



OTCnet System Requirements & Reference Guide

Release 4.1

June 2022

Contents

System and Configuration Requirements	3
OTCnet General Requirements.....	3
Operating System.....	3
System Requirements.....	3
Other Requirements	3
OTCnet Local Bridge (OLB) System Requirements.....	4
OTCnet Check Processing Requirements	5
Additional System Requirements	5
Check Capture Hardware/Scanner Requirements	6
OTCnet Check Capture Offline Application Requirements	8
Additional System Requirements	8
OTCnet Card Processing Requirements.....	9
Additional System Requirements for Verifone Devices.....	9
Additional System Requirements for 80 Millimeter (3.125 Inch) Receipt Printer Devices	10
OTCnet Bandwidth Requirements.....	10
Bandwidth	10
Technical Reference Guide	10
OTCnet General Requirements.....	10
Check Capture	11
For More Information.....	11

System and Configuration Requirements

This document provides system and configuration requirements for the use of OTCnet Online for Deposit Reporting, Check Capture, and Card Processing. This document also provides system and configuration requirements for OTCnet Offline, which is available for users performing check processing/check scanning in areas with low bandwidth and/or unreliable internet connectivity.

OTCnet General Requirements

This section details the system and configuration requirements necessary to utilize all OTCnet functionality. Additional requirements are necessary for OTCnet check capture. Refer to the “OTCnet Check Capture Requirements” and “OTCnet Offline Check Capture Application Requirements” sections for more information.

Operating System

The following Operating Systems are supported by OTCnet:

- Windows 11 and Windows 10 (OTCnet supports the 64-bit version of the operating system)

System Requirements

The following are requirements necessary to operate OTCnet:

- **Web Browsers:**
 - Microsoft Edge (Version 79 or higher)
 - Google Chrome (OTCnet supports the 64-bit version)
 - **PDF Documents Setting:** Disable the PDF Documents Setting within your browser to see PDFs in the PDF preview pane. If the PDF Documents Setting is enabled, reports can only be opened for download and do not display within the application.
 - This option can be found in Chrome browser by navigating to: Chrome browser > 3 vertical dots in upper right > Settings > Click on “Advanced” > Site Settings (under “Privacy and security”) > PDF documents (under “Permissions”).
 - Internet Explorer (IE) 11 (OTCnet supports the 64-bit version)
 - **Note:** Windows 11 will not support IE. OTCnet will still continue to support IE with Windows 10.
 - **Zoom:** Must be set at the web browser default (100% zoom). If zoom is not set to 100%, you may experience issues while using the OTCnet application.
- **Entrust Root Certificates:** The following two certificates must be installed in the certificate store on your workstation. These certificates are normally installed by default with the operating system and/or Internet Explorer. If they do not exist or have been removed, you will need to have your agency install/re-install the certificates:
 - [Entrust Certification Authority - L1K](#) – install in “Intermediate Certification Authorities” certificate store on the local machine.
 - [Entrust Root Certification Authority - G2](#) – install in “Trusted Root Certification Authorities” certificate store on the local machine.
- **Internet Options Security Settings:**
 - To ensure connectivity to OTCnet, the “**Use TLS 1.2**” option must be enabled for all workstations using Windows 10 or Windows 11.
- **Ports:** Router/Firewall Administrators must ensure and verify that outbound ACL (Access Control List) has complete https access, on port 443.
- **Workstation Memory:** 2 GB physical memory is required; 4 GB is recommended.
- **Free Disk Space:** 100 MB of free disk space is required.
- **Window Resolution:** The recommended minimum resolution for OTCnet is 1024x768.

Other Requirements

- **Email Address:** Users must have access to a unique email address to change their initial OTCnet passwords and access the online system.

- **Supported File Formats:** OTCnet Reports are only made available in Adobe PDF, Microsoft Word, and Microsoft Excel file formats. To view reports, ensure that your workstation has these programs installed. Google Chrome or Microsoft Edge users can view PDF files in their browser.

