Hardware and Software Requirements for PowerSchool 20.x

PowerSchool Student Information Systems

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Contents

Introduction

This document contains the hardware and software requirements for implementing the PowerSchool 20.x Student Information System, including PowerTeacher Pro, and is designed to guide customers with fewer than 15,000 enrolled students. The equipment and resources listed herein are required to ensure proper system usability and the highest quality user experience possible.

The following information is new in this document:

- Updated client OS and browser support
- Updated device and version support for PowerSchool SIS Mobile applications

PowerSchool SIS 20.x requires 64-bit, server class hardware using a 64-bit Windows operating system running Windows Server 2012 R2 or Windows Server 2016 and an Oracle 12.2 database.

For districts larger than 15,000 enrolled students, a more tailored configuration may be warranted. For consultative assistance with PowerSchool SIS configurations of this nature, or to learn more about PowerSchool's hardware packages and services for all enrollments, please contact your PowerSchool sales representative at 877-873-1550, or email TSGHelpDesk@PowerSchool.com.

General Requirements

The following requirements must be implemented with every PowerSchool SIS configuration.

- Dedicated Hardware: All servers in the production environment must be dedicated solely to operation of the PowerSchool SIS product and its complementary components, such as PowerTeacher Pro and ReportWorks. The only exception to this rule is the Image server (see below).
- Server Class: All hardware referenced in this document must be server class hardware, except the PowerScheduler client and user workstations.
- Dynamic Port ranges: The default dynamic port range is in compliance with Microsoft Windows Server 2012 R2 or Windows 2016 requirements as appropriate.
- For proper function, all PowerSchool SIS Application servers within the same PowerSchool SIS instance must be configured within the same VLAN/subnet.
- Virtual Private Network (VPN): A VPN connection is required for self-hosted PowerSchool SIS customers who have implemented Unified Classroom.
- Image Server: All environments must include an Image server to serve the graphical files in PowerSchool. The Image server may be configured on the same, single computer if the active student count is fewer than 3,000 students. For districts with an active student count over 3,000, a separate Image server is recommended. For districts with an active student count over 7,000, a separate Image server is required. The server used for these images may be an existing web server and does not need to be dedicated to PowerSchool SIS content. For enhanced performance, the Image server may reside on a dedicated server, but this is not a requirement.
- Load Balancing: Server Array environments of two or more application nodes must be served by a load balancer. A properly configured load balancer will appropriately distribute incoming user traffic to the multiple Tomcat application node servers, allowing for optimized performance and scalability. Additionally, the load balancer can provide the ability to offload the SSL/TLS transactions, as well as cache static PowerSchool SIS content, negating the need for a separate Image server. For more information, please refer to the *Load Balancer Requirements and Configuration Guide* available on PowerSource.
- Windows Operating System: The entire PowerSchool SIS deployment, inclusive of all application nodes and the database server, must run on the same version and edition of Windows Server. PowerSchool SIS supports Microsoft Windows Server 2012 R2 and Windows Server 2016, both Standard and Datacenter editions (English Editions). Windows 2019 licensing allows you downgrade rights to install Windows 2016.

  Note: The Server Core installation option is not supported.

  Microsoft licensing provisions require specific licenses when most users connect to a Windows server. A Client Access License (CAL) is required for each teacher and administrator who accesses PowerSchool, since Microsoft considers them internal users. The CAL can be either a "Device" CAL to cover the number of workstations used by teachers and administrators who access PowerSchool, or a "User" CAL to cover each individual teacher and administrator who accesses PowerSchool. An External Connector License (ECL) is required for each PowerSchool SIS server that serves parents, guardians, and students since they are considered external users by Microsoft.

Exceptions to these two guidelines include the following:

- PowerSchool Hosting Software as a Service customers (PowerSchool procures Microsoft licensing for the hosted environment as part of the PowerSchool Hosting Software as a Service offering).
- Districts that have previously procured district wide Windows 2012 R2/Windows 2016 CALs to support other applications such as Microsoft Active Directory that include CALs for intended internal PowerSchool SIS users.

