HARDWARE AND SOFTWARE REQUIREMENTS

ParentCONNECTxp 4.5

This document lists the hardware and software requirements for the ParentCONNECTxp parent access solution.

See "Deployment Scenarios" on page 4 for information on system architecture.

ParentCONNECTxp 4.5 works with the following products:

- PowerSchool SMS 8.4.2 and 8.4.3
- PowerTeacher gradebook 2.8.1

Software Requirements

ParentCONNECTxp 4.5 requires the following software with the latest revisions and updates installed.

Web/Application Server

Operating System	Revision	Service Pack
Windows Server 2008 64-bit	R2	SP1
Windows Server 2008 32-bit	R1	SP1
Windows Server 2008 64-bit	R1	SP1
Windows Server 2012 64-bit	R2	

Database Server (Process and Display)

Operating System	Revision	Service Pack
Windows Server 2008 64-bit	R2	SP1
Windows Server 2008 32-bit	R1	SP1
Windows Server 2008 64-bit	R1	SP1
Windows Server 2012	R2	

SQL Server (Process and Display)

Operating System	Revision	Service Pack
SQL Server 2008 64-bit	R2	SP2
SQL Server 2008 32-bit		SP2 or SP3
SQL Server 2012 64-bit		SP2

.NET Framework 4.5

The full version of .NET Framework 4.5 must be installed on all ParentCONNECTxp servers before installing ParentCONNECTxp 4.5.

After ParentCONNECTxp 4.5 is installed, verify that the ISAPI/CGI Restrictions parameter is set to allow operation for .NET 4.5. This option is located in the ISAPI and CGI Restrictions area of the IIS Manager for the IIS Web Server.

Supported Web Browsers

ParentCONNECTxp has been tested with the following Web browsers for parent access:

*   Internet Explorer 9, 10 or 11
*   Mozilla FireFox latest
*   Safari 5

Hardware Requirements

The ParentCONNECTxp software will run on any computer that supports the specified versions of Windows Server and SQL Server, but more robust hardware configurations will result in significant improvements in performance. Servers must meet at least the minimum requirements for the Microsoft Server and SQL Server product you choose to run.

ParentCONNECTxp Display Web Server/SQL Server

Only the ParentCONNECTxp website may run on the display server; do not run additional websites on this server. The display Web server and SQL database server may be on the same or different machines.

Display Web server/SQL Server hardware requirements

Component	Recommended	Notes
Processor	SQL Server: Quad-Core Intel Xeon or AMD equivalent Display Web server: Intel Core 2 Duo	Processor speed and RAM requirements are dependent on the number of concurrent connections to the Web server and the data encryption requirements. RAM requirements are dependent upon variables that include the number of clients, number of users, number of students, gradebook usage, installed applications, data modules used, and the operating system in use. Plan for additional free hard drive space to accommodate future upgrades for all software installed on the computer.
RAM	4 GB RAM	
Hard disks	SQL Server: Six FSCSI-2 36 GB hard disks in data fault tolerant configuration • Drives 0 and 1 RAID 1 (mirrored) - NOS, NOS Swap, SQL SR Temporary Storage • Drives 2 and 3 RAID 1 (mirrored) - SQL Transaction Logs • Drives 4 and 5 RAID 1 (mirrored) - ParentCONNECTxp database **Display Web server if separate from SQL Server** Two FSCSI-2 36 GB hard disks in data fault tolerant configuration • Drives 0 and 1 RAID 1 (mirrored) - NOS, NOS Swap, IIS Note: Backup drives for the database are highly recommended.	
Network card	NIC 100/1000	
Other	• External Backup • Uninterruptible Power Supply	

ParentCONNECTxp Process Server

Process server hardware requirements

Component	Recommended	Notes
Processor	Intel Core 2 Duo	• The number of process servers is more important for performance than the hardware specifications of any given server.
RAM	2 GB RAM	• Processor speed and RAM requirements are dependent on the number of schools assigned to the DataRefresher. • RAM requirements are dependent on the number of schools assigned to the DataRefresher and amount of gradebook information being processed.
Hard disks	Four 72 GB hard disks in data fault tolerant configuration • Drives 0 and 1 RAID 1 (mirrored) - NOS, NOS Swap • Drives 2 and 3 RAID 1 (mirrored) - ParentCONNECTxp database	
Network card	NIC 100/1000	
Other	• External Backup • Uninterruptible Power Supply	

