Installation and Setup Guide

ParentCONNECTxp

Version 4.5

ALWAYS LEARNING PEARSON

Released October 2014

This edition applies to Version 4.5 of the ParentCONNECTxp software and to all subsequent releases and modifications until otherwise indicated in new editions or updates.

The data and names used to illustrate the reports and screen images may include names of individuals, companies, brands, and products. All of the data and names are fictitious; any similarities to actual names are entirely coincidental.

Contents

List of Tables

Refer to the following tables for installation and setup parameters.

Table 1. Tables that list installation parameters

1

Overview

This guide describes how to set up the ParentCONNECTxp™ parent access solution.

About ParentCONNECTxp

ParentCONNECTxp is a Web-based application that allows parents to view information about their child in a secure environment. You can use ParentCONNECTxp to make information from PowerSchool SMS® and PowerTeacher™ gradebook available to parents. ParentCONNECTxp copies student data from these databases to populate its own database.

Parents can be given access to the following information and features in ParentCONNECTxp:

- Student Information – A summary of the student's attendance, grades, assignments, discipline, and contact information. Personal information may also be displayed.
- Course Plan and Requests - On the ParentCONNECTxp website, the Course Plan pencil provides a view of the student's course requests for the upcoming year and their Academic Plan progress. Parents will approve their child's course requests on this pencil if required to do so by the school. Counselors will approve courses in PowerSchool SMS if required to do so. A separate website is used for students to search for courses and submit their course requests.
- Assignments – With PowerTeacher gradebook, information regarding assignments is available. The type of assignment, course name, and due date can be displayed. Grades for classes that the student is currently taking can be listed with links to details of the tasks that were used to determine the current class grade.
- Grades – Parents can view and print unofficial report cards and transcripts from PowerSchool SMS. Grades for each Reporting Period can be listed with the details of how the grades were achieved. Students' course history and current schedule are also available.
- Attendance – Attendance records are displayed with all absences and tardies. Attendance views are provided in calendar, report, and summary totals formats.

- Discipline – Discipline incidents are listed with partial details. Date, location, the person who reported the incident, and what action was taken can be displayed. The school decides what policy to use in publishing this information to parents.
- School Information – The staff directory displays names and contact information such as telephone numbers and e-mail addresses. You can post school announcements by using the website as a school bulletin board.
- E-mail Alerts – Parents can request to receive an e-mail notification when their children are absent, have a recorded discipline incident, or are missing or failing a class assignment. Parents can select the types of alerts they want to receive.
- Languages - ParentCONNECTxp can be enabled to display the website interface in English, Spanish, or Russian, allowing parents and students to select their preferred language.

ParentCONNECTxp Applications

ParentCONNECTxp consists of the following applications:

- The **Administration** application (or AdminApp) handles system setup and maintenance. Use it to customize the Web display, create user accounts, assign students to these accounts, and configure and control data population operations performed by the DataRefresher.
- The **DataRefresher** application refreshes the ParentCONNECTxp database at specified intervals by extracting data from the PowerSchool SMS database and gradebook data.
- The **PCxp Alert Notifier service** manages the processing of e-mail alerts sent to parents. It scans parent requests for the types of alerts requested and creates an e-mail message to send to parents when their children’s PowerSchool SMS data is marked with an action that falls into a requested alert category (unexcused absence, tardy, discipline, and so on). The Alert Notifier Service is also used to process e-mail messages generated by AdminApp and DataRefreshers.
- The **ParentCONNECTxp website** provides secure (SSL) display of student information to those Web users authorized to view a particular student’s data.
- The **ParentCONNECTxp COM+ Components Package** provides the database connectivity and business logic used to create the dynamic display portions of the ParentCONNECTxp web pages. These components are also used by the Alert Notifier service to generate alert e-mail messages to parents.
- The **Online Course Request** website allows students to request courses for scheduling. This website is accessed from a link on the Course Plan pencil in ParentCONNECTxp or via its own URL (the same as the URL for ParentCONNECTxp followed by /OCR).

How it Works with Student Information Systems

The school and teacher information and most of the student information comes from data maintained in your student information system. The student information includes:

- Attendance
- Discipline
- Contact information
- Grades
- Report Cards
- Immunization
- Student schedules
- Student pictures

Student assignments and current class grades come from PowerTeacher gradebook.

Hardware and Software Requirements

See the *ParentCONNECTxp Hardware and Software Requirements* guide for a list of hardware and software requirements.

2

Product Architecture

This chapter provides guidelines and examples of ParentCONNECTxp product architecture.

Components in a ParentCONNECTxp Environment

You can split your ParentCONNECTxp system into a display server subsystem and one or more process server subsystems to improve performance. As with previous versions of ParentCONNECTxp, you can also run everything on one server. See Figure 2-1 on page 6 for an illustration of a ParentCONNECTxp environment.

Display Server Subsystem. The display server subsystem includes the primary SQL Server database for ParentCONNECTxp operations and may be used to provide the website to end users. Use only one display server per district. This gives all end users in the district one website for all activities. If you don't want to add process servers, the display server subsystem will perform both the display and processing functions.

The display server subsystem contains the following additional components:

- **IIS Websites**. ParentCONNECTxp provides two websites for use in accessing the product. A simple HTTP site facilitates initial site access and an HTTPS (SSL) site provides for secure display of student information to the end user.
- **Microsoft SMTP Virtual Server.** This service is used for the delivery of e-mail messages from the Alert Notifier service as well as internally generated e-mail messages from the end user to someone included in the ParentCONNECTxp Contact List.
- **ParentCONNECTxp COM+ Services**. These components are used by the ParentCONNECTxp websites and the Alert Notifier service to obtain the requested data from the display server database. If you have more than one display server in your setup, ensure you install SMTP Service across ALL display servers.

Process Server Subsystem. The process server subsystem includes a secondary SQL Server database and the DataRefresher application. Process servers can be used to spread out the business logic processing across multiple systems. You can add one or more process servers to manage data processing and improve performance.

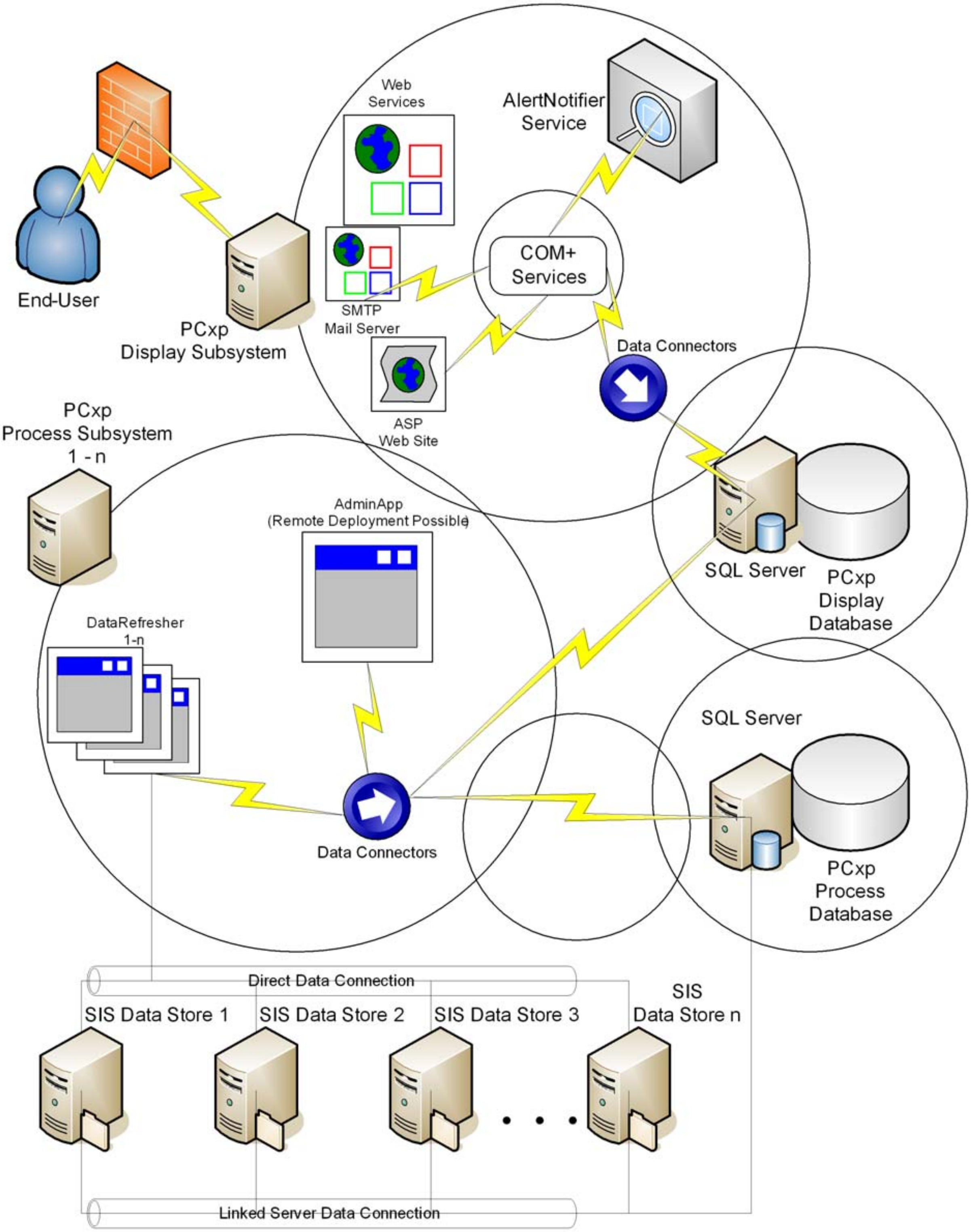
DataRefresher. DataRefreshers manage the population of data from PowerSchool SMS to the SQL Server database in the process servers and, finally, the display server subsystem. Each process server typically runs one DataRefresher.

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.

Administration Application (AdminApp). System administration operations are performed through the AdminApp application. AdminApp can be run on any supported Windows platform but must always reference the SQL Server database used for display server operations.

The following diagram illustrates a ParentCONNECTxp system.

Figure 2-1. ParentCONNECTxp system



Operational Guidelines

Follow these guidelines when designing a ParentCONNECTxp environment:

- Depending on factors such as the size of data, network capacity, and server scaling, data can be refreshed as often as hourly, but the data is only as fresh as your source data.
- The most important question to answer when designing a ParentCONNECTxp environment is how fresh you want your data for each school. This determines how many process servers you need, the refresh times, DataRefresher assignments, and the hardware you will use.
- Display and process server subsystems can run on one server or can be split into one display server with one or more process servers. To improve performance of data population operations, add additional process servers or increase the processing capabilities of an individual process server.
- Typically, a single DataRefresher will run on each process server; however, multiple instances of DataRefresher are supported on each process server. Each DataRefresher can support the execution of up to 25 concurrent threads. Each thread within a DataRefresher instance is dedicated to the processing of data from a single school. Adjusting the number of concurrent processing threads in the Administration application can improve performance but the optimum number of threads a server can support without system degradation is dependant on the processing capabilities of the server.
- The number of schools a process server/DataRefresher can process depends on the size of the schools, the server hardware specifications, the data capacity of the network infrastructure, and the frequency at which you want to update the data to be on the display server. You may put a large number of elementary schools that update once daily on a single DataRefresher. You may put just a few high schools that refresh several times daily on another DataRefresher.

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.

Deployment Scenarios

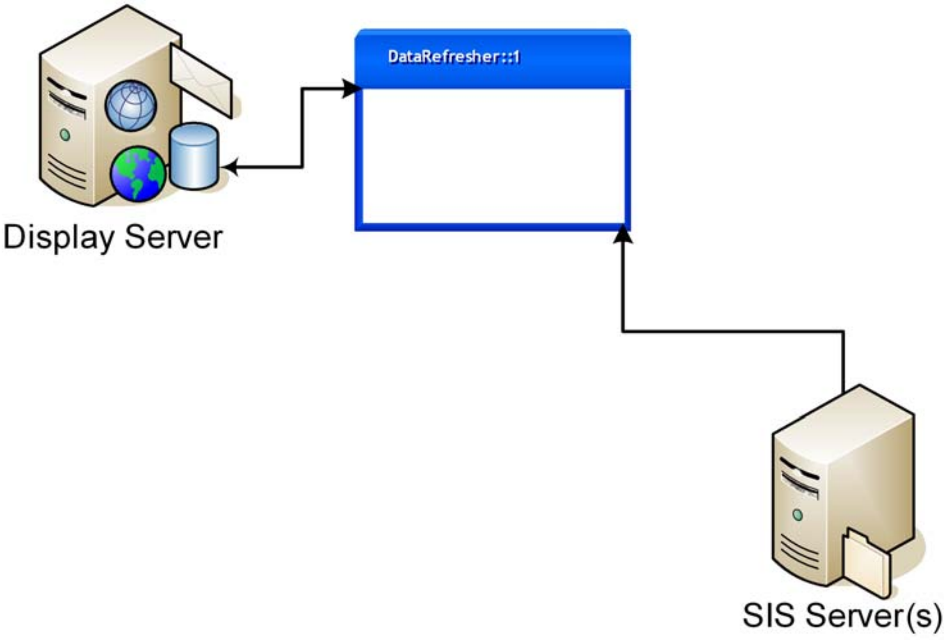
ParentCONNECTxp has a modular design to allow flexibility in how the environment is implemented. All of the modules can be on one server in a small environment, or can be spread across multiple Web and database servers. This section describes a few installation scenarios, but there are many possible solutions.

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, this size of district 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.

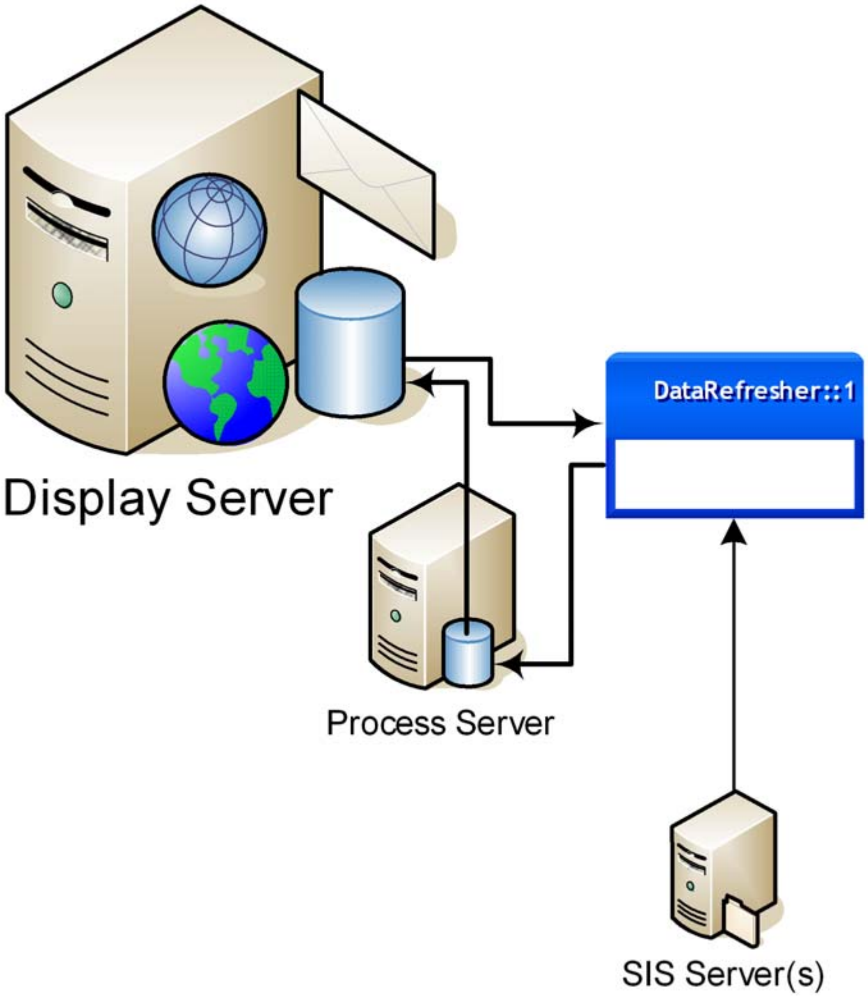
Figure 2-2. Small district, fewer than 50,000 students



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.

Figure 2-3. Medium district, 50,000–100,000 students

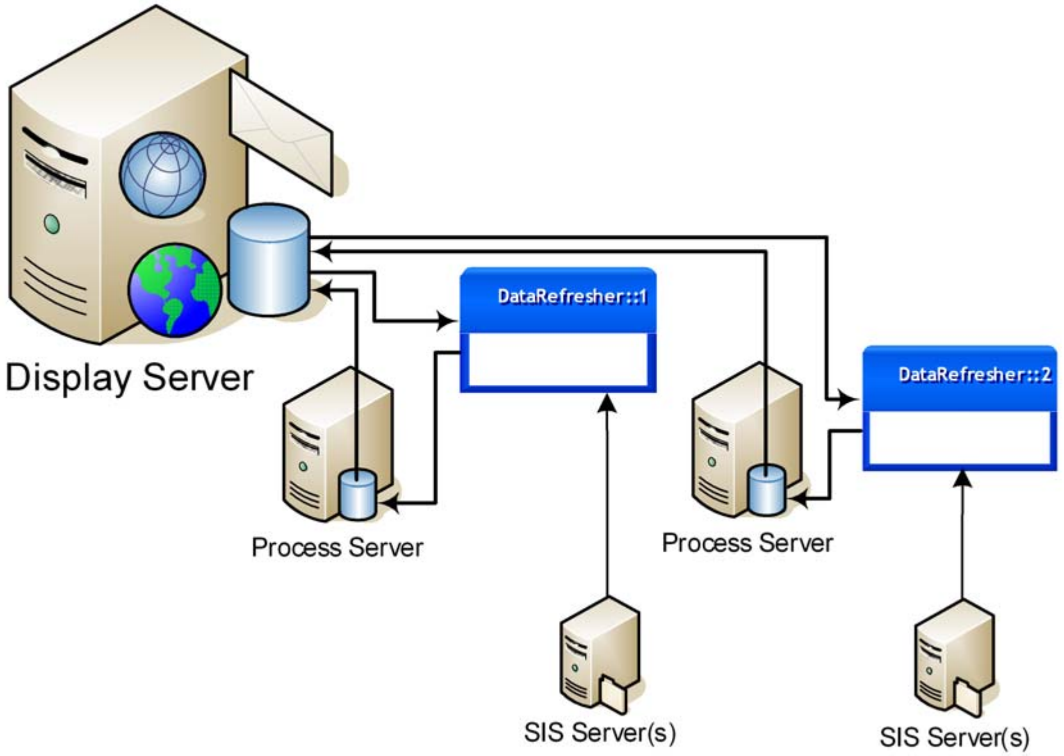


Large District

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 2-4. Large district, 100,000–200,000 students



3

Windows Server and SQL Server Installation

This chapter provides guidelines for the installation of Windows Server and SQL Server for use with ParentCONNECTxp. See the *ParentCONNECTxp Hardware and Software Requirements* guide for more information on supported software.

Important:

- Only the ParentCONNECTxp website may run on the display server; do not run additional websites on this server.
- If you have more than one display server in your setup, ensure you install SMTP Service across ALL display servers.

Installing Windows Server

Please consult the Microsoft Windows Server installation documentation for detailed explanations of installation and configuration procedures.

