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Xerox® CentreWare® Web Installation Guide

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Images in this document may not be from the most recent release.

Date	Version	Description
10/14/2024	7.0	Removed support for SQL Server®2014. Removed references to the Queues and Computers capabilities. Removed the Managing the Print Servers chapter.
10/15/2023	6.13	Removed support for COM+. Self-signed certificates for fleet orchestration of firmware changed to CA signed certificate. Replace references to EIP Weblets with Workplace Apps.
05/15/2023	6.12	Added support for TLS 1.3. Introduced a Password Policy feature to Enable Password Audit which uses a device's serial number as the admin password. Replaced McAfee references with Trellix. Set when power usage data is retrieved.
10/10/2022	6.11	Updated supported software and hardware. Other alignment for 6.11

Table of Contents

Installation

CentreWare® Web (CWW) application software is installed on a network server running Microsoft Windows® operating systems. This section explains installation prerequisites and considerations, including the installation and application setup procedures. Where to get support before and after installation is also provided.

Checking System Requirements

This section describes the hardware recommendations and software requirements for the CentreWare Web server, as well as the device requirements for network and attached printers.

Verifying Hardware Requirements

Listed below is the minimum hardware recommendation for installing CentreWare Web on new equipment in a production server environment.

Hardware Requirement	Recommendations
Processor	Intel® Pentium® 4 processor at 3 GHz or Intel® Core 2 Duo (AMD-equivalent processors are also supported)
Memory	4 GB of RAM, with one of the following versions of SQL Server® installed on the same system: • 2016 • 2017 • 2019 • 2022 (Recommended) • SQL Express
Server	Separate server with SQL® installed is recommended if: • The number of groups configured for concurrent status polling is greater than 20, and/or • The number of alert profiles is greater than 20, and/or • job data consumption is greater than 100,000 / week **Note:** If you install the application in the Azure Cloud on a supported operating system, you may use Azure SQL database. You may operate CentreWare Web off-premise in the Azure Cloud with Azure SQL. Routing protocols are in the Certification Guide.
Available Disk Space	Minimum: 3GB Recommended: 40 GB on 7200 rpm hard drive, if collecting historical data on thousands of devices

Examples: Below are our recommendations for hardware, operating systems, and SQL requirements.

Recommended Hardware Operating System And SQL Requirements:

For Installs < 5000 Devices:

- CentreWare Web on Windows Server 2016 with off-box SQL*

  - 2 CPU cores @2.9 GHz

  - 12 GB RAM

  - 40 GB free space (preferably on a non-system disk)

- CentreWare Web on Windows Server 2016 with on-box SQL/SQL Express**

  - 2 CPU cores @2.9 GHz

  - 16 GB RAM

  - 60 GB free space (preferably on a non-system disk)
    * Use the newest version of SQL acceptable to the customer.
    ** On-box SQL is only recommended for very small installations (< 200 devices)

For Installs > 5000 devices:

- Use an off-box SQL Server

- Increase memory by 50 %

- Add 2 CPU cores

For Installs 10,000 devices:

- One terabyte disk space

- 16 GB RAM

- Quad Core 3.4 GHz processor

- SQL Enterprise on separate server

If running on a virtual system, all resources need to be dedicated to CentreWare Web.

Note: If you need to install CentreWare Web on a rack-mounted server, the customer is expected to provide a keyboard-video-mouse terminal interface to the server.

Verifying Software Requirements

The following table describes the software requirements for the CentreWare Web.

Software Requirement	Recommendations
Operating Systems	Windows$^®$ 10
	Windows$^®$ 11
	Windows$^®$ Server$^®$ 2016 SP1 x64
	Windows$^®$ Server$^®$ 2019 x64
	Windows$^®$ Server$^®$ 2022 x64
	When installing on Windows Server$^®$ right-click the installer and select Run as Administrator.
	CentreWare Web does not support Windows$^®$ systems running on Macintosh$^®$ or non-NTFS partitions. Nor CentreWare Web support the NetWare client running on Windows.
	CentreWare Web does not support installation on a domain controller.
Web Server	Internet Information Services (IIS) 6.0 or above
	The software extension IIS URL Rewrite Modules is also required.
Internet Protocol	Working Microsoft$^®$ TCP/IPv4 Stack

