




ALTOS T420 Thin Client

User Guide

Notes, cautions, and warnings

 **NOTE:** A NOTE indicates important information that helps you make better use of your product.

 **CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

 **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

1. Welcome to ALTOS T420 thin client
2. Chassis overview
3. Major components of your thin client
4. Supported system peripherals for T420
5. Setting up the thin client
6. Setting up the thin client
7. Before working on your thin client
8. After working on your thin client
9. Disassemble components
10. Technical specifications
11. ALTOS T420 thin client on Windows 10 IoT
12. BIOS overview

Welcome to ALTOS T420 thin client

ALTOS T420 thin client is a high-performance thin client with quad core processors, designed for secure, and easy-to-manage virtual desktop environments. The thin client supports TOS3000 and Windows 10 IoT Enterprise operating systems.

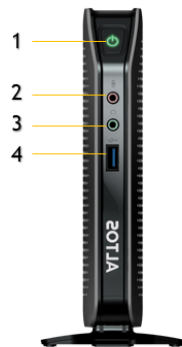
ALTOS T420 thin client is T- series thin client which offers the following:

- Intel Bay trail Dual or Quad Core processor.
- Intel HD Graphics
- Wi-Fi 802.11 ac, Wi-Fi 802.11a / b / g / n
- Common and external USB-based card reader (optional).

Chassis overview

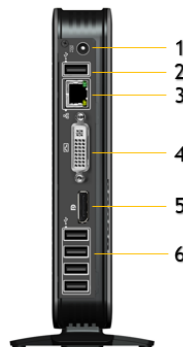
This section explains the front and rear views of ALTOS T420 thin client.

Front Side



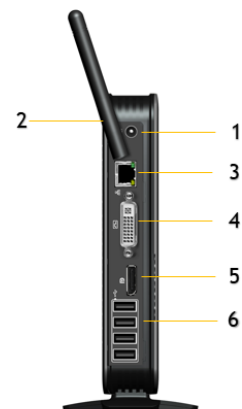
1. Power Button
2. Mic-in
3. Line-out
4. DVI-I Port

Rear Side (without wifi)



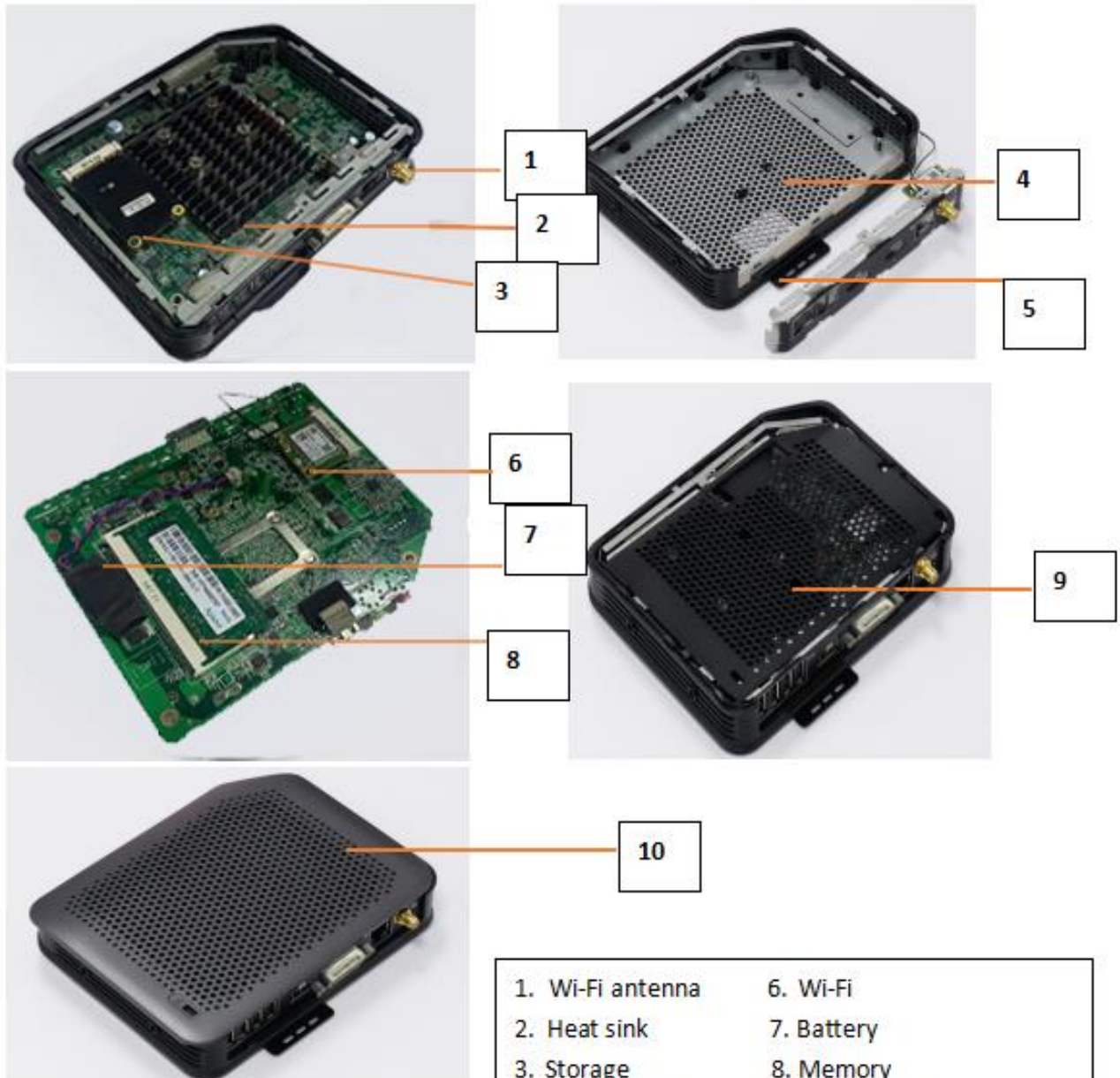
1. DC 12v input
2. USB 2.0 Port
3. RJ-45
4. DVI-I Port
5. DP Port
6. USB 2.0 Ports

