



VIA Networking Technologies, Inc.

DMI-GE User Guide

Revision 1.40
May 20, 2004

VIA Networking Technologies, INC.

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Revision History

Document Release	Date	Revision	Initials
1.00	9/16/03	Initial Release.	Checa
1.10	11/18/03	Update cover.	Checa
1.20	04/16/04	Remove "VT6121" from product list.	Checa
1.30	05/19/04	Change supported adapter name.	Checa
1.40	05/20/04	Change legends.	Checa

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TABLE OF CONTENTS

REVISION HISTORY	3
TABLE OF CONTENTS	4
1 INTRODUCTION	5
2 DMI ARCHITECTURE	6
3 DMI-GE COMPONENTS	7
4 DMI-GE INSTALLER	8
4.1 INSTALL DMI-GE IN WINDOWS 2000/XP/SERVER 2003.....	8
4.2 INSTALL DMI-GE IN WINDOWS 95/98/ME/NT4.....	8
4.3 UPDATE MINIPOPT DRIVER	8
4.4 REMOVE DMI-GE IN WINDOWS PLATFORM	8
5 STARTING DMI-GE	9
5.1 PROGRAM FILE SHORTCUT	9
6 USING GET DMI EXPLORER	10
6.1 VIEWING ATTRIBUTES VALUES	10
6.2 REFRESH ATTRIBUTES	10
6.3 NEXT ADAPTER	10
6.4 FIRST ADAPTER.....	11
6.5 VIEWING PROPERTIES	12
7 PROPERTIES OF GET ADAPTER INSTRUMENTATION	14
7.1 WITH SERVICE LAYER.....	14
7.1.1 <i>Component : VIA Networking Velocity Family Gigabit Ethernet Adapter</i>	14
7.1.2 <i>Group : Component ID</i>	15
7.1.3 <i>Group : Network Adapter Driver Group</i>	15
7.1.4 <i>Group : Network Adapter 802 Port Group</i>	16
7.1.5 <i>Group : VIA GE Adapter Instrumentation Group</i>	16
7.1.6 <i>Group : Network Adapter Driver Extensions Group</i>	17
7.2 WITHOUT SERVICE LAYER.....	17
7.2.1 <i>Component : VIA Networking Velocity Family Gigabit Ethernet Adapter</i>	18
7.2.2 <i>Group : Component ID</i>	18
7.2.3 <i>Group : Network Adapter Driver Group</i>	19
7.2.4 <i>Group : Network Adapter 802 Port Group</i>	19
7.2.5 <i>Group : VIA GE Adapter Instrumentation Group</i>	20
7.2.6 <i>Group : Network Adapter Driver Extensions Group</i>	20

1 Introduction

Welcome to the user guide of DMI-GE.

Desktop Management Interface (DMI) is a standard, created and managed by the Desktop Management Task Force (DMTF), for establishing a standard framework for managing system components of desktop systems and servers.

Components must provide a Management Information Format (MIF) file to be DMI compliant. MIF files describe a component's manageable attributes.

DMI-GE is a set of windows based utilities which contains two part of DMI elements (MA & CI) that enable you to monitor VIA Networking Velocity Family Gigabit Ethernet Adapter on desktop systems and servers. It could be run under Microsoft Windows operation systems such as Windows 95/95osr2/98/98se/me/nt4/2000/XP/server 2003.

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2 DMI Architecture

The DMI architecture includes a Service Layer, a Management Information Format (MIF) database, a Management Interface (MI), and a Component Interface (CI). The DMI Service Layer acts as an information broker between manageable products and management applications. The MIF database defines the standard manageable attributes of PC and server products.

The MI allows DMI-enabled management applications to access, manage and control desktop computers, components, and peripherals, while the CI allows components to be seen and managed by applications that call the DMI Service Layer. The CI gets real-time dynamic instrumentation information from manageable products and passes it to the MI via the Service Layer. It shields component vendors from decisions about management applications, allowing them to focus on providing competitive management features and functionalities for their products.