Software Requirement	Recommendations
Browser	Microsoft Edge browser based on Chromium Chrome
Access Components	Windows Data Access Components (WDAC) **Note:** MDAC changed its name to WDAC (Windows Data Access Components) with Windows Vista® and Windows Server® 2008. WDAC is included as part of the operating system and is not available separately for redistribution. Serviceability for WDAC is subject to the life cycle of the operating system.
Microsoft® .NET Framework	Microsoft®.NET 4.8 **Note:** The Net Framework is not factory installed with CentreWare Web. You must install it prior to running the installation.
Microsoft® Core XML Services	6.0 required for some of the application's functionality
Database Server	**Recommended:** Use SQL Server® Standard/Enterprise if available in the customer's IT environment. **Note:** If using a remote SQL Server, both the remote client on which SQL Server is installed and CentreWare Web server client require the Microsoft® Distributed Transaction Coordinator (MSDTC) service to be enabled and configured in order to allow remote client access. If a firewall is running, an exception needs to be created for the MSDTC service. When managing more than 5000 devices, we recommend that you install a Standard/Enterprise version of SQL Server® on a separate server. The requirements for the separate database server should match the requirements for the CentreWare Web server. **Note:** The application server and the database server must be set to the same time zone. If using an Azure SQL Services installation, the following components need to be installed and the server rebooted prior to installing CentreWare Web: • Windows Management Framework 5.1 (Windows Server 2016)

MICROSOFT WINDOWS® SERVER

Installation of CentreWare Web on any of the Microsoft Windows Server platforms requires enablement of the Web Server role. The Web Server role can be enabled in the Server Manager utility. In addition to the Web Server role, CentreWare Web and the .NET Framework installations require that certain role services be enabled prior to installation. Below are the required role services:

To install the .NET Framework feature the following role services are required:

• Web Server

  - .NET Extensibility

  - Request Filtering

• Windows Process Activation Services

  - Process Model

  - .NET Environment

  - Configuration APIs

To install CentreWare Web the following role services are required:

- Web Server (IIS)
  - Common HTTP Features
    - Static Content
    - Default Document
    - HTTP Errors
- Application Development
  - .NET Extensibility
  - ASP.NET
  - ISAPI Extensions
  - ISAPI Filters
  - CGI
- Security
  - Basic Authentication
  - Windows Authentication
  - Digest Authentication
- Management Tools
  - IIS Management Console
  - IIS Management Scripts and Tools
  - Management Service
- IIS Management Compatibility
  - IIS Metabase Compatibility
  - IIS WMI Compatibility
  - IIS Scripting Tools
  - IIS Management Console

INSTALLATION CONSIDERATIONS

Location

You should consider the physical sites and network bandwidth when choosing the installation location of the CentreWare Web server. These items include the number of devices to be managed, as well as the anticipated scheduling impacts and network traffic during discovery, status renewal, email notifications, and device management work processes.

NTFS

For security functionality, you must install CentreWare Web on systems running NTFS. If you do not have NTFS, there is no security access checking.

Selecting an Account

During software installation, you are prompted to select an account for the application. You can change the account using the CentreWare Web Configuration Utility application or using Windows Administrative Tools.

Security Features

CentreWare Web uses the security features built into Microsoft Windows operating systems including:

- User authentication and authorization
- Services configuration and management
- Secure Terminal Services support
- Group policy deployment and management
- Internet Connection Firewall including:
  - Security Logging settings
  - CMP settings

Microsoft Active Directory®

The recommended installation configuration for CentreWare Web in a Windows Server environment is to install the application using the domain administrator's account of the highest domain in the Microsoft Active Directory (Active Directory) tree. This allows the application to have permissions to manage (add and remove) queues throughout the directory tree or domain.

CentreWare Web works with Active Directory and NTFS security. For more information, visit the Microsoft Web site at www.microsoft.com.

Proxy Server Settings

If you are using a proxy server to connect to the Internet, you must configure the proxy server or change settings in your browser to prevent the proxy server from interfering with browser authentication to CentreWare Web. You can configure the proxy server once you have installed the application. Proxy server settings may be required when using the Auto Driver Download feature or when enabling SMart eSolutions since communication is required outside the firewall.