Rear Side (with wifi)



1. DC 12v input
2. Wi-Fi Antenna
3. RJ-45
4. DVI-I Port
5. DP Port
6. USB 2.0 Ports

Major components of your thin client



1. Wi-Fi antenna

2. Heat sink

3. Storage

4. Rear board

5. Chassis case

6. Wi-Fi

7. Battery

8. Memory

9. Inner cover

10. Chassis cover

Supported system peripherals for T420 thin client

This section contains details on the supported system peripherals that are shipped as part of T420 thin client.

Topics:

Supported mounts

This section contains details on the supported mounts for ALTOS T420 thin client.

- VESA Wall mount

NOTE: Vertical stand will be shipped as part of ALTOS T420 thin client.

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Supported system peripherals

This section contains details on the supported system peripherals for ALTOS T420 thin client.

- Logitech H340 USB headset
- ALTOS Keyboard and mouse
- SCR 100 Card Reader

Setting up the thin client

This section explains how to setup the ALTOS T420 thin client on premise.

The ALTOS T420 thin client can be setup with any one of the operating systems at your work place:

- TOS3000
- Windows 10 IoT Enterprise

To set up the ALTOS T thin client, do the following:

1. Install the stand.

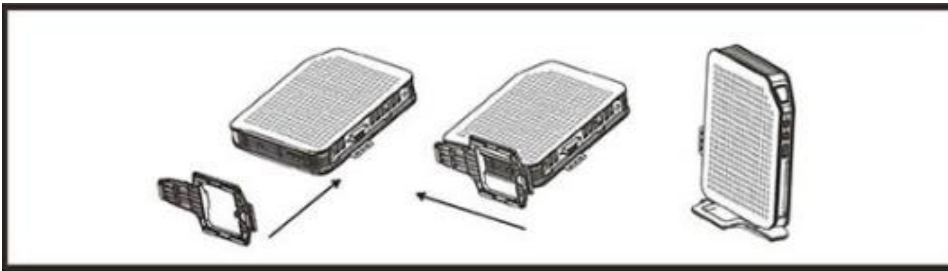


Figure 2. Installing the stand

2. Connect the power source

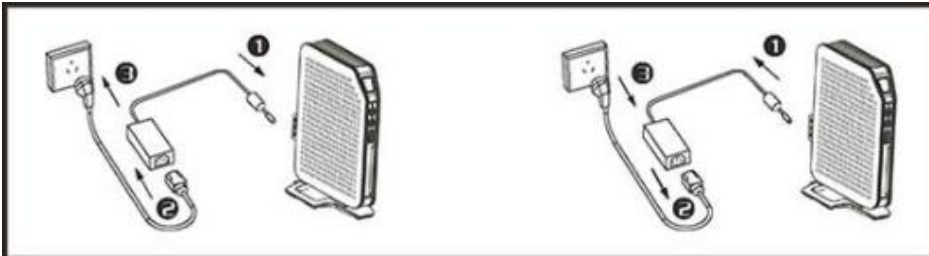
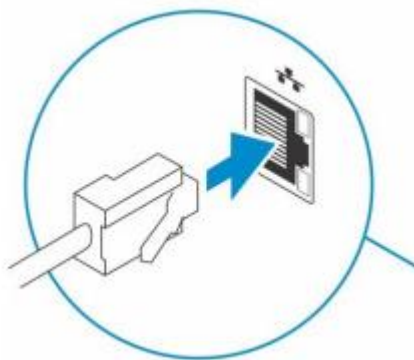


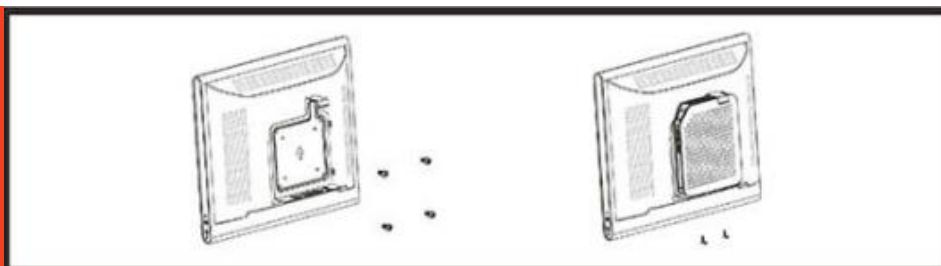
Figure 3. Installing keyboard and mouse

3. Connect the network cable.

Figure 4. Installing network cable



4. Attached thin client behind of the monitor, and get it fasten



Before working on your thin client

You must perform the below steps before you work on the thin client.

1. Save and close all open files and exit all open applications.
2. Click Start > Power > Shut down to shut down your thin client.
3. Disconnect your thin client and all the attached devices from their electrical outlets.
