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Chapter 1: Overview

EOP ASSIST is a Web-accessible software application that allows school emergency management planning teams to develop and revise their school emergency operations plans (EOPs). The application includes various user roles and permissions, based on the type of institution hosting the application. EOP ASSIST was designed to be installed on any of the hosting levels described below. It is important to select the correct hosting level for your institution so that the application is installed correctly and its accounts are set up correctly for your institution’s needs.

- **State-/regional-level hosting** allows state agencies (or regional education agencies—REAs), multiple school districts and their schools, and independent schools to have access to and different roles within the application. Typically, a state agency or REA will host the application at this level so that all schools and school districts within its jurisdiction may log in to the application to develop and revise their school EOPs, which are stored on the state’s or REA’s server.

- **Local-level hosting** allows one school district and its schools to have access to and different roles within the application, or an individual school, regardless of whether it is public or nonpublic, to host the application on its own server for itself. Only individuals from the school district office and schools throughout the school district may log in to the application to develop and revise their school EOPs, which are stored on the school district’s server. If a school is hosting it for itself, then only individuals from that school’s planning team may log in to the application to develop and revise their school EOP, which is stored on the school’s server.

This Web-accessible software application requires installation by information technology (IT) personnel onto a local server at a state agency, an REA, a school district, or an individual school, as applicable. It is important for IT personnel responsible for installing EOP ASSIST to ensure that the connection between the server and clients is secure. EOP ASSIST is compatible with Secure Sockets Layer (SSL) security protocols. It requires the services of an HTTP Web server that supports PHP, a server-side scripting language, and a back-end database server. More information on technical requirements is provided in Chapter 2 and is important to review before installing the application.

This Installation Manual covers preparing for installation, running the installation script, and identifying the steps that should be done after that. This manual focuses on getting the software application up and running on a Web server environment of your choice, but it is not an exhaustive or definitive guide for setting up and configuring Web server environments. It provides basic information on installing and configuring select supported environments.
Once EOP ASSIST is installed on a server, IT personnel will need to create a URL that points to the application. Then individual users will be able to access EOP ASSIST through a Web browser using the URL. The application will run on most personal computers; more information on client access is provided in Chapter 6. Before you begin the installation process, please review the entire Installation Manual to ensure that you have met the requirements and are familiar with the instructions.
Chapter 2: Technical Requirements

Expertise Requirements of IT Personnel

IT personnel assigned to install the software are required to have an intermediate level of expertise or knowledge related to networking, Web server, and database system configuration. Specifically, the application should be installed by a skilled network administrator or system administrator who has experience in server configuration. To ensure connectivity between education institutions using EOP ASSIST, the network or system administrator of the server network needs to configure the firewall to make the server available to only applicable education institutions.

The REMS TA Center offers an alternative to setting up EOP ASSIST on and configuring existing or new servers. Available for download, a packaged server image has the software app preconfigured in a Linux, Apache, MySQL, and PHP (LAMP) stack environment. This will allow system administrators to get EOP ASSIST up and running in a very short amount of time. If you opt to use this option, please refer to Appendix A to set up the server and skip to Initialize EOP ASSIST.

Server Requirements

The REMS TA Center designed EOP ASSIST to be compatible with multiple server environments to meet the needs of schools, school districts, REAs, state agencies, and their partner organizations in the field of school emergency management. The software application is not compatible with all server environments, however, so education institutions that choose to install EOP ASSIST must ensure that their server meets the following requirements. IT personnel may choose to install the server software independently or download a preconfigured Accessibility Management Platform (AMP) environment.

Operating System

EOP ASSIST was designed to be installed on a server using one of the following three types of operating systems: Linux, which is free and open sourced and is offered in a plethora of distributions; Microsoft Windows, which the REMS TA Center found is commonly used by education institutions across the United States; and Mac OS X/macOS, which the REMS TA Center found is also commonly used by education institutions across the United States. This software application is currently supported on the following operating system versions:

<table>
<thead>
<tr>
<th>Operating System</th>
<th>Oldest Compatible Release</th>
<th>Latest Compatible Release</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linux</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Microsoft Windows</td>
<td>Server 2008</td>
<td>Server 2019</td>
</tr>
<tr>
<td>Mac OS X/macOS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
EOP ASSIST 5.0 Installation Manual

Mac OS X/ macOS

| Mac OS X 10.10 Yosemite | macOS 10.14 Mojave |

EOP ASSIST is compatible with all Linux distributions that can run the compatible Web server software, relational database management system (RDBMS), and scripting language listed in this document. To download the latest versions of the above operating systems, which includes reviewing their respective system requirements and installation instructions, please access the following:


Please Note: At the time that this software application was released, macOS 10.15 was not yet available, so the REMS TA Center was unable to test EOP ASSIST 5.0 on it. While the REMS TA Center cannot guarantee that the operating system is compatible, the REMS TA Center anticipates that the required Web server software, RDBMS, and scripting language listed in this document will not fail on future minor operating system upgrades.

**Web Server Software**

EOP ASSIST was designed to be installed on a server using one of two Web server software: Apache HTTP Server, which is free and open sourced, or Internet Information Services (IIS), which the REMS TA Center found is commonly used by education institutions across the United States. The EOP ASSIST software application is currently supported on the following Web server software versions:

<table>
<thead>
<tr>
<th>Web Server Software</th>
<th>Oldest Compatible Release</th>
<th>Latest Compatible Release</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apache HTTP Server</td>
<td>2.2.0</td>
<td>2.4.x</td>
</tr>
<tr>
<td>Internet Information Services (IIS)</td>
<td>7</td>
<td>10</td>
</tr>
</tbody>
</table>

To download the latest versions of the above Web server software, which includes reviewing their respective system requirements and installation instructions, please access the following:

- [https://httpd.apache.org/download.cgi](https://httpd.apache.org/download.cgi)

Please note: At the time this software application was released, Apache HTTP Server 2.5 was not yet available. Therefore, the REMS TA Center does not support EOP ASSIST 5.0 on Apache HTTP Server 2.5.
Relational Database Management System
EOP ASSIST was designed to be installed on a server using one of the following two RDBMSs: MySQL, which is free and open sourced, or Microsoft SQL Server, which the REMS TA Center found is commonly used by education institutions across the United States. EOP ASSIST is currently supported on the following RDBMS versions:

<table>
<thead>
<tr>
<th>RDBMS</th>
<th>Oldest Compatible Release</th>
<th>Latest Compatible Release</th>
</tr>
</thead>
<tbody>
<tr>
<td>MySQL</td>
<td>5.6.1</td>
<td>8.0.17</td>
</tr>
<tr>
<td>Microsoft SQL Server</td>
<td>2005</td>
<td>2017</td>
</tr>
</tbody>
</table>

To download the latest RDBMS versions, which includes reviewing their respective system requirements and installation instructions, please access the following:

- [https://www.mysql.com/downloads/](https://www.mysql.com/downloads/)

Please note: At the time this software application was released, Microsoft SQL Server 2019 and MySQL 8.0 were not yet available. Therefore, the REMS TA Center does not support EOP ASSIST 5.0 on Microsoft SQL Server 2019 or MySQL 8.0.