For more information about MIF files, instrumentation, and DMI, visit the following site on the World Wide Web:
<http://www.dmf.org/>

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3 DMI-GE Components

Following the DMI Standard, DMI-GE contains four elements:

- MA → GET DMI Explorer.
- CI → GET Adapter Instrumentation.
- CI Ext → GET Adapter Instrumentation Extension.
- MIF → MIF file for VIA Networking Velocity Family Gigabit Ethernet Adapter

Under the architecture of DMI-GE, the Service Layer is essential to monitor VIA Networking Velocity Family Gigabit Ethernet Adapter.

It means that DMI-GE can work with or without Service Layer.

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4 DMI-GE Installer

For detail about installing DMI-GE on various Microsoft Windows platform:

4.1 Install DMI-GE in Windows 2000/XP/Server 2003

In Microsoft windows 000, XP and Server 2003, VIA SNMP service installation procedure is listed as the following:

1. In the folder contains DMI-GE package, there are two version of setup program
2. A Self-Extracting EXE and the DMI-GE subfolder contains uncompressed setup program.
3. Double Click on the **Self-Extracting EXE** or the **setup.exe** in the DMI-GE subfolder to launch the setup program,
4. Following the instruction of the setup program, to finish the setup of **DMI-GE**.

Note:

1. You must be logged on as an administrator or a member of the Administrators group in order to complete this procedure.
2. DMI-GE could be effect right after installation.
3. The setup program will prompt your to remove previous installation and to update miniport driver of your network adaptor if needed before installation.

4.2 Install DMI-GE in Windows 95/98/ME/NT4

In Microsoft windows 95/98/ME/NT4, DMI-GE installation procedure is listed as the following:

1. In the folder contains DMI-GE package, there are two version of setup program
2. A Self-Extracting EXE and the DMI-GE subfolder contains uncompressed setup program.
3. Double Click on the **Self-Extracting EXE** or the **setup.exe** in the DMI-GE subfolder to launch the setup program.
4. Following the instruction of the setup program, to finish the setup of **DMI-GE**.

Note:

1. DMI-GE could be effect after system restart.
2. The setup program will prompt your to remove previous installation and to update miniport driver of your network adaptor if needed before installation.

4.3 Update Miniport Driver

In Microsoft windows 95/98/ME/NT4/2000/XP/Server 2003, DMI-GE installation procedure will automatically update driver in your system if necessary. It will show a progress bar while performing driver update.



4.4 Remove DMI-GE in Windows platform

In Microsoft windows 95/98/ME/NT4/2000/XP/Server 2003, DMI-GE installation procedure is listed as the following:

1. Click **Start**, point to **Settings**, and click **Control Panel**. Double-click **Add/Remove Programs**.
2. In the list of installed program, choose **DMI-GE**.
3. Click Add/Remove button to remove DMI-GE.