4. Disconnect all network cables from your thin client.
5. Disconnect all attached devices and peripherals, such as keyboard, mouse, and monitor, from your thin client.

After working on your thin client

NOTE: You must not leave the stray or loose the screws inside your thin client. This may damage your thin client.

1. Reinstall all the screws and ensure that no stray screws remain inside your thin client.
2. Connect any external devices, peripherals, or cables you removed before working on your thin client.
3. Connect your thin client and all attached devices to their electrical outlets.
4. Turn on your thin client.

Disassemble components

This section provides detailed information about how to remove or install the chassis and memory module of your thin client.

Topics:

Chassis cover

Chassis cover provides security for the entire thin client and also helps in maintaining proper air flow inside the thin client.

Remove the chassis cover and inner cover

Procedure

1. Place the thin client on a horizontal position, then loosen the red-marked screw, then take it away



2. Align with the arrow marked to slide down the cover, then take the cover off



3. Loosen the marked screw, then take screws away from the inner cover



4. Align with the arrow marked to move the inner cover, and then take it out from the client



Wi-Fi module

A Wi-Fi module is a moveable circuit board having wireless signal involved, that is fasten on the surface of main board

Remove the Wi-Fi module

Prerequisites

Remove the **chassis cover**.

Remove the **inner cover**

Procedure

1. Loosen that screws that fasten the Wi-Fi adaptor, and then take out the screw



2. Loosen the antenna ; then take it out from rear board



Memory module

A memory module is a circuit board that contains DRAM-integrated circuits that are installed into the memory slot on a system board.

