



# Argon Client Management Services- Frequently Asked Questions (FAQ)

CMS  
provides client  
management  
and OS  
deployment  
using network  
booting

## What are the server requirements?

Operating Systems: Windows 98, Windows NT Version 4.0 (Service Pack 4 or later, IE 4 or later), Windows 2000, or Windows XP.

## What are the client requirements?

Networked client PCs with Preboot Execution Environment (PXE)-compliant boot ROMs, such as Argon PC Boot Agent (MBA). The client PCs should be compliant with the Wired for Management (WfM) v2.0 specifications.

## What operating systems can be deployed?

Microsoft Windows XP, 2000, NT 4.0, 98, 95, and Me.

## What is included with Client Management Services?

**Client Management Services includes the following components:**

### *Client Boot Manager*

The Client Boot Manager maintains a client configuration database file that the Boot Server uses when a client PC is doing a network boot. This database file contains such information as the client PC's network adapter MAC address, static IP address (if BOOTP boot protocol is being used), boot image file assignment, and other configuration information for each client PC. CBM is also used to create and edit the boot image files used by the client PCs.

### *Boot Server*

The Boot Server supports both PXE and BOOTP boot protocols, and provides service functionalities needed for network booting. Using PXE or BOOTP, the Boot Server provides the boot ROM on the client PC with boot information from the client configuration database for that particular client PC, such as the filename of the boot image file to be downloaded.

### *TFTP Server*

TFTP is used to transfer files between a client PC and server on a TCP/IP network. TFTP is used during network booting to transfer boot image files from the server to the client PC using the boot ROM. TFTP can also be used to provide updates to dedicated network devices, switches, routers, and print servers.

### *DOS-based Network Boot Utilities*

Client Management Services includes many useful utilities you can use in the pre-OS phase.

## What are the differences between Client Management Services and 3Com's DynamicAccess Boot Services (DABS)?

### Boot Server:

- Combines DABS PXE Server and BOOTP Server
- Contains a new "View Client Progress" window that will show which stage of OS deployment that client PCs are at

### Client Boot Manager:

- Combines DABS BOOTPTAB Editor and Boot Image Editor
- Offers an Image Creation Wizard that steps users through creating a pre-OS network boot images to perform maintenance tasks on client PCs
- Offers an OS Deployment Wizard that steps users through creating a boot image that can be used to install Windows onto client PCs
- Can issue Remote Wake Up command to client PCs
- Can assign temporary boot image files to client PCs
- Offers a default OS-absent boot image file to quickly test for correct network booting setup
- Can assign a boot image file to a PXE client, instead of having to create a menu file
- Contains a revamped main window user interface
- Has the ability to change order of menu items in menu files
- Now offers menu file support for Linux Netboot
- Offers the ability to drag/drop folders into boot images
- Offers the ability to drag/drop boot images onto client PC entries to assign them to the client PC
- Can resize a copy of a boot image
- Menus have new modern look
- Offers a find and replace functionality for BOOTPTAB tags
- Extends BOOTPTAB error checking for missing boot image files

CMS also includes the 3Com Universal NDIS Driver, allowing you to create one boot image file that will work with various brands of network adapters. Another feature is the ability - out of the box - to easily and quickly verify your PXE network boot environment, using a special OS-absent boot image for unknown (unconfigured) client PCs.

### Advantages to using CMS for deployment instead of disk cloning?

CMS is an ideal solution for heterogeneous environments. Disk cloning only works well when cloning identical client PC hardware. Multiple hardware vendors mean multiple images to accommodate different drivers and OS settings. Incorrect drivers and settings could result in an unsuccessful clone and/or a blue screen of death.

CMS saves the time in setting up a source machine and cloning it, and saves time troubleshooting driver issues, duplicate computer name and duplicate SID issues. CMS eliminates the need to visit the desktops with a boot disk to initiate a disk cloning session.

## What is the difference between PXE and BOOTP?

BOOTP (Bootstrap Protocol) is a method of giving configuration information to a client PC, such as IP number, boot image file name, and others. A BOOTP server uses a simple text file (BOOTPTAB) as a database for this information. BOOTP uses static IP number assignments, and each client PC has to be manually assigned an IP number in the database.

