

OptiVision R600.1

Technical Information

Objectives

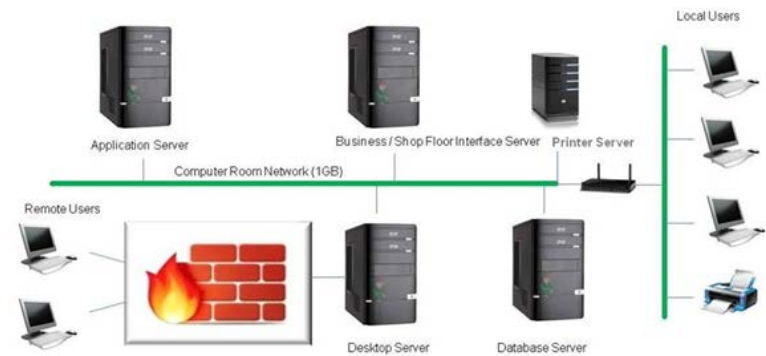
This document outlines Honeywell's hardware recommendation for OptiVision R600 systems. The recommendations largely follow those for current OptiVision systems, and the new OptiVision R600 systems should be sized with similar or higher characteristics.

Minimum Recommended Hardware Configuration Summary

Each OptiVision installation should consist of the following servers:

- 1 Database Server
- 1 Business / Shop Floor Interface Server
- 1 Application Server
- 1 Desktop Server (optional, subject to WAN performance network configuration).

The illustration below shows the minimum recommended configuration



At least 1 GB or higher network is minimum recommended between the OptiVision Database Server, Business Server, and Application Servers. The user's desktop is connected to the OptiVision Servers via a 100Mbit or 1 GB or higher network.

OptiVision Hardware and Software Specifications (Minimum Recommended*)

Specifications	Business / Shop Floor Interface Server	Database Server**	Application Server	Desktop Server ¹	User Desktop Client
Hardware	Processor – Quad 2 GHz 64-bit Intel processor	As recommended by DB Vendor	Processor – Quad 2 GHz 64-bit Intel processor	Processor – Quad 2 GHz 64-bit Intel processor	Processor – 1100 MHz (or faster) 32-bit or 64-bit Intel processor
	Memory – 32 GB		Memory – 32 GB	Memory – 16 GB	Memory – 4 GB for Shop Floor Users / 8 GB for Office Users (Order, Plan, Ship)
	Network – 1 GB or higher	Network – 1 GB or higher	Network – 1 GB or higher	Network – 1 GB or higher	Network –1GB or higher
	Storage – 200 GB in a RAID 5 or RAID 6 configuration or higher for the OptiVision data files	Storage – 200 GB or higher in a RAID 5 or RAID 6 configuration for the OptiVision database	Storage – 50 GB for OptiVision data files		Storage – 5 GB for OptiVision Desktop Add-in (only for Desktop clients)
Software	Microsoft Windows Server 2016 x64 Standard Edition	As recommended by DB Vendor	Microsoft Windows Server 2016 x64 Standard Edition	Microsoft Windows Server 2016 x64 Standard Edition	Windows 7 or Windows 10
	Microsoft Windows Sys Internals Suite		Microsoft Windows Sys Internals Suite	Microsoft Windows Sys Internals Suite	
	Microsoft .NET V4.6, Service Pack 1 plus all Microsoft recommended updates		Microsoft .NET V4.6, Service Pack 1 plus all Microsoft recommended updates	Microsoft .NET V4.6, Service Pack 1 plus all Microsoft recommended updates	Microsoft .NET V4.6, Service Pack 1 plus all Microsoft recommended updates
	Microsoft IIS (Internet Information Services)				
	Google Chrome Version 68.0.3440.75 or newer		Google Chrome Version 68.0.3440.75 or newer	Google Chrome Version 68.0.3440.75 or newer	Google Chrome Version 68.0.3440.75 or newer
	Strawberry Perl v5.28		Strawberry Perl v5.28		
	Microsoft SQL Server 2016 x64	Microsoft SQL Server 2016 x64 OR Oracle Database 12c Release 1 (12.1.0.1.0)			
	Adobe Reader		Adobe Reader		Adobe Reader
	Crystal Reports 2008 Runtime version number 12.3.2006.1006 (Crystal Reports 2008 + Fix Pack 3.6) OR Microsoft SQL Server Reporting Services		Crystal Reports 2008 Runtime version number 12.3.2006.1006 (Crystal Reports 2008 + Fix Pack 3.6)		

Please Note:

* The above represents hardware specifications for a typical OptiVision installation, the actual configuration needs to be reviewed and adjusted after site assessment & Business Compliance Study, for adequate performance.