General Guidelines

Follow these guidelines when installing and setting up the Windows Server software:

- Make sure that your systems meet the minimum hardware and software requirements for use as a display server and/or process server(s).
- 32-bit and 64-bit versions of Windows Server 2008 are supported for use with ParentCONNECTxp.
- The full version of .NET Framework 4.5 is required on all ParentCONNECTxp servers.
- If you have more than one display server in your setup, ensure you install SMTP Service across ALL display servers.

- Only NTFS file-system formatting is supported for use with ParentCONNECTxp.
- Sufficient free disk space must be available to accommodate the following:
  - Application of operating system service packs, security patches, and other updates prior to placing the system in a production environment.
  - Growth of the ParentCONNECTxp database to accommodate the storage of increasing amounts of data throughout the school year.
  - Storage of the ParentCONNECTxp database and transaction log backups to ensure the ability to restore the system to use in the event of a system failure. These backup files must be moved to a different system to ensure protection.

Network and Internet Connections

- Static TCP/IP addressing is required on all display and process servers.
- The system on which you are installing ParentCONNECTxp must have Internet connectivity and inbound connection privileges defined to provide for external access to ParentCONNECTxp data.
- A public Fully Qualified Domain Name (FQDN) is required for the ParentCONNECTxp server to be accessible from the Internet. A DNS entry linking this name to the assigned public IP address—either actual or redirected (NAT/PAT)—must be added to the DNS server you are using to provide for inbound system name resolution (such as Public DNS Server). This server may be housed internally or with your Internet service provider (ISP).
- You must register a public domain name with a company such as Network Solutions or through the assistance of your ISP.
- Two IIS websites are created as part of the ParentCONNECTxp installation. One site supports HTTP communications and the other site supports HTTPS (secure) communications. Unique TCP Port assignments must be assigned to each website to provide for communications across the Internet. Also, you will need to create the appropriate firewall redirect rules to permit communications between Internet-connected users and the ParentCONNECTxp Web server (the display server).
- ParentCONNECTxp can provide e-mail messaging capabilities to allow parents to send messages to select staff and teachers. ParentCONNECTxp can also use this messaging system to send alerts to parents for selected events that may occur with their children. This messaging system uses the SMTP Virtual Server functionality of IIS Server to handle the delivery of the messages. Enabling these messaging features requires that network infrastructure support the delivery of SMTP network traffic on TCP/IP port 25 to the Internet and/or the internal network. For delivery of messages destined for internal personnel, an A (host) and MX (mail exchange) record for the internal mail server must exist on the DNS Server assigned to the ParentCONNECTxp server.
- The secure (HTTPS) portion of the ParentCONNECTxp Web services requires an SSL certificate. SSL certificates provide a form of digital authentication to software security systems. They verify that the entity you are communicating with is, in fact, who you think it is. Certificates also provide the method necessary to conduct private communications and prove the origin of communications. The need for privacy and authentication over nonsecure networks, like the Internet, requires some form of data encryption and decryption as part of a software security system. If you do not have an existing security certificate or do not subscribe to a third-party certificate provider, you

will need to install Microsoft Certificate Server services on the ParentCONNECTxp server so that the required SSL certificates can be generated.

- If Certificate Server services need to be installed, this service should not be installed until the system has been placed in the desired workgroup or domain and only after SQL Server and its associated Service Packs have been installed.
- Perform routine checks for updates to Root Authority Certificates using Windows Update to ensure the system can validate public security certificates properly.

Required Operating System Components

In addition to the basic components required for Windows Server, Table 3-1 on page 14 identifies additional operating system components required for ParentCONNECTxp. If you want to install components not identified as required, please ensure that you understand the impact they may have on the operation, performance, and security of the operating system and ParentCONNECTxp.

You can install these components as part of the initial installation or after the initial installation has been completed.

To install the required components after the initial installation has been performed:

1. Open Windows **Control Panel**, and then click **Add or Remove Programs**.
2. Click **Add/Remove Windows Components**.
3. Locate the configuration options for IIS on the Internet Information Services (IIS) component selection is in the Application Server item in the main list.
4. Click the **Details** button to locate and enable/disable the individual component options outlined in Table 3-1 on page 14.
5. When all options have been configured and installed, complete the wizard and close the Add or Remove Programs dialog box.

For Windows Server 2008:

- You can add and manage IIS in the Roles and Features area of Server Manager.
- All IIS 6 Management Compatibility features are required with Windows Server 2008.
- Set up the individual component options outlined in Table 3-1 on page 14 (the locations may be different).

Required for all versions of ParentCONNECTxp servers:

- The full version of Microsoft .NET Framework 4.5. After installing ParentCONNECTxp, 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.

Table 3-1. Additional Windows Server components

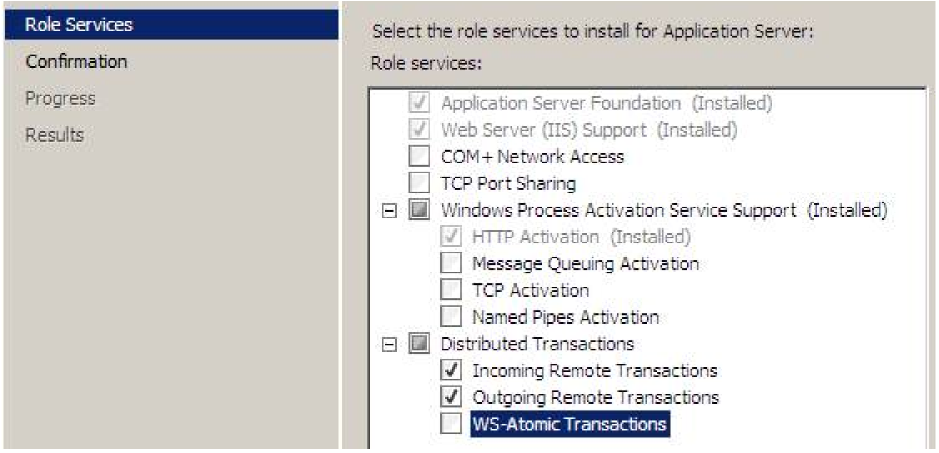
Operating System Component	Windows Server 2008
Internet Information Services (click the Details button to view the components below)	✓
BITS Server Extensions	✓
Common Files	✓
Documentation	Not applicable
FTP Service	✗
Front Page Server Extensions	✓
IIS Manager Snap-in (MMC)	✓
IIS 6 Management Capability	✓
Internet Printing	✗
NNTP Service	✗
SMTP Service	✓
Visual InterDev RAD Rapid Deployment Support	Not applicable
Internet Service Manager (HTML)	Not applicable
World Wide Web Service (click the Details button to view the components below)	✓
Active Server Pages	<default>
Remote Administration (HTML)	✗
Internet Data Connector	✗
Remote Desktop Web Connection	✗
Server Side Includes	<default>
WebDAV Publishing	✗
World Wide Web Service	✓
ASP.NET	✓

Additional Setup for all SQL Servers - MSDTC

Follow these steps to ensure that MSDTC works properly on all of the following servers:

- ParentCONNECTxp servers
- PowerSchool SMS servers
- PowerTeacher gradebook server

1. Open **Server Manager**.
2. Expand **Roles** and click **Application Server**.
3. On the right side of your screen, click **Add Role Service**.
4. If **Distributed Transactions (Incoming/Outgoing Remote)** is not installed, you must install the Distributed Transaction Role Service. To do so, expand **Distributed Transactions** and select only **Incoming Remote Transactions** and **Outgoing Remote Transactions**.
5. Select the role services shown here, and then click **Next**, **Install**, and **Close**.



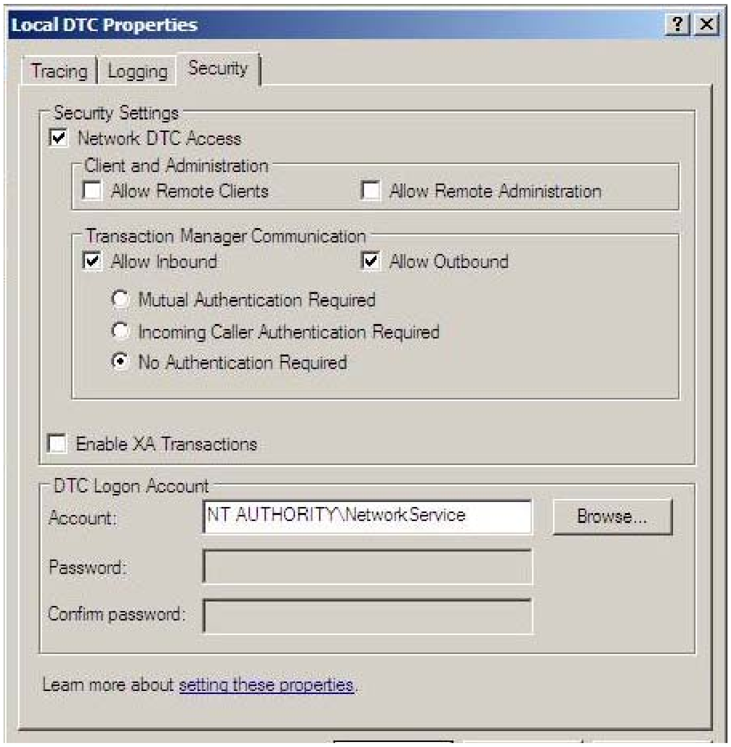
Select the role services to install for Application Server:

Role services:

- ☑ Application Server Foundation (Installed)
- ☑ Web Server (IIS) Support (Installed)
- ☐ COM+ Network Access
- ☐ TCP Port Sharing
- ⊟ ▣ Windows Process Activation Service Support (Installed)
  - ☑ HTTP Activation (Installed)
  - ☐ Message Queuing Activation
  - ☐ TCP Activation
  - ☐ Named Pipes Activation
- ⊟ ▣ Distributed Transactions
  - ☑ Incoming Remote Transactions
  - ☑ Outgoing Remote Transactions
  - ☐ WS-Atomic Transactions

6. Expand **Roles** > **Application Server** > **Component Services** > **Distributed Transactions**.
7. Right-click **Local DTC** and click **Properties**.

8. Select the following properties, and then click **OK**.



Security Settings

☑ Network DTC Access

Client and Administration

□ Allow Remote Clients □ Allow Remote Administration

Transaction Manager Communication

☑ Allow Inbound ☑ Allow Outbound

○ Mutual Authentication Required

○ Incoming Caller Authentication Required

● No Authentication Required

□ Enable XA Transactions

DTC Logon Account

Account: NT AUTHORITY\NetworkService

Password:

Confirm password:

Learn more about setting these properties.

Creating Windows User Accounts for ParentCONNECTxp

Please consult the Microsoft Windows Server documentation for detailed explanations of system administration tasks and procedures.

Pearson School System strongly recommends that you create two Windows user accounts (PCXP and PCXPSVCS) for ParentCONNECTxp operations. Follow these guidelines:

- The PCXP account is used for general console-based activities such as running AdminApp or DataRefresher.
- The PCXPSVCS account is used for service or background activities such as the ParentCONNECTxp COM+ component authentication and as the service account for AlertNotifier service and SQL Server.
- If multiple ParentCONNECTxp systems are used, such as multiple process servers, each system should have identical accounts and passwords.
- The user accounts should be local accounts on the ParentCONNECTxp system(s).
- Domain-based accounts can be used. Because domain-based account use is specific to each network environment, this guide does not provide documentation for the creation and use of domain-based accounts. Please consult with your network administrator to configure the ParentCONNECTxp systems to use domain-based accounts.

To create the local PCXP and PCXPSVCS user accounts:

1. On the Windows taskbar, click **Start**, point to **Administrative Tools**, and then click **Computer Management**.
2. Under **System Tools**, expand **Local Users & Groups**.
3. Create the user accounts:
   a. Right-click the **Users** folder, and then click **New User**. The New User dialog appears.
   b. Create the PCXP user (don't choose parameters yet—you will do this in the next step).
   c. Complete steps (a) and (b) for the PCXPSVCS accounts, and then click **Close**.
4. Modify the user account properties for each user as follows.
   a. Right-click the PCXP user, and then click **Properties**.
   b. Configure the properties as shown in Table 3-2 on page 18.
   c. Repeat these steps for the PCXPSVCS account.
5. Close the **Computer Management** utility.

Table 3-2. Windows user account properties

User Account Property	PCXP	PCXPSVCS
User name	PCXP	PCXPSVCS
Full name	PCxp User	PCxp Service
Description	ParentCONNECTxp User Account	ParentCONNECTxp Service Account
User must change password at next logon	<customer choice>	✗
Password never expires	<customer choice>	✓
Important: Member of local Administrators group (use the Member Of tab)	✓	✓
Allow "Logon As a Service"*	✗	✓

* The "Logon As a Service" permission should be applied automatically when the account is used as the authentication account for a service such as SQL Server or PCxpAlertNotifierSrv. No user configuration is necessary. This information is provided simply to identify that this permission exists.

Installing Microsoft SQL Server

Please consult the Microsoft SQL Server installation documentation for detailed explanations of installation and configuration procedures. Table 3-3 lists the required installation parameters for ParentCONNECTxp.

Notes for SQL Server operation under ParentCONNECTxp:

- ParentCONNECTxp supports the use of named instances of SQL Server.
- Most objects (SQL Logins, passwords, and so on) in SQL Server 2008 are case sensitive. This case-sensitivity must be considered in all ParentCONNECTxp configuration procedures.

Table 3-3. SQL Server installation parameters

SQL Server Installation/Config Parameter	SQL Server
Installation Components	
Server Components (Server Database Services)	✓
Workstation Components	✓
Management Tools	Not applicable
Client Connectivity	Not applicable

Table 3-3. SQL Server installation parameters (continued)

SQL Server Installation/Config Parameter	**SQL Server**
Books Online	Not applicable
Development Tools	✗
Code Samples	Not applicable
Service AutoStart	
SQL Server service	✓
SQL Server Agent service	✓
Service Account	PCXPSVCS
Default Server Collation	<installer default>
Authentication Mode	Mixed
Network Libraries	TCP/IP only
Remote Connections	Enabled
Product Licensing	
ParentCONNECTxp Display Subsystem	Processor only
ParentCONNECTxp Process Subsystem	Any valid method defined by Microsoft

4

Installation

This chapter shows how to install or upgrade the ParentCONNECTxp application. See the preceding chapter for SQL Server and Windows Server installation parameters. At the display server, do one of the following:

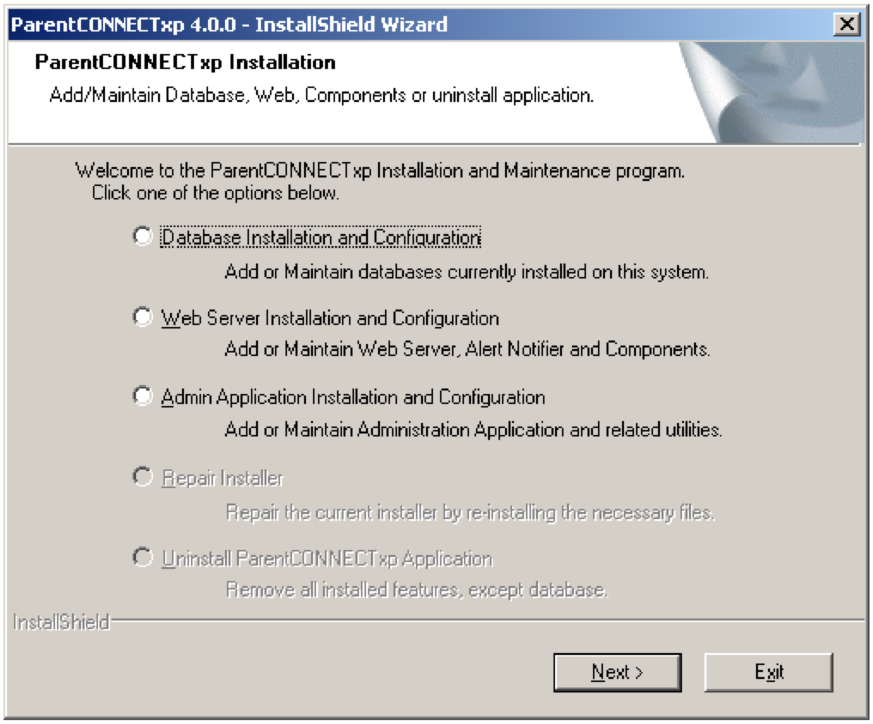
- "Performing a New Installation" on page 21
- "Performing an Update" on page 24

Note: If you are upgrading from ParentCONNECTxp 2.x, upgrade to version 3.2 first, and then run the installer to upgrade to version 4.0 or later. Use the 4.x installer to upgrade from any version of ParentCONNECTxp 3.x.

Performing a New Installation

To install ParentCONNECTxp on the display server:

1. Download the **PCXP_Setup.exe** file from PowerSource and save it to a convenient location.
2. Double-click **PCXP_Setup.exe**.
3. Click **OK** to the warning or click **Cancel** and back up your previous environment.
4. On the welcome screen, click **Next**.
5. Accept the default installation location, or click **Change** to modify it, and then click **Next**.
6. Click **Install**.
7. On the **Add / Maintain** screen, select the appropriate item to install as needed on each server. These may include:
   - Display Server - install and create the database.
   - Process servers (as needed) - install an create the database. Chapter 7, "Process Server Setup," on page 48.
   - Web server - install and configure the Web server (this may be on the same server as the Display Server).
   - Admin Application workstation or server - install AdminApp.



ParentCONNECTxp 4.0.0 - InstallShield Wizard

ParentCONNECTxp Installation

Add/Maintain Database, Web, Components or uninstall application.

Welcome to the ParentCONNECTxp Installation and Maintenance program.
Click one of the options below.

○ Database Installation and Configuration
Add or Maintain databases currently installed on this system.

○ Web Server Installation and Configuration
Add or Maintain Web Server, Alert Notifier and Components.

○ Admin Application Installation and Configuration
Add or Maintain Administration Application and related utilities.

○ Repair Installer
Repair the current installer by re-installing the necessary files.

○ Uninstall ParentCONNECTxp Application
Remove all installed features, except database.

8. For **Database Installation and Configuration**:

   a. Select **Database Installation and Configuration**, and then click **Next**.

b. Ensure that the **SQL Server** computer name is correct, type the SQL Server sa-level **Login Name** and **Login Password**, and then click **Next**.

c. Click **Add Database**.

d. Click **Create Display Database**, and then click **Next**. (Note that you should only use the option create a Process Server Database on a separate server when adding process servers to an existing ParentCONNECTxp system.)

e. Modify the **Database Name** as needed.

f. Type and confirm the password for both the **PCXPADMIN** and **PCXPDATA** database logins, and then click **Next**.

g. Change the **Database Size** and **Database Location** as needed.

h. Select the **Number of DataRefreshers** to be used on the display server (you can add more later as needed). See "Operational Guidelines" on page 7 and "Deployment Scenarios" on page 8.

i. Select whether to **Enable DataRefreshers for this server** (the current display server). This option is typically enabled only for smaller districts that will not use separate process servers. Larger districts that will use separate process servers to run DataRefreshers should leave this option unselected. DataRefreshers can be enabled or disabled at any time in AdminApp.

j. Click **Next**.

k. On the **Confirm Database Information** screen, verify and record your information, and then click **Next**. Click **Back** to modify any information.

l. Click **Next**. The PCXP database is created.

m. Click **OK** after the database has been created.

n. Optionally: On the database connection screen, under **PowerSchool SMS DB Connection Info**, select or type the **SMS DB Server** name and type the **DB User Name** and **Password** for the PowerSchool SMS database. (You can click Cancel to proceed to the next step, but will need to enter or change this information later in AdminApp.)

o. Click **Scan Databases**, and then select the PowerSchool SMS database.

p. Select whether to **Connect to a PowerTeacher Database** and enter the appropriate information.

q. Click **Next**.

r. You will be instructed to share the C:\[PCXP_installation]\PCXP_DB folder using the share name **PCXP_CentralAuth**. See "Sharing the Central Authentication Path Folder" on page 26 for step-by-step instructions. Click **OK** after sharing the folder.

s. Click **Done**. The installer returns to the **Add/Maintain** screen.

