

**Support Information:**

Ensure Technologies Technical Support is available to provide any needed assistance. Please contact us at (734) 547-1600 or at [support@ensuretech.com](mailto:support@ensuretech.com).

**Compatibility:**

- ❑ The XyLoc client is compatible with Windows 2000, XP and XPe.
- ❑ XyLoc Client 9.x is to be used with XSS 5.x in an Enterprise environment.
- ❑ XyLoc supports fingerprint authentication (instead of a password) in conjunction with the XyLoc badge (when using "Must Enter Password" mode of authentication).
  - Authentec AES3500 and AES4000 (supported in previous versions of XyLoc)
  - Authentec AES3400 (added in 8.5.0)
  - Digital Persona "UareU" 4000 series sensors (added in 8.5.0)
  - As of XyLoc 8.5.6 the UPEK SDK support was added, which supports all UPEK "touch" and "swipe" sensors.
    - **NOTE:** Not all of the UPEK sensors have been tested by Ensure. Support is based on UPEK SDK documentation.
    - Ensure has specifically tested UPEK TSC2 TouchChip® sensor with Cherry Keyboard Model SPOS
- ❑ XyLoc supports Microsoft Windows Auto Logon functionality
  - To set up this, add a DWORD value "UseAutoLogon" in HKLM\Software\Microsoft\Windows NT\CurrentVersion\Winlogon and set it to 1.
  - This will also require that Microsoft AutoAdminLogon information to be set up in HKLM\Software\Microsoft\Windows NT\CurrentVersion\Winlogon as per Microsoft specifications.
    - "AutoAdminLogon" String value set to 1
    - "DefaultUserName" String value set to the login account name
    - "DefaultPassword" String value set to the login account's password
    - "DefaultDomainName" String value set to the login domain name
  - XyLoc will then automatically lock the workstation immediately upon login to prevent the machine from sitting in a generic password override state.
    - **NOTE:** The automatic lock will only occur if a login is detected under the name defined in the Winlogon settings.
    - If the Auto Logon is interrupted and a user logs in with a different username, XyLoc will NOT automatically lock and will stay in Password Override mode as before.
  - **NOTE:** If the same account defined in the Winlogon registry is logged in manually (instead of letting the Auto Logon do it for you), XyLoc will recognize that as the same account and WILL automatically lock the workstation as well as long as the "UseAutoLogon" value is defined.
  - For more information on Auto Logon, please review the following Microsoft KB Article: <http://support.microsoft.com/kb/310584/en-us>

## General Client Notes:

- ❑ **Custom Logo:** XyLoc can display a customized logo/image at Login or Unlock screens
  - The logo bitmap is in a separate resource (LogoRes.dll), so the logo is independent from the main code.
  - A custom resource dll with a customized logo bitmap can be used in place of the default, or Ensure can create one for a customer as a service.
- ❑ **Remote Desktop:** The following must be considered when using Remote Desktop to gain access to a XyLoc protected workstation.
  - When logging in remotely, the XyLoc client will be in a Password Override mode. When the XyLoc “Lock in Password Override” timer expires, the lock request is ignored and XyLoccon is informed to continue displaying the password Override dialog. The host workstation does not lock.
  - During RDP session, remote Ctrl+Alt+End sequence is ignored and no lock desktop dialog is displayed.
  - Remote Disconnect is **required** after session is complete. Access to the host machine is denied as long as an active Remote session is in place.
- ❑ **Windows XPe Thin Client:** Due to disk space constraints on flash driven devices, like Thin Clients, the available space to install can be limited. It may be necessary to increase the “RAMDISK” allocation on the device to at least 32MB in order to install the XyLoc client. Check with your T.C. documentation or vendor for specific instructions for increasing the RAMDISK space.
- ❑ **Windows Firewall:** If using the XyLoc Security Server software (XSS) the communication to the XyLoc client will be blocked by the firewall, if enabled. An exception must be created for TCP Port 3510, or the firewall must be disabled for communication to be restored.
- ❑ **Windows XP Fast-User Switching:** Microsoft disables Fast-User Switching when XyLoc is installed (reference Microsoft TechNet article [Q294739](#)).
- ❑ **Screen Saver:** The “Password Protect” check box in the Screen Saver will no longer have any effect once XyLoc is installed. A screen saver can still be used, but the password protection feature will no longer work.
- ❑ **Customizable options for command line or “push” installations of the client:** The client has command line installation options that are available to define some specific registry settings:
  - **fpOverrideFilter:** “msiexec /i XyLoc.msi FP\_DLG\_FILTER=1
    - Used to set the flag as to whether or not to prompt a user for fingerprint when performing an override (see specific enhancements below)
  - **FPRType:** “msiexec /i XyLoc.msi FPR\_TYPE=x
    - Used to define the type of Fingerprint reader being used (“x” is the number that corresponds to the fingerprint reader type)
      - 0 = None
      - 1 = Authentec 3500/4000
      - 2 = DP UareU 4000
      - 3 = Authentec 3400
      - 4 = UPEK (all models)

