



myVRM System Requirements

1. Architecture

myVRM is a Web-based application utilizing for its Web application infrastructure, Internet Information Services installed on a server running 32-bit Windows Server 2003. For its database management, myVRM utilizes a customer provided 32-bit Microsoft SQL Server (see section 3 for more information regarding server/software requirements for myVRM).

2. Hardware Determination

Hardware configuration is determined by analyzing various components of the customer's requirements. For example:

In smaller configurations the customer may elect certain cost-effective configurations:

- 2.1. Sharing the IIS server with other web-site, or web-based applications
- 2.2. Sharing the SQL Server with other corporate SQL-based applications
- 2.3. Placing both the IIS Server and the SQL Server on the same server

For optimum results the customer would;

- 2.4. Configure a dedicated IIS server for the myVRM application
- 2.5. Configure a dedicated SQL Server for the myVRM application

For availability, performance and redundancy considerations, the client may elect to use a SQL Server Cluster, and optionally, multiple IIS/myVRM web servers with session management and load balancing managed by external networking applications such as Microsoft Cluster Server software (MSCS).

3. Sample Architectures

3.1. myVRM has defined the server requirements in three categories.

- Basic/Small
 - **Deployment Requirements:**
 - Number of users: 1-100
 - Number of video endpoints: 1-10
 - Number of Multi-point Control Units (MCU): 1
- Standard/Mid-Size
 - **Deployment Requirements:**
 - Number of users: 101-500
 - Number of video endpoints: 11-50
 - Number of Multi-point Control Units (MCU): 1-2

- Enterprise
 - **Deployment Requirements:**
 - Number of users: greater than 500
 - Number of video endpoints: greater than 50
 - Number of Multi-point Control Units (MCU): greater than 2

3.2. Basic/Small – Minimum Hardware Configuration Recommendations

Deployment Requirements:

- Number of users : 1-100
- Number of video endpoints: 1-10
- Number of Multi-point Control Units (MCU): 1

IIS/myVRM & SQL Server hosted on the same server:

- Processor: Dual Core with 1.8 GHz or above
- Hard Disk: minimum 100 GB space, raid 5 or raid 10 configuration
- RAM: 4 GB

3.3. Standard/Mid-Size – Minimum Hardware (2-server) Configuration Recommendations

Deployment Requirements:

- Number of users : 101-500
- Number of video endpoints: 11-50
- Number of Multi-point Control Units (MCU): 1-2

Server #1 SQL Recommended Minimum Configuration:

- Processor: Dual Core with 1.8 GHz or above
- Hard Disk: minimum 100 GB space, raid 5 or raid 10 configuration
- RAM: 4 GB

Server #2 myVRM/IIS Recommended Minimum Configuration:

- Processor: Dual Core with 1.8 GHz or above
- Hard Disk: minimum 50 GB space, raid 5 or raid 10 configuration
- RAM: 4 GB

3.4. Enterprise – Minimum Hardware Configuration Recommendations

Deployment Requirements:

- Number of actual scheduling users: greater than 500
- Number of video endpoints: greater than 50
- Number of Multi-point Control Units (MCU): greater than 2

SQL Recommended Minimum Configuration:

- Processor: Quad Core with 1.8 GHz or above
- Hard Disk: minimum 200 GB space, raid 5 or raid 10 configuration
- RAM: 8 GB



myVRM/IIS Recommended Minimum Configuration:

- Processor: Dual Core with 1.8 GHz or above
- Hard Disk: minimum 50 GB space, , raid 5 or raid 10 configuration
- RAM: 8 GB

3.5. Software requirements:

The myVRM scheduling software operates on 32-bit Microsoft Server 2003 R2 and SQL 2005 SP2 configuration.

In addition to the above hardware recommendations, we advise our client to abide by Microsoft's current recommended hardware in support of the 32-bit Microsoft Server 2003 R2 and SQL 2005 SP2 configuration.

3.5.1. In support of the myVRM/IIS Server the following additional updates are required to Windows 2003. These updates are available as downloads from Microsoft Update website:

3.5.1.1. MSXML 4.0 Service Pack 2 (Microsoft XML Core Services) - available from:
<http://www.microsoft.com/downloads/details.aspx?FamilyID=3144b72b-b4f2-46da-b4b6-c5d7485f2b42&DisplayLang=en>

3.5.1.2. Microsoft .NET Framework Version 3.5

3.5.1.3. If the customer has purchased myVRM's reporting extensions, the customer must install Microsoft SQL 2005 Reporting Server on the server hosting myVRM/IIS.