OTCnet Local Bridge (OLB) System Requirements

OLB Prerequisites

The OLB is an application that must be installed on all workstations performing Check Capture, Check Processing, Card Processing, OTC Kiosk Tablet transactions, and terminal configuration operations. Not having the OLB installed on your workstations will impact your ability to process checks properly.

- **If using Google Chrome or Microsoft Edge (Version 79 or higher)**, no prerequisites are needed for downloading and installing the OLB.
- **If using IE**, agencies are required to change their **IE configuration settings** prior to running the OLB application. Assistance may be required from the Agency's Information Technology (IT) team and these actions may need to be performed via group policy. These prerequisites are only applicable to users accessing OTCnet Online.

Agencies Change Their IE Configuration Settings (IE Users ONLY)

- A. **Local Intranet:** If the "**Automatically detect intranet network**" option or the "**Include all local (intranet) sites not listed in other zones**" option is enabled (checked) under the "**Sites**" button in the **Local Intranet** zone, follow the steps below to configure your IE settings:
 - Ensure the "**Display Intranet sites in Compatibility View**" option is disabled (unchecked).
 - Enable **Protected Mode** in the **Trusted Sites** and **Local Intranet** zones.
 - Add the OTCnet URL (i.e., *.otcnet.fms.treas.gov and *.otcnet.for.fiscal.treasury.gov) as a site in the Local Intranet Zone. Please ensure other OTCnet specific websites, such as www.otcnet.fms.treas.gov or qai.otcnet.fms.treas.gov are not included.
- B. **Compatibility View Settings:** If checked, uncheck the **Display Intranet Sites in Compatibility View** checkbox under the **Compatibility View Settings**. **(IE Users ONLY)**

Installing the OLB

Upon installation, the OLB application is configured to use Open Java Runtime Environment (JRE) or Oracle Java Development Kit (JDK).

The OLB is compatible with JRE and JDK versions, 8, 11, and 17.

Internet Explorer (IE) 11 users will not be able to access the OLB with JDK 17 or JRE 17. JDK and JRE versions 8 and 11 will continue to be compatible with IE11 OLB users.

If you recently upgraded to Windows 10 or Windows 11 and the OLB desktop icon no longer successfully starts the OLB, please reinstall the OLB before attempting to start the OLB again. You will need to reconfigure the OLB startup property file (as shown above) with the Java runtime location if you are using an external (i.e. workstation installed) Java runtime with the OLB.

For more information and step-by-step guidance on how to download and install the OLB, visit the following webpages:

- OTCnet Local Bridge (OLB) Information and Resources:
<https://fiscal.treasury.gov/otcnet/local-bridge-information-resources.html>
- OTCnet Training Website - Printable Job Aids and simulations for downloading, installing, and starting the OLB (Modules 2.1, 8.1):
https://fiscal.treasury.gov/otcnet/training/wbt/content/course_OTC/menu_all.htm

OTCnet Check Processing Requirements

This section outlines additional requirements necessary to perform OTCnet Check Processing/Check Scanning. They are only necessary if OTCnet is utilized for check processing/check scanning.

Additional System Requirements

The following system requirements are necessary for utilizing OTCnet check processing. These requirements must be performed by a Windows administrator (a user who is logged onto the workstation as a workstation administrator):