## Enhancements:

**XyLoc version 9.0.0 includes the following enhancements from the previous release (8.5.6):**

- 1) **Enhanced the Lock/Unlock algorithm used in the XyLoc client.**
  - a. Specifically, this is the algorithm that determines when to lock the desktop based on signal strength and in turn, when to unlock based on signal strength.
  - b. This was done to address inconsistencies in the previous algorithm related to lock and unlock range.
  
- 2) **Added a “Lock Delay” feature**
  - a. This will allow a configurable time delay before XyLoc locks the workstation after a Key's signal has gone out of range.
    - i. This can be configured through the XyLoc configuration manager in a Solo installation, or through the XSS in an enterprise installation.
    - ii. The time can be configured in both the user setting and the machine settings and the client will use the larger of the two values.
  - b. LED on the USB lock will turn “orange” during a delay time period.
  - c. If the user's key returned within the unlock signal strength threshold before the delay expires, the lock action is canceled and the LED returns to Green.
  - d. Once the delay is allowed to expire, the system will lock regardless of activity.
  - e. NOTE: The lock delay only applies when a key's signal strength goes out of range. It does not apply for other lock triggers (i.e. Turning off the Key, Manual Lock, Password Override lock timer, etc.)
  
- 3) **Added support for the AD account lockout/disable or Password Expired functionality (requires XSS-AD)**
  - a. Modified Gina to account for AD return error code for Expired, Disabled, and Locked Out accounts so as to not allow the user access to the PC.
  - b. Previously if a user's AD account was locked out or disabled, the user could still authenticate in XyLoc.

**For reference, this client version also includes the following features, changes and bug fixes from earlier releases:**

- 1) **Added Support for UPEK fingerprint readers.**
- 2) **Feature: Modified the ETWSS-SDK so that the same UserID is provided at the “Personal Name” in unique accounts instead of the AD Display Name.**
  - a. This was done to make integration of the WSS-SDK by a third party function the same in a Unique account as it currently does in the Kiosk accounts.
- 3) **Refined determination of Kiosk account vs. Unique account. New algorithm is as follows:**
  - a. if (Registry."computerAccountType" is 2), account is unique
  - b. if (Registry."computerAccountType" is 1), account is kiosk
  - c. (Registry."computerAccountType" is 0 or undefined), account is mixed, do more checks
  - d. Try reading the LBE. If we can't read the LBE, the account is unique
  - e. if (Registry.XssType is "AD") then
    - i. if (user has an Entrust Profile), the account is unique
    - ii. else the account is kiosk'
  - f. else
    - i. if the user name is repeated in the LBE, the account is unique
    - ii. else the account is kiosk
- 4) **Prevent duplicate “stale” records in the local database from interfering with XyLoc login.**
  - a. Issue: previously in a unique account environment, if a legacy record was still in the local database (i.e. due to KeyID change for said user) for the user, the XyLoc system would treat the user as a Kiosk user, and thus changing the rules for password authentication and in turn preventing the user from gaining access.
  - b. Solution: To change the rules so they are the same for both kiosk and unique, and making the duplicate record irrelevant.
- 5) **Fixed a bug that caused the XyLocIcon to not display intermittently or sometimes to display duplicate icons.**
- 6) **Increased the vertical length of the user listbox to accommodate up to 10 names**
- 7) **Fixed issue with XyLoc client installation and Internet Explorer 7 on XPe Thin Clients**
  - a. Removed file PSAPI.DLL from installation package
  - b. This file was installed as part of the Windows package and was being overwritten by the XyLoc installer.
  - c. The existing file was used by IE7 and when overwritten caused IE7 to no longer run.
  - d. This file was used by a legacy feature that is no longer used by XyLoc, and therefore was simply removed from the install package.
- 8) **During installation copy the current Gina from registry key “winlogon” and save in Ensure registry key “Gina” and restore during the uninstall process**
  - a. This allows etGina01 to be the topmost Gina while preserving the Gina chain
- 9) **Fixed an issue with the Password Override where the dialog displays indefinitely after a character is entered**
  - a. This has been modified so that the dialog will time-out following 15 seconds of inactivity.

