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TinyTERM Enterprise for Android User Guide

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Introduction

TinyTERM Enterprise for Android provides secure SSH and telnet access using exact terminal emulation for 21 terminal types, including IBM TN3270E, TN5250, VT420 and Wyse 50/60. It combines second-generation secure terminal emulation with a highly configurable industrial web browser to allow creation and deployment of purpose-based devices requiring access to legacy hosts or HTML5/Javascript applications in modern web environments.

TinyTERM Enterprise's Industrial Browser includes comprehensive scanning capabilities for scanning bar codes into input fields on web pages. Full compatibility with Android's browser with extensions for locking down the user interface allows deployment of existing web applications into purposed environments.

TinyTERM Enterprise provides enterprise deployment capabilities including configuration push, user interface lockdown and extensive configuration import/export management, and is designed for corporate IT departments to create purposed solutions for non-technical users or uses where pre-configured automated application startup is required.

Gestures

TinyTERM Enterprise for Android supports several gestures. These are designed to make TinyTERM easier to use, whether by offering quick access to commonly used features, or by allowing you to customize TinyTERM's appearance and behavior.

Emulator Screen

All these operations take place in the emulation or browser portion of the screen. The keyboard area is reserved for key operations, even when it's transparent.

- **Tap and drag**
Holding and moving a single finger on the screen moves around the view port. If the text is minimized, then it will all fit on screen, so no dragging is needed.
- **Pinch zoom**
This resizes the font between full size and fitting all text in the view port. Any size in between is available.

Configure Button

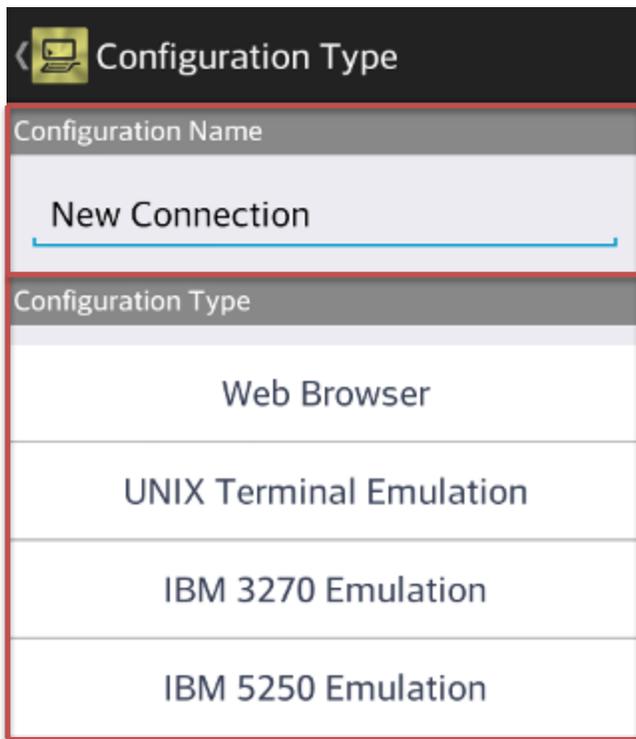


The Configure button at top right of the emulator screen opens the list of configurations. This also provides access to the [Global Options](#).

Using TinyTERM Enterprise for Android

Create a New Configuration

Creating a new configuration is quick and easy in TinyTERM Enterprise for Android.



To get started, touch the **Add New Connection** button in the main screen. This brings up the **New Connection** screen.

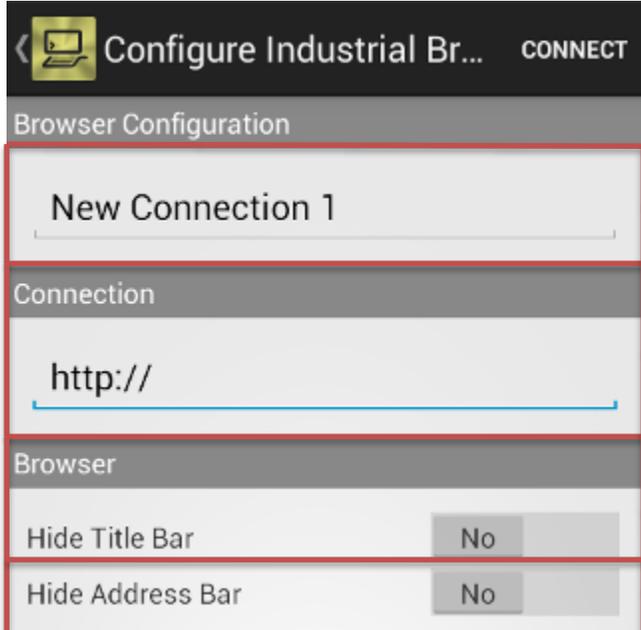
Enter a **Name** that describes the connection. This is how you'll identify the particular configuration in the list of connections.

Then select either **Web Browser** for an industrial browser connection, or one of the terminal emulation options for a terminal connection.

Create a Web Browser Configuration

Once you've selected a **Web Browser** configuration type, you'll need the connection specifics. At a minimum, you need the **Hostname** or IP address of the Web server.

Connection



The screenshot shows the 'Configure Industrial Browser' screen. At the top, there is a back arrow, a laptop icon, the text 'Configure Industrial Br...', and a 'CONNECT' button. Below this is a 'Browser Configuration' header. The main content area is divided into sections: 'New Connection 1' (with a text input field), 'Connection' (with a text input field containing 'http://'), and 'Browser' (with two toggle switches: 'Hide Title Bar' and 'Hide Address Bar', both currently set to 'No').

