Appendix

Quick Intel® AMT Setup

This appendix is a quick setup guide for getting the hands-on experience with a new system enabled with Intel[®] vProTM technology. This is not intended to provide enterprise class setup and provisioning details, but more of a single system setup that you can perform and start to get a feel of Intel Active Management Technology (Intel AMT) functionality in just a few minutes. A second system with a network and Internet browser is needed to connect to the Intel AMT system.

Identify If You Have an Intel® AMT System

You may have received your system from one of several system vendors, and might have asked for a system with Intel vPro technology, which will have fully functional Intel AMT. However, if you received your system through indirect channels, such as your company having bought the system and provided it to you, and you do not know if your system has Intel AMT capability, the first step is to boot the system and look for Intel AMT setup boot screen.

On motherboards that come from Intel¹, Intel AMT setup is performed within the BIOS, which is accessed by pressing the F2 key at boot time. For most other vendors, Intel AMT setup occurs using the Intel® Management

¹ For a complete list of Intel motherboards and specifications: http://support.intel.com/support/motherboards

Engine BIOS Extension (Intel MEBX) and can be accessed using Ctrl-P key combination at boot time.

Intel Motherboards

Entering the BIOS is usually done by pressing the F2 key at boot time. Try this a few times while the system is booting. You have to be quick and intercept the boot process before the control is passed to the operating system.

Once in the BIOS setup screen, look for "Intel AMT". If you have such a screen as shown in Figure A.1, your system has Intel AMT, and you can continue with the short setup steps below. While at the BIOS screen, make sure to enable Intel AMT or Intel MEBX so that when you reboot, you can enter into the appropriate setup screens. Within a few minutes you will be interacting with Intel AMT.

Most Other Motherboards

For most other vendors, Intel AMT setup is accomplished using the Intel ME BIOS Extension (Intel MEBX). Users must enter this screen, shown in Figure A.2, by pressing Ctrl-P at some point in the boot sequence. Intel MEBX is active just after the BIOS boot screen and usually appears along with other BIOS extensions such as LAN and RAID extensions.

Even if Intel MEBX is used to set up Intel AMT, many vendors still have some BIOS-specific Intel AMT settings in the BIOS. Some consultation of vendor manuals may be required.



Figure A.1 Sample Intel[®] AMT Setup Screen within the Intel BIOS



Figure A.2 Intel MEBX Screen for Intel® AMT 2.5

Setting Up the Intel® AMT System

To set up the Intel AMT System, follow these steps:

- 1. Connect the Intel AMT system to a power outlet. This is necessary because some of the Intel AMT capabilities maybe disabled on battery power. Reset the system to a fresh boot.
- 2. At the system reboot, enter the BIOS or Intel MEBX to get into Intel AMT setup, as described in previous section.
- 3. You will be asked to enter the password, and forced to change it. Default factory password is "admin". Change this to a strong password such as: "Amt%1234". Intel AMT will never be enabled unless the password is changed.

- 4. Select ME Configuration. Verify that the following are set correctly:
 - ME State Control = Enabled
 - ME Features Control -> Manageability Feature Selection is set to "Intel AMT"
- 5. Select ME Power Control -> ME ON in Host Sleep States, and at the menu selection, pick ON in S0, S3/AC, S4-S5/AC
- 6. Select AMT Configuration, and go to TCP/IP setup. Configure the static IP address as follows:

IP Address: 192.168.1.20

- 7. Subnet Mask: 255.255.255.0
- 8. Save the configuration.

Configure a Browser to Connect

To configure a browser to connect, follow these steps:

 Select a system that you can connect to the Intel AMT system using an Ethernet cable. Go to the network settings of this system and configure² the IP address. Assign a static IP address

IP Address: 192.168.1.21

Subnet Mask: 255.255.255.0

- 2. Now, connect this system to the Intel AMT system using an Ethernet cable.
- 3. Open a command prompt, and try pinging the Intel AMT system.

ping 192.168.1.20

You should get a ping response.

² Network configuration is specific to the operating system. For example, on Windows XP, the network configuration screen can be reached by selecting Start Menu→Control Panel→Network Connections→Local Area Connection. Once on this screen, selecting Internet Protocol (TCP/IP) and clicking on Properties will get you to the IP configuration screen.

Connect and Explore

Now you are ready to start a web browser.

1. Point the web browser to the address

http://192.168.1.20:16992

2. When prompted for username/password, type *admin* for username and *Amt%1234* as the password, as shown in Figure A.3.

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Figure A.3 Intel® AMT Web Browser Login Screen

You are now connected, as shown in Figure A.4

3. Try rebooting the system by going to the Remote Control task from the list items in the menu shown in Figure A.5.

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 Figure A.4
 Intel[®] AMT Web Browser Screen



Figure A.5 Remote Power Control Using Intel[®] AMT Web Browser Screen

Notes

When entering the BIOS or Intel MEBX configuration screens, it's important to note that the keyboard will work only in US standard layout, regardless of the keyboard that is connected to the computer. As a result, if a French or British keyboard is connected, the keys typed in don't always give the expected result. For example, the hash key # is different on a US English and on British or French keyboards.

This can lead users to type a different password in BIOS or Intel MEBX (not layout aware) and the web browser (layout aware), even if the same keys are pressed.

One trick is to go to the computer name field in the BIOS or Intel MEBX and type in your password and watch the result on the screen.

Summary

So, there you have it. Now that you have done a basic exploration, you can set up dynamic IP addressing using DHCP and connect using your standard IP configuration in your home or office setup. You can further explore wireless access, secure access using HTTPS, access outside of the firewall and a number of other configuration options. These details can be found in other chapters of the book. Chapters 11–13 and Chapter 17 in particular provide a lot of insights into accessing, configuring, and using Intel AMT.