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THE COST OF OWNERSHIP MIF
ASSET SOFTWARE INTERNATIONAL
200-6 ANTARES DR., PHASE II
(613) 723-7374



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must employ
both physical and business attributes of
the PC technologies.**

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MANAGING TODAY'S CORPORATE DESKTOP...

When confronting the issue of PC/network management, many corporate customers believe that the computer industry doesn't appreciate the problems of managing multi-vendor PCs. Though the hardware & software vendors view the client-server infrastructure as a collection of physical technologies, corporate customers must view it also as a business asset.

Today's customer needs to understand both the physical and fiscal nature of the technologies that they utilize. Oddly enough, the need to determine the fiscal nature of the PC has been driven by the trend of outsourcing the 'physical' management of the PC, including procurement, Move-Add-Change management, helpdesk, and disposal.

Today's 'typical' corporate desktop may be leased from one company, warranted from a PC vendor, 'extended-warranted' from a VAR, 'service-blanketed' from a Service Provider-VAR, and just might contain sub-components that are owned by the company.

Now, tactical management decisions must employ both physical and business attributes of the PC technologies.

WHAT IS THE COST OF OWNERSHIP MIF?

The *Cost of Ownership MIF* (Management Information File) is an local database that collects, stores and transmits *business-oriented* information about the desktop.

The MIF is written using an industry-standard language created by the DeskTop Management Task Force (DMTF) and is integrated into a computer's Desktop Management Interface (DMI) services, which contains a wide variety of other MIFs as well.

Currently, the industry standard DMI has allowed customers to obtain a significant level of technical configuration data in a multi-vendor PC environment through management tools such as Intel's *LANDesk*, Microsoft's *System Management Server* (SMS) and PC inventory tools, such as ASI's Data Collection Module.

Having such comprehensive technical data can result
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in a successful *but limited* impact in reducing the Total Cost of Ownership (TCO) of the corporate PC. The power to effectively reduce this cost on a much larger scale develops from integrating technical information with business and fiscal information.

The *Cost of Ownership MIF* provides the foundation for customers to use the industry standard DMTF technology for 'business process' strategies as well as technology tactics. The information collected is invaluable to corporate financial planners, CIO staff and integrators responsible for asset management, deployment planning and moves/adds/changes.

Traditionally, organizations have seen the technical environment as being separate from the business environment. To understand and begin the process of reducing the TCO of IT assets, an organization must look at it's business and technical operations as a single entity.

Leading businesses and IT organizations now recognize this new concept and see that the technical environment is *interdependent* with the business environment; the two intertwine and shape each other in a myriad of ways.

have a significant impact on the bottom line; how often has an organization paid for the repair of IT assets because it's MIS department was not aware those assets were already covered by a VAR maintenance agreement? How many times have leased PCs been returned with upgraded RAM purchased by the company? How many asset maintenance agreements are being re-negotiated for assets long since disposed of?

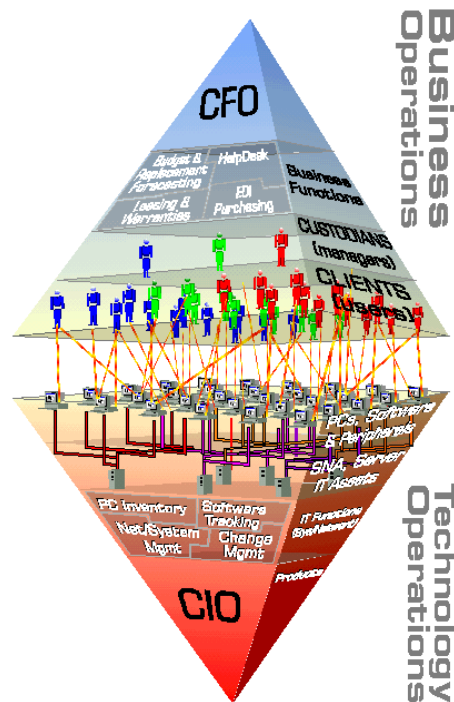
If technology management systems utilized the *Cost of Ownership MIF* in DMI enabled products, MIS would have the ability to determine if the physical action complies with the 'business model', and saving the company from untold losses and setbacks.

Industry analysts' research has shown that the cost of owning a PC over its' lifetime can exceed \$40,000. Though existing 'technology-only' tactics can have an impact on lowering cost of ownership, these strategies do not take into account the business aspects of system management and fail to provide a comprehensive business-oriented solution.

Most companies already have the business data of PCs stored in a central asset management repository somewhere in corporate headquarters or distributed

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INTEGRATING TECHNOLOGY AND BUSINESS ISSUES



THE NEED FOR THE COST OF OWNERSHIP MIF

throughout several departmental-based purchasing databases.