PowerSchool SIS recommends that you contact Microsoft or your district's third-party software vendor for details regarding Microsoft software licensing.

Securing PowerSchool SIS Data

The security of Personally Identifiable Information (PII) pertaining to students, parents, and staff is one of our greatest concerns at PowerSchool. While we take extra measures to ensure our solutions are secure, such as security vulnerability scanning, PowerSchool strongly recommends that all customers take the following additional and deliberate measures to secure their PowerSchool SIS deployment.

- Scrutinize the physical security of your PowerSchool SIS environment. Access to PowerSchool SIS server(s), client machines utilized by students and staff, and your wireless network should all be highly controlled.
- Implement a strong password management regiment based on the robust capabilities available in PowerSchool. For the admin, teacher, and guardian portals the password minimum length is eight characters. Student password requirements are managed on the Student Password Management page.
- Implement Transport Layer Security (TLS) for encryption of Data In Transit. TLS is the successor of Secure Sockets Layer (SSL) and is the standard security technology for establishing an encrypted link between a web server and a web browser and ensures that all data passed between them remains secure and private. PowerSchool supports Transport Layer Security (TLS) v1.2 with x.509-formatted certificates. For more information on implementing TLS/SSL for PowerSchool SIS see Knowledge base article 7544 available on the PowerSchool Community.

  Important Note: PowerSchool SIS requires TLS in all production and test environments. If your PowerSchool SIS instance is hosted by PowerSchool, TLS has already been implemented and there is no further action needed. Similarly, PowerSchool SIS instances managed within an EMS subscription that have been provided certificates require no additional action. Customers interested in purchasing TLS-capable certificates and integration services should send an email TSGHelpDesk@PowerSchool.com.

- Implement Microsoft BitLocker for encryption of data at rest. Based on PowerSchool SIS performance benchmarking, the most cost-effective and comprehensive tool for securing PowerSchool SIS data at rest is utilization of Microsoft BitLocker to encrypt both the database server, and all application nodes. Microsoft BitLocker is a delivered component of Windows Server and has been shown to have minimal impact to overall performance. Alternatively, many storage devices also have encryption capabilities that can be leveraged in addition to, or in place of, Microsoft BitLocker.

Recommended Hardware Specifications

For new customers purchasing new hardware, or existing customers seeking to refresh their hardware, the following recommended specifications will provide better than acceptable performance without requiring excessive resources. The recommended specifications allow room for growth as your district needs grow and as new PowerSchool SIS versions and features become available in the next few years.

All-in-One Solution – Up to 3,000 Students

This is a one-server Microsoft Windows solution with the Oracle database and PowerSchool Tomcat application node residing on the same server. This covers the needs of all districts up to 3,000-student enrollment.

Combined Application and Database Server

Hardware	Physical Server	Virtual Server
Processor	(2) 8-Core CPUs	(12) Virtual CPUs
Memory	32GB RAM	32GB Virtual RAM
Storage	**Physical Server**	**Virtual Server**
Operating System; PowerSchool SIS Files	100GB (512n Format)	100GB (Fixed/Thick)
Disk Subsystem	*15k SAS or SSD/RAID 1*	*15k SAS or SSD Virtual Disk 1*
Oracle Database Files	250GB (512n Format)	250GB (Fixed/Thick)
Disk Subsystem	*15k SAS or SSD/RAID 10*	*15k SAS or SSD Virtual Disk 2*

Two Server Solution – 3,000 to 7,000 Students

This is a two-server Microsoft Windows solution with the database and Tomcat application node residing on separate servers dedicated to each function. One server supports the Oracle database; the other supports the PowerSchool SIS Tomcat application node. This covers the needs of all districts up to 7,000-student enrollment.