In addition to the Microsoft downloads noted above, myVRM recommends that the customer download Microsoft latest updates to Microsoft Server 2003 and IIS.

3.5.2. Microsoft SQL Server requires no additional updates, but myVRM recommends that the customer download Microsoft latest updates to SQL.

It is highly recommended that the customer NOT run the free Microsoft SQL Server Express Edition, because of severely restricted performance constraints placed on this product.



3.6. Server requirements:

The following are requirements for proper operation and performance of myVRM:

- The myVRM/IIS Server and SQL server must be physically on the same LAN. A virtualization of the LAN may induce latency, which would negatively affect performance.
- The myVRM/IIS Server and SQL server must be in the same time zone.

3.7. Best Practices:

To maintain the security of your data and the performance of your systems, myVRM recommends that the Customer follow Microsoft's best practices for backup, security, software updates, virus protection and defragmentation.

3.8. Software/OS Installation:

It is normally the Customer's responsibility to install the hardware, Operating System, Microsoft SQL Server, Microsoft Downloads, and Microsoft Patches.

4. Networking Installation:

As a rule it is the Customer's responsibility setup the networking IP Addressing on the server, network, and the configuration of firewalls to allow user's access to myVRM/IIS, to allow myVRM/IIS access to MS SQL, and to allow myVRM/IIS access to the Video conferencing MCUs.

myVRM communicates with videoconferencing MCUs over TCP port 80. That port must be enabled on the MCU, and there must be connectivity between the MCU and myVRM.

Addition ports will be required for other communications: TCP port 25 (Mail), TCP port 80 (Web), TCP port 389 (LDAP).

5. Remote Access/Installation/Support/:

myVRM's Professional Services are used to remotely install, configure and test the Customer's myVRM deployment. It is important that myVRM's staff be given appropriate remote access to the servers and MCUs to be able to perform our installation, configuration, testing, and updates and provide help desk assistance as requested by the customer. It is at installation time that the myVRM training group provides training to the customer's key staff. On the whole this training is provided via audio and web conferencing sessions. However, an optional fee-based, on-site training course may be requested.

6. Look and Feel:

myVRM is customizable by the client including changing the User Interface to match the corporate colors and logo. In addition, Site Options can be changed to alter the behavior of myVRM. The customer can limit the accessibility of these areas used to make these changes to insure security and integrity of the myVRM scheduling software.



It is advisable that the look and feel of the UI be updated prior to user training.

7. Mail Server:

myVRM communicates with users, Approvers, Assistants-in-charge and System Administrators using email. The email SMTP server should be configured and tested to verify proper communications between myVRM and the mail server.

8. Users:

User's can be added manually, imported from a file using copy/paste, or synchronized from an LDAP compatible active directory.

9. Roles:

Custom roles can be created, to define users' privileges within the myVRM application. These roles can be modified and assigned to users to insure the highest level of security for activities within myVRM as well as provide for the highest level of functionality on a per-user basis.

10. Conferencing

10.1. Tiers:

Tiers organize the locations where conference rooms are situated. myVRM allows for 3 tiers, with the lowest tier typically being the room.

10.2. Rooms:

After tiers are defined, the rooms within those tiers can be populated, along with approvers and configuration of that room.

10.3. Endpoints:

Endpoints need to be added to Rooms that support Videoconferencing. The endpoints are assigned to rooms.

10.4. MCUs:

Videoconferencing Bridges (MCUs) in the enterprise need to be defined to myVRM and tested. Properly configured, myVRM can simultaneously support multiple MCUs, from the same vendor or from multiple different vendors.

11. AV:

If the AV module has been purchased, the AV inventory and the inventory Administrator(s) need to be defined to provide the resources to be made available for conference schedules to request inventory for a specific room(s)

12. Catering:

If the Catering module has been purchased, the Catering Menu and the catering Administrator(s) need to be defined to provide the menus to be made available for conference schedules to request catering for a specific room(s).

13. Housekeeping:

If the Housekeeping module has been purchased, the Housekeeping Menu and the housekeeping Administrator(s) need to be defined to provide the menus to be made available for conference schedules to request housekeeping/room setup for a specific room(s).

14. Training:

It is important that elements of the system be populated prior to training:

- 14.1. Users and their roles
- 14.2. MCU(s)
- 14.3. Endpoints
- 14.4. Tiers
- 14.5. Rooms

myVRM's training group normally provides on-site or off-site training to key Customer's staff.