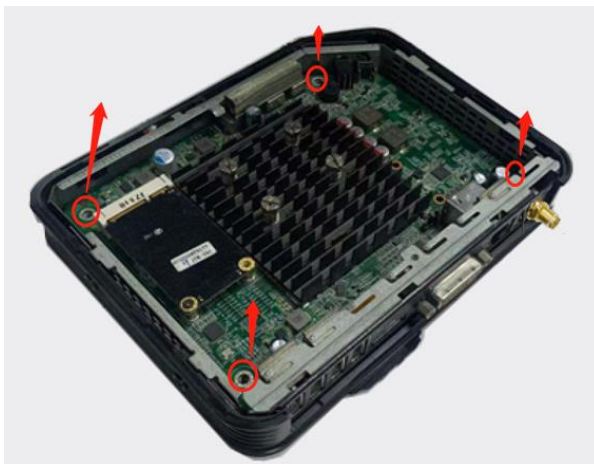
Remove the memory module

Prerequisites

Remove the **chassis cover**

Remove the **inner cover**

1. Loose the screws Remove the all screws, then take the board out from the case



2. Turn around the board, and memory slot can be seen on the back



3. Stretch the both side of memory slot to loosen it ,so that memory can be taken out from slot



Storage module

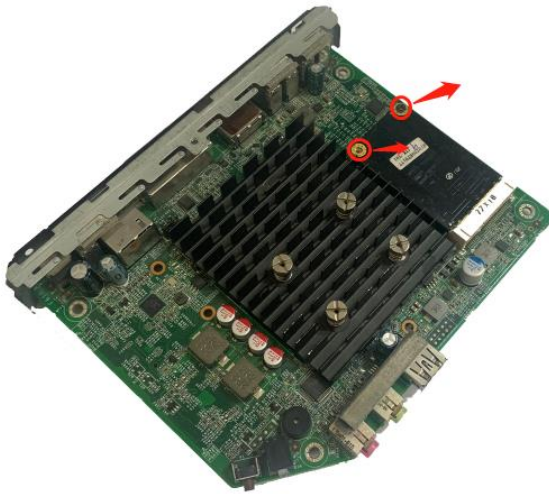
Prerequisites

Remove the **chassis cover**

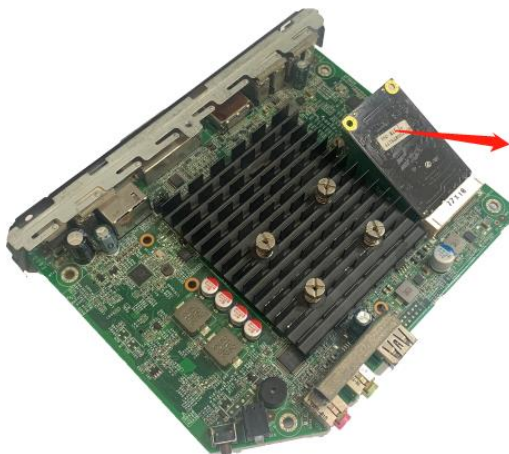
Remove the **inner cover**

Turn the board **to other side**

1. Loose the screw which tighten the storage with mSATA slot



2. After screw removed, storage chip would be risen-up, then take it out from the slot



Heat sink module

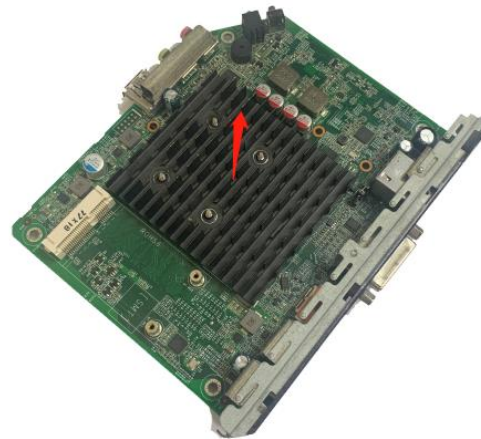
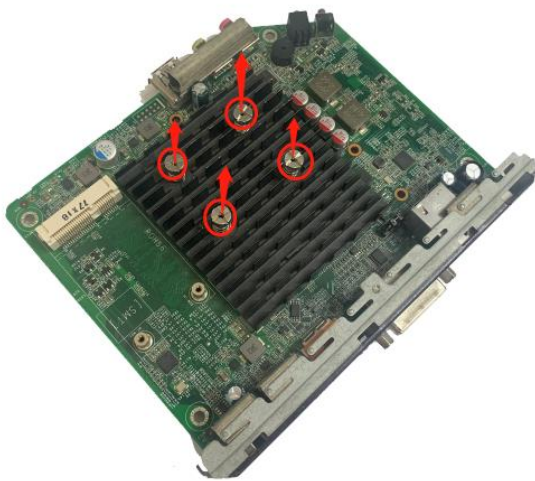
Prerequisites