9. For **Web Server Installation and Configuration**:

a. Select **Web Server Installation and Configuration**, and then click **Next**.

b. Ensure that the **Display Server** name is correct.

c. Type the **DB Admin Login Password** (for the PXCPADMIN login).

d. Click **Scan Databases**, and then select the appropriate ParentCONNECTxp **Display Database**.

e. Modify the **SSL Website URL** address (this will be the ParentCONNECTxp website URL), ensure that the remaining **Web Site Configuration** information is correct, and then click **Next**. Note that you can change the website URL later in AdminApp. By default, the installer uses port 81 for the unsecure website. If there is no other website running on this server, the port number can be changed to port 80.

f. Type the **Password** for the Windows user account used for service or background activities such as the ParentCONNECTxp COM+ component authentication and as the service account for AlertNotifier service and SQL Server (the default account name is **PCXPSVCS**).

Important: This account must exist prior to the installation. See “Creating Windows User Accounts for ParentCONNECTxp” on page 16.

g. Optionally, select the **Install Alert Notifier Service** checkbox and type the **Alert Notifier Sender Email**. This service is required if you want to send e-mail alerts to administrators and parents.

h. Click **Next**.

i. Click **OK** to the message about acquiring an SSL certificate. See “Securing Data Display Operations with SSL Certificates” on page 29. The installer returns to the **Add/Maintain** screen.

10. For **Admin Application Installation and Configuration**:

a. Select **Admin Application Installation and Configuration**, and then click **Next**.

b. Select the SQL Server name on the **Display DB Server**. This can be a SQL Server instance.

c. Type the **Administrator User Password** (for the PXCPADMIN login).

d. Click **Scan Databases**, and then select the appropriate **Database Name**.

e. Click **Next**.

f. Click **OK** when the installation is complete. The installer returns to the **Add/Maintain** screen.

11. Click **Exit**.

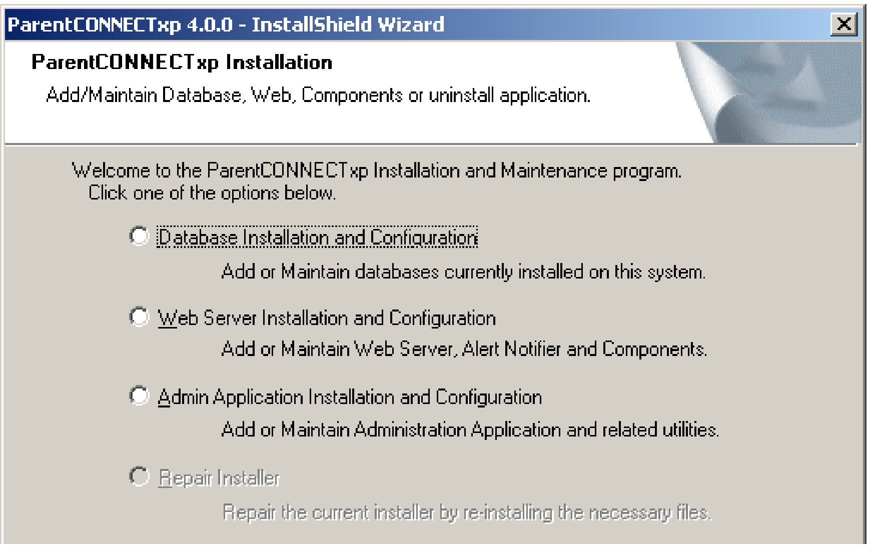
12. **Important:** Follow the instructions in the following chapters to complete the installation. After all setup is complete, do the following:

- If you are using the Alert Notifier service for e-mail alerts, you will need to manually start the service (see Chapter 8, “Alert Notifier,” on page 50).
- Start the ParentCONNECTxp secure and unsecure websites in IIS Manager.
- Restart the IIS Admin Service.

Performing an Update

To update ParentCONNECTxp:

1. Back up your current ParentCONNECTxp environment before performing an update.
2. If you are upgrading from ParentCONNECTxp 3.x, perform the following steps at the server hosting Web server operations to prepare for the update. You will not need to perform these steps for future updates.
   - Delete the Alert Notifier service (PCxpAlertNotifierSrv). To do so, run the **uninstallsvc.bat** file in the AlertNotifierSrv folder.
   - In IIS Manager, delete the **ParentCONNECTxp** and **ParentCONNECTxp Secure** websites.
   - In Component Services, delete the **PCXP** COM+ Application for the display server.
   - Delete the Web folder and its subfolders in the ParentCONNECTxp installation.
   - Restart the server.
3. Download the **PCXP_Setup.exe** file from PowerSource and save it to a convenient location.
4. Double-click **PCXP_Setup.exe**.
5. Click **OK** to the warning or click **Cancel** and back up your previous environment.
6. On the **Add/Maintain** screen, select the appropriate item to install as needed on each server. These may include:
   - Display Server - install and create the database.
   - Process servers (as needed) - install an create the database. Chapter 7, “Process Server Setup,” on page 48.
   - Web server - install and configure the Web server (this may be on the same server as the Display Server).
7. Admin Application workstation or server - install AdminApp.



ParentCONNECTxp 4.0.0 - InstallShield Wizard

ParentCONNECTxp Installation

Add/Maintain Database, Web, Components or uninstall application.

Welcome to the ParentCONNECTxp Installation and Maintenance program.
Click one of the options below.

○ Database Installation and Configuration
Add or Maintain databases currently installed on this system.

○ Web Server Installation and Configuration
Add or Maintain Web Server, Alert Notifier and Components.

○ Admin Application Installation and Configuration
Add or Maintain Administration Application and related utilities.

○ Repair Installer
Repair the current installer by re-installing the necessary files.

8. For **Database Installation and Configuration**:
   a. Select **Database Installation and Configuration**, and then click **Next**.
   b. Ensure that the **SQL Server** computer name is correct, type the SQL Server sa-level **Login Name** and **Login Password**, and then click **Next**.
   c. Select the existing ParentCONNECTxp database, and then click **Update Database**.
   d. Type the password for both the **PCXPADMIN** and **PCXPDATA** database logins, and then click **Next**.
   e. Click **Next**, and then click **OK** after the database has been updated.
   f. Click **OK** after the database has been updated.
   g. You will be prompted to share the C:\[PCXP]\PCXP_DB folder using the share name **PCXP_CentralAuth**. See "Sharing the Central Authentication Path Folder" on page 26 for step-by-step instructions. Share the folder if you haven't already done so, and then, click **OK** after sharing the folder.
   h. Click **Done**. The installer returns to the **Add/Maintain** screen.
9. For **Web Server Installation and Configuration**:
   a. Select **Web Server Installation and Configuration**, and then click **Next**.
   b. Ensure that the **Display Server** name is correct.
   c. Type the **DB Admin Login Password** (for the PXCPADMIN login).
   d. Click **Scan Databases**, and then select the appropriate ParentCONNECTxp **Display Database**.
   e. Ensure that the **Web Site Configuration** information is correct, and then click **Next**.
   f. Type the **Password** for the Windows user account used for service or background activities such as the ParentCONNECTxp COM+ component authentication and as the service account for AlertNotifier service and SQL Server (the default account name is **PCXPSVCS**).

   Important: This account must exist prior to the installation. See "Creating Windows User Accounts for ParentCONNECTxp" on page 16.

   g. Optionally, select the **Install Alert Notifier Service** checkbox and type the **Alert Notifier Sender Email**. This service is required if you want to send e-mail alerts to administrators and parents.
   h. Click **Next**.
   i. Click **OK** to the message about acquiring an SSL certificate. See "Securing Data Display Operations with SSL Certificates" on page 29. The installer returns to the **Add/Maintain** screen.
10. For **Admin Application Installation and Configuration**:
   a. Select **Admin Application Installation and Configuration**, and then click **Next**.
   b. Select the SQL Server name on the **Display DB Server**. This can be a SQL Server instance.
   c. Type the **Administrator User Password** (for the PXCPADMIN login).
   d. Click **Scan Databases**, and then select the appropriate **Database Name**.

   e. Click **Next**.
   f. Click **OK** when the installation is complete. The installer returns to the **Add/Maintain** screen.

11. Click **Exit**.
12. If you are using the Alert Notifier service for e-mail alerts, you will need to manually start the service (see Chapter 8, “Alert Notifier,” on page 50).
13. Restart the **IIS Admin Service**.

The following chapters show how to complete a new installation of ParentCONNECTxp. If you upgraded from a previous version, you do not need to follow the steps in these chapters unless you want to revise our check your installation (except for the steps noted below). See the *ParentCONNECTxp Administrator's Guide* for information on new and updated features in AdminApp.

Additional Installation Steps

Setting Up MSDTC for all SQL Servers

Ensure that the steps in “Additional Setup for all SQL Servers - MSDTC” on page 15 are completed for all servers to ensure that the Distributed Transaction Coordinator (MSDTC) works correctly. These steps must be performed on *all* ParentCONNECTxp servers, PowerSchool SMS servers, and the PowerTeacher gradebook server.

Sharing the Central Authentication Path Folder

To share the central authentication path folder:

1. Log on to the display server.
2. Browse to the **PCXP_DB** folder in the ParentCONNECTxp installation; for example, C:\PCXP\PCXP_DB.
3. Right-click the **PCXP_DB** folder, and click **Properties**.
4. On the **Sharing** tab, select the **Share this folder** option.
5. In the Share name field, type **PCXP_CentralAuth**.
6. Click **Apply**.

Repairing or Uninstalling ParentCONNECTxp

To repair corrupted files or uninstall ParentCONNECTxp on the display server:

1. Double-click **PCXP_Setup.exe**.

2. On the **Add/Maintain** screen, select the appropriate option.
3. Follow the instructions in the wizard.

Note: The database and DataRefreshers will not be deleted by the installer when uninstalling ParentCONNECTxp.

5

Website Security and SMTP Server

This chapter explains how to:

- Apply a security certificate to the ParentCONNECTxp secure website.
- Configure the SMTP virtual server for e-mail services.
- Use IIS Security

The guidelines in this chapter are not specific to a particular version of Microsoft Internet Information Services (IIS) except where necessary due to changes in IIS itself. Although the user interface may differ for these products, the concepts and configuration requirements described here are identical.

ParentCONNECTxp uses Microsoft IIS for the hosting of its websites. The websites use Active Server Pages (ASP) technologies to provide dynamic data display of Web pages based on user input. The COM+ components provide the database operations required for the ASP pages to acquire and display the requested data in the web pages.

Internet access to ParentCONNECTxp is provided through two websites. The first website provides initial, nonsecure (HTTP) access into the ParentCONNECTxp environment. The second website provides secure (HTTPS), authenticated access to the information displays of the students assigned to the users after they login.

If the display server also acts as a certificate server, the Default Web Site created by IIS is used to provide the web interface for certificate requests. Otherwise, the Default Web Site can be disabled.

Securing Data Display Operations with SSL Certificates

Because of the nature of the information made available by the ParentCONNECTxp secure website, this website is intended to operate only in a secure, encrypted manner. HTTPS operations are enabled by acquiring and applying an SSL certificate to the website that allows it to encrypt the communications between the website and the end user.

The SSL certificate can be provided in one of two ways:

- A certificate provided by an internal Microsoft Certificate Services
- A certificate provided by a public authority

SSL certificate processing is accomplished in four basic steps:

- A certificate request is generated on the system hosting the ParentCONNECTxp secure website.
- The request is submitted and processed by the certificate authority.
- The certificate authority generates the certificate and makes the certificate file available to the system that initiated the request.
- The certificate is downloaded to the system and applied to the ParentCONNECTxp secure website.

The process for submitting a request, processing the request, and downloading the certificate are dependant on the certificate authority that is used to acquire the certificate. See Appendix B, “Microsoft Certificate Services,” on page 77 for instructions to use Microsoft Certificate Services.

If you are using any other type of certificate authority, please consult with the certificate authority for instructions on acquiring the certificate file.

Configuring the SMTP Virtual Server

The IIS SMTP virtual server is used to deliver e-mail messages created in the ParentCONNECTxp environment.

If you will be using the e-mail messaging capabilities of ParentCONNECTxp, configure the global SMTP server delivery options to handle e-mail messages to be delivered outside of your organization. These types of messages are usually those generated by the Alert Notifier service.

If you want to allow end users to send e-mail messages to staff and teachers that are included in the Contact Lists, configure a custom domain delivery configuration so that the SMTP server can communicate with your internal mail server.

Important: If you have more than one display server in your setup, ensure you install SMTP Service across ALL display servers.

To configure the SMTP virtual server global settings on the display server:

1. On the Windows taskbar, click **Start** and point to **Administrative Tools**.
2. If you are on Windows Server 2003, click **Internet Information Services (IIS) Manager**.

   OR

   If you are on Windows Server 2008, click **Internet Information Services (IIS) 6.0 Manager**.
3. Expand your server, right-click **Default SMTP Virtual Server**, then click **Properties.**
4. Click the **Access** tab, and then click the **Connection** button.
5. On the Connection screen, select the **Only the list below** option and click the **Add** button.
6. On the Computer screen, select the **Single computer** option and type the TCP/IP address of the display server.
7. Click **OK** twice.
8. Click the **Relay** button.
9. On the Relay Restrictions screen, clear the **Allow all computers which successfully authenticate to relay, regardless of the list above** check box.
10. Select the **Only the list below** option, and then click the **Add** button.
11. On the Computer screen, select the **Single computer** option and type the TCP/IP address of the display server.
12. Click **OK** twice, and then click the **Apply** button.
13. Click the **Delivery** tab, and then click the **Advanced** button.
14. Type the FQDN of the display server in the **Fully-qualified domain name** field.

15. By default, the SMTP server will attempt direct delivery of its e-mail messages to the recipient’s mail server. If you want an alternate mail server to perform the actual delivery of the messages, you will need to specify the Smart host setting.
    - A Smart Host is an alternate e-mail server that is configured to accept relay messages from the display server’s SMTP service.
    - In the **Smart host** field, type the TCP/IP address of the alternate mail server with the address in brackets. For example, [192.168.2.22].
    - If you want the SMTP server to attempt direct delivery before using the Smart host, select the option **for Attempt direct delivery before sending to smart host**. Otherwise, clear this selection.
16. Clear the **Perform reverse DNS lookup on incoming messages** check box.
17. Click **OK**.
18. Click **Apply**, and then click **OK**.
19. Close IIS Manager.

To configure the SMTP virtual server custom delivery settings for an internal mail server:

1. On the Windows taskbar, click **Start**, point to **Administrative Tools**, and then click **Internet Information Services (IIS) Manager**.
2. Expand your server and the **Default SMTP Virtual Server**.
3. Right-click the **Domains** folder, point to **New**, and then click **Domain**.
4. In the New SMTP Domain Wizard, select the **Remote** option and click **Next**.
5. Type the domain name used as part of your organization’s mail address. For example, if your e-mail address is jsmith@mydistrict.edu, type mydistrict.edu.
6. Click **Finish**.
7. Click **Domains**.
8. In the right-hand portion of the screen, right-click the domain that you created and click **Properties**.
9. Select the **Allow incoming mail to be relayed to this domain** check box.
10. Clear the **Send HELO instead of EHLO** check box.
11. Select the **Forward all mail to smart host** check box.
12. In the **Smart host** field, type the TCP/IP address of your internal mail server with the address in brackets. For example, [192.168.2.22].
13. Click **Apply**, then click **OK**.
14. Close IIS Manager.

About IIS security

The instructions and configuration guidelines found in this guide are provided only to ensure the operational integrity of the ParentCONNECTxp system. Because of constantly changing concerns over and approaches to ensuring security of an IIS web site environment, no attempt is made in this document to address security requirements or configuration practices required for ensuring that undesired access to the IIS websites does not occur.

Also, no attempt is made to ensure that the configuration adheres to the particular security policy of the organization that is deploying ParentCONNECTxp in their environment. Ensuring IIS security is an action that must be practiced, monitored, and administered as part of an ongoing process of ensuring compliance with an organization's security policy.

Ensuring that all available operating system patches and security updates are continuously applied (either through the Windows Update website or the Automatic Updates feature of Windows) is critical to maintaining a secure ParentCONNECTxp environment.

Information is readily available to assist you with ensuring IIS security is applied to the ParentCONNECTxp environment in a manner that is acceptable to you. The best place to start is to search the Microsoft website for discussions regarding IIS security.

Please keep in mind that, from the basic IIS website layer, the ParentCONNECTxp websites are typically accessed via anonymous login through the IWAM_xxx network user account (the actual IWAM user name is system dependant). One of the most critical elements to securing your system from undesired access is to control what portions of your Windows server (disk, registry, and so on) are accessible to the IWAM_xxx user.

In that ParentCONNECTxp also uses COM+ technologies to access data in the ParentCONNECTxp database, you should also exercise the same precautions over what portions of the Windows server are accessible to the network user assigned to execute the PCXP COM+ component package.

Pearson School Systems recommends that you ensure the security settings you apply to your server and the IIS subsystems are suitable for the security requirements of your environment. These configurations should be applied prior to placing ParentCONNECTxp in your production environment.

6

Initial Configuration Using AdminApp

This chapter shows how perform the initial configuration of ParentCONNECTxp using the Administration application (AdminApp).

This chapter explains how to:

- Change the ADMIN user login password
- Configure the basic processing parameters
- Configure the display server processing paths
- Configure the connection to PowerSchool SMS
- Import the school list and select the desired data modules
- Create DataRefresher configurations
- Assign schools to a DataRefresher
- Configure the website parameters
- Add users and assign students
- Run DataRefresher
- Test website operations

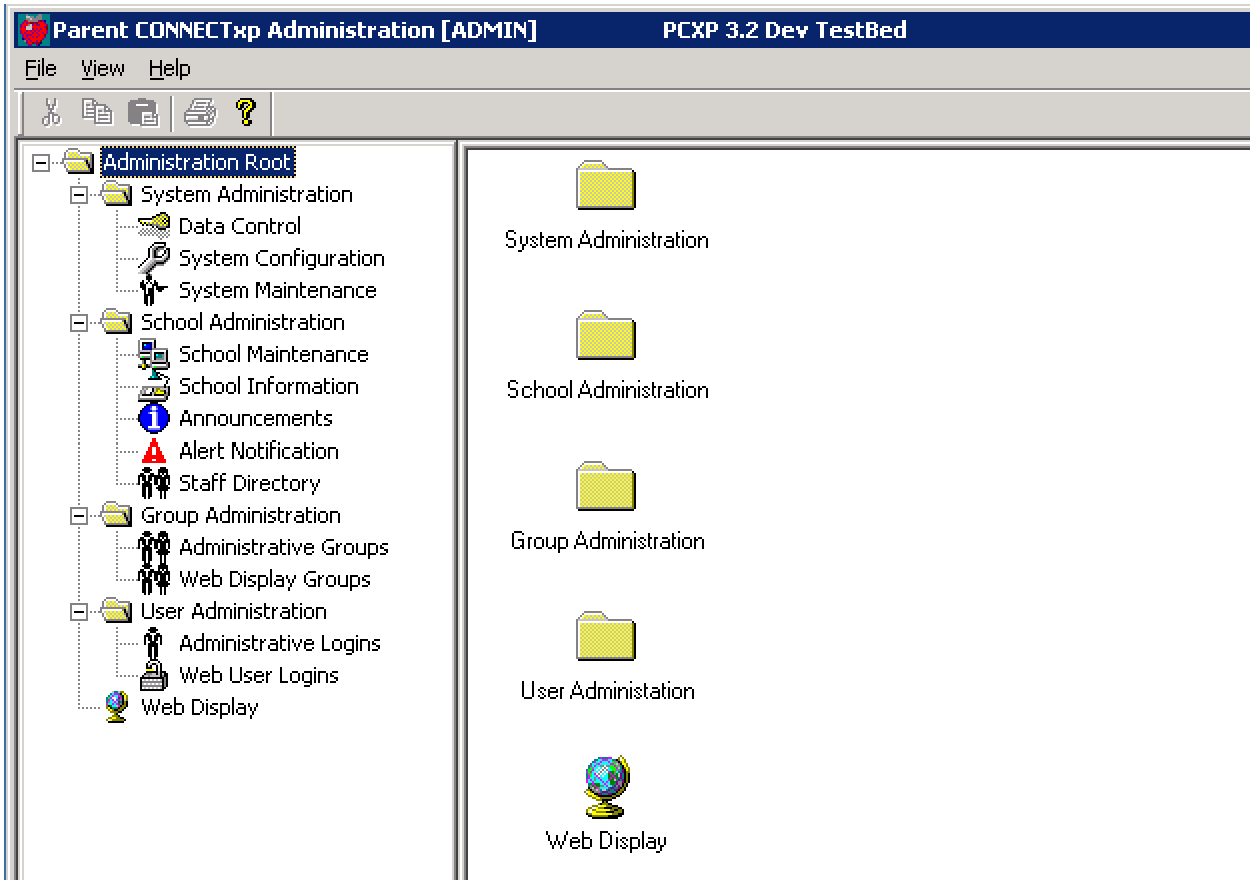
Opening the Administration Application

The ParentCONNECTxp Administration application (AdminApp) is the utility used to configure and administer a ParentCONNECTxp environment.

