



# OTCnet System Requirements & Reference Guide

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## Contents

<b>System and Configuration Requirements .....</b>	<b>3</b>
<b>OTCnet General Requirements.....</b>	<b>3</b>
Operating System.....	3
System Requirements.....	3
Other Requirements .....	3
OTCnet Local Bridge (OLB) System Requirements.....	4
<b>OTCnet Check Processing Requirements .....</b>	<b>4</b>
Additional System Requirements .....	4
Check Capture Hardware/Scanner Requirements .....	5
<b>OTCnet Check Capture Offline Application Requirements .....</b>	<b>6</b>
Additional System Requirements .....	7
<b>OTCnet Card Processing Requirements.....</b>	<b>8</b>
Additional System Requirements for Verifone Devices.....	8
Additional System Requirements for 80 Millimeter (3.125 Inch) Receipt Printer Devices .....	8
<b>OTCnet Bandwidth Requirements.....</b>	<b>8</b>
Bandwidth .....	8
<b>Technical Reference Guide .....</b>	<b>8</b>
<b>OTCnet General Requirements.....</b>	<b>9</b>
<b>Check Capture .....</b>	<b>9</b>
<b>For More Information.....</b>	<b>9</b>

## 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 System is supported by OTCnet:

- Windows 10<sup>1</sup> (OTCnet supports the 64-bit version of the operating system)

#### System Requirements

The following are requirements necessary to operate OTCnet:

- **Web Browser:**
  - 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 11 (OTCnet supports the 64-bit version)
      - **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.
  - **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.

<sup>1</sup>As Microsoft no longer supports Windows 7, Windows 7 is no longer compatible with OTCnet. It is required to use Windows 10 for OTCnet workstations to ensure continued compatibility.

## 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**, 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)**

- 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](http://www.otcnet.fms.treas.gov) or qai.otcnet.fms.treas.gov are not included.
- 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

Unless your Agency requires OTCnet to use an external JRE, it is recommended to use the default configuration, which includes a built-in JRE with the OTCnet Offline/OLB applications. We recommend using the built-in JRE as agency IT teams may need to modify the location of the JRE in the startup property files for the OLB or OTCnet Offline application when the external JRE is updated. With the built-in JRE, Agency IT teams will not need to modify the startup property files for the OLB or OTCnet Offline applications.

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, 6.4, 6.5, 6.6, 8.3, 8.4, 8.5):  
[https://fiscal.treasury.gov/otcnet/training/wbt/content/course\\_OTC/menu\\_all\\_sims.htm](https://fiscal.treasury.gov/otcnet/training/wbt/content/course_OTC/menu_all_sims.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:** Adobe PDF Reader and the PDF Reader Plug-in must be installed on the workstation to support receipt printing. 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 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	
<b>Operating System</b>	Windows 10
<b>Browser</b>	Chrome, IE 11
<b>Firmware</b>	4.2.0, 4.3.0
<b>Scanner Models Supported</b>	EC7000i EC9100i Panini MyVision X Panini Vision X Panini i:Deal
<b>OLB Version</b>	2.4.0*
<b>OLB External JRE Supported (optional)</b>	JRE 11 64bit
<b>Java Applets/JRE Support</b>	Not Supported

\*OLB version 2.4.0 was introduced in Release 3.5. We highly recommend installing the latest OLB version to ensure the latest security updates are included.

OTCnet firmware versions 2.0.0-4.2.0 require VC++ redistributable packages to be installed prior to installing firmware. Firmware 4.3.0 automatically detects if the prerequisites (i.e. VC++ packages) are present during firmware installation. If they are not present, the firmware installer will automatically install the prerequisites, therefore, no longer needing to separately install the firmware prerequisites.

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 10
Firmware	4.2.0	4.3.0*
Microsoft Visual C++ Redistributable Package	VC++ 2015-2019 (x86) VC++ 2015-2019 (x64)	Automatically installed with the firmware
Microsoft .NET Framework	4.5.2	4.5.2 or newer

**Download Links:**

Microsoft Visual C++ 2010 SP1 (x86):

<https://www.microsoft.com/en-us/download/details.aspx?id=8328>

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

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

**\*Firmware 4.3.0 is only compatible with the latest OLB versions 2.3.0 and 2.4.0. We recommend as a best practice to upgrade to the latest version of firmware.**

**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	3.4.0
Operating System	Windows 10
Browser	IE 11, Chrome <sup>2</sup>
Firmware	4.2.0, 4.3.0
Scanner Models Supported	EC7000i EC9100i Panini MyVision X Panini Vision X Panini i:Deal
Offline External JRE Supported (optional)	JRE 8 64bit

<sup>2</sup> It is advised to set the default browser to the preferred browser (either IE 11 or Chrome) for the Offline application.

## 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:\OTCnet\_prod\data
  - C:\OTCnet\_prod\log
  - C:\OTCnet\_prod\server\logs

All folders and subfolders within the main Offline application folder (except the three 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 three folders specified above, you must apply the “*Modify*”, “*Read & execute*”, “*List folder contents*”, “*Read*” and “*Write*” permissions to the three 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.

- **McAfee Exclusion:** McAfee Antivirus users that experience slow application startup times are advised to implement the following exclusions based on the Operating System (Windows 7 and 10) used at the terminal.

### Windows 10:

```
C:\Users\*\AppData\Local\Temp\*jetty-0.0.0.0-XXXX-otcnet-offline.war-_otcnet-any-\  
C:\Users\*\AppData\Local\Temp\*JRCJN\  
C:\OTCnet_prod\  
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
Browser	Google Chrome / IE 11
Firmware	N/A
Card Processing Terminal Supported	MX925 Verifone Terminal
Receipt Printer	Any printer that supports 8.5"x 11" paper or 80mm 3.125in printer (optional) for receipt printing
OLB Version	2.4.0*
OLB External JRE Supported (optional)	JRE 11 64bit

\*OLB version 2.4.0 was introduced in Release 3.5. We highly recommend installing the latest version of the OLB to ensure the latest security updates are included.

### Additional System Requirements for Verifone Devices

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

**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.aspx>
  - 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 (3.125in) 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 Online application.
- A 512 KBPS connection is recommended to utilize the OTCnet Offline application when uploading batches.

## 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 6.3:
  - [Download Firmware](#)
  - [Install Firmware](#)

### For More Information

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