Since this business data has been traditionally used in a strategic, non real-time manner, there has been no 'need' to decentralize and replicate this data at the PC level (as it has been done with technology information via DMI).

Analysts report that implementing a 'Best Practices' Asset Management solution can save organizations as much as 28% of the asset's TCO.

With businesses in constant motion, and their PCs being distributed around the country, internal and outsourced management teams need to access this business information as quickly and effectively from remote locations as they have been doing with physical data from the PCs DMI layer. Relying upon a centralized database adds to the time and cost of PC management. Furthermore, the corporate customer puts itself at some risk by allowing a third party service provider access to portions of its business database.

Though DMI has allowed PC technologies to make themselves immediately accountable physically, the addition of the Cost of Ownership MIF will now allow the PC to offer real-time accountability on its fiscal attributes as well. The Cost of Ownership MIF will reduce the cost, time and risk of managing the physical and fiscal attributes of PC technologies.

THE COST OF OWNERSHIP WORKING GROUP

Working Group Members:

- **Asset Software International - Chair**
- **Intel**
- **Symantec**
- **Tally Systems**
- **AMD**
- **Hitachi Data Systems**
- **Deloitte & Touche**
- **Ameridata**
- **Inacom**
- **META Group**
- **Interpose**

THE BENEFITS OF DMI-ENABLED PRODUCTS

The DMTF **Cost of Ownership Working Group** was formed in 1995 to define the physical and fiscal attributes of a corporate PC to be included in Cost of Ownership MIF.

The Cost of Ownership MIF concept, developed by the Cost of Ownership Working Group, was proposed to the DMTF to create a new standard for realizing cost of ownership strategies and asset tracking.

The MIF is now available to PC system vendors, Independent Software Vendors and end-users to begin tracking technology as a business asset.

The DMI, under the direction of the DMTF, is an important step toward bringing order out of chaos; it allows desktop computers, hardware and software

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products and peripherals — whether standalone systems or networked — to be manageable and accountable..

For vendors, the DMI technology adds ease of use, intelligence, management and interoperability to hardware, software and peripheral products. For users, the DMI offers simplified systems and software usage, ease of installation and real-time system diagnostics and support.

For the industry as a whole, the DMI provides a flexible and robust way to manage systems and products throughout the inherently open PC landscape. The result will be an invigorated industry and a foundation for the next generation of computing products. The *Cost of Ownership MIF* is the latest DMTF answer to that critical customer need and expectation.

DATA SUPPORTED IN THE COST OF OWNERSHIP MIF:

- **Field Check-Ownership Status:** In technical upgrade or repair situations as outlined above, an organization needs to know if the system is leased, owned, rented or otherwise.
- **Warranty Information:** Is the PC still under warranty? An organization needs to know this information before allocating money, time and resources solve a problem that may not even be theirs to solve.
- **Lease Configuration:** Knowing an asset is leased is just the beginning. An organization needs to understand the basic terms of the lease including the schedule number, options, multiple schedules, etc.
- **Acquisition Information:** What is the original information required from the actual purchase like original purchase cost and reference to the Purchase Order number.
- **The Cost Center:** Identify who or what department is responsible for this asset.

DATA ACCESS TO AND FROM THE COST OF OWNERSHIP MIF

Cost of Ownership information stored at the desktop is invaluable, but how does it get there, and where is it used? Previously, business information was not pulled from the desktop configuration in the same way system information is. The *Cost of Ownership MIF* joins business and technical data in a comprehensive manner to directly address certain business aspects of TCO.

The information required by the *Cost of Ownership MIF* is available in central repositories. Unlike other MIFs, the COO MIF can be updated with the proper information using different methods:

1. Pre-population of the MIF by the corporate VAR during configuration, sale or lease (Refer to Desktop Management Interface Specification, Version 2.0).
2. Regular remote feed from central asset management repositories on a regular basis via a network connection or other such means of communication ensures the information is never out of date.

The same way information can be “pushed” into the desktop’s COO MIF from a central repository it can also be “pulled” up to the repository or any other application that can use the information from the MIF.

BENEFITS FOR THE VALUE ADDED RESELLER

The Value Added Reseller (VAR) has a unique opportunity to become an important part of the *Cost of Ownership MIF* strategy; their configuration centres generate the data that can originally populate the Cost of Ownership MIF.

Support and initiation of the *Cost of Ownership MIF* by the VAR shows a pro-active stance on the issues of reducing TCO and maintaining a high level of quality service and IT information to the client.

