TCP/IP Manager Installation Guide

Version 1.4.2.1
for Infor Distribution A+

Contents

Chapter 1   Overview

About this guide

This guide provides an overview of the TCP/IP Manager for Electronic Payments. The TCP/IP Manager is a communication tool between your Infor Distribution A+ electronic payments credit card transactions and the corresponding electronic payment processing network.

A payment processing network is a group of individuals, institutions, banks, processors and services that come together to execute online payment transactions securely and reliably.

When the TCP/IP Manager for Electronic Payments is to be used for a CenPOS hosted payment processing environment, an additional TCP/IP Manager Web Extension installation is required. The TCP/IP Manager Web Extension is used to generate a CenPOS credit card token to represent the credit card information that is stored and secured by CenPOS. Credit card information is no longer stored in the Infor Distribution A+ database.

TCP/IP Manager and the TCP/IP Manager Web Extension can be installed on the same server or on separate servers.

Intended audience

This guide is intended for the System Administrator that will perform the installation, setup, and configuration of the Infor TCP/IP Manager software.

Organization

The table that follows indicates the chapters within this guide.

Chapter	Description
Overview	The current chapter provides an overview of credit card processing and the TCP/IP Manager.
Install the TCP/IP Manager for Electronic Payments	Describes the system requirements and the steps to install the TCP/IP Manager.
TCP/IP Manager Set Up	Describes how to start the TCP/IP Manager, debugging techniques, and the proxy server settings, if needed.
TCP/IP Manager Web Extension for CenPOS	Describes the additional steps required for a credit card interface to the CenPOS processing network. Includes TCP/IP Manager Web Extension system requirements, Installing Microsoft .NET 4.6.1 Framework. Installing IBM iSeries Access for Windows .NET Data Provider, and Configuring Microsoft IIS Components and Services.

Related documents

You can find the documents in the product documentation section of the Infor Xtreme Support portal (www.infor.com/inforxtreme).

- Electronic Payments User Guide for Infor Distribution A+
- Infor Distribution A+ Installation and Software Update Guide

Contacting Infor

If you have questions about Infor products, go to the Infor Xtreme Support portal at (www.infor.com/inforxtreme).

If we update this document after the product release, we will post the new version on this Web site. We recommend that you check this Web site periodically for updated documentation.

Chapter 2   Install the TCP/IP Manager for Electronic Payments

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About the TCP/IP Manager

The TCP/IP Manager is your Electronic Payments bridge to the payment processing network. The TCP/IP Manager will communicate directly with the Infor Distribution A+ Electronic Payments module installed on your IBM i, and will communicate electronic credit card transactions directly with CenPOS.

System Requirements

The TCP/IP Manager requires:

- Microsoft .NET Framework 4.6.1

  The TCP/IP Manager supports operating environments which can run Microsoft .NET Framework 4.6.1. Refer to http://www.microsoft.com/en-us/download/ for a complete list of supported operating environments for Microsoft .NET Framework 4.6.1.

Infor has qualified the following operating systems:

- Windows Server 2008/2012 R2

- Windows 10

Installing the TCP/IP Manager

Before you install the TCP/IP Manager, remove the prior versions of the TCP/IP Manager, if any. To do this, click START > CONTROL PANEL > PROGRAMS, find the TCP/IP Manager and select to uninstall a program.

NOTE: With Windows 2008/2012 R2 Server, you may need to install with Run as Administrator privileges.

1. Connect to the Infor Product Download Center (www.infor.com/inforxtreme) to obtain the latest version of the TCP/IP Manager ISO image.

2. Before you begin the installation, burn the image file to a DVD disk, or mount it to a virtual drive by using an optical media emulation tool.

3. On the server where you plan to install TCP/IP Manager, log on with an account that has administrative privileges. Copy the TCP/IP Manager Installation files to a folder.

4. Navigate to the folder where the TCP/IP Manager Installation programs are located.

5. Double-click the SETUP.EXE program to begin the installation.

6. The Welcome to the TCP/IP Manager Setup Wizard window appears. Click NEXT.

7. The Select Installation Folder window appears. By default, the TCP/IP Manager will be installed in C:\Program Files (x86)\Infor\Infor TCP-IP Manager\. If you do not want the TCP/IP Manager to be installed in this directory, click the BROWSE button and select a new location. For the **Install Infor TCP-IP Manager for yourself, or for anyone who uses this computer** prompt, select **Everyone**. Click NEXT.