Scripting Language
EOP ASSIST was built using PHP, a popular scripting language. This software application is currently supported on the following scripting language versions:

<table>
<thead>
<tr>
<th>Scripting Language</th>
<th>Oldest Compatible Release</th>
<th>Latest Compatible Release</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHP</td>
<td>5.6.0</td>
<td>7.3.x</td>
</tr>
</tbody>
</table>

To download the latest version of the above scripting language, which includes reviewing its system requirements and installation instructions, please access the following:


Please note: PHP 7.1 will be supported until December 2019; PHP 7.2 will be supported until November 2020; and PHP 7.3 will be supported until December 2021. At the time this software application was released, PHP 7.4 was not yet available. Therefore, the REMS TA Center does not support EOP ASSIST 5.0 on PHP 7.5.
**Configuration Requirements**

Please confirm that you have the following files and folders in your **Web root directory** (or the directory where EOP ASSIST is installed):

1. `application/` (directory);
2. `assets/` (directory);
3. `system/` (directory);
4. `uploads/` (directory);
5. `.htaccess` (file), which will be hidden on Unix systems (if this is the case, use the command line);
6. `index.php` (file); and
7. `web.config` (file).

**PHP**

It is imperative that PHP is configured correctly for EOP ASSIST to work. Please confirm that the following PHP libraries are installed and enabled:

- DOM
- GD extension for graphics
- json
- libXML
- mbstring
- mysql (even if using Microsoft SQL Server)
- mysqli (even if using Microsoft SQL Server)
- mysqlnd
- PCRE (Perl Compatible Regular Expressions)
- PDO_mysql (even if using Microsoft SQL Server)
- PDO_SQLSRV (only if using Microsoft SQL Server)
- Session
- sqlsrv (only if using Microsoft SQL Server)
- Standard
- XML
- Zip

To confirm that each of the above-required PHP libraries are installed and enabled, please do the following:

1. Navigate to `http://localhost/app/phpinfo` in a Web browser. This Web page should generate an output report with all the loaded PHP libraries.
2. Review the output report, and confirm that all the required PHP libraries are installed and enabled.

If you are missing any of the required PHP libraries, please do the following:

1. Open the configuration file (php.ini).
2. Find and uncomment each of the required libraries, as applicable.
3. Save the configuration file.
4. Restart the Web server.

If you are missing any PHP libraries and cannot find them in the configuration file, please do the following:

2. Install the PHP package.
3. Open the configuration file.
4. Uncomment each of the required libraries, as applicable.
5. Save the configuration file.
6. Restart the Web server.

Please confirm the following:

1. CGI is enabled.
2. PHP is configured to run as FastCGI.

Please note: Most of the default-enabled modules that come with PHP are recommended.

MySQL
MySQL should be set up with the following environmental variables:

- Server charset: UTF-8 Unicode (utf8)
- Database collation: utf8_general_ci
- Preferred storage engine: InnoDB

Microsoft SQL Server
Microsoft SQL Server generally does not need to be set up with any environmental variables other than those already defaulted with the software. Only if your server environment is using Microsoft Windows Server with IIS must the following be installed:

- Microsoft ODBC Driver 11 for SQL Server
  - To download this driver, please access https://www.microsoft.com/en-us/download/details.aspx?id=36434 or search the Microsoft Website for the driver. Download the 64-bit version only if you have a 64-bit platform. Likewise, download the 32-bit version only if you have a 32-bit platform.

- Visual C++ Redistributable for Visual Studio 2012 Update 4
  - To download this package, please access https://www.microsoft.com/en-us/download/details.aspx?id=30679 or search the Microsoft Website for the package.
Apache HTTP Server

If you are using Apache HTTP Server as your Web server software, please confirm that you have met the following requirements:

1. The mod_rewrite module is installed and enabled.
   - If you are using WAMP on a Microsoft Windows operating system, please do the following:
     i. Navigate to `C:\wamp\bin\apache\apache2.x.x\conf`
     ii. Open the `httpd.conf` file using a text editor or word pad.
     iii. Find and uncomment (remove the hashtag preceding the line) the following line:
         `LoadModule rewrite_module modules/mod_rewrite.so`
     iv. Save the file.
     v. Restart Apache.
   - If you are using a Unix operating system, please do the following:
     i. Navigate to `/etc/apache2/httpd.conf`
     ii. Open the `httpd.conf` file using a text editor or word pad.
     iii. Find and uncomment (remove the hashtag preceding the line) the following line:
         `LoadModule rewrite_module libexec/apache2/mod_rewrite.so`
     iv. Save the file.
     v. Restart Apache.
   - If you are using XAMPP on a Mac OS X/macOS operating system, please do the following:
     i. Use the Read Me program to navigate to where the configuration file is stored.
     ii. Open the `httpd.conf` file.
     iii. Find and uncomment (remove the hashtag preceding the line) the following line:
         `LoadModule rewrite_module modules/mod_rewrite.so`
     iv. Save the file.
     v. Restart Apache.
2. The AllowOverride directive is set to All.
   - Open your `httpd.conf` Apache configuration file.
   - Find and uncomment the following line, and confirm that it is set correctly:
     `AllowOverride = All`
   - Do this for the document root directory.
   - If you are installing EOP ASSIST as a virtual host, do the same for the virtual host directory settings.

```xml
<DocumentRoot "path/to/your/root/directory">
<Directory "path/to/your/root/directory">
```
To configure and enable Apache modules, please refer to the following documentation:

- [https://httpd.apache.org/docs/2.2/configuring.html](https://httpd.apache.org/docs/2.2/configuring.html)

**Microsoft Windows Server With IIS**

If you are using Microsoft Windows Server with IIS as your Web server software, please confirm that you have met the following requirements:

1. The **URL_rewrite** module is installed and enabled and contains two directives. To download this module, please access [http://www.iis.net/downloads/microsoft/url-rewrite](http://www.iis.net/downloads/microsoft/url-rewrite).
   - Confirm that the **web.config** file is in your document root and that it has directives.
   - Delete all the EOP files from the document root.
   - Paste all the EOP files that you just deleted back into the document root.
   - Restart your server.
   - Navigate to the **IIS Manager** and confirm that you have directives for **URL_rewrite**.
   - Click [Sites > Default Website > URL Rewrite](https://httpd.apache.org/docs/2.2/configuring.html).
   - Confirm that you have two rules (e.g., **Imported Rule 1** and **Imported Rule 2**).
   - Navigate to the **server root** (wwwroot).
   - Confirm that the **web.config** file is located in the server root.
   - Open the **web.config** file, and confirm that it has the correct directives inside:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<configuration>
  <system.webServer>
    <rewrite>
      <rules>
        <rule name="Imported Rule 1" stopProcessing="true">
          <match url="^(.*)$" ignoreCase="false" />
          <conditions logicalGrouping="MatchAll">
            <add input="{URL}" pattern="^system.*" ignoreCase="false" />
          </conditions>
          <action type="Rewrite" url="/index.php?{R:1}"
        </rule>
        <rule name="Imported Rule 2"
```

2. PHP is configured to run as FastCGI.
3. The Non Thread Safe PHP package is installed from php.net.
4. CGI is enabled, and the CGI directives are set correctly.
   - Open your php.ini, and confirm that you have the following CGI directives set correctly:
     - \texttt{cgi.force_redirect = 0}
     - \texttt{cgi.fix_pathinfo = 1}
     - \texttt{fastcgi.impersonate = 1}
     - \texttt{fastcgi.logging = 0}
5. Visual C++ Redistributable for Visual Studio 2012 Update 4 is installed. To download this package, please access https://www.microsoft.com/en-us/download/details.aspx?id=30679. Please note that sometimes the x64 version won’t work, so you may need to install both x64 and x32.
6. Microsoft® ODBC Driver 11 for SQL Server® is installed. To download this driver, please access https://www.microsoft.com/en-us/download/details.aspx?id=36434 or search the Microsoft Website for the driver.

Connectivity

Network connectivity between servers and schools is required for the application to be used by individual users. To ensure privacy and cybersecurity, a secure connection between servers and individual users is also required. The application uses standard Transmission Control Protocol/Internet Protocol (TCP/IP) port (443) to connect between browser and server. Port 443, therefore, needs to be enabled on the institution’s firewall, as applicable, for this application to operate.
Chapter 3: Installation Instructions

Set Up Server Environment

EOP ASSIST supports three Web server environments. Please choose to set up the server environment of your choice.

- **Apache HTTP Server** with MySQL and PHP. This server environment is recommended by the REMS TA Center. For basic configuration information, see Appendix B.
- **Microsoft Windows Server** with IIS, MySQL, and PHP. For basic configuration information, see Appendix C and Appendix E.
- **Microsoft Windows Server** with IIS, Microsoft SQL Server, and PHP. For basic configuration information, see Appendix D and Appendix E.

Set Up a Database and Privileged User

After configuring your Web server and PHP to work with an RDBMS, you will need to create a database.

1. Create a new database named eopassist.
2. Create a user account for the application, and grant it all privileges to the eopassist database that you just created.

**MySQL**

If you are using MySQL as your RDBMS, there are several free database management tools that you may use for database administration. These tools include the following:

- **phpMyAdmin**—a free Web application tool for MySQL database administration. This tool may be downloaded from https://www.phpmyadmin.net/.
- **MySQL Workbench**—a powerful and unified visual tool that provides an interface for easily administering MySQL environments. This tool may be downloaded from https://www.mysql.com/products/workbench/.
- **MySQL Command Shell**—the built-in MySQL command-line tool that comes with MySQL and can be used to perform administrative tasks. This tool may be downloaded from https://dev.mysql.com/downloads/shell/.
- **Webmin MySQL Module**—a Web application like phpMyAdmin, but less powerful. This tool may be downloaded from http://www.webmin.com.

**Microsoft SQL Server**

If you are using Microsoft SQL Server as your RDBMS, you may use the following tool for database administration:
• **SQL Server Management Studio**—an integrated tool that may be used to perform administrative tasks. This tool may be downloaded from [https://msdn.microsoft.com/en-us/library/mt238290.aspx](https://msdn.microsoft.com/en-us/library/mt238290.aspx).

**Download EOP ASSIST Files**

After registering for EOP ASSIST at [https://rems.ed.gov/EOPASSIST.aspx](https://rems.ed.gov/EOPASSIST.aspx), you will receive an email with a link to a hidden Web page and instructions for downloading the application files in a compressed (zipped) folder. Download and unzip the installation package. The installation package is in a directory called **EOP_ASSIST_PKG** and will include the following files and folders:

- **application/** (directory)
- **assets/** (directory)
- **system/** (directory)
- **uploads/** (directory)
- **.htaccess** (file), which will be hidden on Unix systems (if this is the case, use the command line)
- **index.php** (file)
- **web.config** (file)

**Configure EOP ASSIST**

On the Linux and Mac OS X/macOS operating systems, confirm that the Apache user has read/write access to the main application directory. Then do the following:

1. Copy all the files in the **EOP_ASSIST_PKG** folder to the root Web directory. This could be **htdocs** for Apache, **wwwroot** for IIS, or any virtual directory, depending on your Web server setup.
2. Grant read/write access to the **Apache** or **IIS service user** on the following file and folder:
   ```
   application/config/settings.php
   uploads/
   ```

**Initialize EOP ASSIST**

Next, you will need to run an install script that will set up the database tables and initialize the application. Make sure you have created a database and a database user before you continue.

1. Open your Web browser, and navigate to the following URL: http://localhost/install.
2. You will see the **Installation Wizard**.
   - If you do not see the EOP ASSIST 5.0 Installation screen, please refer to [Configuration Requirements](https://rems.ed.gov/EOPASSIST.aspx) and confirm that your server environment is configured correctly.
Choose Hosting Level

1. Select the correct level of hosting—state-/regional-level hosting or local-level hosting—for your institution.
   - **State-/regional-level hosting** means a state agency is hosting the application for schools and school districts in the state or an REA is hosting the application for schools and school districts in the region.
   - **Local-level hosting** means that a school district or individual school is hosting the application for schools in the school district or for the individual school.

2. Click the **Save and Continue** button.

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EOP ASSIST 5.0 Installation

Thank you for using the U.S. Department of Education's and its Readiness and Emergency Management for Schools (REMS) Technical Assistance (TA) Center's free and Web-accessible software application for public and nonprofit schools to create and update high-quality school emergency operations plans (EOPs). Supporting resources for using EOP ASSIST can be found on the REMS TA Center Website.

For more information about or to receive technical support using EOP ASSIST, please contact the REMS TA Center at smackr@ed.gov or via our toll-free telephone number, 1-855-761-REMS (7367). Our hours of operation are Monday through Friday, 9:00 a.m. to 5:00 p.m., Eastern Time.

Choose Hosting Level

- **State/Regional Level**
  - Please select this option if you are a state agency or regional education agency installing EOP ASSIST and hosting it for schools and school districts in your state or region.
- **Local Level**
  - Please select this option if you are a school or school district installing EOP ASSIST and hosting it for your local education agency.

* Required Field

The U.S. Department of Education contracted for final products and deliverables that were developed under the GS-35F-119CA contract with Synergy Enterprises, Inc., and the contractual obligation that the U.S. Department of Education is the sole owner of EOP ASSIST.

EOP ASSIST is being made available to the public pursuant to the following conditions. The U.S. Department of Education is making the software available to the public and grants the public the worldwide, non-exclusive, royalty-free right to use and distribute the software created pursuant to the GS-35F-119CA contract, for any non-commercial and instructional purposes. The software does not include the right to use the source code of the software itself, nor does it contain any warranties.

If you have any questions regarding whether a proposed use is allowable under this license or want to request a particular use, please contact Bobbi Bane at 202-401-0729.

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Verify System Requirements

1. The system will then run a system requirements verification check to make sure that you have all the technologies and dependency PHP libraries needed to run EOP ASSIST.
2. Click the Save and Continue button.
Set Up Database

1. Enter the server and database information into the appropriate fields.
   - Select the type of database you are using. This should be either MySQL or SQL Server.
   - The database host is the machine or server IP that hosts the database. If your database is hosted on the same server machine, type localhost or 127.0.0.1 in the field. Otherwise, enter the database server IP address in the field.
   - Enter the name of the database you created earlier. This name should be eopassist. If you are using the prepackaged server image, the name will be eop_db.
   - Enter the username of the database. If you are using the prepackaged server image, the username will be u_eop.
   - Enter and confirm the password of the database user. If you are using the prepackaged server image, the password will be BNN1DKxahYgQCNY.

2. Click the Save and Continue button.
Set Up Super Administrator

Next, you will need to set up the Super Administrator account. This is EOP ASSIST’s overall IT administrator who is responsible for initially setting up the application and managing the database. As such, the Super Administrator has all management functionality of the application and the Super Administrator login credentials should be used by IT personnel.

1. Enter the Super Administrator information into the appropriate fields.
   - Create a **user ID** for the Super Administrator.
   - Only if you have enabled state-/regional-level hosting during the installation process, select the appropriate **state**.
