machines Overview

• Automatic Shutdown and Start-up
Virtual Machine Snapshots

- A snapshot preserves the state and data of a virtual machine at a specific point in time.
Virtual Machine Snapshots

- VMware recommends using only 2-3 snapshots in a chain.

**NB:** Uncheck Snapshot the Virtual Machines Memory. Not recommended to store single snapshot for more than 24-72 hours.
The script performs backups of virtual machines residing on ESXi servers.

The script takes snapshots of live running virtual machines, backs up the master VMDK(s) and then upon completion, deletes the snapshot until the next backup.
Backup Configuration

- Backup Location - Datastore2
- Backup Disk Format – Thin Provisioned
- Backup Rotation – 3 VM’s
- Backup Schedule – 12AM (Based on date and time of VMHost)
THANK YOU
Remote Desktop Connection Manager

• Centrally Manage your RDP connections.
VMware Vsphere Client

- The vSphere Client is a Windows program that you can use to configure the host and to operate its virtual machines.
Active Directory® Users and Computers is a Microsoft Management Console (MMC) snap-in that you can use to administer users and groups.
CiB Tools

• Active Directory Users and Computers
• Remote Desktop Connection Manager
• Vmware Vsphere Client
• GhettoVCB backup script
Connect to Local PC

Overview

• Ethernet Cable – Cross-over fly lead
• Configure your machines network card
• Download and install OpenDHCP
• https://sourceforge.net/projects/dhcpsserver/
• Open DHCP Server
  • Next steps.................................
Network Card Config

Connect using:
- ASIX AX88179 USB 3.0 to Gigabit Ethernet Adapter

This connection uses the following items:
- Client for Microsoft Networks
- VMware Bridge Protocol
- File and Printer Sharing for Microsoft Networks
- QoS Packet Scheduler
- Internet Protocol Version 4 (TCP/IPv4)
- Internet Protocol Version 6 (TCP/IPv6)
- Link-Layer Topology Discovery Mapper I/O Driver

General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

- Obtain an IP address automatically
- Use the following IP address:
  - IP address: 192.168.0.1
  - Subnet mask: 255.255.255.0
  - Default gateway: 

- Obtain DNS server address automatically
- Use the following DNS server addresses:
  - Preferred DNS server: 
  - Alternate DNS server: 

- Validate settings upon exit

OK Cancel
Open DHCP install steps
Uncheck Windows Service

1. The installation is now complete. Review the actions below before clicking on Finish:

   ![Windows Service Selection]

   - Uncheck 'Run program'
   - Check 'Install Windows Service'

2. [Finish Button]
# Installation Location

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<th>Name</th>
<th>Date modified</th>
<th>Type</th>
<th>Size</th>
</tr>
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<td>log</td>
<td>2016/05/14 12:41 PM</td>
<td>File folder</td>
<td>33 KB</td>
</tr>
<tr>
<td>installService.exe</td>
<td>2016/05/14 12:31 PM</td>
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<td>Application</td>
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<td>HTM File</td>
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</tr>
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<tr>
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<td>Application</td>
<td>33 KB</td>
</tr>
<tr>
<td>RunStandAlone.bat</td>
<td>2016/05/14 12:31 PM</td>
<td>Windows Batch File</td>
<td>1 KB</td>
</tr>
</tbody>
</table>
Windows Firewall

A Windows Security Alert message states that Windows Firewall has blocked some features of the opendhcpserver.exe on all public, private, and domain networks. The name of the program is opendhcpserver.exe, the publisher is Unknown, and the path is C:\opendhcpserver\opendhcpserver.exe.

The alert allows opendhcpserver.exe to communicate on these networks:

- [ ] Domain networks, such as a workplace network
- [ ] Private networks, such as my home or work network
- [x] Public networks, such as those in airports and coffee shops (not recommended because these networks often have little or no security)

Options to allow access or cancel the alert are available.

What are the risks of allowing an app through a firewall?
OpenDHCPServer Console

C:\WINDOWS\system32\cmd.exe

Warning: Interface 192.168.81.1 is not Static, not used
Warning: Interface 192.168.229.1 is not Static, not used
Lease Status URL: http://127.0.0.1:6789
Listening On: 192.168.0.1
Network changed, re-detecting Static Interfaces..
Warning: Interface 192.168.1.75 is not Static, not used
Warning: Interface 192.168.81.1 is not Static, not used
Warning: Interface 192.168.229.1 is not Static, not used
Lease Status URL: http://127.0.0.1:6789
Listening On: 192.168.0.1
Client 127.0.0.1, HTTP Request Received
Client 127.0.0.1, HTTP Request Received
Client 127.0.0.1, /favicon.ico not found
Client 127.0.0.1, /favicon.ico not found
Network changed, re-detecting Static Interfaces..
Warning: Interface 192.168.1.75 is not Static, not used
Warning: Interface 192.168.81.1 is not Static, not used
Warning: Interface 192.168.229.1 is not Static, not used
Lease Status URL: http://127.0.0.1:6789
Listening On: 192.168.0.1
DHCPOFFER for b8:ae:ed:7d:10:6b (system) from interface 192.168.0.1 received
DHCPOFFER for b8:ae:ed:7d:10:6b to 192.168.0.1 received
DHCPOFFER for b8:ae:ed:7d:10:6b (system) offered 192.168.0.2
DHCROFFER for b8:ae:ed:7d:10:6b (system) offered 192.168.0.2
DHCPOFFER for 00:50:56:2a:2b:2c (system) from interface 192.168.0.1 received
DHCPOFFER for 00:50:56:2a:2b:2c (system) offered 192.168.0.3
DHCROFFER for 00:50:56:2a:2b:2c (system) offered 192.168.0.3