To open the AdminApp:

1. In Windows Explorer, navigate to the folder containing AdminApp.exe (for example, C:\PCxp\AdminApp).
2. Double-click **adminapp.exe**.
3. In the Login dialog box, type ADMIN for both the user ID and password, and then click **OK**. The AdminApp user interface appears.

Figure 6-1. AdminApp user interface



The AdminApp user interface uses a tree hierarchy for navigation to the desired configuration screen. Click an object on the left side of the application to display that configuration screen on the right side of the application. Some configuration screens provide additional controls or buttons that display additional windows for configuring the application.

Please refer to the *ParentCONNECTxp Administrator's Guide* for additional tips on using the features in AdminApp.

When using AdminApp, it is assumed that the system from which AdminApp is running has automatic or pass-through authentication to the display server and its file system. Please ensure that these permissions exist before running AdminApp because it does not attempt to authenticate to any display or process server when performing its operations.

Changing the ADMIN User Login Password

To change the ADMIN user password:

1. In AdminApp, double-click the **User Administration** folder and then double-click the **Administrative Logins** icon
2. Click the **ADMIN** user, and then click the **Edit** button.
3. Type and confirm the new password for the ADMIN login.
4. Click **OK**.

Verifying the Website URL

The ParentCONNECTxp installer prompts you to enter the website URL for ParentCONNECTxp during the installation process.

To verify or change the website URL:

1. In AdminApp double-click the **System Administration** icon, and then double-click the **System Configuration** icon.
2. Expand **ParentCONNECTxp System Settings** > **Connectivity Settings** > **ParentCONNECTxp Web Site URL**.
3. Type the Fully Qualified Domain Name (FQDN) you are using for the website.
4. Configure other settings as needed. See the *ParentCONNECTxp Administrator's Guide* for information on other options.
5. Click **Save** to save any changes.

NOTE If you are using the ParentCONNECTxp Course Request system, the URL is the same as the ParentCONNECTxp website followed by /OCR. Student can also access the website from the Course Plan area.

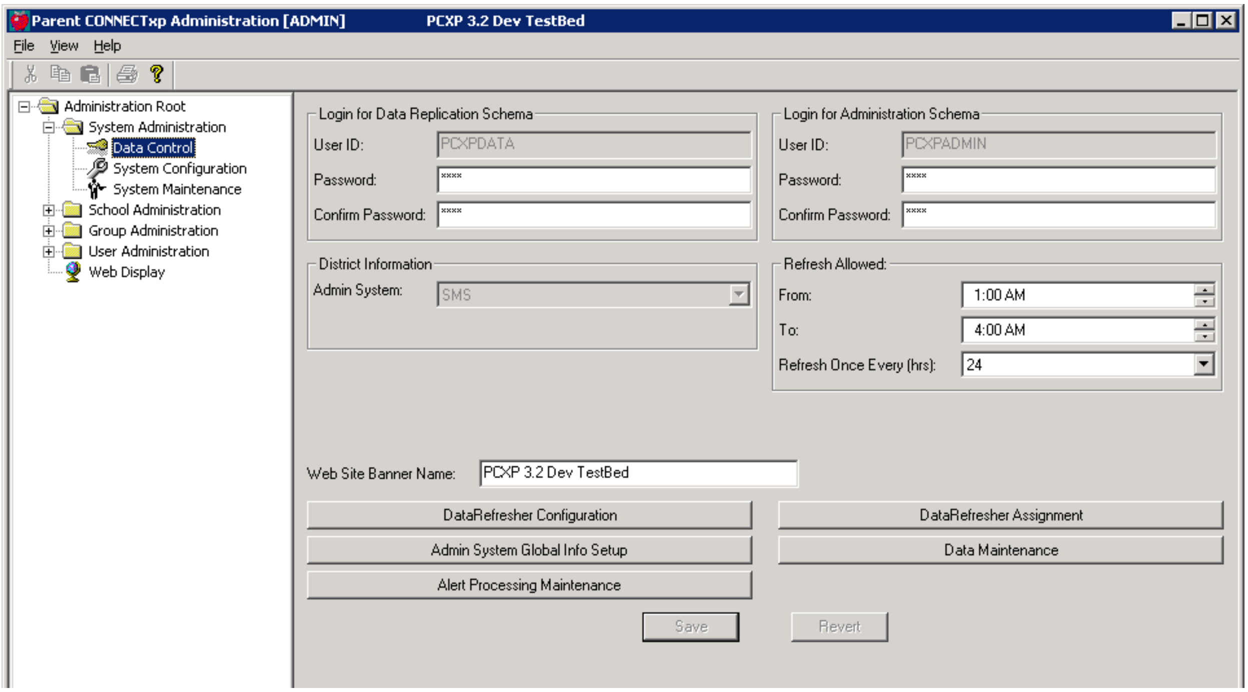
Configuring Basic Processing Parameters

To configure the basic processing parameters:

1. In AdminApp, double-click the **System Administration** icon, and then double-click the **Data Control** icon.
2. Use the **Login** areas to modify the PCXPDATA or PCXPADMIN passwords as needed. (These passwords are created during the initial installation of ParentCONNECTxp.)

3. In the **Refresh Allowed** area, define the default window of time that DataRefreshers will be permitted to run each day. You can also set the frequency that the DataRefreshers will run.
4. If you want the website to display a common name on its Web pages (such as the name of your school district), type this information in the **Web Site Banner Name** field.
5. Click **Save**.
6. If prompted to save the login information, click **Yes** and save the file to the DataExtractApps folder (or, if using central authentication, the path configured in the CentralAuthenticationPath parameter).

NOTE The **School Year** is taken from the current year in PowerSchool SMS after connecting to the database.



Login for Data Replication Schema
User ID: PCXPDATA
Password: ****
Confirm Password: ****

Login for Administration Schema
User ID: PCXPADMIN
Password: ****
Confirm Password: ****

District Information
Admin System: SMS

Refresh Allowed:
From: 1:00 AM
To: 4:00 AM
Refresh Once Every (hrs): 24

Web Site Banner Name: PCXP 3.2 Dev TestBed

Configuring Global Settings

You can verify or change the location of the PowerSchool SMS data and configure other global settings in AdminApp.

UNC specifications are preferred over mapped drives because the use of mapped drives requires that all systems interacting with the ParentCONNECTxp database have identical mapped drives created on them prior to executing any ParentCONNECTxp application.

NOTE In PowerSchool SMS, the **Upload to Parent Portal** check box on the School Specific tab of the Demographics page must be selected for student data to be shared with ParentCONNECTxp. This option is selected for all students by default.

Connecting to the PowerSchool SMS Database

To set up a connection to the PowerSchool SMS database:

1. In AdminApp, double-click the **System Administration** icon and then double-click the **Data Control** icon.
2. Click **Admin System Global Info Setup**.
3. Verify or change the information in the **SMS Database Server Info** area as needed.
   a. Type the **Server Name**.
   b. Type the **Login ID** and **Login Pwd** for the Windows server account used to install the PowerSchool SMS database server.
   c. Click the **Refresh DB List** button.
   d. In the SQL Authentication dialog, type an **'sa'-level Login ID** and **Password** for the SQL Server installation running the PowerSchool SMS database.
   e. Click **OK**. The databases that match the criteria to work with ParentCONNECTXp are populated in the **Database** list.
   f. Select the appropriate PowerSchool SMS database, such as CSL_SMS.
4. If you are using e-mail alerts, select the **Process Enabled Alerts** check box, and then select the appropriate options. To disable an alert type, select a delay value of -1.
5. If you are using PowerTeacher gradebook with ParentCONNECTxp, click the **Configure Gradebook Processing** button and follow the instructions in "Verifying the PowerTeacher Gradebook Settings" on page 37. Note that the setup can be performed during the initial installation, or at any time after that.
6. Click **Save** and close the screen.

Verifying the PowerTeacher Gradebook Settings

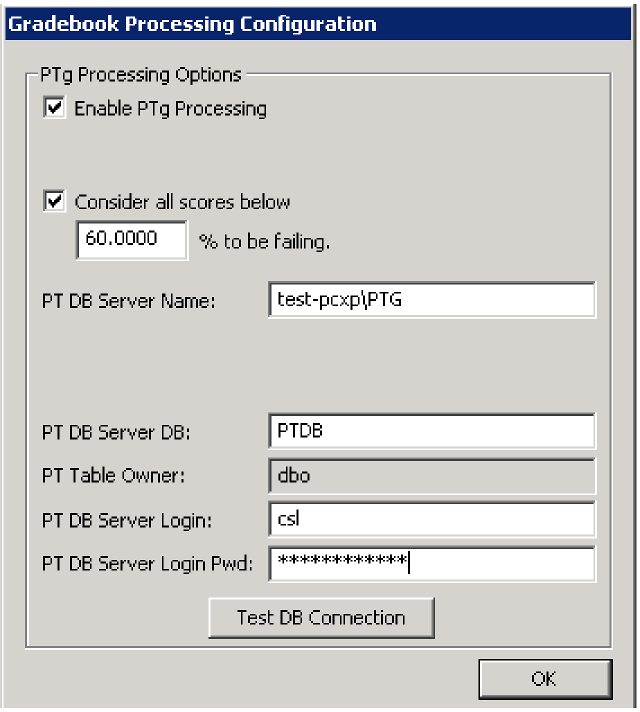
View or modify the global gradebook processing for PowerTeacher gradebook. This information tells ParentCONNECTxp how to communicate with the PowerTeacher database.

NOTE The "Consider all scores below [..]% to be failing" field indicates the score below which grades from PowerTeacher will be considered failing grades. The setting here is global for all schools; use the School Configuration > Maintain Schools area of AdminApp to override the setting at the school level.

To view or modify the global gradebook processing options:

1. In AdminApp, double-click the **System Administration** icon and then double-click the **Data Control** icon.
2. Click the **Admin System Global Info Setup** button and then click **Configure Gradebook Processing...**

3. Select the **Enable PTg Processing** check box.



☑ Enable PTg Processing

☑ Consider all scores below

60.0000 % to be failing.

PT DB Server Name: test-pcxp\PTG

PT DB Server DB: PTDB

PT Table Owner: dbo

PT DB Server Login: csl

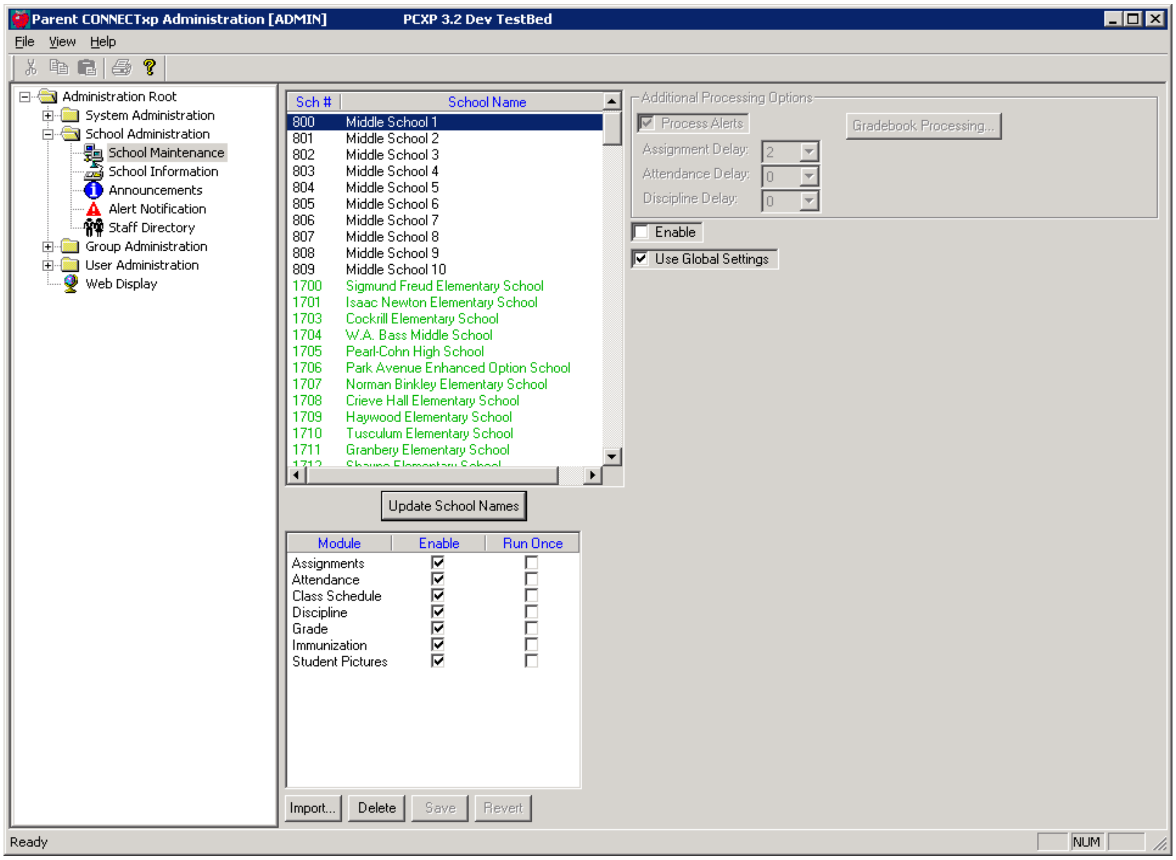
PT DB Server Login Pwd: ************

4. Enter or verify the appropriate information to connect to the PowerTeacher gradebook database.
5. Click the **Test DB Connection** button, and then click **OK** after a successful connection. A successful test means that the computer you are on can communicate with the PowerTeacher database. Make sure that SQL Server also has the necessary client information to communicate with the PowerTeacher database.
6. Click **Save** and close the Global Configuration screen.

Importing Schools

You will need to define the schools that ParentCONNECTxp is permitted to interact with. This is done by importing schools into ParentCONNECTxp and enabling only those schools that will use ParentCONNECTxp. Import the list of schools into ParentCONNECTxp before you perform any end-user configuration or assign DataRefreshers.

Figure 6-2. Importing schools in School Maintenance



Sch #	School Name
800	Middle School 1
801	Middle School 2
802	Middle School 3
803	Middle School 4
804	Middle School 5
805	Middle School 6
806	Middle School 7
807	Middle School 8
808	Middle School 9
809	Middle School 10
1700	Sigmund Freud Elementary School
1701	Isaac Newton Elementary School
1703	Cockrill Elementary School
1704	W.A. Bass Middle School
1705	Pearl-Cohn High School
1706	Park Avenue Enhanced Option School
1707	Norman Binkley Elementary School
1708	Crieve Hall Elementary School
1709	Haywood Elementary School
1710	Tusculum Elementary School
1711	Granbery Elementary School
1712	Shayne Elementary School

Module	Enable	Run Once
Assignments	☑	□
Attendance	☑	□
Class Schedule	☑	□
Discipline	☑	□
Grade	☑	□
Immunization	☑	□
Student Pictures	☑	□

Additional Processing Options

☑ Process Alerts

Assignment Delay: 2

Attendance Delay: 0

Discipline Delay: 0

□ Enable

☑ Use Global Settings

To import schools:

1. In AdminApp, double-click the **School Administration** icon, and then double-click the **School Maintenance** icon.
2. Click the **Import** button.
3. In the **Import Schools** dialog box, select the schools you want to import, and then click **OK**.
4. In the **School Name** list that is now populated, select the appropriate schools using the standard SHIFT+click or CTRL+click Windows operations to highlight them.
5. Select the **Enable** check box for the modules you want DataRefresher to process for the selected schools. **NOTE**: Enabling a Module controls only what data is brought in to ParentCONNECTxp.
6. If you will run DataRefresher more than once a day, select the **Run Once** check box for the data modules that you do not want to process every time DataRefresher runs. All selected modules will be processed only during the first data refresh of each day.
7. Select the **Enable** check box on the right side of the screen. If you do not enable a school, DataRefresher will not process data for that school.
8. Click **Save**.

9. Click **Yes** to save the module settings. This saves only the modules you have assigned.
10. Click **Yes** to save the processing settings. This saves only changes made to the **Enable** check box.

Configuring Alert and Gradebook Settings for Individual Schools

If you want to change alert processing options or gradebook parameters for an ***individual school***, clear the Use Global Settings check box, and then click Gradebook processing.

PowerSchool SMS schools may need to do this to override the global setting for the “Consider all scores below [..]% to be failing” field, which indicates the score below which grades from PowerTeacher will be considered failing grades.

To change custom alert and gradebook settings:

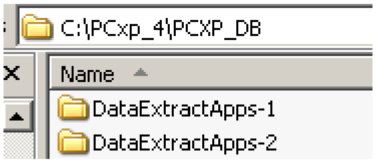
1. In AdminApp, double-click the **School Administration** icon, and then double-click the **School Maintenance** icon.
2. Select a school.
3. Clear the **Use Global Settings** check box,
4. Change alert processing options as needed.
5. Click the **Gradebook Processing** button.
6. Clear the **Use Global Gradebook Settings** check box.
7. Enter a new **% to be failing** value.
8. Click **OK**.

Adding and Registering DataRefreshers

ParentCONNECTxp supports the use of up to five instances of DataRefresher on one or multiple systems to improve the processing performance of ParentCONNECTxp. You can use multiple DataRefreshers to control when a group of schools will have their data refreshed or split the workload of the data processing across multiple systems to decrease the overall time required to update the ParentCONNECTxp database.

A DataRefresher instance is defined as a unique combination of a computer (based on the computer’s NETBIOS name) and a local directory path of where the DataRefresher.exe application exists. Only one copy of each DataRefresher instance can be running at a time.