Dedicated Application Server

Hardware	Physical Server	Virtual Server
Processor	(2) 8-Core CPUs	(12) Virtual CPUs
Memory	32GB RAM	32GB Virtual RAM
Storage	**Physical Server**	**Virtual Server**
Operating System; PowerSchool SIS Files	100GB (512n Format)	100GB (Fixed/Thick)
Disk Subsystem	*15k SAS or SSD/RAID 1*	*15k SAS or SSD Virtual Disk 1*

Dedicated Database Server

Hardware	Physical Server	Virtual Server
Processor	(2) 8-Core CPUs	(12) Virtual CPUs
Memory	32GB RAM	32GB Virtual RAM
Storage	**Physical Server**	**Virtual Server**
Operating System	100GB (512n Format)	100GB (Fixed/Thick)
Disk Subsystem	*15k SAS or SSD/RAID 1*	*15k SAS or SSD Virtual Disk 1*
Oracle Database Files	100GB (512n Format)	100GB (Fixed/Thick)
Disk Subsystem	*15k SAS or SSD/RAID 10*	*15k SAS or SSD Virtual Disk 2*

Server Array Solution – 7,000 to 15,000 Students

This is a multi-server Microsoft Windows solution with a dedicated Oracle database server and multiple PowerSchool SIS application servers. The PowerSchool SIS application server(s) accept all requests and translates the request to commands sent to the Oracle database server. A PowerSchool SIS Image server uses standard web service such as Apache or Microsoft IIS to process background images for all the web pages accessed by the PowerSchool SIS application server(s). The PowerSchool SIS Server Array must use a load balancer also referred to as an application delivery controller. The load balancer provides the ability to distribute incoming web requests to the PowerSchool SIS application server(s). It also provides the ability for SSL/TLS offload and acceleration on the load balancer itself and can be configured to cache static PowerSchool SIS content. This covers the needs of districts with up to 15,000 students enrolled.

The number of recommended PowerSchool SIS application server(s) for general web access to PowerSchool, PowerTeacher, and ReportWorks (Developer) may vary based upon actual end user usage. The recommendations listed here are as a result of PowerSchool SIS performance testing and may vary amongst individual district/school boards requirements. The following table shows the recommended specifications for PowerSchool SIS application server(s) configured as part of a centralized Server Array configuration.

Dedicated Application Server(s)

Qty	Function	Hardware	Physical Server	Virtual Server
2	PowerSchool SIS Application Servers (General Traffic)	Processor	(2) 8-Core CPUs	(12) Virtual CPUs
		Memory	32GB RAM	32GB Virtual RAM
1	PowerSchool SIS Application Servers (Task Master)	Processor	(2) 8-Core CPUs	(12) Virtual CPUs
		Memory	32GB RAM	32GB Virtual RAM
1	PowerSchool SIS Image Server	Processor	(1) 4-Core CPU	(4) Virtual CPUs
		Memory	8GB RAM	8GB Virtual RAM

Storage	Physical Server	Virtual Server
Operating System	120GB (512n Format)	120GB (Fixed/Thick)
Disk Subsystem	*15k SAS or SSD/RAID 1*	*15K SAS/SSD Virtual Disk 1*

Dedicated Database Server

Hardware	Physical Server	Virtual Server
Processor	(2) 8-Core CPUs	(16) Virtual CPUs
Memory	32GB RAM	32GB Virtual RAM
Storage	**Physical Server**	**Virtual Server**
Operating System	100GB (512n Format)	100GB (Fixed/Thick)
Disk Subsystem	*15k SAS or SSD/RAID 1*	*15k SAS or SSD Virtual Disk 1*
Oracle Database Files	400GB (512n Format)	400GB (Fixed/Thick)
Disk Subsystem	*15k SAS or SSD/RAID 10*	*15k SAS or SSD Virtual Disk 2*

Load Balancer

The PowerSchool SIS Server Array deployment must use a load balancer also referred to as an application delivery controller. The load balancer provides the ability to distribute incoming web requests to the PowerSchool SIS application server(s). It also provides the ability to terminate TLS connectivity on the load balancer itself. The load balancer appliance must be capable of the following configurations.

