

The upgrade and configuration of the PCS server and all PCS User (👤) computers requires the coordination of your company's IT System Administrator (👤), Database Administrator (🗄️), and PCS Administrator (🔧). The exact breakout of tasks may vary depending on your company's processes and job descriptions. The person fulfilling the role of Database Administrator (DBA) must have full DBA privileges and be a member of the sysadmin fixed server role.

The following is an overview of the preparation, upgrade, and reconfiguration of PCS:

- Prepare the Server and Clients for an Upgrade**
  - Synchronize Outstanding Data** 👤 — For any allegro that contain new survey data, the survey data should be transferred to the PCS database prior to upgrading PCS. Use the *Field Computer Receive* option to transfer outstanding data to PCS.
  - Disable Email Notifications and Change Tracking** 🔧 — If email notification or change tracking has been enabled, they must be turned off prior to upgrading. Open PCS on the PCS Administrator's computer, click on **Options** in the Tools menu and set the following options:
    - Email Notification — click to select the **Disable Email Notification** check box.
    - Change History — click to clear the **Turn On Change Tracking** check box.
  - Disable Change Data Capture** 🗄️ — If your company used CDC-enhanced change tracking, connect to your PCS database using *SQL Server Management Studio* and perform the following steps to disable CDC:
    1. Create a new query to enter SQL commands and enter the following text:

```
exec configureChangeTrackingCDCSettings @enableCDC = 0
```
    2. Select the entered text and click **Execute**.
  - Stop the Job Service** 📦 — Use *Windows Services* to stop the PCS Job Service.
  - Backup the Database** 🗄️ — Backup the PCS database using *SQL Server Management Studio*.
- Upgrade the PCS Database and PCS for the Administrator**
  - Upgrade PCS for the PCS Administrator** 🔧 or 📦 — Navigate to and open the PCS installation file on the PCS Administrator's computer. Continue the installation, ensuring only **PCS** is selected during *Custom Setup*.

- Upgrade the PCS Database**  — Open the *PCS Connection Manager* and verify the correct name of the central database server is entered in the **Server** field, then click  **Create/Upgrade** to upgrade the PCS database. When the upgrade is complete, click  **Close**.
  
- Upgrade SQL Server**  — If your company is upgrading the central database server to SQL Server 2019, perform the SQL upgrade prior to upgrading PCS. Follow the upgrade instructions provided by Microsoft to upgrade your instance of SQL Server.
  
- Upgrade PCS for the Job Service and Connect to the Database**
  - Upgrade PCS for the PCS Job Service**  or  — Navigate to and open the PCS installation file on the server or computer with the PCS Job Service already installed. Continue the installation, ensuring only **PCS Job Service** is selected during *Custom Setup*.
  - Connect to the PCS Database**  — Open the *PCS Connection Manager* and verify the correct name of the central database server is entered in the **Server** field, then click  **Test** to verify connection with the PCS databases. When the connection is verified, click  **Close**.
  
- Enable PCS Functions**
  - Configure Change Tracking**  — If your company would like to start to keep a log of all changes made to PCS data or modify the change tracking settings, it is recommended to set up change tracking during the upgrade process. Change tracking should be enabled regardless of whether the set up is new or modified.
    - To start using change tracking, refer to the *Manage the Database* document.
    - If change tracking was already enabled, verify changes to PCS database tables and fields do not necessitate modifications to change tracking settings. If your company uses enhanced changed tracking using CDC, set up CDC in SQL Server again.  
Refer to the *PCS 2.4 Release Notes* for a summary of changes made to the database.
    - After verifying the fields and tables are configured correctly and, if necessary, configuring CDC in SQL Server, select **Options** in the Tools menu of PCS and click to select the **Turn On Change Tracking** check box.
  - Enable Email Notification**  — Email notification must be re-enabled so reports can be emailed out according to pre-defined schedules. To do this, select **Options** in the Tools menu in PCS and click to clear the **Disable Email Notification** check box.

- Start the PCS Job Service**
  - Set the Log On Account**  — In the Services console, right-click on **PCS Job Service 2.4** and select **Properties** to open the *Properties* window. Click the **Log On** tab and select the option **This account**. Enter the job service user account's name and password in the appropriate fields and click **Apply** and then **OK**.
  - Start the Job Service**  — Select the **PCS Job Service 2.4** and click **Start**.
- Upgrade PCS on Client Computers**
  - Upgrade PCS**  or  — Navigate to and open the PCS installation file on the PCS User's computer. Continue the installation, ensuring only **PCS** is selected during *Custom Setup*.
  - Connect to the PCS Database**  — Open the *PCS Connection Manager* and verify the correct name of the central database server is entered in the **Server** field, then click  **Test** to verify connection with the PCS databases. When the connection is verified, click  **Save and Close**.