   - Enter and confirm the **password** of the Super Administrator.
   - Enter the name of the **institution** that is hosting EOP ASSIST.
   - Enter your **email address**.
2. Make a note of the user ID and password information so that you can use these login credentials in the future.
3. Click the **Save and Continue** button.
Identify Program Administrator

Next, you will need to identify the Program Administrator. This is the EOP ASSIST overall program administrator who is responsible for managing the use of the application by education agency personnel and serving as the point of contact for users that need access to their login credentials. As such, the Program Administrator’s contact information will be displayed on the Login page so that he or she can be contacted to reset passwords and/or provide user IDs.

1. Enter the Program Administrator information into the appropriate fields.
   - Enter the name of the Program Administrator.
   - Enter the agency of the Program Administrator.
   - Enter the phone number of the Program Administrator.
   - Enter the email address of the Program Administrator.

2. Make sure that the Program Administrator is aware of his or her responsibilities.
3. Click the Save and Continue button.
Finalize Installation

1. Click the Login button.
Log In

1. Go to http://localhost/.
2. You will be redirected to the Login page.
3. Use the Super Administrator login credentials that you just created.
4. It is recommended that at least three representatives from your institution have access to the Super Administrator login credentials.

Please note: More information on how to set up school and/or school district accounts, as well as the appropriate users, is available in Chapter 4.
Chapter 4: Setting Up Schools, Districts, and/or Users

At this point, you have downloaded EOP ASSIST and installed it on your institution’s server. Again, it is important to recognize whether your institution is hosting the application at the state, school district, or school level. To begin setting up the appropriate entities within EOP ASSIST for your level of hosting, please review the following subsection that is applicable to your institution. It is not possible to host the application at more than one type of level.

State-/Regional-Level Hosting

The state-/regional-level hosting allows state agencies or REAs, multiple school districts and their schools, and independent schools to have access to and different roles within the application. Typically, a state agency or REA will host the application at this level so that all schools and school districts within its jurisdiction may log in to the application to develop and revise their school EOPs, which are stored on the state’s or REA’s server.

The Super Administrator’s first task will be to create at least one State Administrator account that is associated with the state agency or REA. Once the State Administrator login credentials are shared with the State Administrator, that person will be responsible for creating additional State Administrator accounts for the state agency or REA, school district profiles, and District Administrator accounts for all school districts within your institution’s jurisdiction, as well as school profiles and School Administrator accounts for all independent schools within your institution’s jurisdiction.

Create a State Administrator Account

1. Log in and navigate to the Management section.

2. Select the User Management tab.

3. Click the Create New User button.

4. Fill in all the required fields (noted with an asterisk) in the form that appears.
   - Select State Administrator in the User Role dropdown menu.
5. Make a note of the user ID and password information so that you can send it to the actual user who will use these login credentials.
6. Click the Save button.
7. The State Administrator’s name and other personal information will be saved, you will return to the User List, and you will get a confirmation message that a new user account was created successfully.

*Share Login Credentials With the State Administrator*

Now that you have created a State Administrator account to manage the entire state’s or region’s access to the application, you will need to share the State Administrator’s login credentials with him or her. The State Administrator may create additional School Administrator accounts as described below. The REMS TA Center recommends that you share all the following information with each State Administrator:

- User ID of the State Administrator
- Password of the State Administrator
- Reminder that the State Administrator may want to change his or her password
- Responsibility of the State Administrator to create at least two additional State Administrator accounts
- Responsibility of the State Administrator to create a school district profile and a District Administrator account for each school district within your institution’s jurisdiction
- Responsibility of the State Administrator to create a school profile and a School Administrator account for each independent school in your institution’s jurisdiction
- Reminder that the State Administrator may want to fill out and distribute the Customizable EOP ASSIST Info Sheet for States and Regional Education Agencies to Share With School Districts and Schools to schools and school districts in their jurisdiction, so they understand what EOP ASSIST is and how they can get started using the application on the state’s or REA’s server
- *User Manual* as a reference guide
- Video tutorials as resources

The REMS TA Center recommends that there be at least three State Administrator accounts designated for each state agency or REA hosting EOP ASSIST.

*Please note:* For more information on how to create school district profiles, school district-level user accounts, independent school profiles, and school-level user accounts, as well as more information on the responsibilities of the State Administrator, please refer to the User Manual.
Local-Level Hosting

School District Hosts for Itself and Its Schools
The local-level hosting allows one school district and its schools to have access to and different roles within the application. Only individuals from the school district office and schools throughout the school district may log in to the application to develop and revise their school EOPs, which are stored on the school district’s server.

The Super Administrator’s first task will be to create the school district profile and at least one District Administrator account that is associated with the school district office. Once the District Administrator’s login credentials are shared with him or her, the District Administrator will be responsible for creating additional District Administrator accounts for the school district and school profiles, and School Administrator accounts for all schools within the school district.

Create the School District Profile
1. Log in and navigate to the Management section.
2. Click the School District Management tab.
3. Click the Create New School District button.
4. Fill in all the required fields (noted with an asterisk) in the form that appears.
   - Type your district’s name in the District Name field.
   - Type your district’s abbreviation in the Screen Name field.
5. Click the Create School New District button.
6. The school district name and other information will be saved, you will return to the School District List, and you will get confirmation message that a new school district profile was created successfully will appear.

Because you represent a school district that is hosting the application for itself, you should never create any additional school district profiles in the application.

Create a District Administrator Account
1. Click the User Management tab.
2. Click the Create New User button.
3. Fill in all the required fields (noted with an asterisk) in the form that appears.
   - Select **District Administrator** in the User Role dropdown menu.
   - Select your district’s name in the District dropdown menu.

4. Make a note of the user ID and password information so that you can send it to the actual user who will use these login credentials.

5. Click the **Save** button.

6. The District Administrator’s name and other personal information will be saved, you will return to the **User List**, and you will get a confirmation message that a new user account was created successfully.

---

**Share Login Credentials With the District Administrator**

Now that you have created a District Administrator account to manage the entire school district’s access to the application, you will need to share the District Administrator’s login credentials with him or her. The REMS TA Center recommends that you share all of the following information with each District Administrator:

- User ID of the District Administrator
- Password of the District Administrator
- Reminder that the District Administrator may want to change his or her password
- Responsibility of the District Administrator to create at least two additional District Administrator accounts
- Responsibility of the District Administrator to create a school profile and a School Administrator account for each school in the school district
- **User Manual** as a reference guide
- Video tutorials as resources

The REMS TA Center recommends that there be at least three District Administrator accounts designated for each school district hosting EOP ASSIST.

**Please note:** For more information on how to create school profiles and school-level user accounts, as well as more information on the responsibilities of the District Administrator, please refer to the User Manual.
**School Hosts for Itself**

The local-level hosting allows an individual school, regardless of whether it is public or nonpublic, to host the application on its own server for itself. Only individuals from that school’s planning team may log in to the application to develop and revise their school EOP, which is stored on the school’s server.

The Super Administrator’s first task will be to create the school profile and at least one School Administrator account that is associated with that school. Once the School Administrator’s login credentials are shared with him or her, the School Administrator will be responsible for creating additional School Administrator accounts and School User accounts for the school.

**Create the School Profile**

1. Log in and navigate to the **Management** section.
2. Click the **School Management** tab.
3. Click the **Create New School** button.
4. Fill in all the required fields (noted with an asterisk) in the form that appears.
   - Type your school’s name in the School Name field.
   - Type your school’s abbreviation in the Screen Name field.
   - Select **None** in the District dropdown menu.
5. Click the **Create New School** button.
6. The school name will be saved, you will return to the **School List**, and a confirmation that a new school profile was created successfully will appear.

Because you represent an individual school that is hosting the application for itself, you should never add any additional schools to the application.

**Create a School Administrator Account**

1. Select the **User Management** tab.
2. Click the **Create New User** button.