Load Balancer Requirements/Functionality
Layer 4/Layer 7 load balancing capabilities
Cookie-based session persistence
Minimum throughput of 500 Mbps
Minimum of 500 SSL/TLS Transactions per Second
SSL/TLS offload/termination on the load balancer (Recommended)
Ability to cache content (PowerSchool SIS Images, JavaScript, and CSS) (Recommended)

Note: The PowerSchool SIS load balancer may be a physical or virtual appliance.

Note: The PowerSchool SIS Image server may be omitted if the district utilizes a load balancer/application accelerator appliance capable of caching content (PowerSchool SIS Image, JavaScript, and CSS files).

Minimum Hardware Specifications

For new or existing customers seeking to repurpose previously purchased hardware for a PowerSchool SIS deployment, the minimum requirements identify the absolute lowest value that is acceptable for a given resource. A production deployment will experience acceptable performance with servers that meet these minimum requirements. PowerSchool SIS does not support operating a production environment with less than the minimum requirements for any resource.

All-in-One Solution – Up to 3,000 Students

This is a one-server Microsoft Windows solution with the Oracle database and PowerSchool SIS Tomcat application node residing on the same server. This covers the needs of all districts up to 3,000-student enrollment.

Combined Application and Database Server

Hardware	Physical Server	Virtual Server
Processor	(2) 4-Core CPUs	(8) Virtual CPUs
Memory	24GB RAM	24GB Virtual RAM
Storage	**Physical Server**	**Virtual Server**
Operating System; PowerSchool SIS Files	60GB (512n Format)	60GB (Fixed/Thick)
Disk Subsystem	*10k SAS or SSD/RAID 1*	*10k SAS or SSD Virtual Disk 1*
Oracle Database Files	100GB (512n Format)	100GB (Fixed/Thick)
Disk Subsystem	*15k SAS or SSD/RAID 10*	*15k SAS or SSD Virtual Disk 2*

Two Server Solution – 3,000 to 7,000 Students

This is a two-server Microsoft Windows solution with the database and Tomcat application node residing on separate servers dedicated to each function. One server supports the Oracle database; the other supports the PowerSchool SIS Tomcat application node. This covers the needs of all districts up to 7,000-student enrollment.

Dedicated Application Server:

Hardware	Physical Server	Virtual Server
Processor	(2) 4-Core CPUs	(8) Virtual CPUs
Memory	16GB RAM	16GB Virtual RAM
Storage	**Physical Server**	**Virtual Server**
Operating System; PowerSchool SIS Files	60GB (512n Format)	60GB (Fixed/Thick)
Disk Subsystem	*15k SAS or SSD/RAID 1*	*15k SAS or SSD Virtual Disk 1*

Dedicated Database Server

Hardware	Physical Server	Virtual Server
Processor	(2) 4-Core CPUs	(8) Virtual CPUs
Memory	16GB RAM	16GB Virtual RAM
Storage	**Physical Server**	**Virtual Server**
Operating System	60GB (512n Format)	60GB (Fixed/Thick)
Disk Subsystem	*15k SAS or SSD/RAID 1*	*15k SAS or SSD Virtual Disk 1*
Oracle Database Files	100GB (512n Format)	100GB (Fixed/Thick)
Disk Subsystem	*15k SAS or SSD/RAID 10*	*15k SAS or SSD Virtual Disk 2*

Server Array Solution – 7,000 to 15,000 Students

This is a multi-server Microsoft Windows solution with a dedicated Oracle database server and multiple PowerSchool SIS application servers. The PowerSchool SIS application server(s) accept all requests and translates the request to commands sent to the Oracle database server. A PowerSchool SIS Image server uses standard web service such as Apache or Microsoft IIS to process background images for all the web pages accessed by the PowerSchool SIS application server(s). The PowerSchool SIS Server Array must use a load balancer also referred to as an application delivery controller. The load balancer provides the ability to distribute incoming web requests to the PowerSchool SIS application server(s). It also provides the ability for SSL/TLS offload and acceleration on the load balancer itself and can be configured to cache static PowerSchool SIS content. This covers the needs of districts with up to 15,000 students enrolled.