- **Scanner Drivers (the installation file):** Scanner driver and Firmware (provided in an installation file) must be installed on the workstation. Instructions for obtaining and installing the installation file will be provided in a separate document. Further information is provided below in the Technical Reference Guide.
- **Adobe:** All versions of Adobe are compatible with OTCnet, although Adobe X may require web browser configuration changes.
- **Adobe Reader:** Only Internet Explorer users must have Adobe PDF Reader and the PDF Reader Plug-in installed on the workstation to support receipt printing. Google Chrome or Microsoft Edge users are able to view PDFs in-browser. All versions of Adobe are compatible with OTCnet, although Adobe X may require web browser configuration changes. Adobe Reader Version 7.x or higher is required.
- **Java Access Bridge for individuals with disabilities only. OTCnet strives to provide individuals with disabilities with equal access to its programs.** Java Access Bridge must be installed on workstations for Check Processing Offline to support the reading of browser pop-up windows.
- **Assistive Technology (AT) Users:** The terminal needs to be configured to allow receipt printing automatically in check processing.
- **Assistive Technology (AT) Users will need to install Java 8 (update 141) or higher.** JAWS 16 or higher can only be used with Java Access Bridge 2.0.2. Alternatively enable the Ease of Access Narrator by pressing Windows logo Key+U and selecting Narrator in the Settings.
 - For instructions on installing the Java Access Bridge, click or copy and paste the following link: <https://fiscal.treasury.gov/files/otcnet/InstallationStepsforJavaAccessBridgewithJAWS16.pdf>
 - To Verify Java Access Bridge is enabled in Window OS:
 - Go to Start > Control Panel > Ease of Access > Ease of Access Center
 - Select Use the computer without a display.
 - In the section Other programs installed, select the check box Enable Java Access Bridge (you may have to scroll down).
 - Note: After enabling Java Access Bridge, you must restart your Assistive Technology (AT) software (JAWS) and Java applications (OLB or Offline) that use the accessibility API

Check Capture Hardware/Scanner Requirements

The following hardware requirements are necessary for utilizing OTCnet check processing:

- Access to a printer from the workstation where you will be using OTCnet for Check processing.
- A compatible check scanner connected to the workstation with an available USB 2.0 or 3.0 port.
- The following table lists the hardware that is compatible with OTCnet. The table also indicates which version of the driver and Firmware is required for each combination of hardware and operating system.
- **The OTCnet firmware file is downloaded from within OTCnet by the Check Capture Administrator.**
- **The drivers for the scanners are packaged within the OTCnet firmware, no separate install is required.**

Check Capture Requirements	
Operating System	Windows 10, Windows 11
Browser	Chrome, IE 11, Microsoft Edge (Version 79+) ¹
Firmware	4.2.0, 4.3.0 ²
Scanner Models Supported	EC7000i EC9100i Panini MyVision X Panini Vision X Panini i:Deal
OLB Version	2.5.0.0 ³
Compatible External JRE Required	JRE 17, JRE 11, JRE 8 64bit ⁴
Java Applets/ Java runtime Support	Not Supported

¹ Windows 11 does not support IE 11, only Chrome and Microsoft Edge. Windows 10 will additionally discontinue support for IE11 in June 2022. OTCnet will continue support all three browsers.

² Firmware 4.3.0 is only compatible with the latest OLB versions 2.3.0 and above. We recommend as a best practice to upgrade to the latest firmware and OLB version.

³ OLB version 2.4.0.7 was introduced in January 2022. We strongly advised to upgrade their OLB as the new upgrade addresses a global high security vulnerability impacting a commonly used software component (“Log4j”).

⁴ Internet Explorer (IE) 11 users will not be able to access the OLB with JDK 17 or JRE 17. JDK and JRE versions 8 and 11 will continue to be compatible with IE11 OLB users.

Please see the table below for prerequisite packages required for each firmware version.

Firmware Version by Scanner and Operating System		
Operating System	Windows 10 Windows 11	
Microsoft .NET Framework	4.5.2 or newer	
OTCnet Firmware	4.2.0	4.3.0
Microsoft Visual C++ Redistributable Package	VC++ 2015-2019 (x64)	Installed by Firmware Installer.
	VC++ 2015-2019 (x86)	Requisites included by Firmware Installer.
	VC++ 2010 (x86)	Requisites included* *For issues with RDM 7000 scanner, Install VC++ 2010 (x86) redistributable package and reboot