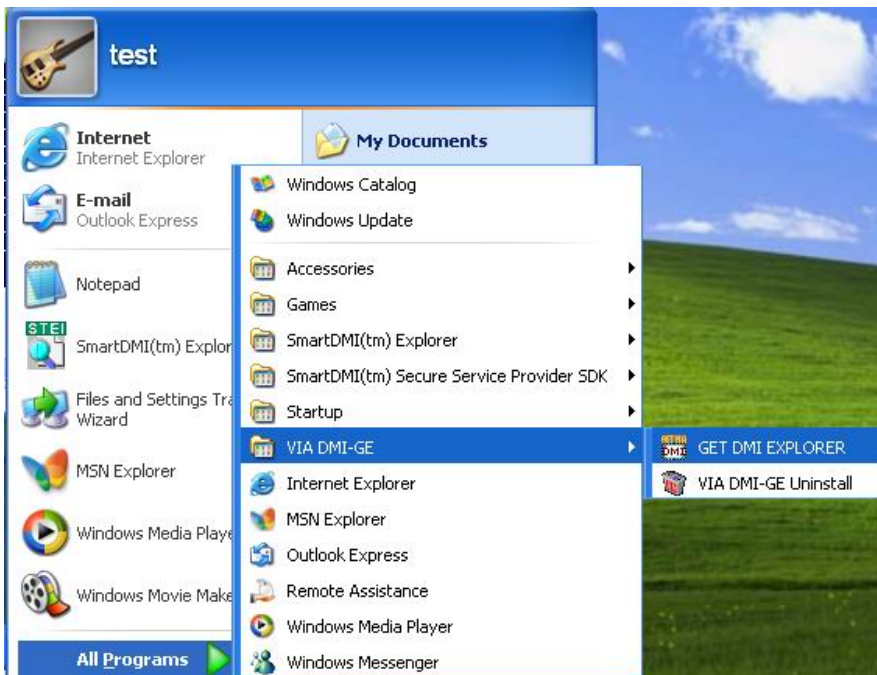
Or

1. Click **Start**, point to **Program Files**→**DMI-GE**, and click **DMI-GE uninstall**.

5 Starting DMI-GE

While DMI-GE was installed onto the system, the CI will automatically run after Windows starts up. Then MA could be launched to monitor the status or CI; there is a Shortcut to launch it.

5.1 Program File Shortcut

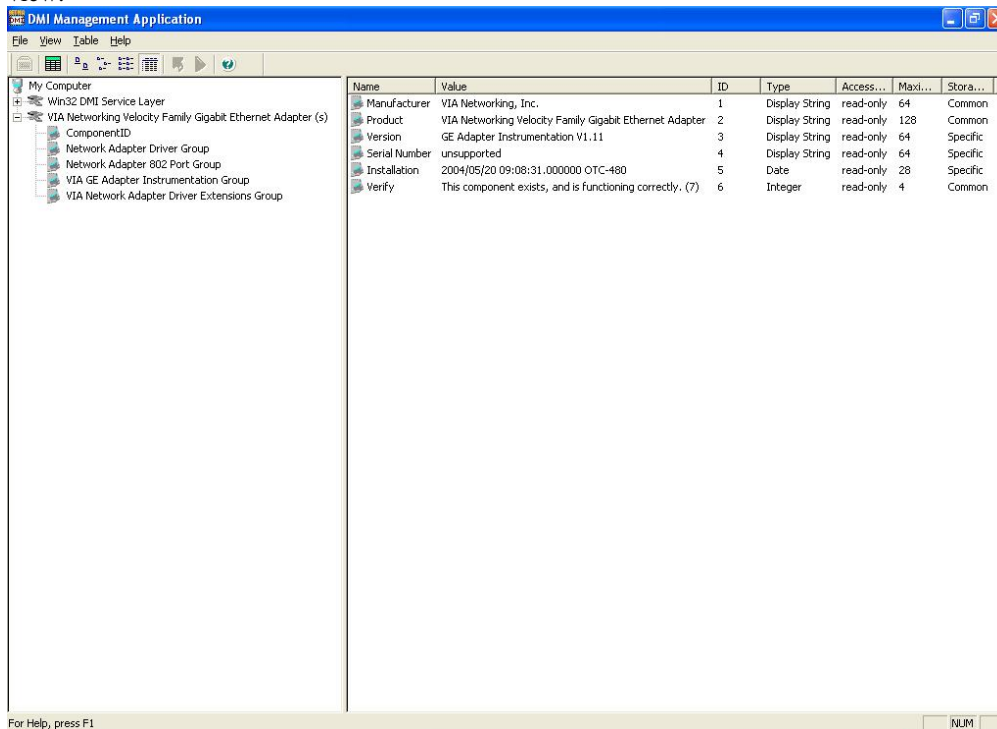


6 Using GET DMI Explorer

The Basic Feature covered the general information, advance properties setting and historical statistics data of the network adapter.

6.1 Viewing attributes values

To view attributes in the left view, select the desired component and group. The attributes and attribute values appear in the right view.