Remove the **chassis cover**

Remove the **inner cover**

Turn the board **to other side**

1. Loosen the screws on head sink, then move sink away from board



2. Turn the board to other side, take out the hooks from the back



Technical specifications

This section provides the technical specifications of the T420 thin client features.

System specification

Altos T420		Specification
CPU	Processor	Intel SOC J1900 (Quad Core 2.0Ghz)
	Number of processors	1
Memory	RAM	2GB DDR3 (Up to 8GB)
Storage	SSD	8GB (Up to 128GB)
Display Port	DVI-I	1 (1920 x 1200@ 60Hz) ¹
	DP	1 (2560 x 1600@ 60Hz)
I/O ports	Front I/O ports	<ul style="list-style-type: none"> • 1 USB 3.0 • 1 Audio (In/Out) • 1 Power Button
	Rear I/O ports	<ul style="list-style-type: none"> • 1 DVI-I port • 1 DP port • 1 GbE LAN • 5 USB 2.0² • 1 DC 12v Input
Network	LAN	1 (10/100/1000 Base-T Fast Ethernet, RJ-45)
	WLAN	Optional Mini PCI-E wireless (only 4 USB2.0 ports at the rear in such case)
Management	ATCM	Altos Thin-Client Management
Power supply	Adapter	Worldwide auto-sensing 100-240V AC, 50/60 Hz, 12V/3A DC
	Power Consumption	Less than 10W
Form factor	Dimension (D x W x H)	131mm x 31.5mm x 167mm (stand excluded) 131mm x 76mm x 178mm (stand included)
	Net Weight	0.55 kg
Mounting	Kensington Lock	Built-in Kensington security slot
	VESA Bracket	VESA Mounting Kit
Cooling		Fan-less Convection
OS		Linux (by Default)
		W10 IOT (Optional)
Protocols		VMware View
		Citrix Receiver
		RDP client
Certification		CE/FCC/VMware READY
Warranty		3 Years

Note 1: DVI to VGA adapter included

Note 2: To support WiFi antenna, USB 2.0 ports at rear will become 4 ports

T420 thin client configuration on TOS

This section provides the instructions on how to easily configure and efficiently manage ALTOS T420 thin client that runs on TOS3000.

Topics:

- Introduction
- Configure OS instruction

Introduction

Thin clients running ALTOS TOS 3000 are designed solely for optimal thin client security and performance. These efficient purpose-built thin clients are virus and malware resistant, and offer ultra-fast access to applications, files and network resources within Citrix, Microsoft, and VMware.

Configure OS instruction

How to setup a network IP

1. Go to **Settings>Network**
2. Ensure Network state is **ON**, turn it on if it was OFF
3. Fill in **IP address**, **Subnet mask** and **Default gateway** if specific IP address is required
4. Also, setup **DNS servers**
5. Click **OK** to save settings

How to connect to a wireless hot spot

1. Go to **Settings>Network**
2. Select **Network card>Wireless adapter**
3. Click **Scan** to search available hotpot
4. Select contain SSID from **Wireless List**
5. Input **Network key** for security authentication if required
6. Tick mark would be shown behind selected SSID if connected in success

How to setup Language and keyboard

1. Go to **Settings>Language &Keyboard**
2. Select relevant **Display Language**, **Keyboard layout** and **Keyboard** model from drop-down box