3. Fill in all the required fields (noted with an asterisk) in the form that appears.
   - Select **School Administrator** in the User Role dropdown menu.
   - Select **None** in the District dropdown menu.
   - Select your school’s name in the School dropdown menu.

4. Make a note of the user ID and password information so that you can send it to the actual user who will use these login credentials.

5. Click the **Save** button.

6. The School Administrator’s name and other personal information will be saved, you will return to the **User List**, and you will get a confirmation message that a new user account was created successfully.

**Share Login Credentials With the School Administrator**

Now that you have created a School Administrator account to manage the school planning team’s access to the application, you will need to share the School Administrator’s login credentials with him or her. The REMS TA Center recommends that you share all the following information with the School Administrator:

- User ID of the School Administrator account
- Password of the School Administrator account
- Reminder that the School Administrator may want to change his or her password
- Responsibility of the School Administrator to create at least two additional School Administrator accounts
- Responsibility of the School Administrator to create a School User account for each member of the school’s planning team
- **User Manual** as a reference guide
- Video tutorials as resources

The REMS TA Center recommends that there be at least three School Administrator accounts designated for each school hosting EOP ASSIST.

*Please note: For more information on how to create school-level user accounts, as well as more information on the responsibilities of the School Administrator, please refer to the User Manual.*
Chapter 5: Time-Out Feature

To protect the security of school EOPs, users are automatically logged out after a set period of time. The duration of time that user sessions remain idle or inactive before being automatically logged out may be adjusted only by the Super Administrator. Security standards recommend setting 60 minutes as the maximum amount of time to elapse before timing out.

1. **Click the Time-Out tab.**

2. **Click the Edit button.**

3. A pop-up window will appear.
   - **Fill in the field.**
   - **Click the Save button.**
Chapter 6: Client Access

No client installation is required. After EOP ASSIST has been installed on an institution’s server, users access it as a Web application via a Web browser using the Web server IP address (e.g., http://192.168.16.7). Alternatively, if you have a Domain Name System (DNS) server, you may set up a domain name and point it to the IP address (e.g., eopassist.domain.org). Any of the modern browsers in the table below can be used to access EOP ASSIST, and a secure connection with the latest encryption technologies is always recommended.

<table>
<thead>
<tr>
<th>Web Browser</th>
<th>Compatible Releases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet Explorer</td>
<td>8.0 and above</td>
</tr>
<tr>
<td>Microsoft Edge</td>
<td>13 and above</td>
</tr>
<tr>
<td>Mozilla Firefox</td>
<td>46 and above</td>
</tr>
<tr>
<td>Apple Safari</td>
<td>8.0 and above</td>
</tr>
<tr>
<td>Google Chrome</td>
<td>49 and above</td>
</tr>
</tbody>
</table>

You will need to share the appropriate Web server IP address or domain name with all users of EOP ASSIST at your institution so that they can access the application.
Chapter 7: Resources and Technical Assistance

Recommended Resources for Distribution

The REMS TA Center has developed a number of resources for EOP ASSIST users. It is important that you distribute the following recommended resources to emergency management practitioners when they first gain access to the application so that they understand its features and how they may use it to develop a school EOP.

Customizable EOP ASSIST Info Sheet for States and Regional Education Agencies to Share With School Districts and Schools
This downloadable and interactive flyer allows state agencies and REAs that are hosting the software application for their schools and school districts to distribute and share information on EOP ASSIST and promote its use across the state or region. State agencies and REAs may fill in the interactive forms with their agency name, as well as contact information for the representative overseeing EOP ASSIST at their agency, and can use this tool to help communicate the basics on how EOP ASSIST works and what schools and school districts need to do to get started using the application.  
http://rems.ed.gov/docs/resources/EOP_Assist_FactSheetStatesShareWithLEAs.pdf

EOP ASSIST 5.0 User Manual
This publication provides in-depth information on using EOP ASSIST from all user levels, including directions on how to complete tasks. All users should review this document before they begin to use the application, as well as refer to it throughout their use.  

An Overview of the Features and Functions of the EOP ASSIST Video Tutorial
This video provides an overview of the general layout of the application and shows how to log in, log out, and change a password.  
https://www.youtube.com/watch?v=GGAUYcC9Krw

Creating a School EOP With EOP ASSIST: A Focus on the Planning Process Video Tutorial
This video provides information on generating a school EOP using the application, and it reviews the Planning Process and My EOP sections.  
https://www.youtube.com/watch?v=ODHH2k47Yj0

Using EOP ASSIST as an Administrator Video Tutorial
This video provides information on some of the management features of the application and focuses on the user roles of School Administrators and District Administrators and how they can manage user accounts, school profiles, and school EOPs.  
https://www.youtube.com/watch?v=-_uAYLFQU9o
**EOP ASSIST Discussion Forum**
This forum on the REMS TA Center’s Community of Practice allows current and potential users to share feedback, exchange ideas, and pose questions. Registration and login required.

**Additional Resources**
In addition to the recommended resources above, the REMS TA Center has created the following additional resources. You may choose to distribute these resources to emergency management practitioners or share them by request. These resources provide an overview of the application’s purpose, features, and functions and are intended to be used to secure buy-in from colleagues and school administrators for the application’s use.

**EOP ASSIST 5.0 Product Description**
This downloadable and distributable flyer provides an overview of the application and its technical requirements. It is intended for practitioners who are interested in potentially using EOP ASSIST. [https://rems.ed.gov/docs/EOPASSIST5Flyer.pdf](https://rems.ed.gov/docs/EOPASSIST5Flyer.pdf)

**EOP ASSIST 3.0: Next Generation of Updates and Enhancements Webinar**
This Webinar provides an overview of the updated management features of the most recent version of the software application available to state agencies, regional education agencies, school districts, and schools. This includes how to use the tool to meet state and local requirements. [http://rems.ed.gov/EOPAssist30NextGenUpdatesEnhancements.aspx](http://rems.ed.gov/EOPAssist30NextGenUpdatesEnhancements.aspx)

**An Overview of the Features & Functions of EOP ASSIST 2.0 for School & School District Hosts and Their Stakeholders**
This presentation provides an overview of the application and its setup when it is hosted by schools, school districts, or other local agencies. [https://rems.ed.gov/TrainingPackage.aspx](https://rems.ed.gov/TrainingPackage.aspx)

**An Overview of the Features & Functions of EOP ASSIST 2.0 for State Agency Hosts and Their Stakeholders**
This presentation provides an overview of the application and its setup when it is hosted by state agencies and regional agencies on behalf of multiple schools and school districts. [https://rems.ed.gov/TrainingPackage.aspx](https://rems.ed.gov/TrainingPackage.aspx)

**EOP ASSIST: Features, Functions, and Recent Enhancements Webinar**
This Webinar provides an overview of the application’s features and functions and demonstrates how practitioners may use it to develop school EOPs. The Webinar
includes information on management features for states, school districts, and schools. 
https://rems.ed.gov/EOPASSISTFeaturesandRecentEnhancements.aspx

An Overview of the EOP ASSIST Software Application
This presentation provides a brief overview of the application when it is hosted by schools or school districts. https://rems.ed.gov/TrainingPackage.aspx

Technical Assistance
The REMS TA Center is pleased to offer technical support by phone or email to individuals and planning teams at schools, school districts, REAs, and state agencies regarding the installation or use of EOP ASSIST. If you have any questions, please contact the REMS TA Center Help Desk by email at info@remstacenter.org or by phone, toll-free, at 1-855-781-REMS (7367). Our hours of operation are Monday through Friday, 9 a.m. to 5 p.m. Eastern Time.
Appendix A: Prepackaged Server Image

The REMS TA Center offers an alternative to setting up EOP ASSIST on and configuring existing or new servers. Available for download, a packaged server image has EOP ASSIST preconfigured in a LAMP stack environment. This will allow system administrators to get EOP ASSIST up and running in a very short amount of time.

The virtual machine provided in the package contains a Linux operating system with LAMP and EOP ASSIST already installed and configured. Using the virtual machine image requires a hypervisor software such as VirtualBox.

2. Download the virtual machine image from the Website.
3. Import the downloaded image file to the VirtualBox installation. For instructions on how to import the file, please use this link: https://docs.oracle.com/cd/E26217_01/E26796/html/qs-import-vm.html
4. Power on VirtualBox.
5. Change the default password for the server, which is Assist2019.
6. Set up the IP address for the server.
7. Type the IP address of the server in a Web browser. You should see the EOP ASSIST Installation Wizard.
8. Follow the instructions in Initialize EOP ASSIST for further configuration. Custom instructions are provided for those using the prepackaged server image only on the Set Up Database page.
9. Once configured, change all the default passwords for the following:
   - MySQL
   - EOP ASSIST admin user
10. Modify the network/firewall/SSL settings as required for the server in consultation with the network team of your organization.

Please note: Security and network settings are the responsibility of the organization. The objective of this package is to ease the installation burden for the application.
Appendix B: Configuring PHP and MySQL on Apache HTTP Server

As stated in Chapter 3, EOP ASSIST is compatible with three Web server environments. This appendix provides information on how to set up Apache, PHP, and MySQL on a Microsoft Windows, Linux, or Mac OS X/ macOS operating system.

Linux/Unix

LAMP stack is a bundle of open-source software that is used to run Websites and servers. To install the required software on a Linux/Unix operating system, run the following commands.

Install Apache
1. Open the terminal.
2. Type the following command:

```
    sudo apt-get update
    sudo apt-get install apache2
```

3. Confirm that Apache is installed.
4. Direct your browser to your server’s IP address (e.g., http://12.34.56.789).
5. The page should display the following message: “It works!”

Install MySQL
1. Type the following command in the terminal:

```
    sudo apt-get install mysql-server libapache2-mod-auth-mysql php5-mysql
```

2. During the installation, MySQL will ask you to set a root password. If you miss the chance to set the password while the program is installing, it is very easy to set the password later from within the MySQL shell.
3. Once you have installed MySQL, you will need to activate it. Type the following command:

```
    sudo mysql_install_db
```

Install PHP
1. Open the terminal.
2. Type the following command:

```
    sudo apt-get install php5 libapache2-mod-php5
```
Microsoft Windows

To install the required software on a Linux/Unix operating system, review the following information.

The primary Microsoft Windows platform for running Apache 2.4 is Windows 2000 or later. Always obtain and install the current service pack to avoid operating system bugs. Apache HTTP Server versions later than 2.2 will not run on any operating system earlier than Windows 2000.

The Apache HTTP Server Project itself does not provide binary releases of software, only source code. Individual committers may provide binary packages as a convenience, but it is not a release deliverable.

The popular and recommended options for deploying the Apache HTTP Server and, optionally, PHP and MySQL on Microsoft Windows, include the following:

- ApacheHaus
- Apache Lounge
- BitNami WAMP Stack
- WampServer
- XAMPP

BitNami WAMP Stack, WampServer and XAMPP are bundled with PHP and MySQL, both of which are necessary for EOP ASSIST to work. They additionally provide installers with built-in wizards and guides that will help you configure a Web server environment suitable for EOP ASSIST without having to configure each manually. If you decide to use any of these, stop here and head to the relevant installation documentation.

To manually install and configure Apache on a Microsoft Windows operating system, refer to the documentation that Apache has provided:

http://httpd.apache.org/docs/current/platform/windows.html#down

Mac OS X/ macOS

Apache and PHP are already packaged with OS X. To create a local Web server, enable both Apache and PHP, and then install MySQL. You may also choose to use third-party Web software bundles such as XAMPP and MAMP that simplify and automate the whole process. Read more about installing each Web software bundle in third-party documentation:

- XAMPP: https://www.apachefriends.org/index.html
- MAMP: https://www.mamp.info/en/
**Enable Apache**

1. Open the terminal application.
2. Run the following command:
   ```bash
   sudo apachectl start
   ```
4. The page should display the following message: “It works!”

**Enable PHP for Apache**

You'll then need to change your working directory to the apache2 directory and enable the php5 module. To do so, run the following commands.

1. Change the working directory to the apache2 directory by typing the following command:
   ```bash
   cd /etc/apache2/
   ```
2. Edit the Apache configuration by typing the following command:
   ```bash
   vi httpd.conf
   ```
3. Uncomment the following lines (remove `#`):
   ```bash
   LoadModule php5_module libexec/apache2/libphp5.so
   LoadModule deflate_module libexec/apache2/mod_deflate.so
   LoadModule expires_module libexec/apache2/mod_expires.so
   LoadModule rewrite_module libexec/apache2/mod_rewrite.so
   ```
4. You will need to restart Apache. Type the following command:
   ```bash
   sudo apachectl restart
   ```
5. The default DocumentRoot for Mac OS X Yosemite is /Library/WebServer/Documents. You can verify this from your Apache configuration by typing the following command:
   ```bash
   grep DocumentRoot httpd.conf
   ```

**Install MySQL**

1. You will need to download the MySQL DMG for Mac OS X. To do so, you may follow the directions provided by a third party: [http://dev.mysql.com/downloads/mysql/](http://dev.mysql.com/downloads/mysql/)
Appendix C: Configuring PHP and MySQL on Microsoft Windows Server with IIS

As stated in Chapter 3, EOP ASSIST is compatible with three Web server environments. This appendix provides information on how to set up IIS, MySQL, and PHP on a Microsoft Windows operating system.

Install IIS

IIS may not be installed on Microsoft Windows Server by default. You can install IIS by using the Add Roles Wizard in Server Manager or by using the command line.

1. Click the Start button.
2. Point to Administrative Tools.
3. Click the Server Manager button.
4. In Roles Summary, click the Add Roles button.
5. Use the Add Roles Wizard to add the Web server role.

Read more about configuration and using the command line here: https://technet.microsoft.com/en-us/library/Cc771209.aspx

Install and Configure PHP

For Microsoft Windows to run PHP code, the PHP binary files need to be copied to your system. No installation is required, but some configuration is needed to have it run properly.

1. Download PHP 5.6.x from http://windows.php.net/download#php-5.6 or PHP 7.3.x from https://windows.php.net/download#php-7.3.
   - For IIS 7, the non-thread safe binaries should be used.
   - PHP for Windows is built using Visual Studio 2012, 2015, or 2017 and, therefore, requires the VC14, VC15, & VC16 Redistributables. You may download them here: https://aka.ms/vs/16/release/VC_redist.x64.exe
2. Extract the files here: C:/php
3. Copy the php.ini-production file from C:/php/ to the Microsoft Windows directory and rename it to php.ini so that you have C:/Windows/php.ini open the php.ini file.
4. Uncomment and set the key for the following lines:
   - cgi.force_redirect = 0
   - fastcgi.impersonate = 1
   - extension_dir to the ‘ext’ folder in the path PHP was extracted to (e.g., ‘C:PHPext’)
   - date.timezone to the time zone of your server (the URL on the line above this key lists the accepted values).
Configure IIS to Run FastCGI

1. To enable FastCGI, go to Server Manager > Roles > Web Server.
2. Confirm that the CGI option is installed under the Application Development section. If it is not, enable this feature and update your IIS 7 installation.

Configure IIS to Run PHP via FastCGI

You will need to configure FastCGI to work with PHP under the FastCGI settings option in the IIS administration pack.

1. On the settings screen, click the Add Application button.
2. Set the php-cgi.exe executable path accordingly. In this case, it is `C:/php/php-cgi.exe`.

3. Map how PHP scripts are executed by IIS. This is configured in Handler Mappings. Click the **Handler Mappings** option and add a new module mapping.

4. Set the module’s request path to PHP files (*.[php]) with the module interface **FastCgiModule**. Set the executable to the same file that was configured in the FastCGI settings above. Assign a friendly name to this mapping, such as PHP, and click the **OK** button.
Test PHP

One of the last steps is to confirm your PHP setup through IIS.

1. Create a text file in the root directory “C:\Inetpub\wwwroot” named “phpinfo.php” that simply contains the line: <?php phpinfo(); ?>

2.Browse to the address “http://localhost/phpinfo.php” on your server and you should see the PHP information page. If the page loads successfully, PHP is now running on your machine.

Install MySQL Server

1. Download MySQL Community Server, which may be found at http://dev.mysql.com/downloads/. It is recommended that you download Windows Installer.
2. Start Windows Installer, or extract all the files from the archive.
3. Start Setup.exe. You can use a typical setup or customize the installation to suit your needs.
4. Once the Installation Wizard is complete, it is recommended that you leave the Configure the MySQL Server Now checkbox selected.
5. Download MySQL Workbench, a visual tool for MySQL database system management, development and design. This tool may be found at https://www.mysql.com/products/workbench/.
Appendix D: Configuring PHP and Microsoft SQL Server on Microsoft Windows Server with IIS

As stated in Chapter 3, EOP ASSIST is compatible with three Web server environments. This appendix provides information on how to set up IIS, Microsoft SQL Server, and PHP on a Microsoft Windows operating system.

To set up Microsoft SQL Server so that it works with PHP, you will need to install and configure the SQL Server driver for PHP, which is a PHP extension that allows the reading and writing of SQL Server data from within PHP scripts. The following operating systems are supported:


Additionally, you will need to have the following installed before you can continue:

- Any edition of **SQL Server 2005** to **SQL Server 2017**
- A Web server configured to run PHP

**Install IIS**

IIS may not be installed on Microsoft Windows Server by default. You can install IIS by using the Add Roles Wizard in Server Manager or by using the command line.

1. Click **Start**.
2. Point to Administrative Tools.
3. Click **Server Manager**.
4. In Roles Summary, click **Add Roles**.
5. Use the **Add Roles Wizard** to add the Web server role.


**Install and Configure PHP**
For Microsoft Windows to run PHP code, the PHP binary files need to be copied to your system. No installation is required, but some configuration is needed to have it run properly.