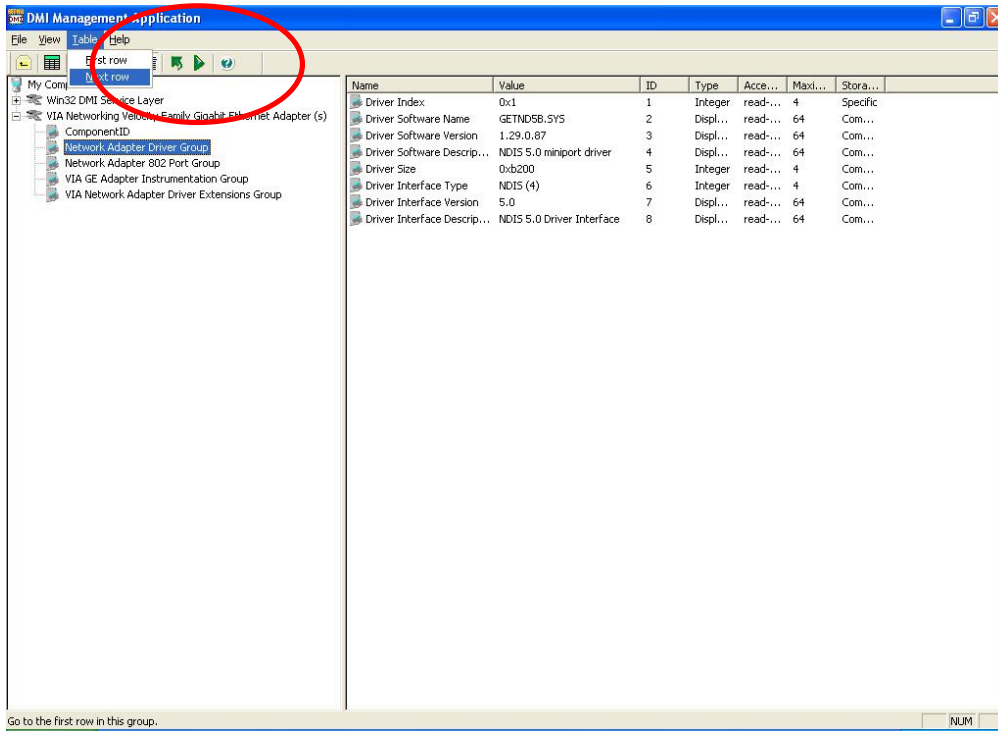


6.2 Refresh Attributes

Accelerator key F5 is supported to get the latest data; click on specific group could have the same effect, too.