Dedicated Application Server(s)

Qty	Function	Hardware	Physical Server	Virtual Server
2	PowerSchool SIS Application Servers (General Traffic)	Processor	(2) 4-Core CPUs	(8) Virtual CPUs
		Memory	16GB RAM	16GB Virtual RAM
1	PowerSchool SIS Image Server	Processor	(1) 4-Core CPU	(2) Virtual CPUs
		Memory	4GB RAM	4GB Virtual RAM

Storage	Physical Server	Virtual Server
Operating System	60GB (512n Format)	60GB (Fixed/Thick)
Disk Subsystem	*15k SAS or SSD/RAID 1*	*15K SAS/SSD Virtual Disk 1*

Database

Hardware	Physical Server	Virtual Server
Processor	(2) 6-Core CPUs	(12) Virtual CPUs
Memory	16GB RAM	16GB Virtual RAM
Storage	**Physical Server**	**Virtual Server**
Operating System	60GB (512n Format)	60GB (Fixed/Thick)
Disk Subsystem	*15k SAS or SSD/RAID 1*	*15k SAS or SSD Virtual Disk 1*
Oracle Database Files	200GB (512n Format)	200GB (Fixed/Thick)
Disk Subsystem	*15k SAS or SSD/RAID 10*	*15k SAS or SSD Virtual Disk 2*

Load Balancer

The PowerSchool SIS Server Array deployment must use a load balancer also referred to as an application delivery controller. The load balancer provides the ability to distribute incoming web requests to the PowerSchool SIS application server(s). It also provides the ability to terminate TLS connectivity on the load balancer itself. The load balancer appliance must be capable of the following configurations.

Load Balancer Requirements/Functionality
Layer 4/Layer 7 load balancing capabilities
Cookie-based session persistence
Minimum throughput of 100 Mbps
Minimum of 500 SSL Transactions per Second
SSL/TLS offload/termination on the load balancer (Recommended)
Ability to cache content (PowerSchool SIS Images, JavaScript, and CSS) (Recommended)

Note: The PowerSchool SIS load balancer may be a physical or virtual appliance.

Note: The PowerSchool SIS Image server may be omitted if the district utilizes a load balancer/application accelerator appliance capable of caching content (PowerSchool SIS Image, JavaScript, and CSS files).

Non-Production Server

Customers may choose to set up a non-production environment for various purposes such as training, testing, development and off-line/snapshot reporting. Since these environments typically are not receiving significant user load, you may configure these environments as a one-server Microsoft Windows solution with the Oracle database, PowerSchool SIS Tomcat application node, Image server residing on the same server.

Non-Production Server: Recommended Hardware

Hardware	Physical Server	Virtual Server
Processor	(1) 8-Core CPU	(8) Virtual CPUs
Memory	32GB RAM	32GB Virtual RAM
Storage	**Physical Server**	**Virtual Server**
Operating System; PowerSchool SIS Files	100GB (512n Format)	100GB (Fixed/Thick)
Disk Subsystem	*15k SAS or SSD/RAID 1*	*15k SAS or SSD Virtual Disk 1*
Oracle Database Files	*****250GB (512n Format)	*****250GB (Fixed/Thick)
Disk Subsystem	*15k SAS or SSD/RAID 10*	*15k SAS or SSD Virtual Disk 2*

***Note:** The disk size for the Oracle Database Files will vary based on your Production database size and should be sized accordingly.