- 10) **Allow setting authentication timer interval via Registry**
  - a. Provides a mechanism by which the user may control the XyLoc list box update frequency during authentication.
  - b. Use Case: When the user either logs on or unlocks via XyLoc and there is a list of nearby XyLoc users that appear in the authentication list box causing the list to refresh quickly making it difficult to select the desired name.
  - c. Location: HKLM\Software\Ensure Technologies\Gina\LockDlgUpdateIntervalMSec
  - d. Type: DWORD
  - e. Value:
    - i. 0 = off (meaning default)
    - ii. Permissible range (decimal) = 1-30000 (desired time in Milliseconds)
  - f. **NOTE:** This has a default value of 250ms if it is not defined in the registry however the installation package sets the registry value to 500ms.
- 11) **Prevent premature closing of password override dialog box should the count of badges detected change**
  - a. Gina now closes the box after the prescribed time (from existing registry setting "DialogTimeout") elapses
- 12) **Increased the maximum size of exception.txt file to 1 MB**
- 13) **Fixed an issue with an Interactive Logon message box**
  - a. In some cases, when enable the message box would continue to flicker until <Enter> Key was used (selecting the "OK" button on the message box).
- 14) **Allow detection of badge numbers less than 4000; this is most relevant in the case of "Passive Prox" badges**
- 15) **Modified the installation script and service to leave the AutoAdminLogon registry value (for winlogon) intact.**
- 16) **Fixed an issue where a message appeared erroneously, stating the key could not be found and to check the battery.**
- 17) **Enhanced local database handling of large user databases.**
  - a. Add "maximum key list" counter in the registry with range from 1-1000 (default.eq.1000)
    - i. HKLM\SOFTWARE\Ensure Technologies\XyLoc - Serial Version (Multi key)
    - ii. Value: maxKeyList
    - iii. Type: DWORD
    - iv. Data: 000003e8 (Decimal = 1000)
  - b. Add debug registry key to log current key counts
    - i. HKLM\SOFTWARE\Ensure Technologies\XyLoc - Serial Version (Multi key)
    - ii. Value: xylocLogMode
    - iii. Type: DWORD
    - iv. Data: 00000001
- 18) **Modified the handling of Fingerprints in Password Override to allow a customer to turn off the Fingerprint ability in override.**
  - a. New registry value must be configured;
    - i. HKLM\SOFTWARE\Ensure Technologies\XylocFPR]
    - ii. Value: fpOverrideFilter
    - iii. Type: DWORD
    - iv. Data:
      1. 1 = FP is disabled for override
      2. 0 = FP is enabled for override