1. Open CWW.
2. Go to **Administration > E-mail & External Servers**.
3. Select **Use Proxy Server** proxy.
4. Add and verify the server address.
5. Add and verify the proxy server port.
6. If proxy security is required, enter the username, domain, and password of the proxy server. Contact your administrator for more information.
7. Click **Test** to verify the proxy server connection and authentication information that you entered. CWW displays an Internet Connect Test Passed messaged when the test is successful.

Obtaining the Installer

1. Access the Xerox Web site at www.xerox.com/centrewareweb and locate the executable (.EXE) file for CWW.
2. Download the file.

Running the Installer

When installing the application software, the user who is logged on must have administrator privileges. If the SQL server resides on a different server, then both servers must be domain members and the logged-on user must have administrator privileges on the remote SQL Server as well.

1. Run the .EXE file to extract the files and begin the installation. The installation program checks to see if the Microsoft®.NET framework is installed. If it is not, then the installation stops. Install the required Microsoft .NET framework as described in the Software Requirements section.
2. At the Welcome screen, click **Next**.
3. Read and accept the license agreement. Click **Next**.
4. If you want CWW to create an account for you, select Create Local Account or select Specify Existing Account to use an account that is in the local administrators group.
5. When finished, click **Next**.
   Note: This account drives all the processes of CWW. It is important to consider the account's rights/privileges for using the management features of the application.
6. Enter the user information based on your selection from the previous page.
7. Specify a database server. Click **Next**.
8. If the installer detects a database instance from a previous installation, CWW allows the database to be upgraded or a new database to be created, which will overwrite the existing database. Click **Next**.
9. Accept the default Web site or select another Web site. Click **Next**.
10. Accept the default destination folder for the application or click **Change** to select another location. Click **Next**.
11. Click **Install** to install the application. This may take several minutes.
12. When the installation is finished, you can open the application and run the Getting Started Wizard. This optional wizard quickly configures CWW by performing an initial discovery. You can always change these settings from the Administration area of CWW.
13. Click **Cancel** to exit the wizard and installation; otherwise, do the following to perform an initial discovery:
    a. Click **Continue** to run the Getting Started Wizard.
    b. Select the number of printers to locate. The Least Printer option performs an IP Easy Discovery and is the fastest method. Click **Continue**.
    c. To set up the SMTP server for e-mail status alerts, enter the appropriate information. You can also test the connection after entry by clicking **Send Test**. Click **Continue**.
    d. If you are using SMart eSolutions or Auto Driver Download, you must configure a proxy server. The wizard detects the current proxy server settings of the application server's administrator account and populates the screen. Make any changes if necessary. See the Proxy Server Settings section for more information. Click **Continue**. The Completed page opens, and shows a summary of settings for the Getting Started Wizard.
    e. Click **Finish** to run the initial discovery. When finished, the wizard exits and returns to the CWW

homepage.

f. Access the Printers view page to view discovered printers.

Note: See the Readme file for new information, support information, and current updates, which may impact the installation and configuration. The file is located in the installation directory at C:\program files\Xerox\CentreWareweb\readme.txt. You can access the file after installation is finished from: **Start > (All) Programs > Xerox > CentreWare Web > Readme**.

Accessing the Application

After the application is installed, access it using one of the following methods:

- On the server where the application is installed, navigate to **Start > (All) Programs > Xerox > CentreWare Web > CentreWare Web**.

- From a remote computer, access the application by opening a browser and typing in the name or IP address of the server where the application is installed. For example, http://server name/application or site name.

Device Supports Updates

To add support for the latest supported devices, update CentreWare from within the application at **Administration > Advanced > Xerox CentreWare Web Updates.**

CONFIGURATION UTILITY

This utility is used to view or modify the user and SQL server account for the application.

Access the utility and modify the user account using the following procedure:

1. Go to **Start > (All) Programs > Xerox > CentreWare Web > CentreWare Web Configuration Utility**. When accessed, a dialog displays the user and SQL server account that was configured during installation.
2. Click **CentreWare® Web Account** to change the existing username and password for the account or to use another account.
   Note: You can also modify the SQL Server account in use or create a new account by entering username, password, and path information.