A ParentCONNECTxp installation provides one or more DataRefresher applications that are created in the PCXP_DB\DataExtractApps folders where ParentCONNECTxp was installed (for example, C:\PCXP\DataExtractApps-1). The folders are numbered based on the number of DataRefreshers creating during installation.



C:\PCxp_4\PCXP_DB

IMPORTANT All computers running a DataRefresher must be able to resolve the hostname of the server that holds the PowerSchool SMS database, and vice versa. If one computer cannot see the other, you will need to edit the Hosts and Lmhost files (these are the filenames) by inserting an entry for the other computer's server name and IP address. If there is still an issue running the DataRefresher, you will need to make sure that network DTC is installed on both machines. To enable network DTC, go to Add or Remove Programs > Add/Remove Windows Components > click to highlight Application Server > Details > and then select Enable Network DTC access.

To create an additional process server with DataRefresher, see Chapter 7, "Process Server Setup," on page 48.

To create additional DataRefreshers on the display server:

1. Double-click the ParentCONNECTxp installer **PCXP_Setup.exe**.
2. On the **Add/Maintain** screen, select **Database Installation and Configuration**.
3. Select **Database Installation and Configuration**, and then click **Next**.
4. Ensure that the **SQL Server** computer name is correct, type the SQL Server sa-level **Login Name** and **Login Password**, and then click **Next**.
5. Select the existing ParentCONNECTxp database, and then click **Create New DR**.
6. Select the **Number of DataRefreshers** to create.
7. Select whether to **Enable DataRefreshers for this server**. The DataRefresher can also be enabled for operation later using AdminApp. Note that DataRefreshers installed on the display server are automatically registered and visible in AdminApp, even if they were not enabled for operation during installation.

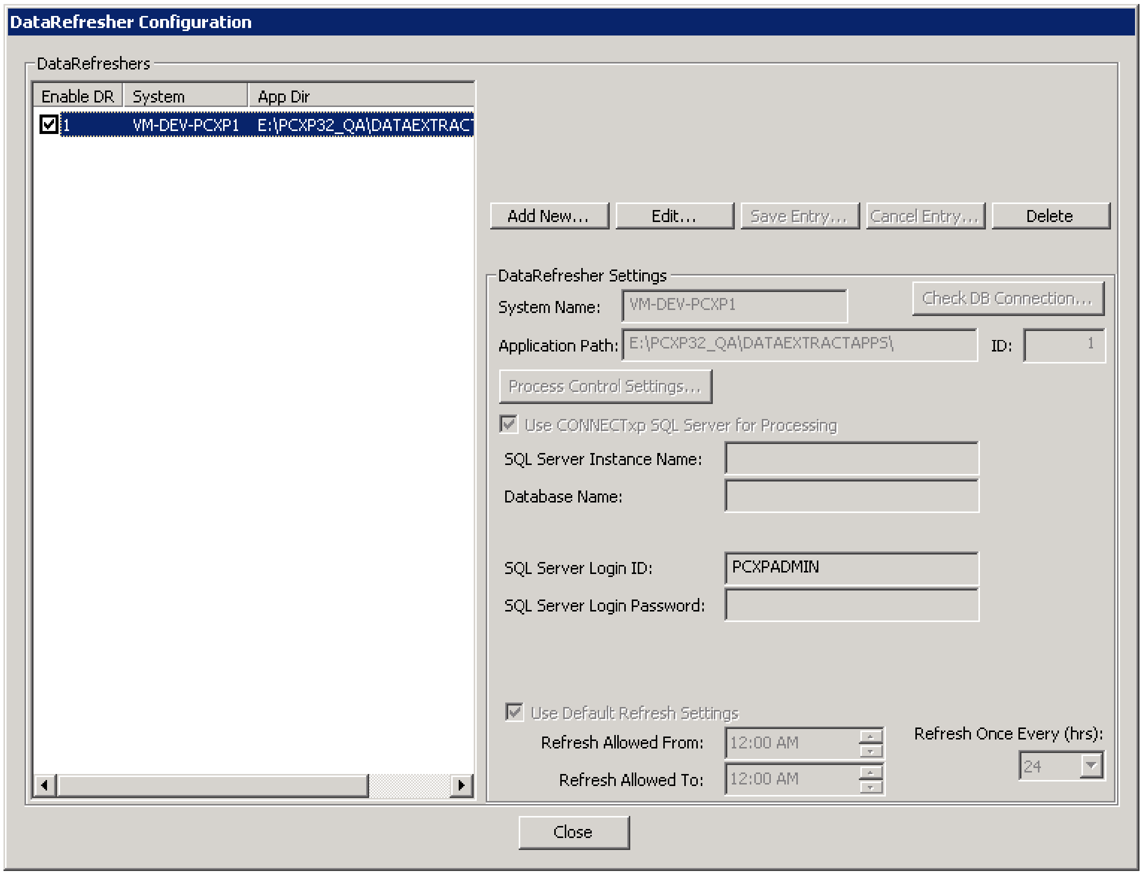
To register a DataRefresher:

1. Click the **Data Control** icon.
2. Click the **DataRefresher Configuration** button.
3. Click the **Add New...** button under DataRefreshers. [ ]
4. In the **System Name** box, type the name of the computer on which the DataRefresher will run. You can find this by clicking Start, right-clicking My Computer, clicking Properties, and then clicking the Computer Name tab.

5. In the **Application Path** box, type the local path of DataRefresher.exe. For example, C:\PCxp\DataExtractApps.
6. If you want this instance of DataRefresher to run on its own processing cycle, clear the **Use Default Refresh Settings** check box and configure the options.
7. Click the **Save Entry...** button. The DataRefresher appears in the list on the left.
8. Click **Close**.

NOTE The Use CONNECTxp for SQL Server Processing area is used for DataRefreshers running on other machines, usually for additional process servers. If you are setting up this DataRefresher on a separate process server, see Chapter 7, “Process Server Setup,” on page 48.

Figure 6-3. DataRefresher Configuration



Enable DR	System	App Dir
☑ 1	VM-DEV-PCXP1	E:\PCXP32_QA\DATAEXTRAC

System Name: VM-DEV-PCXP1

Application Path: E:\PCXP32_QA\DATAEXTRACTAPPS\

ID: 1

☑ Use CONNECTxp SQL Server for Processing

SQL Server Instance Name:

Database Name:

SQL Server Login ID: PCXPADMIN

SQL Server Login Password:

☑ Use Default Refresh Settings

Refresh Allowed From: 12:00 AM

Refresh Allowed To: 12:00 AM

Refresh Once Every (hrs): 24

Assigning Schools to DataRefreshers

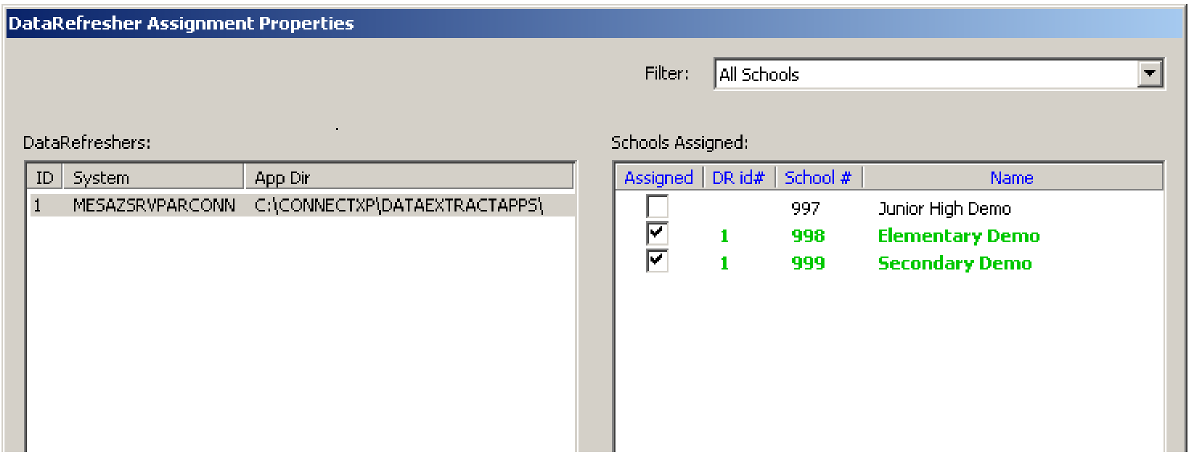
To assign schools to DataRefreshers:

1. In AdminApp, double-click the **System Administration** icon, and then double-click the **Data Control** icon.
2. Click the **DataRefresher Assignment** button.

3. In the **DataRefresher Type** area, leave the **PCxp** option selected to view all ParentCONNECTxp DataRefreshers. (PTg DataRefreshers are used with PowerTeacher gradebook.)
4. Click the DataRefresher you want to assign schools to.
5. In the **Filter** list, click **All Schools**.
6. Select the schools you want to assign to the DataRefresher.
7. Assign schools to additional DataRefreshers as needed.
8. Click **Save** and close the screen.

NOTE The school names change colors as follows: Black = unassigned, **Green** = assigned to current DataRefresher, **Blue** = assigned to another DataRefresher, **Red** = change pending.

Figure 6-4. DataRefresher Assignment Properties



DataRefresher Assignment Properties

Filter: All Schools

DataRefreshers:

ID	System	App Dir
1	MESAZSRVPARCONN	C:\CONNECTXP\DATAEXTRACTAPPS\

Schools Assigned:

Assigned	DR id#	School #	Name
☐		997	Junior High Demo
☑	1	998	Elementary Demo
☑	1	999	Secondary Demo

Adding Web Users and Assigning Students

You can use the Web User Login screen in AdminApp to manually add Web at any time. With PowerSchool SMS, you can also auto-generate Web user login accounts. See "Auto-Generating Web Users" on page 44.

ParentCONNECTxp Web users are automatically assigned to the default Web Display Group for a school to determine what they can view on the ParentCONNECTxp website. Web users can belong to different display groups for different schools. You can override a user's Web display group on the Web User Information screen (click New or Edit on the Web User Login screen).

ParentCONNECTxp prevents the clear-text display of passwords in the AdminApp user interface. Printing the user's information from End User Registration is the only way to view user passwords.

Adding Web Users Manually

To add users and assign students to those users:

1. In AdminApp, double-click **User Administration**, and then double-click the **Web User Logins** icon
2. Click the **New** button.
3. Optionally, click the **Query** button to populate the list with any pending registration requests from the ParentCONNECTxp website. Then select a user and click **Create Login**. The information entered on the website is populated automatically.
4. Type the required information and any additional information as needed.
5. Click the **Generate** button to generate a password. You can view the password by printing the user record on the Groups and Activation page of the wizard. You can change the password by editing the user record after it is created, typing the new password, and then clicking **Apply**.
6. If you want to override the user’s default Web Display Group for a school (which determines what they can view on the ParentCONNECTxp website) click the **Assign School Display Overrides** button. Then, select the school and select the appropriate **Override Group** (Web Display Group).

   New users are automatically assigned to the default Web Display Group for each school. Note that users can be assigned to different groups for different schools. For example, a user may be a parent in one school, and a counselor in another. In this situation the user could be assigned an override to the COUNSELOR group for the second school (the COUNSELOR group would first need to be created and permissions assigned).
7. Click **Next**.
8. In the **School** list, click the school that the student attends.
9. Click the **Query Students** button. The list of students appears.

   Note that for registration requests from the ParentCONNECTxp website, a list of students entered by the parent will appear in the **Requested Student Assignments** list.
10. Select the appropriate student or students (using CTRL+click or SHIFT+click), and then click the **Assign Student** button.

    Note: You can assign multiple students from different schools to the same user.
11. Click **Next**.
12. Optionally, click **Print** if you want to print the user’s information. This printout shows the user’s unencrypted password.
13. Click **Finish**.

Auto-Generating Web Users

For PowerSchool SMS, you can use the Web Login Account Auto-Generation utility to import and generate Web user accounts for parents or custodians associated with student records that have been uploaded to ParentCONNECTxp.

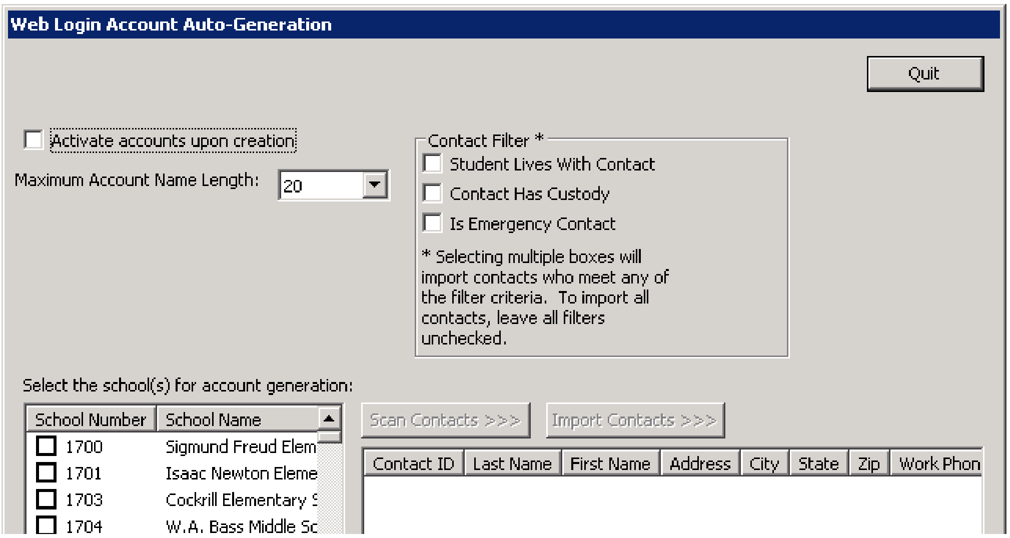
When you initiate the mass account creation, a ParentCONNECTxp Web account is created for PowerSchool SMS custodial contacts of students in the specified schools who do not already have ParentCONNECTxp Web accounts (and those students are automatically linked to the newly created accounts). After creating the accounts, use AdminApp to view and edit the new accounts to correct any discrepancies.

Note that generating Web user accounts with this process does not update student information in ParentCONNECTxp. You must run DataRefresher to update student information (see "Running DataRefreshers" on page 46).

NOTE With ParentCONNECTxp 3.2 or later, you do not need to have Web Display Groups (user groups) defined in AdminApp before running the account generation utility; however, the school-to-group associations must be completed in AdminApp before Web users can access the ParentCONNECTxp website.

To mass create Web user accounts in PowerSchool SMS environments:

1. Make sure that a correctly configured PCXP.ini file exists in the PCXPtools folder (you can copy the file from the AdminApp folder).
2. Double-click **PCXPtools.exe** in the PCXPtools folder.
3. Click the **Web User Login Account Generation** button. The Web Login Account Auto-Generation window appears.



Web Login Account Auto-Generation

□ Activate accounts upon creation

Maximum Account Name Length: 20

Contact Filter *

□ Student Lives With Contact

□ Contact Has Custody

□ Is Emergency Contact

* Selecting multiple boxes will import contacts who meet any of the filter criteria. To import all contacts, leave all filters unchecked.

Select the school(s) for account generation:

School Number	School Name
□ 1700	Sigmund Freud Elem
□ 1701	Isaac Newton Eleme
□ 1703	Cockrill Elementary S
□ 1704	W.A. Bass Middle Sc

Contact ID	Last Name	First Name	Address	City	State	Zip	Work Phon

4. Select whether to automatically activate the accounts after the mass creation.
5. Optionally, you can change the maximum length that can be allowed for an account name by selecting the desired value from the **Maximum Account Name Length** list.
6. Optionally, select any filters you want to apply in the **Contact Filter** area. If you do not select a contact filters, all contacts will be imported. If you select one or more contact filter, only those contacts that meet at least one of the selected criteria will be imported.
7. In the **Select the school(s) for account generation** list, select a school or schools from which to import the users.

8. Click **Scan Contacts >>>** to load the contacts before creating the accounts.
9. Click **Import Contacts >>>** to start the import process.
10. Verify and securely store or delete the log file (PCxp_AccountGeneration_<YYYYMMDD>_<HHMMSS>.LOG) that is created in the PCXPtools\LOG folder.

    Important: This log file contains user IDs and clear-text passwords, so manage the log file with the appropriate security precautions.
11. Use the Web User Logins area of AdminApp to review and edit the new accounts.

Running DataRefreshers

Running a DataRefresher updates information in ParentCONNECTxp.

To run DataRefresher:

1. In the DataRefresher folder (such as PCxp\DataExtractApps), double-click DataRefresher.exe.

   If the system time of the computer running DataRefresher falls within the processing start and stop times configured for this instance of DataRefresher, processing will start automatically. You can manually force a replication by clicking **Start Replication** on the **Process** menu.
2. Resolve any errors as needed.
3. Leave DataRefresher running. It will automatically continue running based on the schedule you have defined in AdminApp.

You can view a consolidated copy of the last activity of all DataRefresher instances in the Data Table Management Tool dialog of the Administration application (click the Data Maintenance button on the Data Control screen).

If you want to save the log files of a single DataRefresher's activity to disk, click Save Log Displays on the File menu of the DataRefresher application window. Dated logs will be saved to the LOG folder in the folder from which DataRefresher is running.

If you want continuous log files saved, add the following parameter to the [PCXP] section of the PCXP.ini file in the folder that contains the DataRefresher application:

```
WriteLogFiles = True
```

Testing the Website

IMPORTANT The website cannot be tested accurately until DataRefresher has populated the Display Server database.

To test the ParentCONNECTxp website:

1. Open a Web browser and type the Web address (FDQN) of your ParentCONNECTxp website.
2. On the Welcome screen, click **Sign In**.
3. Type the appropriate end-user ID and password, and then click **Sign In**. The ParentCONNECTxp secure website appears.

7

Process Server Setup

Follow the instructions in this chapter if you choose to add additional process servers to your ParentCONNECTxp environment to improve performance. If you are using at least one additional process server, you do not need to run a DataRefresher on the display server. If you do run a DataRefresher on the display server, configure it to refresh only at times of low website usage.

About Process Servers

A ParentCONNECTxp process server is a unique combination of one or more DataRefresher applications and an installation of any of the supported SQL Server products. The DataRefresher applications and SQL Server must be installed on the same physical computer system.

The SQL Server used for the process server will hold a database that must be identical to the database (in terms of its database schema) used for the display server. The PCXPADMIN and PCXPDATA SQL logins on this server must also be identical to those on the display server.

Installing SQL Server

Process servers require a fully-licensed version of SQL Server 2008. See the Microsoft documentation and “Installing Microsoft SQL Server” on page 18 to install the software. See the *ParentCONNECTxp Hardware and Software Requirements* guide for more information on supported software.

Installing the Process Database and DataRefresher

The login account used on the process server to run DataRefresher must have pass-through authentication to the display server. It must also have share and file permissions to the path referenced by the CentralINIPath parameter in the PCXP.ini file. The PCXP.ini file in the path referenced by the CentralINIPath parameter must have a CentralAuthenticationPath parameter that uses a UNC path format.

To install ParentCONNECTxp on the display server:

1. Download the **PCXP_Setup.exe** file from PowerSource and save it to a convenient location.
2. Double-click **PCXP_Setup.exe**.
3. On the welcome screen, click **Next**.
4. Accept the default installation location, or click **Change** to modify it, and then click **Next**.
5. Click **Install**.
6. On the **Add/Maintain** screen, select **Database Installation and Configuration**, and then click **Next**.
7. Ensure that the **SQL Server** computer name is correct, type the SQL Server sa-level **Login Name** and **Login Password**, and then click **Next**.
8. Click **Add Database**.
9. Click **Create Process Database**, and then click **Next**.
10. Follow the instructions in the wizard to complete the installation.
11. Use AdminApp on the display server to assign schools to the new DataRefresher. In AdminApp, go to Data Control > DataRefresher Assignment.