Non-Production Server: Minimum Hardware

Hardware	Physical Server	Virtual Server
Processor	(1) 4-Core CPU	(4) Virtual CPUs
Memory	24GB RAM	24GB Virtual RAM
Storage	**Physical Server**	**Virtual Server**
Operating System; PowerSchool SIS Files	60GB (512n Format)	60GB (Fixed/Thick)
Disk Subsystem	*10k SAS or SSD/RAID 1*	*10k SAS or SSD Virtual Disk 1*
Oracle Database Files	*****100GB (512n Format)	*****100GB (Fixed/Thick)
Disk Subsystem	*10k SAS or SSD/RAID 10*	*10k SAS or SSD Virtual Disk 2*

***Note:** The disk size for the Oracle Database Files will vary based on your Production database size and should be sized accordingly.

Document Attachment

PowerSchool SIS Document Attachment enables administrators to attach documents to the student record in the administrator portal of PowerSchool. If you intend to utilize this feature, you will need to consider the impact on your data storage and network bandwidth needs. To estimate your ***basic*** storage needs, there are three primary considerations:

- Estimated number of documents to be attached per student
- Estimated size of documents to be attached
- 5 percent allocation for attachment metadata files

For example, if your district has 1,000 students, you anticipate an average of 10 attachments per student, and you anticipate the average attachment file size to be 300 KB, then you would need a minimum of approximately 3 GB of storage for the attachment of documents to the student record:

Example Calculation

Total Attachments	Estimated Storage
10 attachments x 300 KB attachment size	3,000 KB per student
3,000 KB x 1,000 students	3,000,000 KB for all students
(3,000,000 KB/1,048,576 KB per GB) * (1 + 5% for attachment metadata)	3 GB storage

To calculate your ***true*** storage needs, there are additional factors to consider:

- Annual rate of increase of student population
- Attachment retention and archival policy (for example, the number of years after graduation that an attachment saved)
- Data back-up strategy implemented
- File compression or encryption implemented on the storage device

These factors should be considered to ensure a seamless and uninterrupted utilization of PowerSchool SIS Document Attachment. PowerSchool SIS also recommends that you review your network bandwidth if implementing this feature, since files of varying sizes being uploaded and downloaded throughout a typical day may demand increased network bandwidth.

Note: PowerSchool SIS Document Attachment requires the implementation of SSL. For more information on implementing SSL for PowerSchool SIS see Knowledge base article 7544 available on the PowerSchool Community.

General Recommendations

The following recommendations are not required for a successful implementation of PowerSchool but are ***strongly recommended*** for reasons pertaining to data security, redundancy, performance, and efficiency.

- Redundancy and Performance with RAID: Redundant Array of Independent Disks (RAID) is a standard technology that provides increased storage reliability through redundancy, and in some configurations results in increased performance. PowerSchool recommends a RAID 10 (disk mirroring with disk striping) for increased redundancy and performance on the database server for Oracle database files, Oracle redo logs, and Oracle Flash Recovery Area files. However, larger districts may find RAID 5 a suitable alternative at a lower cost per disk for the Oracle Flash Recovery Area files.
- Network Bandwidth Guidelines: Network bandwidth will vary by district based on a myriad of different factors such as network type and configuration, and district-by-district usage patterns. The following data can be used as a starting point for calculating your district-level needs, and is based on network traffic of sampled PowerSchool SIS pages:
    - Up to 3,000 Students: 1.52 Mbs
    - 3,000 to 7,000 Students: 3.55 Mbs
    - 7,000 to 15,000 Students: 7.61 Mbs

Client Software Support

Tablets

PowerSchool SIS 20.x supports the following tablets for standard delivered web pages.