8. The Confirm Installation window appears. Click NEXT to start the installation.

9. The Installing Infor TCP-IP Manager window appears. Click NEXT when complete.

10. The Installation Complete window appears. Click CLOSE to exit.

11. You have completed the installation of the TCP/IP Manager - Electronic Payments application.

Chapter 3   TCP/IP Manager Set Up

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Starting the TCP/IP Manager

The TCP/IP Manager runs as a service in your Windows environment. When it is installed, it may not be automatically started. To start the service manually, click:

START > CONTROL PANEL > SYSTEM AND SECURITY > ADMINISTRATIVE TOOLS > SERVICES

The TCP/IP Manager will be listed as Infor TCP/IP Manager. Right click on this service and click START.

Debugging the TCP/IP Manager

The TCP/IP Manager will automatically create a debug log in a sub-folder of the install directory (/Infor/Infor TCP-IP Manager/log). The log file is named TcpIpManagerLog.yyyy.mm.dd.txt. Double click on this log to view all transactions.

The TCP/IP Manager Logging is configurable using Apache log4net™. To configure such properties as log file backups and log file maximum size, refer to http://logging.apache.org/log4net/ before updating the TcpIpManager.exe.config file.

Setting up the Proxy Server Settings

In some instances, a proxy server is required by an individual company to connect to the Internet. This step is only required for those situations and the values represent the server address and port of that proxy server. In the folder where the TCP/IP Manager was installed, typically Infor/Infor TCP-IP Manager, open the text file called TcpIpManager.exe.config with a text editor. Within this file, there is a section labeled "<appSettings>". It will appear as follows:

```
<appSettings>
<add key="ProxyAddress" value="" />
<add key="ProxyPort" value="0" />
```

```
<add key="ProxyLogin" value="" />

<add key="ProxyPassword" value="" />

</appSettings>
```

Update the values within this section. If the values are blank or 0, they will not be used.

Chapter 4   TCP/IP Manager Web Extension for CenPOS

About CenPOS

CenPOS converts customer payment data into a secure token that is stored in Infor Distribution A+ for safe, simple recurring billing for repeat customers. Tokenization ensures sensitive cardholder data is neither transmitted nor stored within Infor Distribution A+. The secure token is sent through the CenPOS secure object with simple data parameters such as amount and invoice number and then returns to you approval codes, truncated card values, tokens, and reference numbers.

As an intelligent payments network, CenPOS supports the majority of payment processing platforms, which allows you to use whatever payment processor you prefer.

About TCP/IP Manager Web Extension for CenPOS

For a CenPOS hosted integration, the TCP/IP Manager Web Extension for CenPOS is a lightweight web product that is used to launch the appropriate CenPOS integration payment panel within the default browser for user entry, and return the CenPOS response back to the Infor Distribution A+ credit card interface. This section provides information about:

- System Requirements
- Installing and registering Microsoft .NET Framework
- Installing IBM iSeries Access for Windows .NET Data Provider
- Configuring IIS to support the Infor TCP/IP Manager Web Extension for CenPOS
- Downloading the TCP/IP Manager Web Extension for CenPOS
- Installing the TCP/IP Manager Web Extension for CenPOS
- Configuring the web.config file
- Troubleshooting

System Requirements

The TCP/IP Manager Web Extension for CenPOS requires:

- Windows Server 2008/2012 R2

- Microsoft .NET Framework 4.6.1

- IBM iSeries Access for Windows .NET Data Provider

    o Provided with a full installation of IBM iSeries Access for Windows

- Microsoft Internet Information Services (IIS) 7.5

- The HTTP File Server on the IBM i has been configured. Refer to the Configure the HTTP File Server chapter of the Infor Distribution A+ Installation and Software Update Guide.

When completing these installations with Windows 2008/2012 R2 Server, you should open your browser with Run as Administrator permissions. Additionally, for information regarding User Account Control, refer to http://windows.microsoft.com/en-US/windows-vista/Turn-User-Account-Control-on-or-off.