8

Alert Notifier

This chapter explains how to set up the Alert Notifier service. This Windows service manages the processing and delivery of e-mail messages for alertable events (selected by Web users) and AdminApp-generated messages.

Follow these guidelines:

- The PCxpAlertNotifierSrv service is installed only on the system hosting the ParentCONNECTxp website and COM+ component package. (This is done during the installation process.)
- End-users must select the type of alerts they want to receive by choosing them on the ParentCONNECTxp website. These selections are accessed through the Settings button on the website after logging in to the system. Alerts are generated only for those students assigned to an end-user who has selected to receive alert messages (and only for the types of alerts selected).
- DataRefresher creates the alert records in the ParentCONNECTxp display server database as part of its processing operations.
- DataRefresher follows the alert generation and delay configurations of the schools assigned to it in AdminApp when creating the alert records.
- The default SMTP Virtual Server of IIS is used to send alert e-mail messages.
- The Alert Notifier service operates as an elapsed-time trigger to submit a request to the PCXP COM+ components to process available alert records. The COM+ components perform all processing of the alert records and create the e-mail messages that the COM+ components then submit to the SMTP Virtual Server of IIS for delivery.
- Administrators can use AdminApp to configure alerts and manage records. Please see the *ParentCONNECTxp System Administrator's Guide* for details.

Starting the Alert Notifier Service

Run the Alert Notifier service only on the ParentCONNECTxp display server. The Alert Notifier service is installed during the initial installation, but is not started.

IMPORTANT Do not start the Alert Notifier service until you have performed any required alert configuration and/or record maintenance required. These operations are performed in AdminApp.

To start the service:

1. On the **Start** menu, point to **Administrative Tools**, and then click **Services**.
2. Scroll to and click the **PCxpAlertNotifierSrv service**.
3. Right-click the service, and then click **Properties**.
4. On the **Log On** tab, select the **This account** option and type the login information required for the PCXPSVCS network account.
5. On the **General** tab, select **Automatic** in the **Startup type** list.
6. Click **Start**.
7. Click **OK**.
8. Close the Services management application.

Managing Alert Operations in AdminApp

AdminApp provides the following management features to control and administer alert and administrative-messaging operations within ParentCONNECTxp:

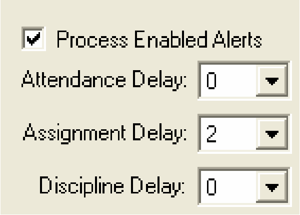
- Enable/disable/delay configuration of alert processing at the school level.
  - These options can be configured at a global level or for an individual school.
  - School-level alert generation can be enabled, disabled, or delayed for each alert type.
- AlertNotifier/DataRefresher alert processing configuration.
- Alert record management.

Managing Alerts at the School Level

Alerts for schools can be enabled, disabled, or delayed. These settings can be applied at a global level or an individual school level depending on your ParentCONNECTxp configuration. These configuration settings control the way DataRefresher generates alerts for its assigned schools. The configuration settings are found in the AdminApp user interface in the following locations:

- Data Control – Admin System Global Info Setup
- School Configuration – Maintain Schools

Figure 8-1. Alert configuration



☑ Process Enabled Alerts

Attendance Delay: 0

Assignment Delay: 2

Discipline Delay: 0

The Process Enabled Alerts check box globally enables or disables alert processing for the selected school.

The Attendance Delay, Assignment Delay, and Discipline Delay lists allow the immediate creation of the alert record, but creation and delivery of the associated e-mail message is delayed for that alert type by the selected number of days.

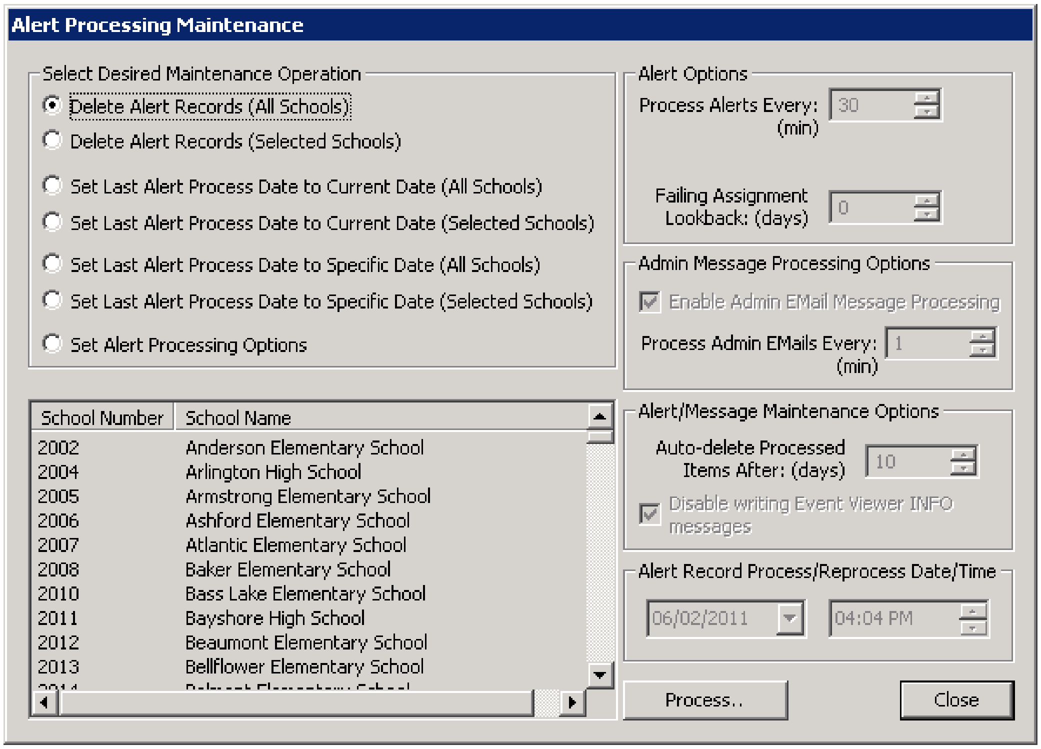
NOTE Selecting a value of -1 in any of the alert type lists disables the processing of alerts for that alert type.

Configuring Alert Processing Options

Alert Processing configuration and basic alert management is performed through the **Data Control - Alert Processing Maintenance** screen in AdminApp.

The Delete Alert Records options delete all alert records in the system or only those for a selected list of schools. The Set Last Alert Process Date options control the point in time from which DataRefresher will alert records based on the date stamp of the corresponding records in PowerSchool SMS. You can use these options to skip the generation of past alerts (...to Current Date) or to reprocess past alerts (...to Specific Date). These operations can be performed for all schools or for a selected list of schools.

Figure 8-2. Alert Processing Maintenance



Alert Processing Maintenance

Select Desired Maintenance Operation

● Delete Alert Records (All Schools)

○ Delete Alert Records (Selected Schools)

○ Set Last Alert Process Date to Current Date (All Schools)

○ Set Last Alert Process Date to Current Date (Selected Schools)

○ Set Last Alert Process Date to Specific Date (All Schools)

○ Set Last Alert Process Date to Specific Date (Selected Schools)

○ Set Alert Processing Options

School Number	School Name
2002	Anderson Elementary School
2004	Arlington High School
2005	Armstrong Elementary School
2006	Ashford Elementary School
2007	Atlantic Elementary School
2008	Baker Elementary School
2010	Bass Lake Elementary School
2011	Bayshore High School
2012	Beaumont Elementary School
2013	Bellflower Elementary School

Alert Options

Process Alerts Every: (min) 30

Failing Assignment Lookback: (days) 0

Admin Message Processing Options

☑ Enable Admin EMail Message Processing

Process Admin EMails Every: (min) 1

Alert/Message Maintenance Options

Auto-delete Processed Items After: (days) 10

☑ Disable writing Event Viewer INFO messages

Alert Record Process/Reprocess Date/Time

06/02/2011 04:04 PM

Use the Set Alert Processing Options to control options that are applied globally to ParentCONNECTxp alert operations:

- Configure the time interval that PCxpAlertNotifierSrv waits before checking to see if any new alerts are available for processing. The time interval is in minutes.
- Enable administrator e-mail processing and define how often admin e-mails are sent out.
- Configure the number of days that pass before PCxpAlertNotifierSrv attempts to automatically delete old alert records that have been processed. This setting has no effect on alert records that have not been processed.

Alert Record Management

Alert record management is performed through the **Data Control - Data Maintenance** screen in AdminApp. Please see to the *ParentCONNECTxp System Administrator's Guide* for details.

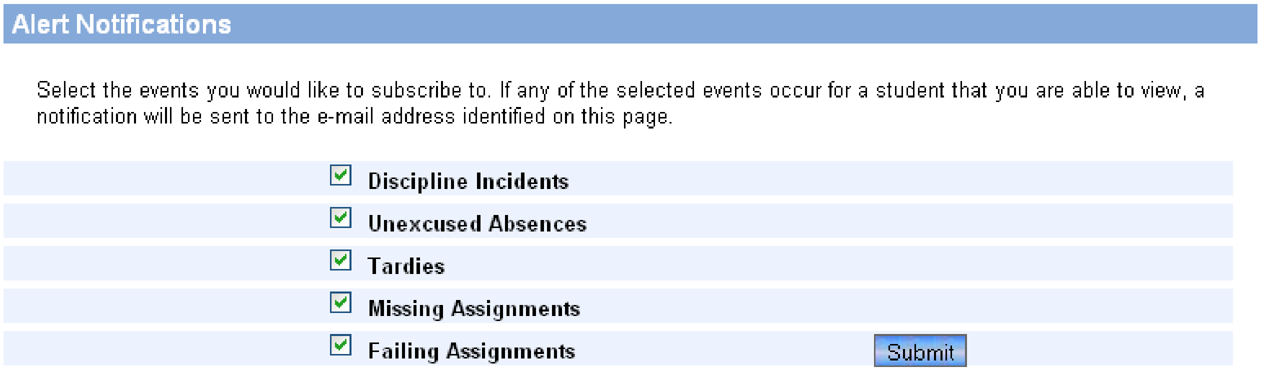
End-User Alert Selection

End users must sign up to receive the alerts they want. You may want to include the following instructions in the documentation you provide to end users.

To sign up to receive alerts:

1. Sign in to the ParentCONNECTxp website.
2. Click **Settings** on the top-right of your screen.
3. Type your e-mail address and select the **Alert Notifications** you want to receive. If you type a secondary e-mail address, alerts will be sent to both addresses.
4. Click the **Submit** button.

Figure 8-3. Alert selection on the ParentCONNECTxp website



Alert Notifications

Select the events you would like to subscribe to. If any of the selected events occur for a student that you are able to view, a notification will be sent to the e-mail address identified on this page.

☑ Discipline Incidents

☑ Unexcused Absences

☑ Tardies

☑ Missing Assignments

☑ Failing Assignments

9

Online Course Requests Overview

This chapter provides an overview of how to set up and use the ParentCONNECTxp Course Request system with PowerSchool SMS.

For additional setup and operation instructions, refer to the following documentation:

- *PowerSchool SMS eDocs* for information specific to PowerSchool SMS setup and operation
- *ParentCONNECTxp Administrator's Guide*
- *PCXP Tools Guide*
- *ParentCONNECTxp eDocs* (online help for students and parents using the course request system)

The following software is required:

- PowerSchool SMS 8.4.2
- ParentCONNECTxp 4.5

IMPORTANT It is highly recommended that the Academic Plan functionality in PowerSchool SMS be used in conjunction with the Online Course Request system. Student academic plans are used to filter the courses available to them when making course requests, and to provide the Academic Plan Progress report to both the ParentCONNECTxp website and the Course Requests website.

About the ParentCONNECTxp Course Requests Website

Students can access the Course Requests website from the ParentCONNECTxp Course Plan pencil or from the ParentCONNECTxp URL with /OCR added; for example, https://DistrictPCXP/OCR.

Students use the same login credential for both the ParentCONNECTxp website and the Course Requests website.

The Help link on the website provides instructions for students and parents, though note that only students can access the Course Requests website.

PowerSchool SMS Setup

Follow these guidelines to set up online course requests in PowerSchool SMS:

- Install the version PowerSchool SMS supported with the current release of ParentCONNECTxp.
- Districts: To allow prerequisite courses to be requested in the same year, in the planning calendar select the Course Catalog > Course Scheduling > Allow Prerequisites in the Same Year check box for a course. This setting rolls over with each calendar year. Corequisite courses are not supported.
- Schools: Set the permissions for the appropriate roles.
    - **Online Course Request Setup** in the School Setup node: School administrators require Edit or View permission to view or manage online course request settings.
    - **Course Recommendations and Requests** in the Student node: Counselors and teachers require Edit permission to make course recommendations for students.
    - **Course Requests Approval** in the Student node: School administrators and counselors require Edit permission to approve courses if required by the school.
    - **Student Academic Plan** in the Academic Planning node: Even if your district does not use Academic Plans, the Delete, Edit, or View permission is required for counselors and administrators to make individual course recommendations and approve student course requests in the Academic Plan area of PowerSchool SMS.
- Schools: In the planning calendar, enable the online course request system and appropriate options for each grade level on the School Setup > Online Course Request Setup page. Select the “Include” checkbox for a grade level only after all options are set up as needed; consider this action as publishing the selected options. After the first counselor or teacher course recommendation is made, many of the options are locked down. Note that the Submission End Date is one of the few options that can be changed later to extend the submission period.

PowerSchool SMS Operation

- Counselors and teachers make course recommendations in the active calendar after the planning calendar is set up for the next year.
- Course recommendations must be completed by 9:00 pm before the start of the student submission window to allow for server time discrepancies.
- Teachers can assign course recommendations to multiple students on the My Classes > Recommendations page.
- Counselors can assign course recommendations to multiple students on their home page.
- Course recommendations for individual students are made on the Academic Plan > Next Year Recommendations page. This is typically done by counselors.
- If required by the school, counselors approve student course requests on the Academic Plan > Next Year Requests page.
- Where there are pending counsellor approvals, administrators can force those approvals in order to publish the course requests to student planning schedules (School Setup > Force Course Request Approval).
- Administrators can use audit logs to find modifications and deletions to Online Course Recommendations and Online Course Requests (School Setup > Audit Log > Database).

ParentCONNECTxp Setup and Operation

Follow these guidelines to work with online course requests in ParentCONNECTxp:

- Obtain an SSL security certificate for ParentCONNECTxp if you do not already have one.
- Note that there are two types of user accounts in ParentCONNECTxp: Web Users and Students. Only students can access the Course Requests website. You can create additional Web Display Groups as needed to define which elements of the ParentCONNECTxp website that group can view, and then assign the appropriate default display groups for a school for both Students and Web Users.
- Install ParentCONNECTxp. Ensure that you follow the steps in the installation guide. **Important:** Restart your server before installing version 4.0 if you have uninstalled an older version.
- AdminApp: Ensure that the Alert Notifier Service is enabled in Data Control > Alert Processing Maintenance. See Chapter 8, "Alert Notifier," on page 50 for details.
- AdminApp: Enable Admin Message Processing Options in Data Control > Alert Processing Maintenance > Admin Message Processing Options.
- AdminApp: Set the OCR Processing Interval to an appropriate time in Data Control > Alert Processing Maintenance > Admin Message Processing Options. The processing interval can be up to 360 minutes. More time (60 minutes or greater) is best when course recommendations and requests are ongoing (to prevent needless synchronization between ParentCONNECTxp and PowerSchool SMS). A shorter time,

such as five minutes, may be preferred when forcing pending course requests to PowerSchool SMS after the submission window closes.

- AdminApp: Set the System Configuration > ParentCONNECTxp System Settings > Feature Settings > ParentCONNECTxp Features selection to ParentCONNECTxp /Online Course Requests or Online Requests Only.
- AdminApp: Ensure that the PowerSchool SMS URL and login credentials are entered in System Configuration > SMS Web Data Access > URL and SMS login.
  Note: If the ParentCONNECTxp Web server(s) are on a network that is separated from the PowerSchool SMS Web server by a firewall, each ParentCONNECTxp Web server requires a firewall rule that permits http traffic to flow between the ParentCONNECTxp Web server and the PowerSchool SMS Web server.
- AdminApp: Enter district support information in System Configuration > ParentCONNECTxp Web Site Configuration Settings > Support Web Page Options.
- PCXP Tools: Import students from PowerSchool SMS. See the PCXP Tools Guide.
  Important: After importing user accounts from PowerSchool SMS, a log file is generated and stored in the PCxp\PCXPtools\LOG folder with all account information, including passwords, in clear text format to assist in troubleshooting. Make sure this folder is not shared and that the log file is properly deleted or secured.
- AdminApp: Manage Student and Web User (parent/counselor) accounts, including setting their default Display Groups (Web Display Groups > User Group Association). Note that there is now a function to link student accounts to a PowerSchool SMS contact in AdminApp > Edit Web User Login > Add/Delete Students > SMS Relationships. The selected contact will be the one that defines the ParentCONNECTxp permissions for that user, for example the “lives with” or “has custody” flag.
- AdminApp: After the submission window for a grade level has closed, force any pending course requests (those that are incomplete or pending parent/guardian approval) to PowerSchool SMS in the AdminApp > School Maintenance area.

Planning for Online Course Requests

Follow these guidelines when planning for online course requests:

1. Determine the start and ending windows for each school for each grade level that will be using the Online Course Request system.
2. Enable online course requests in the PowerSchool SMS planning calendar with the defined start and ending window for each school and grade level.
3. Allow teachers and counselors to assign course recommendations up until the open window.
4. Allow students to review, manage, and submit course requests on the Online Course Requests website during the open window.
5. After the window closes, process the school to collect any outstanding course requests (either unsubmitted by the student or for those not managed by the student; relay the teacher recommendations as course requests.)

6. After the processing is complete, alert the school that the course request process is complete, and that course request changes on the student schedule page can be made as needed.

Note: Ideally no manual changes should be made to course request in PowerSchool SMS until step 6.

10

Online Contact Editing & Public Key Certificate

This chapter explains how to set up online contact editing (OCE) in ParentCONNECTxp. This includes the steps to obtain and install a public key certificate for the OCE Web service.

The online contact editing feature allows parents and guardians to view, add, edit, or remove student contacts using ParentCONNECTxp. The requested changes are sent to PowerSchool SMS and must be approved by a school user before taking effect. Contact change requests are made in ParentCONNECTxp on the Student Info > Student & Contacts > Contact Information panel.

ParentCONNECTxp users can click Help for instructions on editing their contact information.

Enabling Online Contact Editing

The following steps must be performed to enable online course editing:

- In the Administration Application, go to System Configuration > ParentCONNECTxp System Settings > Online Contact Editing > Enable Online Contact Editing, and select Yes.
- In PowerSchool SMS, schools must add the Online Contact Editing indicator to the contact on the Edit Contact page or during the registration process.
- The School Setup > Online Contact Update Request Approval permission in PowerSchool SMS must be assigned to the appropriate school users. This permission allows users to access the Online Contact Update Requests page and receive notification of change requests on the PowerSchool SMS home page. By default, only school administrators have this permission.
- A public key certificate or a self-signed certificate is required to provide internal encryption for the OCE Web service. A public key certificate is strongly recommended. See the following pages for more information and instructions.
- Optionally, to support HTTPS, the PowerSchool SMS web.config file must be configured. See Chapter 11, “HTTPS Setup for OCR and OCE,” on page 67 for details.