UNINSTALLING

Use the Windows Add/Remove Programs application to the application.

Note: During uninstall, you are asked if you want to deregister traps and SMart eSolutions. If you are uninstalling to perform an immediate upgrade on the same server, you don't need to deregister traps and SMart eSolutions. If the intent of the uninstall is to permanently remove, migrate, or perform a migration/upgrade, then it is recommended that you deregister traps and SMart eSolutions.

To uninstall CentreWare Web:
1. Access the Control Panel.
2. Double-click Add/Remove Programs.
3. Select the application and click Remove.
4. Click **Yes** to confirm the application is uninstalled.

UPGRADING

If you currently have a previous version of CentreWare Web installed, you first need to uninstall the application. You can then upgrade the application by obtaining the latest CWW installer from the Xerox

Web site. Major releases can be upgraded without loss of historical data, configuration settings (e.g., discovery, polling), or user created groups.

Recommended: Back up your XrxDBCWW and XrxDBDiscovery databases from the SQL Server that the currently-installed CWW uses.

1. To upgrade from within the application, select **Administration > Advanced > Xerox CentreWare Web Updates**, or from a browser, access www.xerox.com/centrewareweb.
2. Click **Download**.
3. Choose your Operating System and Language, then click **Apply Filters**.
4. Click I Agree to the Terms and Conditions.
5. Click **Download**.
6. Follow the instructions to download the software ZIP file to your desktop.
7. After the download has completed, unzip the file and double-click on the EXE file to begin the installation process.
   a. When you get to the SQL Server section in the installation process, select Use Existing SQL Server, enter the SQL server name and the SQL Server User ID and password.
   b. When you get to the database section of the installation process, select Use Existing Database to ensure that any data you had collected in your previous version of CentreWare Web is upgraded and available for use once the installation is complete.

BACKUP/RESTORE PROCEDURES

There are two methods to back up the application SQL Server databases so that the entire database, or just the Discovery Database, can be restored in case of a software failure.

Method 1 (Recommended)

1. Choose **Start > (All) Programs > Xerox > CentreWare Web > CentreWare Web Configuration Utility**.
2. Click **Databases**.
3. Click **Backup Databases**.
4. Enter a path for the backup databases. The path needs to be local to the instance of SQL Server for which CWW is installed.
5. Click **Backup**. The export process creates the XeroxDM.bak file, which contains the entire database.
6. Repeat steps 1 through 5, selecting Restore Databases in Step 3, to identify the backup location and import the .bak files, which restores the databases.

Method 2

This method uses the Microsoft SQL Server Management Studio to back up the databases. See your Microsoft SQL Server Management Studio documentation for more information about using the SQL tools.

To back up the databases:

1. Locate XeroxDM.
2. Right-click each database using the SQL Enterprise tools and select **All > Tasks > Backup Database**.
3. Follow the instructions displayed on the screen.

SQL SERVER DATABASE MIGRATION

This procedure explains how to migrate a CWW Microsoft SQL Express database to a SQL Server database. You need to perform this procedure if you have an existing SQL Express database and want to migrate to a SQL Server database.

To perform the migration:

1. Using the Xerox CWW Configuration Utility, back up the current SQL XeroxDM database.
2. Restore the backed-up SQL Express database to the respective SQL Server databases.
3. Choose **Start > (All) Programs > Xerox > CentreWare Web > CentreWare Web Configuration Utility**.
4. Click **Databases Server**.
5. Click **Change Server**.
6. Enter the new database server and click **OK**.
7. Restart Internet Information Services (IIS).
8. Restart the Xerox Scheduler Service and Xerox Discovery Service.

MODIFYING THE CENTREWARE WEB ACCOUNT

The application runs as the user account that is configured during installation. The account is visible by opening Windows Administrative Tools and viewing properties and identity. This account determines the security permissions of the application. After installation, you can modify this account by using one of the following methods:

- CentreWare Web Configuration Utility. See the CentreWare Web Configuration Utility section for the procedure.

- Windows Administrative Tools.