To simplify the manual configuration of IP numbers, DHCP is now more commonly used instead of BOOTP in assigning dynamic IP numbers to client PCs. DHCP does not have a database for client-specific information; therefore it cannot assign unique information to individual clients.

Like BOOTP, PXE (Preboot Execution Environment) also provides configuration information to a client PC. The biggest difference is that it does not provide an IP number. Instead, a PXE server works with a DHCP server to issue the unique information to client PCs, such as the IP number. A PXE server will issue client-specific parameters, such as a boot image filename. The PXE server can be on the same server as the DHCP server, or on a different server.

The Boot Server component of Client Management Services supports both BOOTP and PXE. Whether it should be configured for BOOTP or PXE depends on the type of boot ROM in the client PC. If the client PC has a boot ROM that uses BOOTP then the Boot Server must be configured for BOOTP. If the client has a PXE-compatible boot ROM, then the Boot Server must be configured for PXE.

## Why are there (and what are the differences between) both applications and services?

A service is an NT program that remains running, in the background, even when no one is logged on to the server. An application stops execution when a user logs off the server. Windows 98 does not support service-based programs; therefore, Windows 98 can only use the applications.

## What are the DOS utilities for?

Client Management Services includes many handy utilities that can be used during a pre-OS boot phase that uses DOS as the operating system. Some of these utilities are used when the Client Boot Manager wizards are used to create boot images files e.g. for Windows OS deployment. Also, they can be used with other client management programs and scripts in pre-OS boot image files created by administrators. These utilities include:

**BPPATCH** - replaces parameters supplied by the Boot Server into text files within a boot image file, such as batch files, INI files, and system files. This gives multiple client PCs the ability to share one common boot image file that can include configurations specifically tailored to individual PCs.

**PBOOT** - can be used to terminate a pre-OS environment and continue booting the client PC using the operating system installed on the drive C: active partition. PBOOT can also be used to reboot the PC or, if the PC's BIOS supports Advanced Power Management (APM), shut down the PC, which is useful if the client PC was started using remote wake-up.

**Universal NDIS 2-compliant Driver** - that uses the PXE-compliant boot ROM on the client PC. Because the Universal NDIS Driver will work with any brand of NIC that includes a PXE-compliant boot ROM, you no longer need to create multiple image files to accommodate NIC specific NDIS 2 drivers.

**SETTAG** - a command-line utility executed on client PCs to send parameters to the Boot Server to change the configuration the next time the client PC boots. SETTAG can also be used to send information to be displayed in the client status window in Boot Server and Client Boot Manager.

## What is WfM?

The Wired for Management (WfM) initiative is an Intel-led, industry-supported effort to make Intel Architecture-based systems universally manageable and universally managed, without sacrificing agility or performance. Through the WfM initiative, Intel has worked with others in the industry to develop guidelines for a new generation of platforms that can be centrally managed over networks to reduce Total Cost of Ownership (TCO). Systems based on these guidelines provide key technologies that are combined with management software applications, to deliver capabilities that enable down-the-wire management. They also enable benefits in five critical areas of managing and controlling the computing environment: Asset Management, Universal Network Boot, Off-Hours Maintenance (Power Savings), System Diagnosis and Repair, and Investment Protection.

## What are the advantages to using Client Management Services instead of Microsoft's Remote Installation Services (RIS)?

Using CMS eliminates the need to visit the workstation to press F12 and logon to the network.

CMS will deploy Windows 95, 98, NT, Me, 2000 and even XP. After installation, RIS is configured to only deploy Windows 2000 Professional or XP. Further configuration of additional OS deployments is tedious under RIS. Also, CMS does not require a Windows 2000 server with Active Directory, DNS, and RIS installed. CMS can be installed on Windows 98, NT 4.0, 2000 or XP.