- b. This is set to “1” by default and is also added as an argument to the MSIEXEC command line install
      - i. “msiexec /i xyloc.msi FP\_DLG\_FILTER=1”
- 19) **Fixed an error message stating “XyLoc Service not Started. Please wait” that was displayed at boot up on Windows XP.**
- 20) **Add a series of enhancements to XyLocAIT to correct or address reported script errors**
- 21) **Added Low Battery warning (Requires 8.5.0 or later)**
- a. If status packet is detected below the battery voltage threshold the existing Status pop-up message from the system tray will show a “Low Battery” message in red.
  - b. Once the appropriate status packet with a voltage reading back above the threshold is received, the notification will disappear.
- 22) **Modified the client to include additional information in the Key Lookup messaging to the XSS to differentiate between “new” key lookups and lookups for “existing” keys.**
- a. “New” key lookups are for keys that do not currently have a record in the local XyLoc database.
  - b. This additional detail will be used by an upcoming release of the XSS (version 4.2.8 or greater) to prioritize the “new” key lookups to ensure the fastest possible response vs. updates to existing records.
- 23) **Modified the functionality of the “XSSLookupRetry” time setting in the system registry to reduce the number of redundant lookups to the XSS.**
- a. Previously this timer was conditional on the key being in continuous communication to the lock.
  - b. Regardless of what the timer was set for, if the key went “out of range” (meaning the power dropping below a static threshold as defined in code or was turned off or dropped out entirely) and then came back in range, the timer was reset and an immediate lookup was performed again.
  - c. With this modification, the timer is static. Once a lookup is performed, another lookup is not done until at least the specified time has elapsed, regardless of key activity and signal strength
  - d. This time uses the same DWORD value in the Registry as before under HKLM\Software\Ensure Technologies\XyLoc - Serial Version (Multi key)\XSSLookupRetry and is defined in seconds (in decimal).
- 24) **Includes additional messaging on the override screen to remind the user to put their name in parenthesis if they are unlocking in the kiosk.**
- a. This process is only valid when using XSS-AD, so the feature checks the “XSSType” registry key to verify that the AD version is being used.
  - b. If this is set to SQL or not defined at all, the extra messaging will not appear.
- 25) **Added the ability to change the timeout on the password field at login and unlock.**
- a. When a user selects their name at the login/unlock screen, they have 5 seconds to start typing or the field times out and the screen refreshes back to the list of keys. This time is now adjustable with a registry value.
    - i. Value Name: DialogTimeout
    - ii. Type: DWORD
  - b. The time is in seconds, and the default is “5” (in Decimal)
  - c. **NOTE:** The longer the time, the longer the user will have to wait if the wrong name is selected before the list returns to where they can select the correct name. However,

there is still the “Refresh” button on the screen that can be used and not wait for the timeout.

**26) Added additional debug logging to trace WSS-SDK issues.**

- a. There are two registry values that can be created in the XyLoc registry for the ETWSS debug logging.
  - i. ETWSSDebugLogging
    1. Type: DWORD
    2. Value: 1 – turn on debug logging, 0 – turn off debug logging
  - ii. ETWSSLogPath
    1. Type: String
    2. Value: Specify the full path for the debug log, for example, “C:\Log”
- b. The path specified in the ETWSSLogPath must have appropriate permission for the log to be created/written.
- c. If the ETWSSLogPath registry value is missing, the log file’s default path is the common application data folder: C:\Documents and Settings\All Users\Application Data

**27) Added a registry value to specify the path for the Exception.txt file.**

- a. This is so that it can be created in a folder which the necessary XyLoc processes have permission to write debug logging to the exception.txt file.
- b. Name: ExceptionLogPath
- c. Type: String
- d. Value: Specify the full path for the debug log, for example, “C:\Log”
- e. If this registry value is missing, the default path is XyLoc installed folder (i.e. C:\Program Files\Ensure Technologies\XyLoc)
- f.

**28) Created option to enable/disable scripts to run while in Password Override Mode**

- a. Added the registry setting ‘RunScriptsInPwdOverride’ that controls whether or not scripts will run while in password override mode.
  - i. The default setting of ‘RunScriptsInPwdOverride’ is ‘1’, indicating that All scripts will run while in password override mode.
  - ii. To turn them off, change the setting to ‘0’ and restart the PC.
- b. **NOTE:** For security reasons, the logoff scripts always run regardless of the registry setting.

**29) Added registry setting to hide the XyLoc status popup.**

- a. A registry entry can be created to disable the XyLoc Status Popup on the screen:
  - i. The registry value is “HideXyLocStatus”.
  - ii. Type: DWORD
  - iii. To **not** show the status, set this value to 1. If it is set to 0, the status will continue to display.
- b. **NOTE:** This registry entry is not created by default and will need to be created manually.

**30) User Configurable display position for the XyLoc status and Lock button**

- a. The offset is relative to the lower right corner, so when a value of 100 is specified, it means 100 pixels from the lower right corner.
- b. For the XyLoc Status, modify the registry value “StatusOffset”. The default is 0.
- c. For the Lock button, modify the registry value “LockButtonOffset”. The default is 50.
- d. **NOTE:** These values are Decimal values (not Hexadecimal) in the registry.
- e. The changes will not take effect until the logoff and logon again.

## ***Revision History:***

<b>Revision</b>	<b>Date</b>	<b>Description</b>	<b>Author</b>
9.0.0	07-31-09	Created	RS