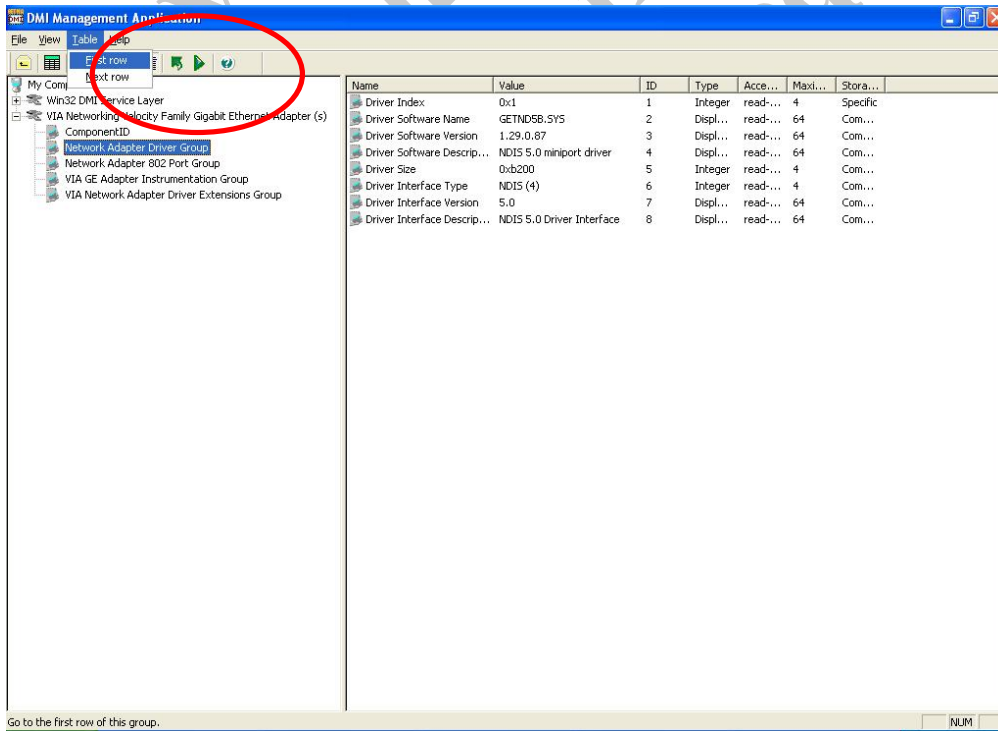
6.3 Next Adapter

To monitor multiple adapters on the system, GET DMI Explorer support function called Next Row to retrieve all adapters presented on the system by order.



6.4 First Adapter

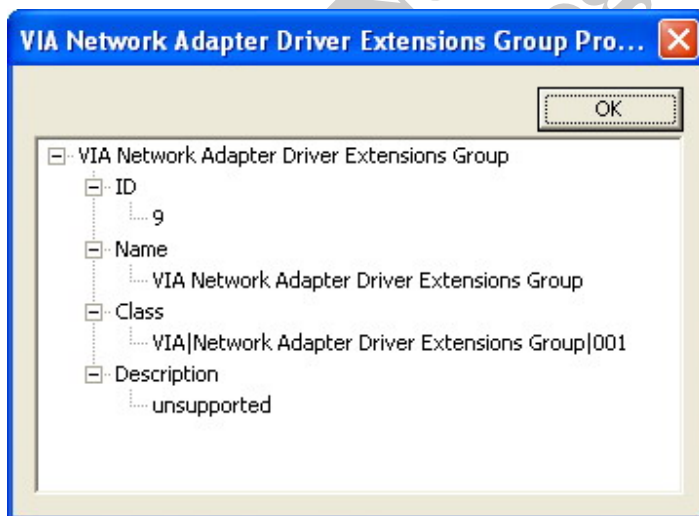
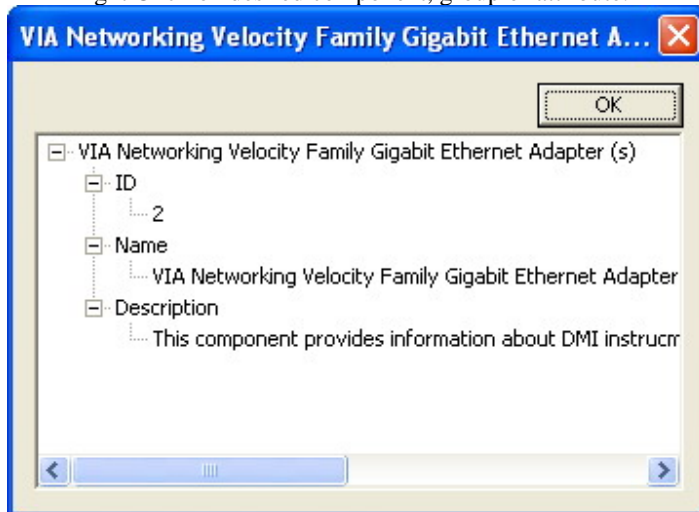
In addition to Next Row function, GET DMI Explorer supports First Row function also to set the index of adapters discovery to default value.

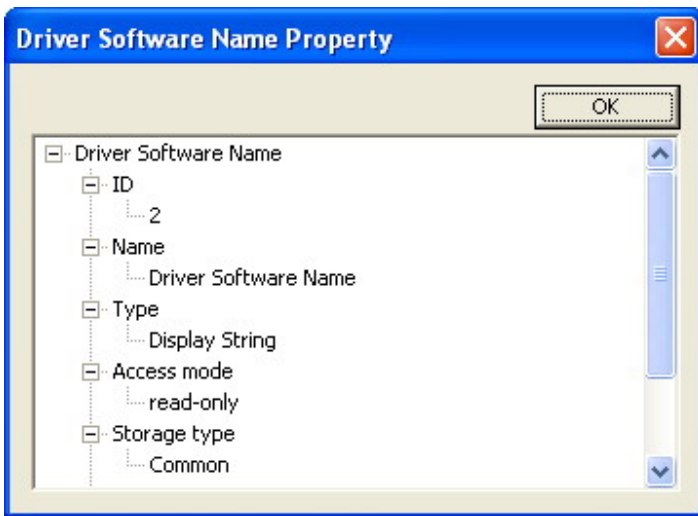


6.5 Viewing Properties

For each component, group and attribute. There are three ways to see its property.