To modify the account using Windows Administrative Tools:

1. In Control Panel, click **Administrative Tools > Component Services**.
2. From the Component Services tree, click **Component Services > Computers > My Computer > COM+Applications > Xerox CentreWare Web Components**.
3. Right-click Xerox CentreWare Web Components and select **Properties** to access the application properties.
4. Click the Identity tab and modify the User and Password fields as desired. Click **OK** to exit the Identity tab.
5. Close the application by right-clicking Xerox CentreWare Web Components and selecting **Shut Down**. The components automatically start as the newly selected user the next time they are used.

ADMINISTRATORS AND POWER USERS GROUPS

During installation, two Windows Security groups are created in the location where the application is installed: CentreWare Web Administrators, Power Users and SQL Users. Members of the Administrators group have complete administrative and operational access to the application. They do not, however, have administrative privileges on the application server. Power Users can change the contents of the application database, but are not administrative in nature. Membership in this group is the minimum requirement for access to the following functions:

- Create and generate reports from the Reports page

- Troubleshoot printers using the following tools:

  - Troubleshoot Printer Action

  - Troubleshoot Printers Wizard

  - Remote Reboot Printer Action

- Creation and administration of groups using the following functions:

  - New Group page

- Copy to Group Printer action
- Configure printers using the following tools:
  - Edit Properties
  - Configuration Sets

The SQL Users group is used when it is not desirable for CWW to use the Network Services account. If the SQL logon is changed, the user needs to be part of this group in order for CWW to operate properly.

The groups are standard Microsoft users groups and are managed as other groups on your system. Use Windows Administration Tools to add or delete users in these groups:

- Click Start > Control Panel > Administrative Tools > Computer Management > Local Users and Groups.

ANONYMOUS ACCESS

Anyone who has access to the network where CentreWare Web is installed can view portions of the application. The areas that anonymous or unauthenticated users can access are limited to viewing groups, printers, servers and queues, and troubleshooting. Administrative and device management functions require an authenticated user, which is defined as:

- An administrator of the server where CentreWare Web is installed, or
- A member of the Administrators group where the application is installed, or
- A member of the Power Users group where the application is installed. Members of this group have no administrative privileges within the application, but can perform other functions that affect the database. See Administrators and Power Users Groups section for a list.

Unauthenticated users are prompted for a valid username and password in areas of the application where an action would modify the database, group, or Printer Properties, for example:

- New group
- Configure group
- Configure server
- Add/Delete server
- Configure directory
- Create/edit queue or printer E-Mail Alert Profiles
- Install, Upgrade, Clone or Export wizard
- Reports
- Administration

Getting Started

Upgrading the Application

For this release, you may upgrade from the two previous major releases. To upgrade from an earlier release requires a new installation.

Basic Set Up Tasks

This section outlines the basic tasks necessary to input the data for configuring the application:

- Discovering printers
- Verifying discovery
- Setting mail server parameters
- Configuring historical data collection
- Creating groups
- Enabling Remote Services

Note: For more information, see the application online help or go to product support for CentreWare Web and select Documentation to view the CentreWare Web User Guide.

Discover Printers

Populate the CentreWare Web database initially with printers by running a discovery. If you did not run the Getting Started Wizard to perform an initial discovery after installation, run the wizard. You can also use Discovery Quick Configuration from the Administration > Quick Configuration page as an initial discovery.

Verify Discovery

After discovery concludes, use the Printers view page to verify that the printers you expected CentreWare Web to find are in the database. If you know of printers in an error state, such as Out of Paper, they should be members of the Error group as well. Click the Error group (Printers view page) to verify.

Set E-mail Parameters

You must configure the e-mail setting on the Administration tab to send printer alerts and reports from CentreWare Web.
To access e-mail server parameters, choose Administration > E-Mail & External Servers > Outgoing Mail Server.
These parameters include:

- Mail server name
- CentreWare Web e-mail account name
- Additional security information (if required)

You can use the E-Mail & External Servers page of the application to add or change these parameters at any time.

Note: Check Status Alerts on the Network Usage Configuration page if you plan to use this feature.