Installing a public key certificate for OCE

This section shows how to set up a public key certificate to use for the online contact editing (OCE) functionality in ParentCONNECTxp. Although a self-signed certificate may be used, a public/public key certificate is strongly recommended for OCE operation to provide internal message encryption for the OCE Web service. Either a public key or self-signed certificate is required.

NOTE It is necessary to obtain and import a public key certificate, but it is not necessary for a self-signed certificate. A self-signed certificate should be created on the PowerSchool SMS Web server. For instructions on creating and installing a self-signed certificate, see "Creating and registering a self-signed SSL certificate" on page 68. Note that this certificate cannot be shared with the certificate used for HTTPS described in Chapter 11.

A public key certificate (also known as a digital certificate or identity certificate) is a certificate that contains a public key and the identity of the owner. The certificate authority is an entity that issues public key certificates. Commercial certificate authorities charge a fee to issue certificates.

If you have a question regarding a public key certificate, please contact to your certificate vendor.

Overview

There are five basic steps to install a public key certificate. See the following sections for detailed instructions.

1. Obtain a public key certificate from a certificate authority.
2. Install the certificate on the PowerSchool SMS Web server.
3. Ensure that private key files are correct and have appropriate permissions.
4. Export the certificate.
5. Import the certificate on the ParentCONNECTxp Web server.

Obtaining a public key certificate

Use a certificate authority, such as one of the following, and follow their instructions to obtain a public key certificate:

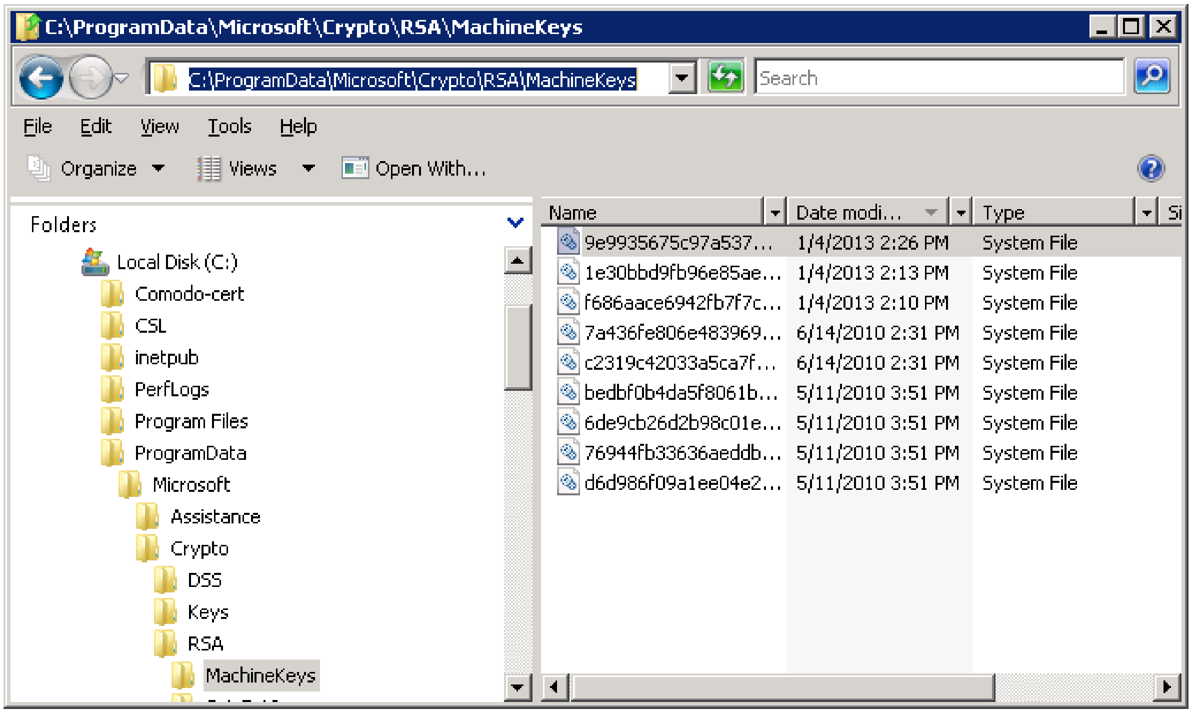
- Comodo at www.comodo.com
- Verisign at www.verisign.com
- Thawte at www.thawte.com

The certificate authority must validate your information before issuing a certificate. They will check your company name, address, and phone number, and may contact you for additional information.

Installing the Certificate on the SMS Web Server

To install the certificate on the PowerSchool SMS Web server:

1. Copy the certificate file to the target PowerSchool SMS Web server.
2. Open the folder C:\ProgramData\Microsoft\Crypto\RSA\MachineKeys. (This will later help you verify that the private key file has been generated.)
3. Click the **Date modified** column to sort the files with the newest date at the top.



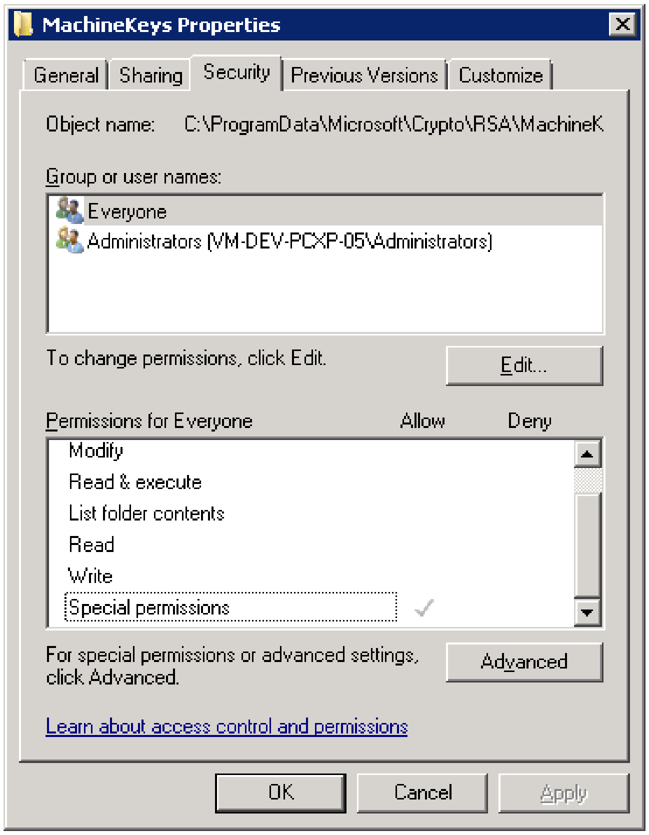
C:\ProgramData\Microsoft\Crypto\RSA\MachineKeys

Name	Date modi...	Type
9e9935675c97a537...	1/4/2013 2:26 PM	System File
1e30bbd9fb96e85ae...	1/4/2013 2:13 PM	System File
f686aace6942fb7f7c...	1/4/2013 2:10 PM	System File
7a436fe806e483969...	6/14/2010 2:31 PM	System File
c2319c42033a5ca7f...	6/14/2010 2:31 PM	System File
bedbf0b4da5f8061b...	5/11/2010 3:51 PM	System File
6de9cb26d2b98c01e...	5/11/2010 3:51 PM	System File
76944fb33636aeddb...	5/11/2010 3:51 PM	System File
d6d986f09a1ee04e2...	5/11/2010 3:51 PM	System File

4. Right-click C:\ProgramData\Microsoft\Crypto\RSA\MachineKeys folder, and then click **Properties**.
5. On the **Security** tab, verify that **Everyone** is selected in **Group or user names** with **Special permissions** assigned. If not, assign Everyone with Special permissions as follows. To do, click **Advanced**.

   The special permissions consist of the following permissions:

   - List Folder/Read Data
   - Read Attributes
   - Read Extended Attributes
   - Create Files/Write Data
   - Create Folders/Append Data
   - Write Attributes
   - Write Extended Attributes
   - Read Permissions



MachineKeys Properties

General | Sharing | Security | Previous Versions | Customize

Object name: C:\ProgramData\Microsoft\Crypto\RSA\MachineK

Group or user names:

- Everyone
- Administrators (VM-DEV-PCXP-05\Administrators)

To change permissions, click Edit.

Permissions for Everyone	Allow	Deny
Modify		
Read & execute		
List folder contents		
Read		
Write		
Special permissions	✓	

For special permissions or advanced settings, click Advanced.

Learn about access control and permissions

6. Import the public certificate as follows:

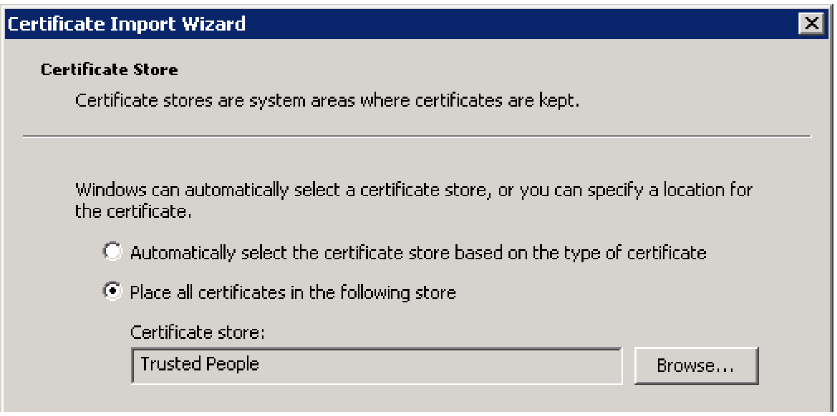
   a. Open Microsoft Management Console (Start > Run > type “mmc” > OK).

   b. In the MMC Certificate snap-in, right-click **Trusted People**, point to **All Tasks**, and then click **Import**. The Certificate Import Wizard starts. (If you don’t see the snap-in, click File > Add/Remove Snap-in > Add > Certificates. Select Local Computer.)

   c. Click **Next**.

   d. In the **File name** field, enter the public certificate name, and then click **Next**.

   e. In the **Certificate store** field, selected **Trusted People**, and then click **Next**.



Certificate Import Wizard

Certificate Store

Certificate stores are system areas where certificates are kept.

Windows can automatically select a certificate store, or you can specify a location for the certificate.

○ Automatically select the certificate store based on the type of certificate

● Place all certificates in the following store

Certificate store: Trusted People

f. Click **Finish**.

g. Verify that a new private key file has been generated. To do so, go to the C:\ProgramData\Microsoft\Crypto\RSA\MachineKeys you opened in step 2. Verify that the date and time for the new key are the current date and time in the Date Modified column. If the private key file was not generated, then the certificate may be missing the private key or it has been corrupted. In this case, you will need to get another certificate.

h. In the MachineKeys folder, right-click the new private key file and click **Properties**.

i. On the **Security** tab, verify that IUSR and NETWORK SERVICE appear under **Group or user names** and that both have the permissions **Read & execute** and **Read** only. If not, assign the users and permissions.

7. Modify the OCE Web configuration files as follows:

   You will need to modify the subject name of the public key certificate in the Web configuration files because the default subject name is WCFCertifcate in PowerSchool SMS. But you may get a different subject name for your public key certificate. You can find the subject name by double-clicking the public key certificate, then clicking the **Detail** tab. For the subject item, look for CN = xxxxxx.

   In the C:\inetpub\wwwroot\PowerSchoolSMS\WebServices\OCEService\web.config file, find WCFCertificate and change it to xxxxxx, where xxxxxx is the name of your public key certificate.

   In the C:\inetpub\wwwroot\PowerSchoolSMS\WebServices\OCEService\Web.config.https file, find WCFCertificate and change it to xxxxxx.

   In the C:\inetpub\wwwroot\PowerSchoolSMS\WebServices\OCEService\Web.config.http file, find WCFCertificate and change it to xxxxxx.

8. Verify that the OCE Web service works. The certificate works if you can open the Web service without error. If not, review the previous steps or contact the vendor. The URL is:

   http://localhost/powerschoolsms/webservices/oceservice/oceservice.svc

   You also can run the command `certutil -store "TrustedPeople"` to test encryption. You should see “Encryption test passed” for your certificate. If the results show “Encryption test Failed,” then the certificate may be missing the private key or it is corrupted.

9. Export the public key certificate.

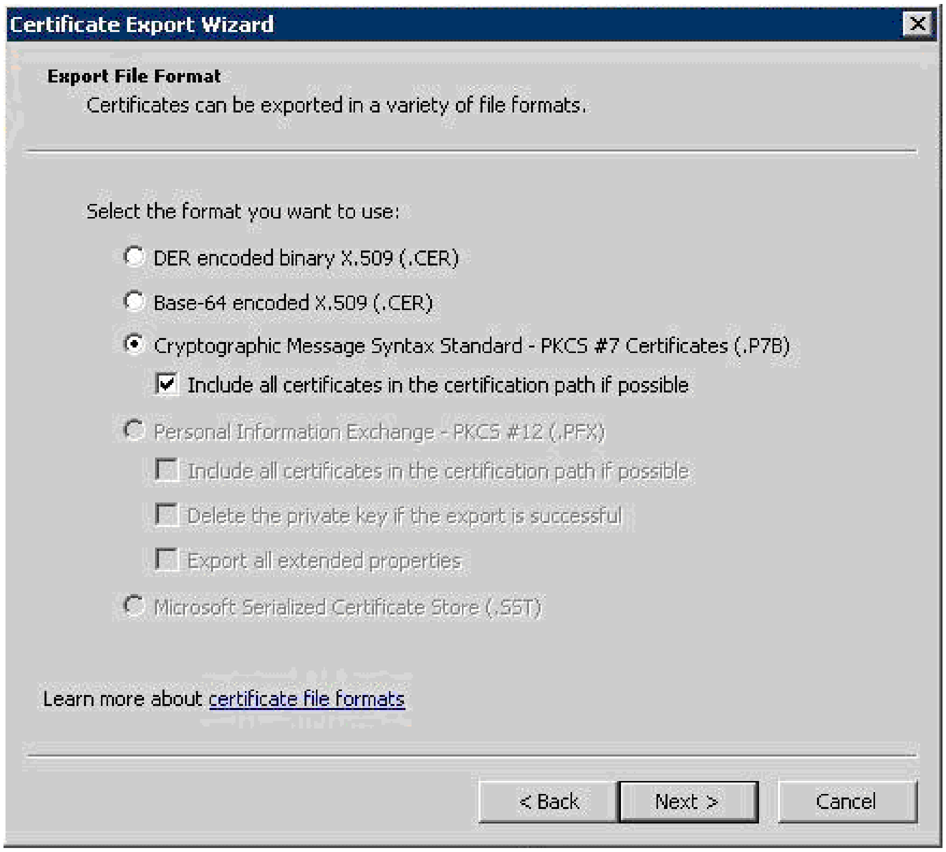
   a. Open Microsoft Management Console (Start > Run > type “mmc” > OK).

   b. In the MMC Certificate snap-in, right-click the public key certificate under **Trusted People - Certificates**, point to **All Tasks**, and then click **Export**. The Certificate Export Wizard starts.

   c. Click **Next**.

   d. Click **Next** to accept the default value (“No, do not export private key”).

e. Select the export file format from the options as shown as below. The .P7B format is recommended.



Certificate Export Wizard

Export File Format

Certificates can be exported in a variety of file formats.

Select the format you want to use:

○ DER encoded binary X.509 (.CER)

○ Base-64 encoded X.509 (.CER)

● Cryptographic Message Syntax Standard - PKCS #7 Certificates (.P7B)

☑ Include all certificates in the certification path if possible

○ Personal Information Exchange - PKCS #12 (.PFX)

☐ Include all certificates in the certification path if possible

☐ Delete the private key if the export is successful

☐ Export all extended properties

○ Microsoft Serialized Certificate Store (.SST)

Learn more about certificate file formats

f. Enter the name of the file you want to export, and then click **Next**.

g. Verify the choices you have made in the wizard, and then click **Finish** to export to the file.

Importing the Certificate on the ParentCONNECTxp Web Server

On the ParentCONNECTxp Web server:

1. Import the certificate as follows:

   a. Copy the exported certificate file from the PowerSchool SMS Web server to the ParentCONNECTxp Web server.

   b. Open Microsoft Management Console (Start > Run > type “mmc” > OK).

   c. In the MMC Certificate snap-in, right-click **Trusted People**, point to **All Tasks**, and then click **Import**. The Certificate Import Wizard starts.

   d. Click **Next**.

   e. In the **File name** field, type the name of the certificate file that you want to import. Alternatively, you can find the file by clicking **Browse**.

   f. Click **Next**.

   g. In the **Certificate store** field, selected **Trusted People**, and then click **Next**.

2. If the name of your public key certificate is not "WCFCertificate", change the name from WCFCertificate to your public key certificate name in the C:\PCXP\Web\ParentCONNECTxpSecure\WebService web.config on the ParentCONNECTxp web server.

3. Restart IIS on the ParentCONNECTxp Web server.

4. Verify that the certificate works properly as follows:

   a. Open the ParentCONNECTxp website https://<ParentCONNECTxp Web Server name or IP>/.

   b. Sign in to the website.

   c. Click a student name.

   d. Click the **Student & Contacts** tab.

   You will see a Web services error on the page if the certificates are not communicating between the PowerSchool SMS Web server and the ParentCONNECTxp Web server.

11

HTTPS Setup for OCR and OCE

This chapter explains how to set up the Online Course Request (OCR) Web service and Online Contact Editing (OCE) Web service to support HTTPS communications with PowerSchool SMS. This setup is optional for districts that want to use HTTPS.

Overview

The following prerequisites must be met on the IIS Default Web Site prior to enabling HTTPS functionality for the OCR and OCE Web services.

- An SSL certificate must be added to IIS for use with PowerSchool SMS HTTPS operations. Only one certificate is required to support HTTPS for both OCR and OCE. This certificate cannot be shared with the certificate for OCE described in Chapter 10.
- An HTTPS binding must be added to the IIS Default Web Site to enable HTTPS communications on the desired IP port.
- The SSL certificate must be assigned to the HTTPS binding described above.
- If your district is using an internal or self-certified SSL certificate for SMS HTTPS operation, the SSL certification must be registered on the ParentCONNECTxp Web servers so that ParentCONNECTxp operations that call the PowerSchool SMS OCR Web service do not fail due to certificate validation errors. See“Creating and registering a self-signed SSL certificate” on page 68.
- The OCR web.config file and OCE web.config file must be updated. See “Updating the OCE web.config file” on page 69 and “Updating the OCR web.config file” on page 69.

Reset IIS after all changes are complete.

NOTE The PowerSchool SMS URL in ParentCONNECTxp AdminApp must be updated to include “HTTPS”.

Creating and registering a self-signed SSL certificate

This section shows how to create a self-signed SSL certificate for the PowerSchool SMS Web server to use HTTPS, and how to register the certificate with ParentCONNECTxp Web servers.

These instructions are for Windows Server 2008 using IIS 7 or 7.5.

On the PowerSchool SMS Web server:

1. In Server Manager, expand **Roles > Web Server IIS > Internet Information**.
2. Select the Web Server in Internet Information Services (IIS) Manager.
3. Double-click the **Server Certificates** option.
4. Click **Create Self-Signed Certificate**.
5. Enter a name for the certificate and click **OK**.
6. Select the certificate in the **Server Certificates** list, and then click **Export**.
7. Enter a path and filename for the certificate. You will need this file to import the certificate to the ParentCONNECTxp web servers.
8. Enter and confirm a password to encrypt the certificate.
9. Click **OK**. The file is saved with a .PFX filename extension.
10. Expand the Web server sites and select the **Default Web Site**.
11. Click **Bindings**.
12. Add a binding for the HTTPS protocol and assign the self-signed certificate to this binding. This allows PowerSchool SMS to run under the HTTPS protocol.

