

Please review the following technical configuration requirements and guidelines to prepare your computers and network to administer CLEP exams. This information applies to all testing computers unless stated otherwise.

You may require assistance from the local technical staff at your test center to implement these computer and network configurations. Email [CLEPiBTSupport@ets.org](mailto:CLEPiBTSupport@ets.org) with any questions or concerns regarding the information below.

- Computer Requirements:** Please refer to the **Test Delivery Requirements** document posted on the College Board website for the hardware, software, and connectivity specifications. Hosting the LSCP does not require a computer running a server operating system. The operating system should reside on and boot from the computer’s local hard disk. Virtual machines and thin clients are not supported.
- Administrative Privileges:** Administrative privileges are required to install and operate Unify software on each computer. Users running Windows 7/8.1/10 must set User Account Control to NEVER NOTIFY.
- Windows User Account/Login:** The Unify applications can be launched via desktop shortcuts. These shortcuts are specific to the user’s Windows profile. If a different Windows account is used, the Unify shortcuts will not appear on the desktop. To create shortcuts for a different user, launch the Unify application from the Start menu.
- Prepare Internet Explorer:** Internet Explorer Internet Security should be configured at Medium level or lower. Add “\*.ets.org” as a trusted site in the [Internet Options>Security tab>Trusted sites](#) security zone. The iBT testing platform requires the Internet Explorer browser. The Unify platform does not require a specific browser.
- Desktop Firewalls:** The desktop security firewalls (Internet Security Suites or Windows built-in firewalls) should be either disabled or configured to allow unrestricted network communication between computers running the Administrative Station, Local Server/Cache Proxy, and Testing Workstation applications.
- Add the following Unify applications to the **whitelist** of the virus scan suite applications, network/desktop firewalls or other security configurations such that the applications are not blocked:

admlauncher.exe	jre.exe	vtoolexe.exe
admLauncherHelper.exe	lscplauncher.exe	vtoollauncher.exe
admLauncherMain.exe	lscplauncherMain.exe	vtoollauncherMain.exe
admLauncherMainUpdater.exe	lscplauncherMainUpdater.exe	vtoollauncherMainUpdater.exe
bin.exe	setclasspath.bat	wkslauncher.exe
catalina.bat	startup.bat	wkslauncherHelper.exe
etschrome.exe	UnifyAdminInstaller.exe	wkslauncherMain.exe
jar.exe	UnifyCPIInstaller_PROD.exe	wkslauncherMainUpdater.exe
java.exe	UnifyVToolInstaller_PROD.exe	wkswinproc.exe
javaw.exe	UnifyWksInstaller.exe	

7. **Other Desktop Security Configurations:** Desktop security systems, such as **Centurion Guard, Deep Freeze, Drive Shield, Clean Slate, Fortress**, and similar products, control which software can permanently reside on the computer hard drive by erasing a software installation after a system reboot or at a scheduled time. DISABLE such security configurations on the Local Server/Cache Proxy computer. Not disabling such security configurations will result in loss of candidate test responses. In addition, disable such configurations on all Testing Workstations prior to iBT test delivery.
8. **LAN Communication:** All test delivery computers MUST reside on the same subnet of the LAN with **NO blocking** of any TCP ports. Use network switches (no hubs) that support 100 Mbps or higher on the LAN.
9. **WAN Communication:** All test delivery computers MUST have broadband Internet connectivity. Each computer may utilize up to 50 Kbps of Internet bandwidth.
10. **LAN-WAN Separation:** If your Local Area Network (LAN) is configured in a way that LAN connectivity is interrupted when you lose Internet connectivity, you should consider alternative devices or configurations to prevent this by isolating the LAN device (network switch) from Wide Area Network Device (Internet router) for your testing facility or lab. Isolating the LAN device will allow you to continue to deliver tests that are already launched in the event the Internet connectivity is lost. However, a new test launch or a restart will require Internet connectivity to be restored.
11. **Network Firewalls:** Test centers that access the Internet via firewalls or proxy servers should ensure:
  - a. TCP ports 443 & 80 are open.
  - b. **ets.org** must be added as a trusted domain to allow file download/upload without content filtering.  
**Note:** Do not use a fixed IP address in place of ets.org for trusted sites.
  - c. Download of files with extension types **EXE, JAR, JNLP, XML, and DLL** must be allowed.
12. **LSCP computer IP Address:** Configure the Local Server/Cache Proxy computer by either assigning it a fixed IP address or configuring your DHCP Server(s) such that the lease renewal process assigns it the same IP address as it had prior to renewal. **DO NOT run desktop security applications such as ESET or Kaspersky in a way that would result in masking the cache proxy IP address as it will prohibit network communication between Administrative stations, Local Server, and Testing Workstations.**
13. **Multiple LSCP Configurations:** All test delivery computers that are launched for a unique test center ID or site code and reside on the same subnet must be located near each other because they are part of one test delivery system. If the physical locations are different, then each delivery system must reside on a different subnet in order to use the same test center ID (site ID).