OTCnet firmware versions 2.0.0-4.3.0 require VC++ redistributable packages to be installed prior to installing firmware. When users upgrade their firmware, we recommend installing the required VC++ redistributable package and rebooting their computer before upgrading their firmware and launching the OLB. \

Download Links:

Microsoft Visual C++ 2010 SP1 (x86):

<https://www.microsoft.com/en-us/download/details.aspx?id=26999>

Microsoft Visual C++ 2015-2019 (X86, x64):

<https://support.microsoft.com/en-us/help/2977003/the-latest-supported-visual-c-downloads>

OTCnet Check Capture Offline Application Requirements

This section details the additional system and configuration requirements necessary to use OTCnet Offline, which is available for users performing check processing/check scanning in areas with low bandwidth and/or unreliable internet connectivity.

Offline	
Firmware and OLB Compatibility Matrix	
Offline Version	4.1.0
Operating System	Windows 10, Windows 11
Browser	Chrome, Microsoft Edge (Version 79+), IE11 ⁵
Firmware	4.2.0, 4.3.0
Scanner Models Supported	EC7000i EC9100i Panini MyVision X Panini Vision X Panini i:Deal
Offline External JRE Required	JRE 8 64bit

Additional System Requirements

The following system requirements are necessary to use the OTCnet Offline application.

- **Free Disk Space:** 600 MB additional disk space. 350 MB is required to install the application; 250 MB is recommended to accommodate transaction and audit log data.
- **Secondary Storage:** Secondary storage is required. An external hard drive or network drive with 150 MB free disk space or USB flash drive is advised.
- **Windows User Permissions:** OTCnet users must *not* have Windows administrator access to the workstation on which the Offline application is installed. In addition, all workstation users must have “write” permissions to the following subfolders within the Offline application’s main installation folder:
 - C:\ProgramData\OTCnet_prod\data
 - C:\ProgramData\OTCnet_prod\server

All folders and subfolders within the main Offline application folder (except the two folders specified above) must be set to “read-only” permissions for all OTCnet users on the workstation. To ensure “read-only” permissions are set for the OTCnet root folder and its subfolders, apply the following permissions to the OTCnet root folder: “Read & execute”, “List folder contents” and “Read”, for all workstation users (typically applied for the “Authenticated Users” and “Users”/“Domain Users” groups on the workstation).

To set “write” permissions for the two folders specified above, you must apply the “Modify”, “Read & execute”, “List folder contents”, “Read” and “Write” permissions to the two folders for all workstation users (typically applied for the “Authenticated Users” and “Users”/“Domain Users” groups on the workstation).

If upgrading OTCnet, set all OTCnet folders to “write”, run the upgrade installer, then follow the above instructions to set the folder permissions accordingly.

Failure to follow this requirement may result in application exploits for which agencies will have to assume responsibility.

⁵ It is advised to set the default browser to the preferred browser (either Edge, Chrome, or IE 11) for the Offline application. Windows 11 does not support IE 11, only Chrome and Microsoft Edge. Windows 10 will additionally discontinue support for IE11 in June 2022. OTCnet will continue support all three browsers.

- McAfee Exclusion:** McAfee Antivirus users that experience slow application startup times are advised to implement the following exclusions:

Windows 10:

C:\Users*\AppData\Local\Temp*\jetty-0.0.0.0-XXXX-otcnet-offline.war-_otcnet-any\
 C:\Users*\AppData\Local\Temp*\JRCJNI\
 C:\OTCnet_prod\

The McAfee Exclusion C:\OTCnet_prod\ is based on the default install location for OTCnet. Users should apply the appropriate McAfee Exclusion above based on the install location of OTCnet selected during the installation process. During the installation process of OTCnet Offline, users have the option to select the location to install.

Also, note that users should apply the appropriate McAfee Exclusion above based on the Server HTTPS Port used in the OTCnet Offline installation process. During the installation process of OTCnet Offline, users have the option to input the Server HTTPS Port or keep the default Port setting. The McAfee Exclusions above use the Server HTTPS Port X; however, users must use Port inputted during the installation process.