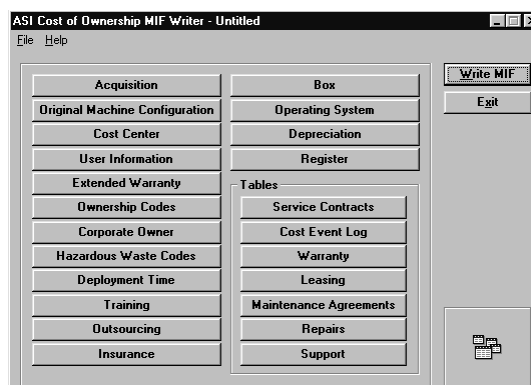
The VAR’s client relies heavily upon information about its IT infrastructure to remain competitive. By deploying the Cost of Ownership as part of a value *The Cost of Ownership MIF White Paper*

The VAR has the unique opportunity to manage DMI PCs that they sell simply by populationg the Cost of Ownership MIF for the customer.

added service, it allows the VAR's customers to immediately determine and exploit both the fiscal and physical nature of the PC, and gives the customer to integrate procurement data into an 'asset management' roll-out strategy using DMI tactics.

Should the VAR also be in the position to provide asset management services, the *Cost of Ownership MIF* is invaluable. Thus, the VAR who offers DMI products with a pre-populated Cost of Ownership MIF places themselves in a high-margin potential at near-zero cost.

COST OF OWNERSHIP MIF WRITER



STANDARD GROUPS

The following technical section includes all the standard Groups and Tables that consists of the COO.MIF

Acquisition Group

Item	Type	Access	Definition
Purchase Cost	integer	Read-Only	Initial purchase cost of this system
Reference to Delivery Slip # (Waybill)	integer	Read-Only	Waybill Number
Date of Installation	date	Read-Only	Date system installed
Reference to PO#	integer	Read-Only	Purchase Order Number
Date of Purchase	date	Read-Only	Date system purchased
Who signed for it?	string (64)	Read-Only	Signing Authority Reference

Original Machine Configuration Group

Item	Type	Access	Definition
Vendor	string (64)	Read-Only	Vendor name
Expensed (Y/N)	BOOL	Read-Write	Whether the system was expensed

Cost Center Group

Item	Type	Access	Definition
Cost Center	string (64)	Read-Write	Cost Center assigned to system

User Information Group

Item	Type	Access	Definition
User ID	string (64)	Read-Write	Custodian

Extended Warranty Group

Item	Type	Access	Definition
Start Date	date	Read-Write	Date warranty started
Cost	integer	Read-Write	Cost of warranty
End Date	date	Read-Write	Date warranty to end
Provider	string (64)	Read-Write	Warranty Vendor

Ownership Codes Group

	Type	Access	Definition
Type (Owned, Leased, Rented, Off-Lease, Transfer)	integer	Read-Write	Type of ownership

Corporate Owner Group

Item	Type	Access	Definition
Corporate Owner	string (64)	Read-Write	Company description

Hazardous Waste Codes Group

Item	Type	Access	Definition
Hazardous Waste Codes	string (64)	Read-Write	Hazardous Waste Code assigned to system

Deployment Time Group

Item	Type	Access	Definition
Deployment Time	Integer	Read-Write	Length of time to deploy system
Deployment Unit Type	Enum	Read-Write	Hours or Days

Training Group

Item	Type	Access	Definition
Training	string (64)	Read-Write	Explanation of user training on system

Outsourcing Group

Item	Type	Access	Definition
System/Component	string (64)	Read-Write	Break/Fix outsourced
Management Service/Fee	string (64)	Read-Write	Outsourcing vendor's charge for service
Who signed off on it?	string (64)	Read-Write	Signing Authority
Provider/Fee	string (64)	Read-Write	Additional outsourcing charge
Levels	string (64)	Read-Write	SLA level

Insurance Group

Item	Type	Access	Definition
Company	string (64)	Read-Write	Insurance company retained

Box Group

Item	Type	Access	Definition
Asset ID	string (64)	Read-Only	Asset Tag of the CPU box
System	string (64)	Read-Only	Other system identifier (if no ID)
Serial Number	string (64)	Read-Only	Box Serial Number

Operating System Group

Item	Type	Access	Definition
Type	string (64)	Read-Write	O/S Type

Patch Level	string (64)	Read-Write	Upgrade information
Date of Upgrade	date	Read-Write	Date of upgrade file

Depreciation Group

Item	Type	Access	Definition
Method	string (64)	Read-Write	Method of Depreciation
Duration	integer	Read-Write	Estimated Useful Life
Percentage	integer	Read-Write	Depreciation Rate

Anti-Theft Registered Group

Item	Type	Access	Definition
Registered (Y/N)	BOOL	Read-Write	Whether this asset has been registered in a central database.