Deployment Scenarios

ParentCONNECTxp has a modular design to allow flexibility in how the environment is implemented. All of the modules can be on one server in a small environment, or can be spread across multiple Web and database servers. This section describes a few installation scenarios, but there are many possible solutions. You can configure ParentCONNECTxp to refresh data once a day or multiple times a day. If you refresh data only once a day, simpler configurations will suffice. If you refresh data multiple times daily, more robust configurations may be needed. See the Chapter 2, "Product Architecture," in the *ParentCONNECTxp Installation and Setup Guide* for additional guidelines for planning your environment.
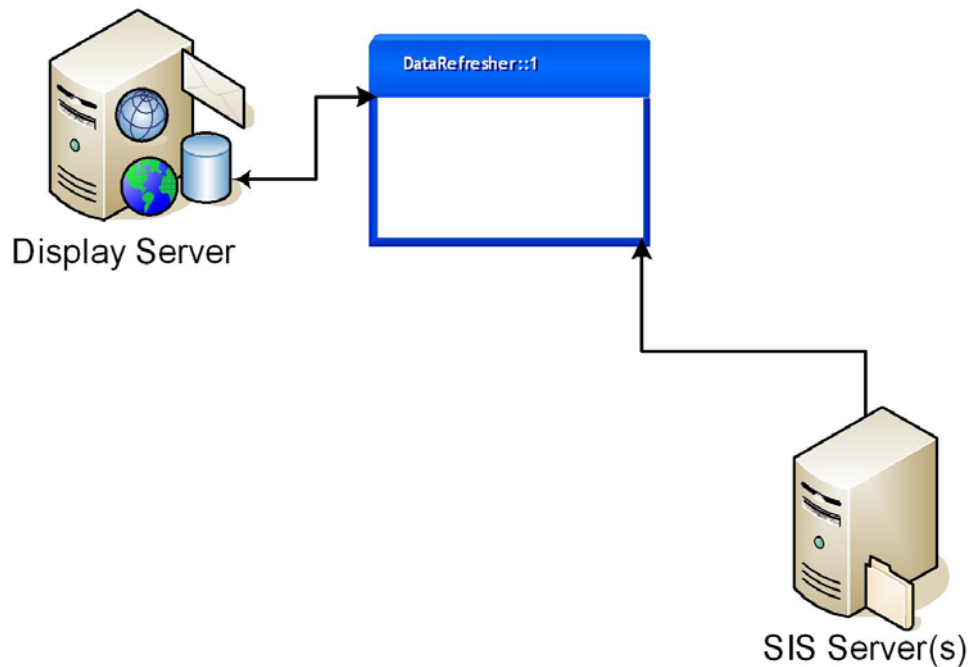
Important: For best performance, Pearson recommends that the number of DataRefreshers/process servers used should not be greater than 50% of the number of CPU cores on the PowerSchool SMS database server. For example, if the PowerSchool SMS database server has a quad-core processor, ParentCONNECTxp should not have more than two Data Refreshers/process servers.

Small District

A small district is defined here as fewer than 50,000 students. The entire ParentCONNECTxp system is run on a single computer that performs both the display and processing functions and runs a single instance of DataRefresher. While the processing functions can be split across multiple DataRefresher applications, a district of this size will rarely require more than one DataRefresher application.

DataRefresher requires all computing resources when it is processing data. If the DataRefresher resides on the display server, website performance will be significantly impacted while DataRefresher is running. In this scenario, DataRefresher should be run only during hours when website activity is at a minimum. If you want to refresh data multiple times daily, it is strongly recommended that the display and process operations run on separate servers.
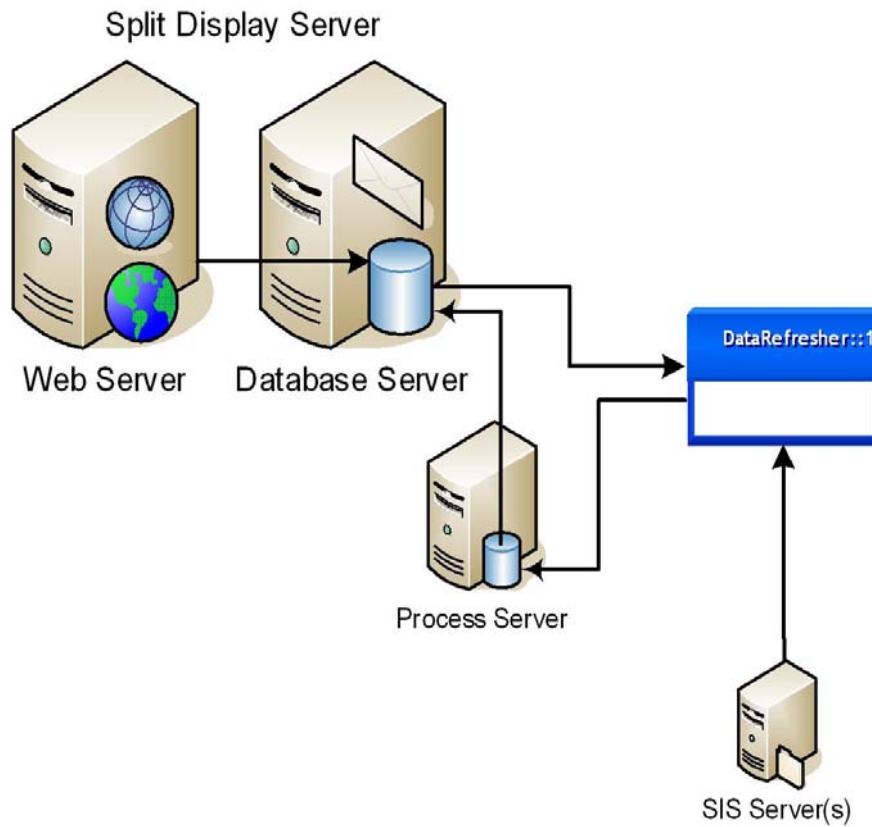
FIGURE 1: Small district, fewer than 50,000 students

DataRefresher::1

Display Server

SIS Server(s)

Medium District

A medium district is defined here as 50,000–100,000 students. The display server and process server subsystems are split, with one or more process servers each running one or more DataRefresher application. The display server is split into a Web server and SQL database server.

FIGURE 2: Medium district, 50,000–100,000 students

Large District

A large district is defined here as 100,000–200,000 students. The display server and process server subsystems are split, with multiple process servers each running one or more DataRefresher application. The display server is split into multiple Web servers (for both failover and performance purposes) and a SQL database server.

For districts with greater than 200,000 students, contact Pearson for design recommendations.

FIGURE 3: Large district, 100,000–200,000 students