



# School Management System Requirements

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The School Management System requirements are for districts that are implementing both the School Business Suite and Student Management Suite on the same servers. The system requirements include all skyward modules.

## **Supported Operating Systems for Database Servers**

Windows 2012 R2 / 2008 Server R2 64 Bit (All Versions Except Core / Web Editions)  
SuSe Linux Enterprise Server 10.x, 11.x 64 Bit

## **Supported Operating Systems Web Product / Report Queue Servers**

Windows 2012 R2 / 2008 R2 64 Bit Server with IIS (All Versions Except Core/ Web Editions)  
.Net Framework and Sun JVM required  
SSL Certificates are required for all Skyward Web Servers.

## **Server Considerations/Recommendations**

Skyward supports Virtual Servers using VMware ESXi, Microsoft Hyper-V, and Citrix XenServer  
Skyward Servers must be 64 bit Operating Systems  
Skyward Servers cannot be domain controllers  
Gigabit network connection required for all Skyward Servers.  
A separate Web Server located in a DMZ is optional for access to web products outside the district.  
Network Load Balancing is recommended for clustering multiple Web Servers.  
Microsoft Cluster Services is supported for Skyward Database failover  
Fiber Channel and iSCSI SAN storage are supported for Skyward Databases  
Fiber Channel SAN storage is recommended for the best database performance.  
Skyward highly recommends a network share or USB drive for storing after imaging incremental backup files

## **Supported Operating Systems for File Sharing Servers**

Utilization of the district's existing file sharing server(s) to host the application programs is recommended  
Novell Netware 6.5 / Open Enterprise Server 2 / SuSe Linux Enterprise Server 10.x, 11.x  
Windows 2012 R2 / 2008 R2 / 2003 (All Versions Except Web Edition)  
Windows Terminal, Citrix, or ProPalms Secure Global Desktop (runs on Windows 2012 R2 / 2008 R2)

*Operating System:* Skyward supports SuSe Linux Enterprise as pure database servers only. Districts that choose this option must also implement a minimum of one Windows 2012 R2 / 2008 R2 Web / Report Queue Server. See page 3 for server specifications for your district.

*Logical Processors:* Beginning several years ago with the introduction of Hyper-Threading Technology (HT Technology) and continuing into today's multi-core processor environment, the computing resources within a single physical chip are divided into two or more logical processors. For example a server with 2 physical quad core processors would have 8 logical processors.

*Free Disk Space:* Disk space estimates for database server do not include space for file attachments. If the district plans to scan and/or attach files, increase disk space by 300kb per page of scanned or attached documents. Ex. Add 3GB of disk space for every 10,000 of scanned or attached documents.

*Raid Support:* A Multiple disk configuration is recommended for I/O performance using SAS, SSD, or equivalent hard drives. SATA storage is not recommend unless the storage is spread across multiple drives. Battery backed Hardware RAID controllers are required.

RAID 10 (1+0) is recommended for the best database performance and redundancy.

RAID 1 is supported for good database performance and redundancy at a lower cost.

RAID 5 is supported but not recommended for database servers.

Server recommendations are provided for general information. Contact Skyward for server recommendations specific to your district. Don't forget to ask about disaster recovery options for your Skyward Databases.



## School Management System Requirements

### Minimum Server Hardware Requirements for a Single Windows Server Solution

| Student Enrollment | Operating System           | Logical Processors | Memory | Free Disk Space | RAID 1/5 Support                    | RAID 10 Support                     |
|--------------------|----------------------------|--------------------|--------|-----------------|-------------------------------------|-------------------------------------|
| 2,000              | Windows 2012 R2<br>2008 R2 | 8                  | 12 GB  | 300 GB          | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4,000              | Windows 2012 R2<br>2008 R2 | 12                 | 16 GB  | 400 GB          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 8,000              | Windows 2012 R2<br>2008 R2 | 12                 | 32 GB  | 500 GB          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 12,000             | Windows 2012 R2<br>2008 R2 | 16                 | 32 GB  | 600 GB          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 16,000             | Windows 2012 R2<br>2008 R2 | 16                 | 64 GB  | 700 GB          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 20,000             | Windows 2012 R2<br>2008 R2 | 16                 | 64 GB  | 800 GB          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Contact Skyward for Districts over 20,000 students

☐ Not Supported

☒ Supported

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## School Management System Requirements

### Minimum Server Hardware Requirements for a Linux Database Server Solution

| Student Enrollment | Server Role       | Operating System           | Logical Processors | Memory | Free Disk Space | RAID 1R25 Support                   | RAID 10 Support                     |
|--------------------|-------------------|----------------------------|--------------------|--------|-----------------|-------------------------------------|-------------------------------------|
| 2,000              | Database          | Linux                      | 4                  | 8 GB   | 250 GB          | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|                    | WebR2Report Queue | Windows 2012 R2<br>2008 R2 | 8                  | 8 GB   | 120 GB          | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4,000              | Database          | Linux                      | 8                  | 12 GB  | 300 GB          | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|                    | WebR2Report Queue | Windows 2012 R2<br>2008 R2 | 8                  | 12 GB  | 120 GB          | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8,000              | Database          | Linux                      | 12                 | 16 GB  | 350 GB          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|                    | WebR2Report Queue | Windows 2012 R2<br>2008 R2 | 8                  | 16 GB  | 120 GB          | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 12,000             | Database          | Linux                      | 12                 | 24 GB  | 400 GB          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|                    | WebR2Report Queue | Windows 2012 R2<br>2008 R2 | 8                  | 16 GB  | 120 GB          | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 16,000             | Database          | Linux                      | 16                 | 32 GB  | 450 GB          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|                    | WebR2Report Queue | Windows 2012 R2<br>2008 R2 | 12                 | 24 GB  | 120 GB          | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 20,000             | Database          | Linux                      | 16                 | 48 GB  | 500 GB          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|                    | WebR2Report Queue | Windows 2012 R2<br>2008 R2 | 16                 | 32 GB  | 120 GB          | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

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