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14. **Regional Settings/Options:** The test administration system requires that all computers' **Regional Options/Settings** and **Keyboard Input Locale** are configured for **U.S. English**. The software checks for these settings before launching. Ensure that **Regional Options/Settings** for U.S. English are installed and that the default keyboard locale is set to **U.S. English**.
15. **Non-U.S. English Computer Names:** DO NOT use non-U.S. English characters for computer names.
16. **Configure Power Options:** All test delivery computers' **Power Schemes** should be configured so that the hard disk and monitor stay ON and the systems do not go into hibernation or standby mode.
17. **Configure Desktop Screen Savers:** All test delivery computers' **Desktop Screen Savers** should be disabled.
18. **Configure Instant Messenger Services,** such as **MSN Messenger** or similar applications, in such a way that they do not run automatically at the time of startup or login to Windows. Running these applications may not allow you to launch the test administration system on the testing computers.
19. **Video Display Colors:** The test administration system software requires the display adapter to be set for 32-bit colors.
20. **Wide Screen Monitors:** Wide screen monitors must support an aspect ratio of 4:3.
21. **Software Installation Requirements for Sites Running iBT:**
  - a. **Java Runtime Environment (JRE):** CLEP iBT requires a specific version of JRE which is included within the "**iBT Bundle Installer**" available for download and installation at following URLs: <http://ibt1.ets.org/ibt/info.html>
  - b. **Adobe® Reader:** Adobe® Reader must be installed on the Administrative Station computer to allow viewing/printing of score reports.
  - c. **ZoomText:** ZoomText software is required for screen magnification and modifiable colors, which are available as test accommodations for candidates with disabilities. It is not used for standard testing. The ZoomText software is not included in the **iBT Bundle Installer**. To install the ZoomText at a CLEP iBT center, use the ZoomText download link on <http://ibt1.ets.org/ibt/info.html>. This version of the ZoomText software requires a computer with Windows 7 (do not install/operate it with Windows 8.1 or 10).

You must download the software installers onto your computer hard drive first and then run them "**As Administrator**". Reboot the computer after the installation is complete.

22. **Software Installation Requirements for Sites Running Unify:**  
The existing iBT test centers must follow instructions provided in the **CLEP Unify Migration Procedures** document to install Unify. ETS will contact test centers regarding when to perform the migration.

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Test centers with computers that do not have current version of iBT installed must visit the Unify download page <http://ibt1.ets.org/ibt/unifyinfo.jsp> to download and install Unify software components. The required components are:

- a) **Microsoft .Net version 4.0 or higher:** All testing computers must have the version 4.0 or higher installed. The Microsoft .Net check link available on the same page can be used to verify that the required version is installed. The download links allows you to install version 4.6.1 from the same page.
- b) **Unify required installers:** Download and install the appropriate Unify software component on the Local Server/Cache Proxy, Admin Station and Workstation computers.  
**Administrative privileges are required to install and operate the software.**
- c) **ZoomText:** ZoomText software is required for screen magnification and modifiable colors, which are available as testing accommodations for candidates with disabilities. It is not used for standard testing. To install the ZoomText software at a CLEP Unify center, use the ZoomText download link on the Unify Test Center Setup page at <https://ibtprod.ets.org/ibt/unifyinfo.jsp>. This version of the ZoomText software is compatible with Windows 7, Windows 8.1 and Windows 10. It requires a graphics card with support for DirectX 11 or above and 1 GB dedicated video memory.
- d) **Adobe® Reader (available at adobe.com):** Adobe® Reader must be installed on the Administrative Station computer to allow viewing and printing of score reports.

23. **Positioning LSCP and Administrative Station:** The administrative station should be located near testing workstations, preferably inside the testing room near the entrance or just outside the entrance. This allows for good flow when staff are checking-in test takers at the admin station and escorting them to their assigned testing stations. It is acceptable for the LSCP to be located in another room, but it should be nearby so the Test Center Administrator can access it easily.

24. **Hardware or Software Changes:** Whenever a testing computer's hardware or software is changed or upgraded, you are required to run the Verification Tool tests and Demo Round Trips at least a day before your next test administration date to verify that everything is working as expected after changes are applied.