- Menu→File→Property
- Toolbar→Properties Icon
- Right Click on desired component, group or attribute.





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7 Properties of GET Adapter Instrumentation

GET Adapter Instrumentation support several standard groups of attributes such as Network Adapter 802 Port Group, and some customized group of attributes like VIA Network Driver Extensions Group as well.

Here are the groups that GET Adapter Instrumentation supported under the situation with or without Service Layer.

7.1 With Service Layer

DMI-GE could cooperate with any standard approved Service Layer.

7.1.1 Component: VIA Networking Velocity Family Gigabit Ethernet Adapter

Name	Value	ID	Type	Access...	Maxi...	Stora...
Manufacturer	VIA Networking, Inc.	1	Display String	read-only	64	Common
Product	VIA Networking Velocity Family Gigabit Ethernet Adapter	2	Display String	read-only	128	Common
Version	GE Adapter Instrumentation V1.11	3	Display String	read-only	64	Specific
Serial Number	unsupported	4	Display String	read-only	64	Specific
Installation	2004/05/20 09:08:31.000000 OTC-480	5	Date	read-only	28	Specific
Verify	This component exists, and is functioning correctly. (7)	6	Integer	read-only	4	Common

7.1.2 Group: Component ID

The screenshot shows the DMI Management Application window with the 'ComponentID' group selected in the left-hand tree view. The main pane displays a table with the following data:

Name	Value	ID	Type	Access...	Maxi...	Stora...
Manufacturer	VIA Networking, Inc.	1	Display String	read-only	64	Common
Product	VIA Networking Velocity Family Gigabit Ethernet Adapter	2	Display String	read-only	128	Common
Version	GE Adapter Instrumentation V1.11	3	Display String	read-only	64	Specific
Serial Number	unsupported	4	Display String	read-only	64	Specific
Installation	2004/05/20 09:08:31.000000 OTC-480	5	Date	read-only	28	Specific
Verify	This component exists, and is functioning correctly. (7)	6	Integer	read-only	4	Common

7.1.3 Group: Network Adapter Driver Group

The screenshot shows the DMI Management Application window with the 'Network Adapter Driver Group' selected in the left-hand tree view. The main pane displays a table with the following data:

Name	Value	ID	Type	Access...	Maxi...	Stora...
Driver Index	0x1	1	Integer	read-only	4	Specific
Driver Software Name	GETND56.SYS	2	Display String	read-only	64	Common
Driver Software Version	1.29.0.87	3	Display String	read-only	64	Common
Driver Software Description	NDIS 5.0 miniport driver	4	Display String	read-only	64	Common
Driver Size	0xb200	5	Integer	read-only	4	Common
Driver Interface Type	NDIS (4)	6	Integer	read-only	4	Common
Driver Interface Version	5.0	7	Display String	read-only	64	Common
Driver Interface Description	NDIS 5.0 Driver Interface	8	Display String	read-only	64	Common

7.1.4 Group: Network Adapter 802 Port Group

The screenshot shows the DMI Management Application window with the 'Network Adapter 802 Port Group' selected in the left-hand tree view. The main pane displays a table of DMI properties for this group.