Installing Microsoft .Net Framework 4.6.1

Microsoft .NET Framework 4.6.1 must be installed and running on the server where the TCP/IP Manager Web Extension for CenPOS will be installed. You can download .NET Framework 4.6.1 from the Download section at http://www.microsoft.com/net/. Follow the instructions on that site to install .NET Framework 4.6.1. If prompted, restart the server.

Registering Microsoft .NET Framework

NOTE: If you previously installed Microsoft .NET Framework, additional steps may be required to ensure the .NET Framework is property registered with IIS 7.5. Because the TCP/IP Manager Web Extension for CenPOS uses both .NET Framework and IIS, the installation/configure sequence can become a factor.

According to Microsoft, "if IIS was previously enabled on the computer, the setup process for the .NET Framework automatically registers ASP.NET 4 with IIS. However, if you install the .NET Framework 4 before you enable IIS, you must run the ASP.NET IIS Registration tool in order to register the .NET Framework with IIS and create application pools that use the .NET Framework 4" [http://msdn.microsoft.com/en-us/library/k6h9cz8h(v=vs.100).aspx]. Refer to the Troubleshooting Microsoft .NET Framework section for additional information.

Installing IBM i Access for Windows DB2 for i .NET Data Provider

The IBM i Access for Windows DB2 for i .NET Data Provider must be installed on the server where the TCP/IP Manager Web Extension for CenPOS will be installed. The DB2 for i .NET Data Provider (version V6R1M0 or higher) is required for IBM i connectivity with TCP/IP Manager Web Extension for CenPOS. Follow the instructions for a complete installation of the IBM i Access Client Solutions product for proper installation.

NOTE: If the server was already configured for Microsoft IIS Components and Services prior to installing IBM i Access for Windows DB2 for i .NET Data Provider, additional steps may be required. See the Troubleshooting Installing IBM iSeries Access for Windows .NET Data Provider / IBM i Access for Windows DB2 for i .NET Data Provider for more information.

Configuring Microsoft IIS Components and Services

To configure your IIS instance:

1. Navigate to **Administrative Tools** and click SERVER MANAGER

2. In the navigation pane, expand **Roles**

3. Select **Web Server (IIS)**

    Note: If Web Server (IIS) has not been installed:

    a. In the Before you Begin window, click NEXT.

    b. In the Introduction to Web Server (IIS) window, click NEXT.

    c. In the **Select Role Services** window, select the options listed in step 5.

4. Right-click for a shortcut menu and select **Add Role Services**.

5. In the Select Role Services window, the installed features are shown. Verify the list of features in the list below and ensure that the following options are all selected. Click the NEXT or INSTALL buttons as prompted to complete the installation of features.

    a. From the Common HTTP Features:

        - Static Content

        - Default Document

        - Directory Browsing

        - HTTP Error

        - HTTP Redirection

    b. From Application Development Features:

        - ASP.NET

        - .NET Extensibility

- ASP

c. From Health and Diagnostic's

- HTTP Logging

- Request Monitor

d. From Security:

- Basic Authentication

- Windows Authentication

- URL Authorization

- Request Filtering

e. From the Performance:

- Static Content Compression

f. From Management Tools:

- IIS Management Console

- IIS Management Scripts and Tools

Note that some users will be prompted to add required services for ASP.NET if they have not already been installed. If you get this prompt:

1. Click ADD REQUIRED ROLE SERVICES to continue.

2. Click NEXT.

3. In the Confirm Installations Selections pane, click INSTALL.

4. If prompted, restart the server.

Installing TCP/IP Manager Web Extension for CenPOS

Before you install the TCP/IP Manager Web Extension for CenPOS, remove the prior version of TCP/IP Manager Web Extension for CenPOS, if any. To do this, click START > CONTROL PANEL > PROGRAMS > PROGRAMS AND FEATURES > UNINSTALL A PROGRAM, and uninstall the prior version of TCP/IP Manager Web Extension for CenPOS.

NOTE: With Windows 2008/2012 R2 Server, you may need to install with Run as Administrator privileges.

