SQL Diagnostic Manager Hardware Sizing guidelines

The following guidelines provide an estimation of the hardware resources required to deploy SQL Diagnostic Manager depending on the number of servers you want to monitor with SQLDM.

Installs under 20 servers

Single-server deployment - Includes the SQL Diagnostic Manager Services and the SQL Server hosting the SQLdm Repository (clustered for redundancy).

Type	Requirement
Operating System	Windows Server 2008R2 Windows Server 2012
Memory	8 GB
CPU	Intel® Xeon® E5-2430 2.20GHz (6 Core)
SQLdm Repository size	Approximately 50GB
SQL Server version	SQL Server 2008R2 standard edition or higher

The expected repository growth is approximately 1.5-3 GB per monitored instance for a year worth of collected data. Monitoring 15 instances could gather approximately 45 GB over the course of a year.

Installs 20-50 servers

Single-server deployment - Includes the SQL Diagnostic Manager Services and the SQL Server hosting the SQLdm Repository (virtualized/clustered for redundancy).

Type	Requirement
Operating System	Windows Server 2008R2 Windows Server 2012
Memory	16 GB
CPU	Intel® Xeon® E5-2430 2.20GHz (6 Core)
SQLdm Repository size	Approximately 150GB
SQL Server version	SQL Server 2008R2 standard edition or higher

The expected repository growth is approximately 1.5-3 GB per monitored instance for a year worth of collected data. Monitoring 30 instances could gather approximately 90 GB over the course of a year.

Installs 51-200 servers

Dual-server deployment - First server hosts the SQL Diagnostic Manager Services and second server hosts the SQL Server and the SQLdm Repository database.

- **Machine 1** - Hosting the SQL Diagnostic Manager services (virtualized/clustered for redundancy)

Type	Requirement
Operating System	Windows Server 2008R2 Windows Server 2012
Memory	8-16 GB
CPU	Intel® Xeon® E5-2430 2.20GHz (6 Core)

- **Machine 2** - Hosting the SQL Server and the SQLdm Repository (clustered for redundancy)

Type	Requirement
Operating System	Microsoft Windows Server 2008R2 Windows Server 2012
Memory	16 GB
CPU	Intel® Xeon® E5-2430 2.20GHz (6 Core)
SQLdm Repository size	200-600GB
SQL Server version	SQL Server 2008R2 standard edition or higher

Installs 201-300 servers

Dual-server deployment - First server hosts the SQL Diagnostic Manager Services and second server hosts the SQL Server and the SQLdm Repository database.

- **Machine 1** - Hosting the SQL Diagnostic Manager services (virtualized/clustered for redundancy)

Type	Requirement
Operating System	Windows Server 2008R2 Windows Server 2012
Memory	16 GB
CPU	Intel® Xeon® E5-2450 2.10GHz (8 Core)

- **Machine 2** - Hosting the SQL Server and the SQLdm Repository (clustered for redundancy)

Type	Requirement
Operating System	Windows Server 2008R2 Windows Server 2012
Memory	32 GB
CPU	Intel® Xeon® E5-2450 2.10GHz (8 Core)
SQLdm Repository size	600 GB or more
SQL Server version	SQL Server 2008R2 standard edition or higher

Installs over 300 servers

Dual-server deployment - First server hosts the SQL Diagnostic Manager Services and second server hosts the SQL Server and the SQLdm Repository database.

- **Machine 1** - Hosting the SQL Diagnostic Manager services (virtualized/clustered for redundancy)

Type	Requirement
Operating System	Windows Server 2008R2 Windows Server 2012
Memory	32 GB
CPU	Intel® Xeon® E5-2450 2.10GHz (8 Core)

- **Machine 2**- Hosting the SQL Server and the SQLdm Repository (virtualized/clustered for redundancy)

Type	Requirement
Operating System	Windows Server 2008R2 Windows Server 2012

Memory	32 GB
CPU	Intel® Xeon® E5-2450 2.10GHz (8 Core)
SQLdm Repository size	900 GB or more
SQL Server version	SQL Server 2008R2 standard/enterprise edition

Sample installations in large environments

See the following sample customer installations for users with large environments:

Installs 51-100 servers

Type	In-House Use
Number of monitored servers	52
Services and Repository installed on same machine	Hyper-V • 4 quad core processors • 14 GB of memory • Windows Server 2008 R2 Enterprise
Data storage and grooming options	• Repository size: 120 GB • Retain 60 days of history
Monitoring features	Monitor Windows and SQL Server performance and error log monitoring

Type	In-House Use
Number of monitored servers	90
Services machine	• 2 vCPU • 8 GB of memory • Windows Server 2008 R2 Enterprise
Services machine	• 2 vCPU • 8 GB of memory • Windows 2008 R2 Enterprise • Repository: SQL Server 2008 R2
Data storage and grooming options	• Repository size: 100 GB • Retain 60 days of history
Monitoring features	Monitor Windows and SQL Server performance

Installs 201- 300 servers

Type	In-House Use
Number of monitored servers	234
Services and Repository installed on same machine	• Dell 2950 • 2 quad core processors • 16 GB of memory • Windows Server 2003

Data storage and grooming options	• Repository size: 140 GB • Retain 30 days of history
Monitoring features	Monitor Windows and SQL Server performance and use Query Waits for specific periods of diagnostics
Integrations	Send alerts to HP Open View via a command line program (opcmsg)

Type	**In-House Use**
Number of monitored servers	274
Services and Repository installed on same machine	• 4 quad core processors • 128 GB of memory • Windows Server 2008 R2
Data storage and grooming options	• Repository size: 1.5 TB • Retain 365 days of history
Monitoring features	Monitor Windows and SQL Server performance