OTCnet Card Processing Requirements

This section details the additional system and configuration requirements necessary to utilize OTCnet Card Processing, which is available for users accepting credit, debit, and gift card pay types.

Card Processing Requirements	
Operating System	Windows 10, Windows 11
Browser	Google Chrome / Microsoft Edge (Version 79+) / IE 11
Firmware	N/A
Card Processing Terminal Supported	MX925 Verifone Terminal
Receipt Printer	Any Windows printer that supports 8.5"x 11" paper or 80mm 3.125in printer (optional) for receipt printing
OLB Version	2.5.0.0 ⁶
OLB Compatible External JRE Required	JRE 17, JRE 11, JRE 8 64bit ⁷

Additional System Requirements for Verifone Devices

The following system requirements are necessary to use OTCnet Card Processing.

⁶ OLB version 2.4.0.7 was introduced in January 2022. We strongly advised to upgrade their OLB as the new upgrade addresses a global high security vulnerability.

⁷ Internet Explorer (IE) 11 users will not be able to access the OLB with JDK 17 or JRE 17. JRE versions 8 and 11 will continue to be compatible with IE11 OLB users.

Note: the port setting information below is the latest information obtained from Verifone but is subject to change. Agencies should confirm with Verifone regarding the production port settings for their MX925 device before deploying in production.

- **Port Setting for PAYware Connect Gateway:**
 - Primary URL: <https://vhq.verifone.com/MessagingServer/MessageHandler.asmx>
 - IP Addresses: 199.71.106.30, 199.71.107.160
 - Port: 443

Additional System Requirements for 80 Millimeter (3.125 Inch) Receipt Printer Devices

Additional drivers may need to be installed for 80mm (3.125 in) receipt printer devices. Please refer to the vendor of your selected printer to determine additional driver information.

OTCnet Bandwidth Requirements

This section provides the minimum internet connectivity recommendations for setting up and utilizing OTCnet.

Bandwidth

- A 1.2 MBPS connection is recommended to download the OTCnet Scanner Firmware and/or the Offline client.
- A 512 KBPS connection is recommended to utilize the OTCnet Offline application when uploading batches.
- A 512 KBPS connection is recommended to utilize the OTCnet Online application.

Technical Reference Guide

This section provides further information to your agency system administrator on the system and configuration requirements needed for OTCnet Online. **Check Scanning and Check Processing requirements are only necessary if OTCnet is used for Check Processing/Check Scanning.** Your agency's OTCnet Point of Contact (PoC) has the Deployment Specialist's contact information, should you require assistance.

OTCnet General Requirements

- **Entrust Root Certificate:** The following two certificates must be installed in the certificate store on your workstation. These certificates are normally installed by default with the operating system and/or Internet Explorer. If they do not exist or have been removed, you will need to have your agency install/re-install the certificates:
 - [Entrust Certification Authority - L1K](#) – install in “Intermediate Certification Authorities” certificate store on workstation
 - [Entrust Root Certification Authority - G2](#) – install in “Trusted Root Certification Authorities” certificate store on workstation
- **Internet Options Security Settings:** If you are using Internet Explorer (IE), the “**Use TLS 1.2**” option must be enabled in the advanced tab of Internet Options for all user profiles on the workstation. Multiple TLS (Transport Layer Security) versions may be available in your browser settings and at least one of these is normally enabled by default. You must ensure “**Use TLS 1.2**” is enabled to ensure connectivity between OTCnet and IE.

Check Capture

- **Scanner Drivers (installation file):** Scanner driver and Firmware (provided in an installation file) must be installed on the workstation. Instructions for downloading and installing the installation file can be found in the OTCnet Printable Job-Aids, Module 7.3:
 - [Download Firmware](#)
 - [Install Firmware](#)

For More Information

To learn more, access the [OTCnet website](#), email us at FiscalService.OTCDeployment@citi.com, or call 703-377-5586.