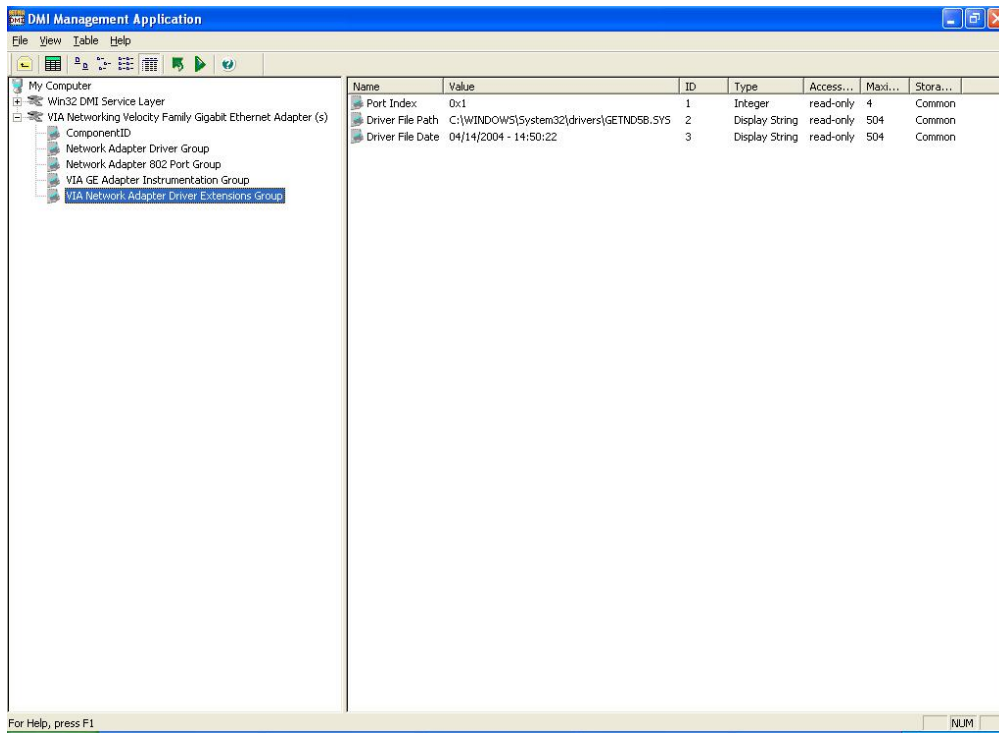
Name	Value	ID	Type	Access...	Maxi...	Stora...
Port Index	0x1	1	Integer	read-only	4	Common
Permanent Network Address	000000000101	2	Display String	read-only	12	Specific
Current Network Address	000000000101	3	Display String	read-only	12	Specific
Connector Type	UTP category 5 (5)	4	Integer	read-only	4	Common
Data Rate	0xa	5	Integer	read-only	4	Common
Total Packets Transmitted	0x0	6	Counter64	read-only	8	Specific
Total Bytes Transmitted	0x0	7	Counter64	read-only	8	Specific
Total Packets Received	0x0	8	Counter64	read-only	8	Specific
Total Bytes Received	0x0	9	Counter64	read-only	8	Specific
Total Transm Errors	0x0	10	Counter64	read-only	8	Specific
Total Receive Errors	0x0	11	Counter64	read-only	8	Specific
Total Host Errors	0x0	12	Counter64	read-only	8	Specific
Total Wire Errors	0x0	13	Counter64	read-only	8	Specific

7.1.5 Group: VIA GE Adapter Instrumentation Group

The screenshot shows the DMI Management Application window with the 'VIA GE Adapter Instrumentation Group' selected in the left-hand tree view. The main pane displays a table of DMI properties for this group.

Name	Value	ID	Type	Access...	Maxi...	Stora...
MIF Id	0x1	1	Integer	read-only	4	Common
Version	1.11	2	Display String	read-only	504	Common

7.1.6 Group: Network Adapter Driver Extensions Group



7.2 Without Service Layer

DMI-GE could be function standalone without any standard approved Service Layer.

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7.2.1 Component: VIA Networking Velocity Family Gigabit Ethernet Adapter

The screenshot shows the DMI Management Application window. On the left, a tree view shows the hierarchy: My Computer > VIA Networking Velocity Family Gigabit Ethernet Adapter (s) > ComponentID. The main pane displays a table with the following data:

Name	Class String	ID
ComponentID	DMTF ComponentID 001	1
Network Adapter Driver Group	DMTF Network Adapter Driver 001	2
Network Adapter 802 Port Group	DMTF Network Adapter 802 Port 001	3
VIA GE Adapter Instrumentation Group	VIA GE Adapter Instrumentation 001	8
VIA Network Adapter Driver Extensions Group	VIA Network Adapter Driver Extensions Group 001	9