Device	Operating System	Browser
iPad, iPad Mini, iPad Air, iPad Pro	iOS 12, iOS 13	Latest two Safari versions
7" – 10” Android Tablets 1024dp × 768dp minimum resolution	Android 7.x, 8.x, 9.x, 10.x	Latest two Chrome versions
Microsoft Surface Tablets 1024dp × 768dp minimum resolution	Windows 10	Latest two Edge versions
Chromebooks	Latest two versions	Latest two Chrome versions

Note: Amazon Kindle Fire tablets are currently not supported. Additionally, some PowerSchool SIS features such as Visual Scheduler, ReportWorks Developer, Scheduling Engine, and the creation of seating charts are not intended for use on touch input devices and are therefore not supported.

Laptops and Personal Computers

PowerSchool SIS 20.x supports the following browsers. Older browser and operating system combinations may continue to operate properly but are no longer supported.

Windows Browsers
Latest two versions of Edge
Latest two versions of Firefox (including most current ESR release)
Latest two versions of Chrome
Mac Browsers
Latest two versions of Safari
Latest two versions of Firefox (including most current ESR release)
Latest two versions of Chrome
Chromebook (except PowerTeacher Gradebook and ReportWorks)
Latest two versions of Chrome OS

Java Client

PowerSchool SIS 20.x requires Java Client version 8.0 in some instances (Java 9 or higher is not supported). To ensure security PowerSchool strongly encourages customers to set Java client to auto-update. The following chart can be used to help manage when and where Java client is required.

Function	**Java Client Requirement**
PowerTeacher Pro	Not Required
ReportWorks Developer	Required
Old PowerTeacher launch method (Java webstart)	Required
New PowerTeacher Gradebook installer (launch button)	Not Required

PowerSchool Scheduling Engine Client

Device	**Operating System**
macOS	Version 10.14 and below
Microsoft Windows	Windows 10

PowerTeacher Pro

For districts or teachers using the new PowerTeacher Pro gradebook, the Java client is not required. While client hardware requirements are not different between PowerTeacher and PowerTeacher Pro, the best performance experience will be achieved on current-technology desktops and laptops purchased within the last three years.

Notes

Virtualization of PowerSchool SIS Environments

Server virtualization is software technology that uses a physical server and divides its total resources across many virtual machines (VMs). Server virtualization allows technology administrators to consolidate physical resources, simplify deployment and administration of resources and environments, improve disaster recovery, and reduce power and cooling requirements.

For more information, please refer to the *Virtualization Hardware and Software Requirements and Configuration Guide* available on PowerSource.

Note: PowerSchool does not recommend or endorse any specific server virtualization software. For support, please contact the manufacturer of the server virtualization software that you choose to implement.

Note: PowerSchool does not provide direct support for the configuration and performance of virtualization technology environment itself within the definition of PowerSchool Technical Support.

Performance Assumptions

The PowerSchool Quality Assurance and Performance Team routinely tests the server resource requirements specified in this document. In executing this performance testing, we make several assumptions that reflect system usage of a typical customer, in several configurations ranging from 3,000 to 15,000 enrolled students:

- 20 students for every teacher.
- 100 students for every administrator.
- On average, 25 percent of the total Teacher and Administrator user population is actively using the system at any given time during the school day.
- Five school years' worth of complete historical data in addition to the district data for the current school year.

These assumptions may or may not reflect your business model. They are provided solely to add context to our system requirements so that you may build a configuration that enables you to achieve system performance that meets your expectations.

Disk Space Requirements

The minimum required disk space listed in this document on the server containing the Oracle 12.2 database, data-files, and backups is calculated based on the following factors, which are applicable to all district regardless of student enrollment:

- Daily accumulation of district data for the current school year.
- Five previous school years of complete historical data.
- Five previous school years of partial historical data (grade information).
- Disk will eventually contain five years of data for future school years.
- Disk space requirements for installations of Microsoft Windows operating system and Oracle 12.2
- Standard logging configuration and backup regimen.