## What is the cost of Client Management Services?

Description	Part Number	MSRP
Client Management Services Software on CD with 1 server/25 client licenses	CMS100-CD	\$299.00 US
Client Management Services 50 client license pack	CMS100-50	\$425.00 US
Client Management Services 100 client license pack	CMS100-100	\$800.00 US
Client Management Services 500 client license pack	CMS100-500	\$3,750.00 US
Client Management Services 1000 client license pack	CMS100-1000	\$5,000.00 US

## How / Where do I purchase Client Management Services?

Client Management Services is available through your local distributors as well as via Argon's e-commerce site, <http://www.ArgonTechnology.com>.

### PXE / BOOTP / TFTP

#### What RFCs are supported by Boot Server?

There is currently no RFC for PXE. Boot Server is compatible with the PXE 2.1 specification.

The BOOTP Server also supports RFC 1084 - BOOTP Vendor Information Extensions.

#### What RFCs are supported by Argon TFTP?

RFC 1350 - The TFTP Protocol / RFC 1783 & 2348 - TFTP Blocksize Option

#### Can TFTP update other network devices, e.g. routers?

Yes, TFTP can be used to update other network devices such as routers, wireless access points, etc..

#### Does TFTP have to be on the same computer as Boot Server?

Yes, TFTP Server and Boot Server need to be installed on the same computer. In CMS, these components are considered "server" components. They do not have to reside on the same computer as the administrator component (Client Boot Manager).

#### Does the Boot Server handle multiple NICs? Multiple subnets?

Yes, Boot Server does support multiple adapters. Multiple subnets are supported, but only if Boot Server is running on the same server as DHCP.

#### Does the TFTP Server handle multiple NICs? Multiple subnets?

Yes, TFTP Server does support multiple adapters. Multiple subnets are supported, but only if TFTP Server is on the same server as the Boot Server and DHCP.

#### Does TFTP have to be on the same server as my DHCP server?

No, however TFTP does need to be on the same server as the CMS Boot Server.

## Client Boot Manager

### What is Pre-OS?

Pre-OS software enables a client PC to download and execute centrally administered desktop management agents from a network server prior to actually loading the client operating system from the local hard drive. After loading and executing the remote operating system, agents and other software, the client PC can exit the Pre-OS phase and boot from its local hard disk.

### What is the maximum size of a boot image?

Normally a boot image file is the same size as the floppy disk it was created from. However, Client Boot Manager supports creating extended capacity boot images that can be up to 16MB in size.

### Does Client Boot Manager support Linux?

CBM does not support creating or editing Linux image files. However, menu files created by CBM can load a Linux image that has been created with the Linux imggen utility.

### Can I open client databases created with the 3Com BOOTPTAB Editor with the new Client Boot Manager?

Yes, the Client Boot Manager will read BOOTPTAB files created with 3Com BOOTPTAB Editor.

### Can I open boot image files created with 3Com Boot Image Editor 1.0 with Client Boot Manager?

The Client Boot Manager software is very flexible—with it, you can manipulate boot image files and menu boot files created with any version of Boot Image Editor. However, boot image files or menu boot files are not backward compatible—i.e. you cannot use Boot Image Editor 1.0 to open boot image files and menu boot files created with Client Boot Manager.

### Can I use the Windows OS deployment features to perform application software and OS upgrades?

By default CMS will perform a clean OS installation by partitioning and formatting the client PC's local hard drive. However, you can perform OS upgrades by modifying the deployment boot image file so disk partitioning and formatting tasks are skipped. In addition, you can create an unattended installation file to perform an OS upgrade instead of a clean installation. You can perform application software installations by creating RunOnce scripts to trigger a quiet software installation immediately after the OS deployment is completed.

## About Argon Technology Corporation

Argon Technology is a world leader in network booting solutions. Through its family of products, Argon Technology provides network booting tools that streamline client management, improve client security and help reduce the cost of desktop ownership. Firmware originally developed by our staff is installed in millions of workstations in over 100 countries. Responding to market needs, Argon Technology provides a wide range of products that support dozens of popular Network Interface Cards (NICs) running in PXE, NetWare, TCP/IP and RPL environments

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