On the ParentCONNECTxp Web servers:

1. Copy the certificate to each ParentCONNECTxp Web server.
2. Open Microsoft Management Console (mmc.exe).
3. Create a certificate snap-in. To do so, on the **File** menu, click **Add/Remove Snap-in**.
4. Select **Certificates > Add**, select **Computer account, Next, Local computer**, and then click **Finish**.
5. Add the certificate to both **Trusted Root Certification Authority** and **Trusted Publishers**. To do so, right-click and select **All Tasks > Import**. Change the file type to all files and locate the .PFX certificate.
6. Type the password, click **Next**, and accept the remaining default settings.

The ParentCONNECTxp Web servers will now work with the secure HTTPS PowerSchool SMS Web server.

Updating the OCE web.config file

The default web.config file for the OCE Web service is configured to support HTTP and not HTTPS. Follow this process to use the HTTPS web.config file.

To update the OCE web.config file:

7. Locate the C:\inetpub\wwwroot\PowerSchoolSMS\WebServices\OCEService\Web folder.
8. Rename or move the existing web.config file to a backup location.
9. Remove the “https” suffix from the web.config.https file so that it is renamed to web.config.

Updating the OCR web.config file

By default, the web.config file for the OCR Web service is configured to support HTTP and not HTTPS. Districts that want to use HTTPS must edit the web.config file by commenting out the HTTP sections and removing the comment tags from the HTTPS sections. The web.config file you will need to modify is located at:

C:\inetpub\wwwroot\powerschoolsms\ocrservice\web.config

Modify the web.config file as follows:

Note: Areas that need to be changed are indicated by blue text. The required changes are described in bold text.

```
<?xml version="1.0"?>
<configuration>
  <system.serviceModel>
    <bindings>
      <wsHttpBinding>
```

Comment this section to disable http:

```
        <binding name="wshttp">
          <security mode="None">
            <transport clientCredentialType="None"/>
          </security>
        </binding>
```

Uncomment this section to enable https:

```
<!--
        <binding name="wshttps">
          <security mode="Transport">
            <transport clientCredentialType="None"/>
          </security>
        </binding>
-->
```

```
</wsHttpBinding>
  </bindings>
  <services>
   <service behaviorConfiguration="OnlineCourseRequestService.Service1Behavior"
         name="OnlineCourseRequestService.OnlineCourseRequestService">
```

Comment this section to disable http:

```
    <endpoint address="" binding="wsHttpBinding" bindingConfiguration="wshttp"
contract="OnlineCourseRequestService.IOnlineCourseRequestService">
    </endpoint>
    <endpoint address="mex" binding="mexHttpBinding" contract="IMetadataExchange" />
```

Uncomment this section to enable https:

```
  <!--
    <endpoint address="" binding="wsHttpBinding" bindingConfiguration="wshttps"
contract="OnlineCourseRequestService.IOnlineCourseRequestService">
    </endpoint>
     <endpoint address="mex" binding="mexHttpsBinding" contract="IMetadataExchange" />
  -->
   </service>
  </services>
  <behaviors>
   <serviceBehaviors>
    <behavior name="OnlineCourseRequestService.Service1Behavior">
     <!-- To avoid disclosing metadata information,  set the value below to false and remove the
metadata endpoint above before deployment -->
```

Comment this section to disable http:

```
     <serviceMetadata httpGetEnabled="True" httpsGetEnabled="False"/>
```

Uncomment this section to enable https:

```
<!--
     <serviceMetadata httpGetEnabled="False" httpsGetEnabled="True"/>
-->
     <!-- To receive exception details in faults for debugging purposes,
     set the value below to true.  Set to false before deployment
     to avoid disclosing exception information -->
     <serviceDebug includeExceptionDetailInFaults="True" />
    </behavior>
   </serviceBehaviors>
  </behaviors>
 </system.serviceModel>
</configuration>
```

A

Central Authentication and PCXP.ini

This appendix provides an overview of the ParentCONNECTxp database authentication process and the configuration of the ParentCONNECTxp applications to use one common set of files for connecting to the ParentCONNECTxp display server database. It also describes the PCXP.ini file parameters that can be used for troubleshooting.

Each ParentCONNECTxp application requires a PCXP.ini file to point to a central location for a PCXP.ini and PCXP.req file that provide common settings and database authentication for all applications.

For the purposes of this overview, the ParentCONNECTxp applications include the following executable files:

- AdminApp.exe
- DataRefresher.exe
- PCxpAlertNotifierSrv.exe
- PCXP COM+ component package

All information required by the ParentCONNECTxp applications resides in the SQL Server database that is configured to be the display server database.

ParentCONNECTxp applications use the contents of two files to obtain the information required to access the Display Server database:

- PCXP.ini
  - The PCXP.ini file contains the names of the SQL server and database name of the Display Server database.
  - The parameters used for this information are SvrName and DBName.
  - There are two sections file that require the SQL server and database name to be defined. The PCXPDATA section is used when any application logs on to the

  SQL Server as the PCXPDATA login. The PCXPADMIN section is used when any application logs on to the SQL Server as the PCXPADMIN login.
  - The SvrName and DBName parameters of both sections must point to the same SQL Server and database.
- PCXP.req
  - The PCXP.req file contains the encrypted login information (SQL login and password) used by the PCXPADMIN and PCXPDATA SQL Server logins when authenticating to the SQL Server used for display server operations.

Each ParentCONNECTxp application requires its own copy of PCXP.ini to access the PCXP.ini files used for central authentication. With the exception of the COM+ component package, these files must reside in the same directory as the ParentCONNECTxp application. The COM+ package uses the System32 folder of the Windows folder (such as C:\Windows\System32) as its home folder.

ParentCONNECTxp central authentication provides a mechanism where all ParentCONNECTxp applications can use a single set of PCXP.ini and PCXP.req files to provide the required authentication information.

IMPORTANT Although one set of these files is used to obtain the actual authentication information, each application still requires a PCXP.ini file with a CentalAuthenticationPath parameter that tells the application that it is to use the central authentication mechanism. With ParentCONNECTxp 4.0 or later, all PCXP.ini files are set up automatically during installation.

Provided the network and server infrastructure is configured properly, central authentication can also be implemented in a manner where multiple computers (such as the display server, process server, and AdminApp administrative workstations) can use a single set of these files for authentication to the display server database.

Central authentication uses a combination of two parameters that are placed in the [PCXP] section of the applications' PCXP.ini files.

- CentralINIPath = <fully-qualified path to a common PCXP.ini file>
  - CentralINIPath directs the application to load the processing information from the PCXP.ini file that resides in the path defined by this parameter.
  - This parameter has no effect on the following parameters. These parameters are specific to each individual combination of DataRefresher and PCXP.ini.

    •UseIGPPeriodMatching

    •RetainInterimData

    •RetainSQLScripts

    •WriteLogFiles
  - The path is a folder path only. Do not include the text PCXP.ini in this parameter.

  - It is expected that the PCXP.ini file in the defined path is correctly configured and will not have a CentralINIPath entry in it. Only one level of redirection is permitted with CentralINIPath.
- CentralAuthenticationPath = <fully qualified path to a common PCXP.req file>
  - CentralAuthenticationPath directs the application to load the login information from the PCXP.req file that resides in the path defined by this parameter.
  - The path is a folder path only. Do not include the text PCXP.req in this parameter.
  - Enabling this parameter allows each application to locate the common PCXP.req file by using a fully-qualified path to the file instead of using the relative path of where the application is running.
  - CentralAuthenticationPath should be enabled only in the common PCXP.ini file that all applications will reference.

Central authentication can be extended to multiple systems within a network provided the following conditions are met:

- All basic central authentication requirements are met.
- The CentralINIPath and CentralAuthenticationPath parameters use only UNC paths to the desired folder.
- The network account used by the ParentCONNECTxp applications has automatic or pass-through network authentication to the system defined in the UNC path.
- The network share and file/folder security permissions to the UNC path provide, at a minimum, read permissions to the network account used by the ParentCONNECTxp applications.

PCXP.ini Parameter Settings

The following table describes the parameters that can be used in PCXP.ini. Modify only the PCXP.ini file found in the PCXP_DB folder (the one used for central authentication).

Important: With ParentCONNECTxp 4.0 or later, all PCXP.ini files are configured automatically by the installer. The only manual step needed to configure PCXP.ini files is to share the central authentication path folder.

Table A-1. PCXP.ini parameter settings

Parameter	Value	Used By	Description
[PCXP] Section			
RetainInterimData	TRUE / **FALSE**	DataRefresher	Used for troubleshooting only. Retains all interim data files on process server that would normally be deleted as part of normal operation. **Should not be enabled for normal operation.** Retains datafiles used for display data processing in two locations for each school that DataRefresher processes. • <DataRefresher Application Folder> \<SchoolNumber> • <Process Server UNC Processing Path>\<SchoolNumber>
RetainSQLScripts	TRUE / **FALSE**	DataRefresher	Used for troubleshooting only. Writes a copy of the executed SQL scripts to file. **Should not be enabled for normal operation.** Creates a file-based representation of the SQL queries executed during DataRefresher processing. These script files are written to <DataRefresher Application Folder>\<SchoolNumber>.
PTGModuleMsg	TRUE / **FALSE**	DataRefresher	Shows expanded information regarding the processing state of the DataRefresher.
WriteLogFiles	TRUE / **FALSE**	DataRefresher	Enables the automatic creation of a log file after each data population cycle. Log files are written to a LOG folder in the folder where DataRefresher is running. WriteLogFiles saves a copy of the individual DataRefresher processing responses (both Status and Error) for each job cycle that DataRefresher processes. The log files are saved to <DataRefresher Application Folder>\LOG.

Table A-1. PCXP.ini parameter settings (continued)

Parameter	**Value**	**Used By**	**Description**
CentralAuthenticationPath	<folder path>	AdminApp DataRefresher AlertNotifier COM+	Part of the central authentication mechanism that allows multiple ParentCONNECTxp applications to share a common set of display server authentication information.
CentralINIPath	<folder path>	AdminApp DataRefresher AlertNotifier COM+	
SQLUserID	SQL Server login used to access PCXP database	AdminApp DataRefresher AlertNotifier COM+	Used for emergency database access only. **Should not be used for normal operation.**
SQLPassword	SQL Server password used to access PCXP database	AdminApp DataRefresher AlertNotifier COM+	Used for emergency database access only. **Should not be used for normal operation.**
CleanProcSvrTables	TRUE / **FALSE**	DataRefresher	Pre-cleans work tables on Process Server prior to DataRefresher data population.
[PCXPDATA] Section			
SvrName	Name of SQL Server hosting PCXP display database	AdminApp DataRefresher AlertNotifier COM+	Named instances are supported in the form of <svrname>\<instance>.
DBName	Name of database on SQL Server referenced by SvrName that contains PCXP display data	AdminApp DataRefresher AlertNotifier COM+	
[PCXPADMIN] Section			
SvrName	Name of SQL Server hosting PCXP display database	AdminApp DataRefresher AlertNotifier COM+	Named instances are supported in the form of <svrname>\<instance>.

Table A-1. PCXP.ini parameter settings (continued)

Parameter	**Value**	**Used By**	**Description**
DBName	Name of database on SQL Server referenced by SvrName that contains PCXP display data	AdminApp DataRefresher AlertNotifier COM+	
Note: Lines beginning with a semicolon (;) are treated as a comments. Adding a semicolon to the beginning of a line disables the line in PCXP.ini. Removing the semicolon from the beginning of a line enables the line in PCXP.ini.			

B

Microsoft Certificate Services

Follow these step only if you are not using a publicly purchased SSL certificate. Most districts will NOT need to follow the steps in this appendix. Please consult the Microsoft Windows Server installation documentation for detailed explanations of installation and configuration procedures.

To install Certificate Services after the initial operating system installation has been performed:

1. On the Windows taskbar, click **Start**, point to **Control Panel**, and then click **Add or Remove Programs**.
2. Click **Add/Remove Windows Components**.
3. Select the **Certificate Services** component from the main list.
4. Use the **Details** button to locate and enable/disable the individual component options listed in Table B-1.
5. After all required options have been selected, continue with the wizard to complete the component installation process.

Table B-1. Certificate Server installation parameters

Certificate Server Installation Parameter	Windows Server
Install Certificate Services CA	✓
Install Certificate Services Web Enrollment Support	✓
Installation Mode	Stand-alone Root CA
Validity Period	<user defined>
Data Storage Locations	<installer defaults>

Configuring Certificate Services to Automatically Issue Certificates

Optionally, you can configure Certificate Services to issue certificates immediately after a request has been received.

To configure Certificate Services to automatically issue certificates:

1. On the Windows taskbar, click **Start**, point to **Administrative Tools**, and then click **Certification Authority**. The Certification Authority utility appears.
2. Under **Certification Authority (Local)**, right-click your server, and then click **Properties**.
3. Click the **Policy Module** tab, and then click the **Properties** button.
4. Select the **Follow the settings in the certificate template...** option.
5. Click **OK** in all open dialog boxes, and then close the Certification Authority utility.
6. Restart the server to enable the changes to Certificate Server.

Creating the Server Certificate Request File

To create the server certificate request file:

1. In IIS Manager, expand your server and the **Web Sites** folder to display the list of websites.
2. Right-click the **ParentCONNECTxpSecure** website, and then click **Properties**.
3. On the **Directory Security** tab, click the **Server Certificate** button.
4. In the wizard, click **Next**.
5. Select **Create a new certificate**, and then click **Next**.
6. Select **Prepare the request now, but send it later**, and then click **Next**.
7. Accept the **Name** for the certificate and the **Bit length**, and then click **Next**.
8. Type the name of your organization and organizational unit, and then click **Next**.
9. In the **Common Name** box, type the name that has been registered on the Internet for the ParentCONNECTxp display server. This is your Fully Qualified Domain Name (FQDN). Record this name for later use.

   FQDN: ____
10. Provide the full name of your state and your city, and then click **Next**.
11. Type C:\Certificates\pcxpreq.txt. This is the name of the certificate request file that is created. The folder is created during this step if it doesn’t currently exist.
12. Review the summary information, and then click **Next**.
13. Click **Finish** to create the server certificate request.
14. Click **OK**.

Processing the Server Certificate Request File

To process the server certificate request file:

1. Start Internet Explorer or another browser that is supported by Microsoft Certificate Services.
2. In the **Address** field, type http://localhost:81/certsrv and press the **Enter** key. The Certificate Services website appears.

   If you are using a Microsoft Certificate Server that is not on the ParentCONNECTxp display server, substitute localhost:81 with the host name of the actual Certificate Server you want to use for certificate requests.
3. On the **Welcome** screen, click the **Request a certificate** link.
4. Click the **advanced certificate request** link.
5. Click the **Submit a certificate request by using a base-64-encoded CMC...** link.
6. Open Windows Notepad, and then click **Open** on the **File** menu.
7. Browse to and open the certificate request file that you created in the previous section.
8. Copy and paste the contents of the request file into the **Saved Request** box in the browser.
9. Depending on the version of Certificate Services you are connected to, your browser window may also present an option for a **Certificate Template** type. If this option is available, select the **Web Server** template.
10. Click **Submit**.
11. Depending on the configuration of Certificate Services, it may be necessary to manually issue the certificate before you continue with this procedure.

    If the Certificate Server is configured to automatically issue certificates, the browser window will immediately take you to the certificate download page. Go to step 12.

    If the Certificate Server does not automatically issue certificates:

    a. Make a note of your request ID number.

    b. Click the **Home** link in the top-right corner of the **Certificate Pending** screen.

    c. On the Windows taskbar, click **Start**, point to **Administrative Tools**, and then click **Certification Authority**.

    d. Expand your organization folder and click the **Pending Requests** folder.

    e. Right-click the request that matches your request ID number, point to **All Tasks**, and then click **Issue**.

    f. Close the Certificate Authority application.

    g. In the browser window, click the **View the status of a pending certificate request** link.

    h. Click the **Saved-Request Certificate (<date>)** link. The browser window will display the certificate download page.

12. If the server is the same as the one running directly on the ParentCONNECTxp display server then skip to step 13. If you have requested the certificate from a Certificate Server other than one running directly on the ParentCONNECTxp display server, you will also have to download and apply the certificate chain as follows for the certificate to be valid:
    a. Click the **Download certificate chain** link.
    b. Click **Save**.
    c. Navigate to the C:\Certificates folder, type pcxpcertca.p7b as the filename, and then click **Save**.
    d. Click **Close** in the dialog box. (Don’t close your Web browser yet.)
    e. In Windows Explorer, navigate to the C:\Certificates folder, right click pcxpcertca.p7b, and click **Install Certificate**. The Certificate Import Wizard appears.
    f. Complete the wizard using default values provided by the wizard.
    g. The certificate chain is now installed and the requested web server certificate can be applied to the ParentCONNECTxp secure website.
13. In the browser window displaying the Certificate Services website, click the **Download certificate** link.
14. In the File Download dialog box, click **Save**.
15. Browse to the C:\Certificates folder you created earlier, type pcxpcert.cer as the file name, and then click **Save**.
16. Close the Download complete dialog box and your Web browser.

Applying the Certificate and Enabling Secure Communications

To enable secure communications on the website:

1. In IIS Manager, right-click the **ParentCONNECTxpSecure** website, and then click **Properties**.
2. On the **Directory Security** tab, click the **Server Certificate** button. The Certificate Wizard starts.
3. Click **Next**.
4. On the **Pending Certificate Request** page, select **Process the pending request and install the certificate**, and then click **Next**.
5. Browse to the folder containing the certificate file for the secure web site and select the server certificate file. If you are following the instructions for a Microsoft Certificate Server certificate, this file is C:\Certificates\pcxpcert.cer.
6. Click **Next**.
7. Accept the default SSL port of 443, and then click **Next**.
8. Review the Certificate Summary, and then click **Next**.

9. Click **Finish**.
10. On the **Directory Security** tab, click **Edit** in the **Secure communications** area.
11. Select the **Require secure channel (SSL)** check box.
12. Click **OK**.
13. On the **Web Site** tab, make sure that the **SSL port** field contains 443.
14. Click **Apply**, and then click **OK**.
15. Restart the server.

Renewing a ParentCONNECTxp Website SSL Certificate

SSL certificates are valid for a specific period of time defined within the certificate. When a certificate is used beyond the valid time period, end users will receive certificate warning messages when accessing the ParentCONNECTxp secure website. When this occurs, renew the SSL certificate with the certificate authority that issued the original certificate or replace the existing certificate with a new certificate.

If you are using a public certificate authority, please contact that authority for instructions on renewing your certificate.

If you are using Microsoft Certificate Server to renew the ParentCONNECTxp Secure Website Server Certificate, follow these instructions:

1. In IIS Manager, expand your server and the **Web Sites** folder to display the list of websites.
2. Right-click the **ParentCONNECTxpSecure** website, and then click **Properties**.
3. On the **Directory Security** tab, click the **Server Certificate** button.
4. In the wizard, click **Next**.
5. Select **Renew the current certificate**, and then click **Next**.
6. Select **Prepare the request now, but send it later**, and then click **Next**.
7. Type C:\Certificates\pcxpreqrenew.txt. This is the name of the certificate request file. The folder is created during this step if it doesn’t already exist.
8. Review the summary information, and then click **Next**.
9. Click **Finish** to create the server certificate request.
10. Click **OK** to close the dialog box.
11. Click **OK** to close the dialog box.
12. Complete the procedures previously documented for processing the certificate request and applying the certificate provided by a Microsoft Certificate Server. Substitute the name of the new request file for the name identified in those procedures.

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