7.2.2 Group: Component ID

The screenshot shows the DMI Management Application window with the ComponentID group selected in the tree view. The main pane displays a table with the following data:

Name	Value	ID	Type	Access...	Maxi...	Stora...
Manufacturer	VIA Networking, Inc.	1	Display String	read-only	64	Common
Product	VIA Networking Velocity Family Gigabit Ethernet Adapter	2	Display String	read-only	128	Common
Version	Network Adapter Instrumentation V1.08	3	Display String	read-only	64	Specific
Serial Number	unsupported	4	Display String	read-only	64	Specific
Installation	2004/05/20 10:25:59.000375 OTC+480	5	Date	read-only	28	Specific
Verify	This component exists, and is functioning correctly. (?)	6	Integer	read-only	4	Common

7.2.3 Group: Network Adapter Driver Group

The screenshot shows the DMI Management Application window with the 'Network Adapter Driver Group' selected in the left-hand tree view. The main pane displays a table of DMI properties for this group.

Name	Value	ID	Type	Access...	Maxi...	Stora...
Driver Index	0x1	1	Integer	read-only	4	Specific
Driver Software Name	GETND58.SYS	2	Display String	read-only	64	Common
Driver Software Version	1.29.0.87	3	Display String	read-only	64	Common
Driver Software Description	NDIS 5.0 miniport driver	4	Display String	read-only	64	Common
Driver Size	0xb200	5	Integer	read-only	4	Common
Driver Interface Type	NDIS (4)	6	Integer	read-only	4	Common
Driver Interface Version	5.0	7	Display String	read-only	64	Common
Driver Interface Description	NDIS 5.0 Driver Interface	8	Display String	read-only	64	Common

7.2.4 Group: Network Adapter 802 Port Group

The screenshot shows the DMI Management Application window with the 'Network Adapter 802 Port Group' selected in the left-hand tree view. The main pane displays a table of DMI properties for this group.

Name	Value	ID	Type	Access...	Maxi...	Stora...
Port Index	0x1	1	Integer	read-only	4	Common
Permanent Network Address	000000000101	2	Display String	read-only	12	Specific
Current Network Address	000000000101	3	Display String	read-only	12	Specific
Connector Type	UTP category 5 (S)	4	Integer	read-only	4	Common
Data Rate	0xa	5	Integer	read-only	4	Common
Total Packets Transmitted	0x0	6	Counter	read-only	4	Specific
Total Bytes Transmitted	0x0	7	Counter	read-only	4	Specific
Total Packets Received	0x0	8	Counter	read-only	4	Specific
Total Bytes Received	0x0	9	Counter	read-only	4	Specific
Total Transmit Errors	0x0	10	Counter	read-only	4	Specific
Total Receive Errors	0x0	11	Counter	read-only	4	Specific
Total Host Errors	0x0	12	Counter	read-only	4	Specific
Total Wire Errors	0x0	13	Counter	read-only	4	Specific

7.2.5 Group: VIA GE Adapter Instrumentation Group

The screenshot shows the DMI Management Application window. The left pane displays a tree view of the system's DMI groups, with 'VIA GE Adapter Instrumentation Group' selected. The right pane shows a table of DMI attributes for this group.

Name	Value	ID	Type	Access...	Maxi...	Stora...
MIF Id	0x1	1	Integer	read-only	4	Common
Version	1.08	2	Display String	read-only	256	Common

7.2.6 Group: Network Adapter Driver Extensions Group

The screenshot shows the DMI Management Application window. The left pane displays a tree view of the system's DMI groups, with 'VIA Network Adapter Driver Extensions Group' selected. The right pane shows a table of DMI attributes for this group.

Name	Value	ID	Type	Access...	Maxi...	Stora...
Port Index	0x1	1	Integer	read-only	4	Common
Driver File Path	C:\WINDOWS\System32\drivers\GETNDSB.SYS	2	Display String	read-only	256	Common
Driver File Date	04/14/2004 - 14:50:22	3	Display String	read-only	256	Common