! Desktop servers' requirement to be evaluated based on-site study.

* Desktop Client users (on OptiDesktop) are still supported on IE10/IE11

** MS SQL Server recommended. Oracle also supported, may need assessment.

Points to remember:

- Please check with respective vendors on licensing terms
- As no Honeywell software is installed directly on the Database Server, the hardware, operating system and versions do not directly impact OptiVision operation. Please refer to infrastructure, platform and database tuning recommendations from respective Database vendors.
- The OptiVision Business server is the file server for the OptiVision share. It runs services, scheduled jobs and acts as the central switchboard to balance the load of application processes among the OptiVision Application Servers. It is not intended to run OptiVision applications. If the Business Server is required to run applications, additional processors and more memory will be necessary.
- The OptiVision Shop Floor server (SFIS) processes all direct communications with the required floor devices, such as lineal footage counters, scales and PLCs. A dedicated machine ensures timely processing and exchange of real time communication with the floor devices, while communicating with the OptiVision applications as required.
- Due to size of the installation, users are allowed to combine the Shop Floor Interface Server with the Business server. For smaller systems, Shop Floor Interface Server can be combined on the Business server, may need consulting.
- Where the shop floor device has only a serial connection, a Serial to Ethernet converter can be used to connect the device to the Ethernet. Devices from manufacturers such as Lantronix are typically used.
- Each Application Server will typically support up to 30 OptiVision desktop clients (concurrent users).
- For remote users to access the OptiVision system via a wide area network, one or more additional servers are highly recommended to ensure adequate desktop performance. These Desktop Servers are also required if users need to connect to the OptiVision systems through a firewall. The servers must be installed at the same location as the OptiVision Business and Application servers and connected to the other OptiVision servers via at least a 1 GB or higher local area network.
- Each Desktop Server can serve up to 30 OptiVision desktop sessions (concurrent users).

When using Virtual Servers, High Availability can take a different approach. A system back-up or template can be made and deployed in the event of a failure.

Report Printers

All OptiVision reports, print to a printer mapped to the user's desktop except for Crystal reports, which are printed from an Application server. As both types of reports use the Windows defined printers, printers configured for Windows work with OptiVision as well

Core tag and Label Printers

Core tags are Label, typically have bar-codes on them and need to be purchased separately. OptiVision supports bar code from Azalea Software, Inc. These bar-code fonts must be installed on the Business and Application servers. Please note, that the Azalea code 39 barcodes are now embedded with Crystal 2008.

OptiVision uses Crystal's .Net Runtime functions for printing Crystal Reports. Report print could be slowed down with Crystal Reports 2008 (version 12) and older models of thermal printers (such as Zebra). Intermec label printers use the printer's native language and reduce speed issues. Hence, writing the label or core tag in the printer's native language has provided better performance. For normal office printers like HP and Xerox, Crystal or Postscript lab files can be used.

For More Information

Learn more about how Honeywell's OptiVision can enhance businesses performance, at www.honeywellprocess.com/software or contact your Honeywell Account Manager, Distributor or System Integrator.

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High-Availability Considerations

System up time is important for manufacturing execution systems, but may or may not be critical depending on integration with the controls systems. The tighter the interface with the controls system, the continuous uptime is more critical. In case of outages, sites need to evaluate reducing production rates and /or stop the production all together.

The High-Availability solution is generally a trade-off between budget and the consequences of system outages. A range of options which might be worth considering can include:

- Redundant computers
- Redundant network connections, which include cabling, switches and network cards
- Redundant power supplies
- Redundant storage (SAN)
- Disk mirroring

OptiVision can be run in a clustered environment, with consulting support though it is not cluster aware. OptiVision users run High Availability Clusters of the Database, Business, Quality OptiMiser and Shop Floor Interface servers. Please consult your vendor for configuration and performance monitoring, tuning information and support for your High Availability Cluster environment.

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TN-17-01-ENG
May 2019

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