How to setup time and synchronize time

1. Go to **Settings>Date & Time**
2. Setup corresponding time at **System Time**
3. Turn on **Time synchronization**
4. Fill in **Time server** address and assign **synchronization rate**
5. Click **Sync Now**

How to change Management Mode Password

1. Go to **Settings>Management Mode Password**
2. Fill in **Old password** and **New password**

3. Retype **Confirm password**
4. Click **OK** to save all settings

How to import certificate

1. Click **Settings>Certificate>Certificate location>USB**
2. Copy certificate to a USB drive, then attach USB drive with thin client
3. Choose certificate from USB drive, click **Import**
4. Certificate can be viewed and browsed after **Scan**

Network condition inspection

1. Click **Settings>Network Tools**
2. Type in certain IP address and number for request sending
3. Click **Ping** to start checking
4. Network condition is ok if statistics for round trip and transmission shown
5. Click **OK** to save all settings

Dual display settings

1. Ensure a VGA monitor and a HDMI monitor ready
2. Connect VGA monitor to VGA port, and connect HDMI monitor to HDMI port
3. Click **Settings>Personalization>Display**
4. Choose **Display Mode> Dual Display**
5. Choose which monitor (VGA or HDMI) is primary monitor at **Main display**
6. Setup current resolution rate at **Resolution**
7. Click **OK** to save settings

How to connect to RDP session

1. Click left down Gear icon to enter to setting
2. Click **Management Model**, then fill in security password "Admin"
3. Go to **Cloud Service > Server address**, type in server Ip address
4. Turn on other features if needed at **Experience, Advanced and Device Redirection**
5. Click **OK** left down the corner to save settings
6. Fill in username, password and Domain at login menu, click **Log On** to start connecting

How to connect to Citrix desktop server

1. Click left down Gear icon to enter to setting
2. Click **Management Model**, then fill in security password "Admin"
3. Go to **Cloud Service > Connection type >Citrix Receiver**,
4. Drop down index **Authentication mode**, select appropriated mode; then type in server Ip address
5. Turn on **other feature** if needed at **Device Redirection**, as well as at **Options**
6. Click **OK** left down the corner to save settings
7. Fill in username, password and Domain at login menu, click **Log On** to start connecting

How to connect to VMware view server

1. Click left down Gear icon to enter to setting
2. Click **Management Model**, then fill in security password "Admin"
3. Go to **Cloud Service > Connection type >VMware Horizon View**
4. Choose **Authentication mode**, select appropriated mode; then type in server Ip address
5. Set up **Security and Protocol** in accord with what are configuration done in server
6. Turn on feature at **Device Redirection, Experience and Advanced**
7. Click **OK** left down the corner to save settings
8. Fill in username, password and Domain at login menu, click **Log On** to start connecting

ALTOS T420 thin client on Windows 10 IoT

This section provides the instructions on how to easily configure and efficiently manage ALTOS T420 thin client that runs on Windows 10 IoT Enterprise.

Topics:

- [Introduction](#)
- [Before configuring your thin clients](#)
- [Automatic and manual login](#)
- [Enable auto login](#)
- [Keyboard and region settings](#)
- [Devices and printers](#)

Introduction

The thin clients running Windows 10 IoT Enterprise provide access to applications, files, and network resources. The applications and files are made available on machines hosting Citrix Receiver, Microsoft Remote Desktop Connection, VMware Horizon client session,

Other locally installed software permits remote administration of the thin clients and provides local maintenance functions. More add-ons are available that support a wide range of specialty peripherals and features for environments that require with 64-bit Windows compatibility.

Before configuring your thin clients

Before you configure your thin clients, ensure that you configure Unified Write Filter that protect your thin clients. The Unified Write Filter Utility prevents undesired flash memory writes

However, there are instances where administrators can retain the changed configurations after you log out and restart the thin client.

Automatic and manual login

What you see when a thin client turns on or reboots depends on the administrator's configuration. After creating a user account, an administrator can configure the account to log in automatically or manually with user credentials. Ensure that you disable the Unified Write Filter (UWF) before you change a password on the thin client, and then enable UWF after your change. To change the password, press Ctrl+Alt+Delete, and then click Change a password. However, this feature is not applicable for User accounts.