TCP/IP Manager Web Extension for CenPOS

1. Connect to the Infor Product Download Center (www.infor.com/inforxtreme) to obtain the latest version of the TCP/IP Manager Web Extension for CenPOS ISO image. This ISO image is available as part of the TCP/IP Manager for A+ download link.

2. Before you begin the installation, burn the image file to a DVD disk, or mount it to a virtual drive by using an optical media emulation tool.

3. On the server where you plan to install TCP/IP Manager Web Extension for CenPOS, log on with an account that has administrative privileges. Copy the TCP/IP Manager Web Extension for CenPOS installation files to a folder.

4. Navigate to the folder where the TCP/IP Manager Web Extension for CenPOS installation programs are located.

5. Double-click the SETUP.EXE program to begin the installation.

6. In the Welcome window, click NEXT.

7. In the TCP/IP Website Information window:

   a. **Site Name**: specify the name of the website for the TCP/IP Manager Web Extension for CenPOS or accept the default value **tcpipweb**

   b. **Port**: a unique port number into which the TCP/IP Manager Web Extension for CenPOS will be installed or accept the default value **9040**

8. Click NEXT.

9. In the Destination Folder window, by default, the Infor TCP/IP Manager Web Extension for CenPOS will be installed in C:\Program Files (x86)\Infor\TCP-IP Manager Web\. If you do not want the Infor TCP/IP Manager Web Extension for CenPOS to be installed in this directory, click CHANGE and specify a preferred location.

10. In the Ready to Install the Program window, click INSTALL.

11. In the InstallShield Wizard Completed window, click FINISH.

You have completed the installation of the Infor TCP/IP Manager Web Extension for CenPOS.

Configuring the web.config file

The Infor TCP/IP Manager Web Extension for CenPOS uses the web.config file to identify which ERP environment to establish communication with. The web.config file is located in the installation directory chosen during the installation, and can be modified using a text editor (such as Notepad). Infor recommends that you make a copy of the web.config file before modifying it.

1. In the <connectionStrings> section, there are 3 ERP specific lines as comments. Remove the comment indicators (**<!--** at the beginning and **-->**at the end) for the one line that represents your specific ERP.

   From: <!-- <add name="erp_type" connectionString="Aplus" /> -->

   To: <add name="erp_type" connectionString="Aplus" />

2. For Infor Distribution A+, modify the following line:

From: `<!-- <add name="conn_aplus" connectionString="DataSource=<system name>;Connection Timeout = <seconds>;UserID=<systemI user >;Password=<password>" providerName="IBM.Data.DB2.iSeries" /> -->`

- Remove the comment indicators (`<!--`) from the beginning and (`-->`) the end of the line.

- Replace the <system name> for the DataSource with the IBM i system name (i.e. DataSource=SystemiName). This value normally displays in the top right corner of the IBM i Sign On and Main Menu Screens.

- Set the Connection Timeout variable to the number of seconds appropriate based on your network speed. A recommended value is 30 seconds.

- Replace the <systemI user> with a valid Infor Distribution A+ Registered User ID (i.e. UserID=APLUS). On the IBM i, this User ID should be set so the password does not expire with parameter **PWDEXPITV** set to ***NOMAX**.

- Replace the <password> with the password for that user (i.e. Password=apluspw)

To: `<add name="conn_aplus" connectionString="DataSource=SystemiName;Connection Timeout=30;UserID=APLUS;Password=apluspw" providerName="IBM.Data.DB2.iSeries" />`

3. To establish a connection to the CenPOS integration object, modify the following line to specify the appropriate URL provided to you by CenPOS if different from the default value shown below:

Default: `<add name="cenpos_url" connectionString="https://www3.cenpos.net/POSIntegration/InforIntegration/default.aspx" />`

4. In the <log4net> section, to change the amount of logging performed from Information to Error, Debug, or All, modify the following line:

`<level value="Info" />` Valid values: **Info** or **Error** or **Debug** or **All**

In most situations, it is not necessary to restart IIS when the web.config file changes.