1. Download PHP 5.6.x from [http://windows.php.net/download#php-5.6](http://windows.php.net/download#php-5.6) or PHP 7.0.x from [http://windows.php.net/download#php-7.0](http://windows.php.net/download#php-7.0).
   - For IIS 7, the non-thread safe binaries should be used.
   - PHP for Windows is built using Visual Studio 2012, 2015, or 2017 and, therefore, requires the VC11, VC14, or VC15 Redistributables. You may download them here:

2. Extract the files here: C:/php

3. Copy the **php.ini-production** file from C:/php/ to the Microsoft Windows directory and rename it to **php.ini** so that you have C:/Windows/php.ini open the php.ini file.

4. Uncomment and set the key for the following lines:
   ```
cgi.force_redirect = 0
fastcgi.impersonate = 1
extension_dir to the ‘ext’ folder in the path PHP was extracted to (i.e., ‘C:PHPExt’)
date.timezone to the time zone of your server (the URL on the line above this key lists the accepted values)
``` 

*Please note: For more detailed information on configuring PHP, see Appendix E.*

**Configure IIS to Run FastCGI**

1. To enable FastCGI, go to **Server Manager > Roles > Web Server**.
2. Confirm that the **CGI** option is installed under the **Application Development** section. If it is not, enable this feature and update your IIS 7 installation.
Configure IIS to Run PHP via FastCGI

1. Configure FastCGI to work with PHP under the **FastCGI settings** option in the IIS administration pack.

2. On the settings screen, click **Add Application**.
3. Set the php-cgi.exe executable path accordingly, in this case C:/php/php-cgi.exe.

4. Map how PHP scripts are executed by IIS. This is configured in Handler Mappings.
5. Click the **Handler Mappings** option.
6. Add a new module mapping.
7. Set the module’s request path to PHP files (*.php) with the module interface **FastCgiModule**.
8. Set the executable to the same file that was configured in the FastCGI settings above.
9. Assign a friendly name to this mapping, such as PHP.
10. Click the **OK** button.
Test PHP

One of the last steps is to confirm your PHP setup through IIS.

1. Create a text file in the root directory "C:\Inetpub\wwwroot" named "phpinfo.php" that simply contains this line: <?php phpinfo(); ?>

3. You should see the PHP information page. If the page loads successfully, PHP is now running on your machine.

Install SQL Server Driver for PHP

1. Download %SQLServerDriverForPHP.EXE to a temporary directory.
2. Double-click to run %SQLServerDriverForPHP.EXE.
3. Enter an installation directory when prompted. It is recommended that you extract the file to %ProgramFiles% with the default directory Microsoft SQL Server Driver for PHP.
4. Double-click to open the SQLServerDriverForPHP.chm help file.
5. Install the Microsoft SQL Server Native Client from the link provided.
6. Copy the php_sqlsrv.dll and php_sqlsrv_ts.dll files to the C:\PHP\ext\ directory.
7. Open the C:\PHP\php.ini file, and add the following line in the Extensions section:

   Extension=php_sqlsrv.dll

8. Click the Start button.
9. Select Search Field.
10. Type iisreset.
11. Click the Enter button.
Appendix E: Configuring PHP on Microsoft Windows Server with IIS

Confirm that you have IIS installed and running. If not, you will need to Install IIS.

Install IIS

To install IIS on Microsoft Windows Server, complete the following directions.

2. Click the Server Manager tile.
3. Click the OK button.
4. Navigate to the Server Manager.
5. Select Dashboard.
6. Click the Add Roles and Features button.
7. The Add Roles and Features Wizard will open.
8. Navigate to the Before You Begin page.
9. Click the Next button.
10. Navigate to the Select Installation Type page.
11. Select Role-based or Feature-based Installation.
12. Click the Next button.
14. Click the Select a Server From the Server Pool button.
15. Select your server.
16. Click the Next button.
18. Click the Next button.
19. On the Select Features page, note the preselected features that are installed by default, and then select CGI. This selection also installs FastCGI, which is recommended for PHP applications.
20. Click the Next button.
21. On the Web Server Role (IIS) page, click the Next button.
22. On the Select Role Services page, note the preselected role services that are installed by default, and then click Next. (Note: You only have to install the IIS 8 default role services for a static-content Web server.)
23. On the Confirm Installation Selections page, confirm your selections.
24. Click the Install button.
25. On the Installation Progress page, confirm that your installation of the Web Server (IIS) role and required role services completed successfully.
26. Click the Close button.
27. To verify that IIS installed successfully, type the following into a Web browser:

   http://localhost
28. You should see the default IIS Welcome page.

**Install PHP**

To download and install PHP, complete the following directions.

**Download PHP and the WinCache extension.**

1. Open your browser to [Windows for PHP Download Page](https://example.com) and download the PHP *non-thread-safe*.zip package.
2. Download the WinCache extension from the List of Windows Extensions for PHP.

**Install PHP and WinCache.**

3. Extract all files in the PHP .zip package to a folder of your choice—for example, C:\PHP\. 
4. Extract the WinCache .zip package to the PHP extensions folder (\ext)—for example, C:\PHP\ext. The WinCache .zip package contains one file (Php_wincache.dll).

**Add the PHP installation folder to the Path environment variable.**

5. Open Control Panel.
6. Click System and Security.
7. Click System.
8. Click Advanced System Settings.
9. In the System Properties window, select the Advanced tab.
10. Click Environment Variables.
11. Under System Variables, select Path.
12. Click Edit.
13. Add the path to your PHP installation folder to the end of the Variable Value—for example, ;C:\PHP. Click OK.

**Set up a handler mapping for PHP.**

14. Open IIS Manager, select the hostname of your computer in the Connections panel, and then double-click Handler Mappings.
15. In the Action panel, click Add Module Mapping.
17. From the Module menu, select FastCgiModule.
18. In the Executable box, type the full path to Php-cgi.exe—for example, C:\PHP\Php-cgi.exe.
19. In Name, type a name for the module mapping—for example, FastCGI.
20. Click the OK button.
Add default document entries for PHP.

21. Select the hostname of your computer in the Connections panel, and double-click Default Document.
22. In the Action panel, click Add.
23. Type Index.php in the Name box.
24. Click the OK button.
25. Click Add again.
26. Type Default.php in the Name box.
27. Click the OK button.

Test your PHP installation.

28. Open a text editor—for example, Notepad—as Administrator.
29. In a new file, type the following text: <?php phpinfo(); ?>
30. Save the file as C:\inetpub\wwwroot\Phpinfo.php.
31. Open a browser and enter the following URL: http://localhost/phpinfo.php. A nicely formatted Web page is displayed showing the current PHP settings.

Add Your PHP Application (in this case, EOP ASSIST).

32. Extract the EOP application files and paste them in the Web document root, e.g., C:\inetpub\wwwroot\.

Install MySQL Server

To install MySQL Server, complete the following directions:

1. Download MySQL Community Server, which may be found at http://dev.mysql.com/downloads/. It is recommended that you download Windows Installer.
2. Start Windows Installer, or extract all the files from the archive.
3. Start Setup.exe. You can use a typical setup or customize the installation to suit your needs.
4. Once the Installation Wizard is completed, it is recommended that you leave the Configure the MySQL Server Now checkbox selected.
5. Run the MySQL Server Instance Configuration Wizard, and then choose the configurations options that most closely match your environment. For more information, see https://dev.mysql.com/doc/refman/8.0/en/.

Best practice recommendations are as follows:

1. Click Next in the Instance Configuration Wizard.
2. Select Detailed Configuration.
3. Click Next.
4. Select a server type that best suits your environment. If installing MySQL on the same server running IIS, be sure not to select Dedicated MySQL Server Machine.
5. Select a database option (Multifunctional Database or Transactional Database).
6. Click Next.
7. Choose the option that sets the number of concurrent connections you need.
8. You may adjust networking settings to suit your environment or accept defaults, and then click Next.
9. Select the default character set that best suits you (UTF-8 is recommended).
10. Click Next.
11. We recommend enabling both Microsoft Windows options here. Select both checkboxes, and then click Next.
12. Type the password you want to use for the root account.
13. Click Next.
14. Click Execute to apply your settings.
15. Click Finish to close the Instance Configuration Wizard.

Finalize Configuration

For PHP to work with MySQL, it is necessary to perform the following modifications to the Php.ini file:

1. Open the c:\php\php.ini file with your favorite text editor.
2. Confirm that the extension_dir points to the folder where all PHP loadable extensions are located, frequently in the Ext folder (for example, extension_dir=".\ext").
3. Uncomment the following lines by removing the semicolon:

```plaintext
extension=php_mysqli.dll
extension=php_mbstring.dll
```

4. Enable dynamic extension for MySQL by uncommenting the corresponding line for the MySQL extension: extension=php_mysql.dll.
5. Save and close the Php.ini file.
6. Restart the IIS service by clicking the Start button.
7. Select Search Field.
8. Type iisreset.
9. Click the Enter button.

You should then see the mysqli section on the PHP information page created earlier (http://localhost/phpinfo.php). If so, PHP is now configured on IIS. Return to the instructions for installing EOP ASSIST in Chapter 3.
Appendix F: Upgrading EOP ASSIST 4.0 to 5.0

If you have EOP ASSIST 4.0 (released in August 2017) installed on your server, you will need to upgrade to version 5.0 (released in August 2019) to access the latest features of the software application. It is important to follow the steps below to upgrade from EOP ASSIST 4.0 to version 5.0.

Before proceeding, please make a backup of the files and database.

1. Download the correct upgrade package from the Website.
2. Extract or unzip the files.
3. Shut down the server.
4. Do not delete the EOP ASSIST 4.0 files from the server.
5. Copy and replace the unzipped files from the upgrade package to the server where EOP ASSIST 4.0 is currently installed. This will replace all the EOP ASSIST 4.0 files with EOP ASSIST 450 files, but will not alter the configuration, uploads, or logs.
6. Restart the server.
7. Clear browser caches.
8. Open EOP ASSIST normally on the browser.
9. Log in as the Super Administrator.
10. The system will then detect the version changes and will execute the database update process. Please do not do anything until this process has finished and you are prompted with a notification dialog indicating whether the process was successful.
11. Click the OK button.

You will be redirected to the Login page.
Appendix G: Upgrading EOP ASSIST 3.0 to 4.0

If you have EOP ASSIST 3.0 (released in February 2017) installed on your server, you will need to first upgrade to version 4.0 (released in August 2017) before upgrading to version 5.0 (released in August 2019). It is important to follow the steps below to upgrade from EOP ASSIST 3.0 to version 4.0.

Before proceeding, please make a backup of the files and database.

1. Download the correct upgrade package from the Website.
2. Extract or unzip the files.
3. Shut down the server.
4. Do not delete the EOP ASSIST 3.0 files from the server.
5. Copy and replace the unzipped files from the upgrade package to the server where EOP ASSIST 3.0 is currently installed. This will replace all the EOP ASSIST 3.0 files with EOP ASSIST 4.0 files, but will not alter the configuration, uploads, or logs.
6. Restart the server.
7. Clear browser caches.
8. Open EOP ASSIST normally in the browser.
9. Log in as the Super Administrator.
10. The system will then detect the version changes and will execute the database update process. Please do not do anything until this process has finished and you are prompted with a notification dialog indicating whether the process was successful.
11. Click the OK button.
12. You will be redirected to the Login page.
Appendix H: Upgrading EOP ASSIST 2.0 to 3.0

If you have EOP ASSIST 2.0 (released in September 2015) installed on your server, you will need to first upgrade to version 3.0 (released in February 2017) before upgrading to versions 4.0 (released in August 2017) and finally 5.0 (released in August 2019). It is important to follow the steps below to upgrade from EOP ASSIST 2.0 to version 3.0.

**Before proceeding, please make a backup of the files and database.**

1. Download the correct upgrade package from the Website.
2. Extract or unzip the files.
3. Shut down the server.
4. Do not delete the EOP ASSIST 2.0 files from the server.
5. Copy and replace the unzipped files from the upgrade package to the server where EOP ASSIST 2.0 is currently installed. This will replace all the EOP ASSIST 2.0 files with EOP ASSIST 3.0 files, but will not alter the configuration, uploads and logs.
6. Restart the server.
7. Clear browser caches.
8. Open EOP ASSIST normally at the browser.
9. Log in as the Super Administrator.
10. The system will then detect the version changes and will execute the database update process. Please do not do anything until this process has finished and you are prompted with a notification dialog indicating whether the process was successful.
11. Click the **OK** button.
12. You will be redirected to the Login page.