Configure Historical Data Collection

If you wish to track page counts and alerts for reporting purposes, you must enable and schedule the collection of historical data. You can set collection to run as often as hourly, depending on need. To use Historical Data, you must configure historical data collection for built-in groups on the Administration > Network > Historical Data page. Custom Groups historical data collection can be enabled and configured through a Group's Configuration Group action.

Add Groups or Subgroups

You can sort network printers into different groups by using default groups, and by creating other custom groups for your site. You can organize printers into groups according to the physical location, brand, or other printer characteristic. You can also define subgroups to further sort printers.

Group membership can be either static or dynamic (automatic). Administrators assign printers to static groups manually. Automatic assignment of printers to dynamic groups is done by creating membership filters.

After verifying the success of your discovery, you can begin creating custom groups and assigning printers to them. Your implementation plan should include information that describes the groups and subgroups to create, as well as their assigned printers or filtering criteria.

Reference

Verifying Network Printer Discovery/Monitoring Requirements

For successful management by CentreWare Web, all SNMP-based printer devices should support the mandatory MIB elements and groups as defined by the following standards.

Network Printer Discovery/Monitoring Requirements	Recommendations
RFC 1157	SNMP Version 1
RFC 1213	MIB-II for TCP/IP-based Internet
RFC 1514/2790	Host Resources MIB v1/v2
RFC 1759	Printer MIB v1
RFC 3805	Printer MIB v2
RFC 3806	Printer Finishing MIB
Optional: RFC 2271-2275	SNMP v3 Architecture

SNMP V3 Security Enhancements

SNMP is the most widely used in-band management protocol for communication among network management stations and the devices being managed. In its current form, SNMP's security is limited to three methods of access:

• Read-Only

• Write-Only

• Read-Write

Access from the management station (CentreWare Web to the devices is granted by community strings, which are the groups to which the devices belong). Although disabling the Write function can prevent most in-band attacks, SNMP is a relatively insecure protocol, with nothing more than the community strings acting as passwords.

SNMP V3 includes security and administration. The SNMP V3 framework supports multiple security models, which can exist simultaneously in an SNMP entity. SNMP V3 messages contain a field in the header that identifies which security model must process the message. To ensure some form of interoperability, a User-based Security Model (USM) is implemented to defend against unauthorized modification of managed elements and spoofing. Although SNMP V3 is a huge step forward in secure manageability, it cannot prevent denial-of-service attacks. In addition, its security system must stand alone, meaning every device must have a database of users/passwords. Since this is not likely to happen in most companies, all devices are at risk.

Please note that the more robust security provided by SNMP V3 can slow run times; this is especially true for printer groups with hundreds of devices. When managing large fleets of devices configured with SNMP v3, you may notice longer wait times or timeouts when utilizing large group sizes.

There are many factors that can affect response time including network bandwidth, topography, meter data sizes, device models, etc. For these reasons we recommend smaller groups when the communication technology is SNMP v3 vs SNMPv1/v2.

Recommendations:

- Xerox® Versalink® Devices – no more than 500 devices per group

- Xerox® Altalink® Devices – no more than 600 devices per group

- Xerox® ConnectKey® 2.0 Devices – no more than 500 Devices per group

Use the above group sizes as a starting point to find a group size that works best for your environment. If you adhere to these recommendations and still notice long communication times that result in timeouts, continue to reduce the size of the groups until the issue is resolved.

Support

DOCUMENTATION

The CentreWare Web Evaluation Guide and the CentreWare Web Installation Guide are available in Adobe® Portable Document Format (PDF) format on the Web at www.xerox.com/centrewareweb. Select Owner Resources > Support > Documentation to access the available documents list.

README FILE

The Readme file provides new information, support information, and updates that may be more current than what is provided in the documentation and online help. This file is located in the application installation directory:

C:\Program Files\Xerox\CentreWareWeb\readme.txt

The file is also available on the Web at www.xerox.com/centrewareweb. Select **Owner Resources > Support > Documentation** to access the available documents list.

INTERNET SUPPORT

Visit Xerox support on the Web at www.xerox.com/centrewareweb. Select **Owner Resources > Support** to access the support information.

TELEPHONE SUPPORT

For additional assistance, go to www.xerox.com/centrewareweb and select **Owner Resources > Support > Contact** to obtain the telephone number for support in your specific region.