Test the Connection

In order to test the TCP/IP Manager Web Extension for CenPOS installation, sign onto the web server where it was installed and start Internet Information Services (IIS) Manager. From there, find the site and make sure it is started. Then highlight the **tcpipweb** application beneath the site. In the "Manage Application" section of IIS Manager, you will need to click the BROWSE APPLICATION link in order to test that TCP/IP Manager Web Extension for CenPOS is operational from the port it was installed.

If TCP/IP Manager Web Extension for CenPOS is installed and currently operational, the following message box will be displayed.
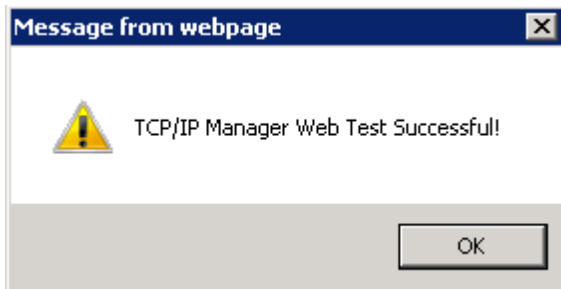
Troubleshooting

TCP/IP Manager Web Extension for CenPOS

The following areas should be investigated if the Infor TCP/IP Manager Web Extension for CenPOS does not load a CenPOS payment panel properly, or does not return CenPOS results to the IBM i.

1. Review the TCPIPManagerWeb.log that is located in the Logs folder on the appropriate server that hosts the Infor TCP/IP Manager Web Extension for CenPOS. See Configuring the web.config file section step #4 mentioned previously for levels of logging.

2. Make sure that internet connectivity and/or firewall configuration is not impeding access to the CenPOS payment panel site.

3. Make sure that IBM i Access for Windows DB2 for i .NET data provider is installed on the web server that deploys the TCP/IP Manager Web Extension for CenPOS.

Microsoft .NET Framework

If you do not register the framework properly, when you try to access the TCP/IP Manager Web Extension for CenPOS after the installation, an error similar to the following appears:

HTTP Error 500.21 - Internal Server Error

Handler "PageHandlerFactory-Integrated" has a bad module

"ManagedPipelineHandler" in its module list.

To fix this error, the .Net Framework must be repaired:

1. Start a Windows command prompt as an administrator.

2. Run the command cd C:\Windows\Microsoft.NET\Framework64\v4.x.xxxxx (**NOTE**: Refer to Microsoft site for actual .NET version; that is, .NET Framework 4.0 is v4.0.31319)

3. Specify .\aspnet_regiis.exe –i

This command repairs the 64-bit version of .NET framework.

Installing IBM iSeries Access for Windows .NET Data Provider / IBM i Access for Windows DB2 for i .NET Data Provider

There is a known issue which occurs during the installation of some versions of the IBM i .NET Data Provider. When you attempt to access any website residing on your server, an error similar to the following appears:

HTTP Error 503. The service is unavailable.

This error appears because, during the installation of some versions of the IBM i .NET Data Provider, the required permissions on the machine.config file were removed. The solution is to apply the correct permissions back to the machine.config file. To determine which permission to apply back to the machine.config file, view the permissions of the file named machine.config.comments, which is located in the same folder as the machine.config file. This file is a copy of the machine.config file and it has the same access privileges with which machine.config was originally created but does not get modified during the installation of the IBM i .NET Data Provider.

To apply the correct permissions:

1. Open Windows Explorer.

2. Open the folder containing the machine.config.comments (by default it is C:\WINDOWS\microsoft.net\Framework64\v4.0.30319\Config).

3. Right-click machine.config.comments and select **Properties**.

4. Open the **Security** tab.

5. Now, again using Windows Explorer, right-click machine.config and select **Properties.**

6. Position the 2 **Properties** windows next to each other to compare the permissions.

7. While your cursor is positioned on the machine.config **Security** tab, click the EDIT button.

8. Then Add any missing user named and click OK (i.e. System).

9. Adjust any permissions as needed for the user you just added (i.e. Read & Execute and Read).

10. When you are done, click OK to dismiss the **Properties** panel (you might get a warning about changing permission settings on system folders – click YES to accept the changes and click OK again to close the **Properties** panel).

11. Reboot the IIS server before retesting the resolution of the HTTP Error 503 message.