TABLES

Service Contracts Table

Item	Type	Access	Definition
Service Contract Index	integer	Read-Only	An index into the Service Contracts table (starting with 1) Counter
Type	string (64)	Read-Write	Service Contract Type
Vendor	string (64)	Read-Write	Service Contract Provider
Renewed (Y/N)	BOOL	Read-Write	Whether Service Contract has been renewed

Cost Event Log Table

Item	Type	Access	Definition
Cost Event Log Index	integer	Read-Only	An index into the Cost Event Log table (starting with 1) Counter
Events Description	string (64)	Read-Write	Description of event.
Duration	integer	Read-Write	How long the event lasts

Warranty Table

Item	Type	Access	Definition
Warranty Index	integer	Read-Only	An index into the Warranty table (starting with 1) Counter
Duration	integer	Read-Write	Time period of Warranty (start date

			to end date)
End Date	date	Read-Write	Warranty end date
Cost	integer	Read-Write	Cost of warranty

Leasing Table

Item	Type	Access	Definition
Leasing Index	integer	Read-Only	An index into the Leasing table (starting with 1) Counter
Lessor	string (64)	Read-Write	Lessor Name
Buyout	integer	Read-Write	Buyout amount
LRF	integer	Read-Write	Lease Rate Factor
End Date	date	Read-Write	Lease end date
FMV	integer	Read-Write	Residual Value/Fair Market Value of system
Multiple Schedules	BOOL	Read-Write	Whether there are multiple schedules

Schedules Table

Schedule Number Index	integer	Read-Only	An index into the Schedule Number table (starting with 1)
Leasing Index	integer	Read-Only	The index of the row in the Leasing table that uses this Schedule Number
Schedule Number	string (64)	Read-Write	Schedule Number Description

Options Table

Options Index	integer	Read-Only	An index into the Options table (starting with 1) Counter
Leasing Index	integer	Read-Only	The index of the row in the Leasing table that uses this Option
Option	string (64)	Read-Write	Option Description

Maintenance Agreements Table

Item	Type	Access	Definition
Maintenance Agreement Index	integer	Read-Only	An index into the Maintenance Agreements table (starting with 1)
End Date	date	Read-Write	Maintenance Agreement end date
Restrictions	string (64)	Read-Write	Maintenance Agreement restrictions
Start Date	date	Read-Write	Maintenance Agreement start date
Provider	string (64)	Read-Write	Maintenance Agreement Vendor

Repairs Table

Item	Type	Access	Definition
Repair Index	integer	Read-Only	An index into the Repair table (starting with 1) Counter
Counter	counter	Read-Write	Counter to monitor repair hits
Vendor	string (64)	Read-Write	Repair Vendor

Support Table

Item	Type	Access	Definition
Support Index	integer	Read-Only	An index into the Support table (starting with 1) Counter
HelpDesk	string (64)	Read-Write	Description of the support
Automated Fixes	string (64)	Read-Write	Was the fix done electronically of manually (ESD or Remote Control)
IT (Network, Storage, Backup/Restore, ESD, Virus Scan, Management Costs, Printing, Security, Software Utilization, Availability [Up/Down time])	integer	Read-Write	IT Type
Outsourced	BOOL	Read-Write	Whether support is outsourced (y/n)

Trouble Tickets

Trouble Ticket Index	integer	Read-Only	An index into the Trouble Ticket table (starting with 1) Counter
Support Index	integer	Read-Only	The index of the row in the Support table that uses this Trouble Ticket
Ticket Number	string (64)	Read-Write	Ticket Number Description

**PROPOSED ROLL OUT BY
MANUFACTURERS AND
VARs**

ASI will deliver the source code for the Cost of Ownership (COO) MIF creator to the public domain in order to allow VARs to integrate COO MIF population into their current configuration processes. The source code was created using Microsoft Visual C++, making it easy to insert the source code into any existing application that controls the PC configuration process

By allowing VARs to take advantage of COO MIF creator at no cost, the most important component and data needed to start the COO.MIF becomes installed at configuration/final assembly. This also demonstrates the value of retaining and utilizing DMI service layer during software and hardware configuration at final assembly.

The same approach can be utilized by the manufacturers who offer direct sales or who maintain final assembly.

**FOR MORE
INFORMATION....**

Gary Paquette - Chairman
Cost of Ownership Working Group
Internet: garypaq@ibm.net

DeskTop Management Task Force, Inc.
2111 NE 25th St.
Hillsboro, Oregon
97124 U.S.A.
Tel: (503) 264-9300
www.DMTF.org



NOTICE:

At time of printing, the specifications and implementation of the Cost of Ownership MIF is pending final review by the Cost of Ownership Working Group of the Desktop Management Task Force.

Contents of this document are subject to change pending final review on or after April 24th, 1997.

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