CAUTION:

CAUTION: Please follow proper write filter and Windows Page File usage instructions at all times. Such instructions include making sure that the write filter is enabled during regular use and is disabled only temporarily by an administrator when required for image upgrades, applying security patches, registry changes and application installation. The write filter should be re-enabled as soon as such tasks are completed. Such instructions further include never enabling the Windows Page File feature during regular use of the thin client.

When you start the thin client, you will automatically log in to the user desktop by default.

NOTE: The Windows icon on the taskbar is the start menu button.

To log in as a different user or administrator:

1. Go to Start > User icon > Sign Out to log out from the current desktop.
2. Click anywhere on the lock screen to view the login window.
3. You can view the user accounts list on the screen. Click the preferred user account and then enter the login credentials.
 - Administrators—the default user name is Admin and the default case-sensitive password is Admin.
 - Users—the default user name is User and default case-sensitive password is ALTOS (if it has).

Enabling auto logon

Automatic logon to a user desktop is enabled by default on the thin client device. To enable or disable auto logon, and to change the default user name, password, and domain for a thin client, use the auto logon feature.

To enable / disable auto logon:

1. Log in as an administrator.
2. Go to Start > Run CMD> Register Editor> Winlogon>AutoAdminLogon>1
The ALTOS Thin Client Application window is displayed.
3. To start with the admin logon page, enter Admin or User in the Default User Name field.


Keyboard and region settings

To select your regional formats including keyboard and the Windows display languages, use the Region dialog box. To select your regional formats, do the following:

1. Log in as an administrator.
2. Go to Start > Control Panel > Clock and Region.
3. The Clock and Region dialog box is displayed.
4. After settings done click Apply, and then click OK.

Devices and printers

To add devices and printers, use the Devices and Printers window.

 **CAUTION:** To refrain from cleaning up your settings, disable / enable the Unified Write Filter (UWF)

To add a device or a printer to the thin client, do the following:

1. Log in as an administrator.
2. Go to Start > Control Panel > Devices and Printers. The Devices and Printers window is displayed.

Adding printers

To add a printer to the thin client:

1. Click the Devices and Printers icon in Control Panel. (“View by small icons” should be set firstly)
2. The Devices and Printers window is displayed.
3. To open and use the Add a Printer wizard, click Add a Printer. The Add a Printer wizard session starts.

Configuring multi-monitor display

You can use the Screen Resolution window to configure dual monitor settings on your dual-monitor capable thin client device. To open the Screen Resolution window, do the following:

1. Log in as an administrator.
2. Right click mouse > Display settings > Display > Multiple displays

BIOS overview

Topics:

- Accessing thin client BIOS settings
- System Setup overview
- Boot Sequence
- Key functions

Accessing thin client BIOS settings

This section describes about the ALTOS thin client BIOS settings. While starting a thin client, a logo is displayed for a short period.

1. During start-up, press the F2 key
2. The BIOS settings dialog box is displayed.
3. Use the System Setup settings to change the BIOS settings.

NOTE: There is an option to restore BIOS defaults


BIOS settings > Restore Defaults

- To access the boot menu during start-up, press the F12 key. Use the Boot Selection menu to select

System Setup overview

System Setup allows you to:

- Change the system configuration information after you add, change, or remove any hardware in your thin client.
- Set or change a user-selectable option such as the user password.
- Read the current amount of memory or set the type of hard drive installed.

 **CAUTION:** Unless you are an expert thin client user, do not change the settings for this program. Certain changes can cause your thin client to work incorrectly.

Boot Sequence

Boot Sequence allows you to bypass the System Setup-defined boot device order and boot directly to a specific device. During the Power-on Self-Test (POST), when the ALTOS logo appears you can:

- Access System Setup by pressing the F2 key
- BIOS settings > Boot > Boot Option Priorities

Keys Functions

NOTE: For most of the System Setup options, changes that you make are recorded but do not take effect until you restart the system.

Figure 13. Keys Functions

Key	Functions
↑ ↓ → ←	Move
Enter	Select
+/-	Value
ESC	Exit
F1	General Help
F5	Previous Values
F9	Optimized Defaults
F10	Save & Exit Setup
<K>	Scroll help area upwards
<M>	Scroll help area downwards