Enter a name in the **Browser Configuration** field

Enter the URL in the **Connection** field. For secure connections, change *http://* to *https://*.

Hide Title Bar prevents the TinyTERM title bar from displaying, which provides more screen space. When this is on, the title bar can be accessed by tapping the faded down arrow at top right of the browser, just below the Android device's battery icon.

Hide Address Bar hides the URL while in the browser. The URL is normally displayed in the Title Bar. With this switch on, it does not display. If **Hide Title Bar** is set, this switch has no immediate effect, as the URL is automatically hidden in that case.

Saving the Configuration



The screenshot shows the top portion of the 'Configure Industrial Browser' screen. A back arrow and a laptop icon are on the left, followed by the text 'Configure Industrial Br...'. On the right, there is a 'CONNECT' button. The 'Browser Configuration' header is visible below.

When finished, touch the back arrow to save the new configuration and return to the main screen.

Or touch the **Connect** button to save the configuration and connect immediately.

Once a configuration is saved, you can launch it by selecting the name in the list of configurations.

Create a UNIX Terminal Emulation Configuration

To configure a UNIX terminal emulation session, you'll need the connection specifics. At a minimum, you need the **Hostname** or IP address of the server, and the communications **Protocol** and **Emulation** the server requires.

There are no generic settings that will work for these options. Each is specific to a given server, as determined by the server administrator.

Connection

Configuration Details CONNECT

UNIX Emulation Configuration

New Connection

Connection

Hostname

23

Protocol

Telnet SSH

Username

Auto Connect OFF

Auto Reconnect OFF

Prevent Disconnect OFF

Enter a **Name** for the connection.

Then enter the **Hostname** and select the **Protocol**. The default **Port** is set to 23, the default for telnet. The default for SSH is port 22. On some systems, these values are different from the defaults as an added security measure. In that case, you'll need to enter the correct **Port** as well.

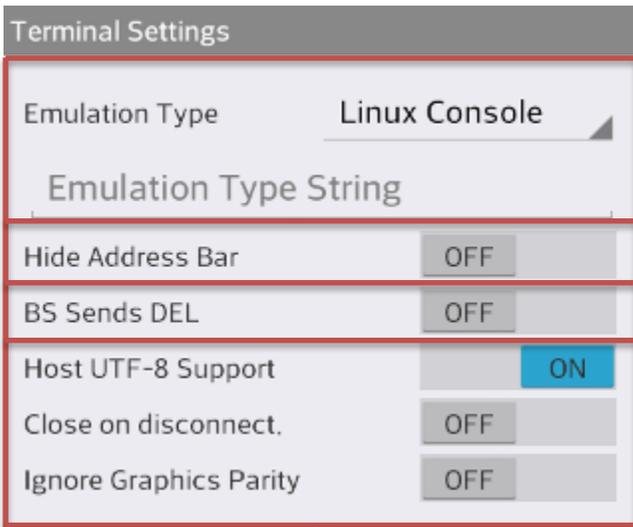
The **Username** is required for SSH connections. It is not used by the telnet protocol.

Auto Connect will cause this connection to start automatically when TinyTERM is launched. Only one session may have **Auto Connect** enabled. Turning it on for one session automatically turns it off in all others.

Auto Reconnect will cause this session to connect again automatically after it is disconnected.

Prevent Disconnect disables the **STOP** button for this session. To disconnect, the user must log out of the host system.

Terminal Emulator Settings



Select the specific **Emulation Type** required by your host system and application. The optional **Emulation Type String** causes TinyTERM to report a terminal type other than the one selected. More information on that feature is in our [Knowledge Base](#).

Hide Address Bar prevents the address bar from showing in the emulator session.

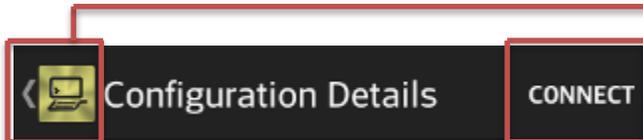
BS Sends DEL determines the action of the ⌘ key. When off, the key sends a backspace (ASCII 8). The **ON** position causes it to send a Delete character instead (ASCII 127).

Host UTF-8 Support determines whether or not TinyTERM expects [UTF-8 characters](#) from the host.

Close On Disconnect causes TinyTERM to close when this session is disconnected.

Ignore Graphics Parity forces all incoming data to be read as seven-bit ASCII.

Saving the Configuration



When finished, touch the back arrow to save the new configuration and return to the main screen.

Or touch the **Connect** button to save the configuration and connect immediately.

Once a configuration is saved, you can launch it by selecting the name in the list of configurations.

Create an IBM 3270 Emulation Configuration

After selecting a new 3270 terminal emulation configuration, you'll need the connection specifics. At a minimum, you need the **Hostname** or IP address of the server, and the communications **Protocol** and **Emulation** the server requires.

There are no generic settings that will work for these options. Each is specific to a given server, as determined by the server administrator.

Connection

The screenshot shows the 'Configuration Details' screen for an IBM 3270 Configuration. At the top, there is a 'CONNECT' button. Below it, the title 'IBM 3270 Configuration' is displayed. A red box highlights the 'New Connection' field, which is currently empty. Below this, another red box highlights the 'Connection' section, which includes a 'Hostname' field with the value '23', a 'Protocol' section with radio buttons for 'Telnet' (selected), 'STARTTLS', and 'SSL/TLS', and three toggle switches for 'Auto Connect', 'Auto Reconnect', and 'Prevent Disconnect', all of which are currently set to 'OFF'.

First, enter a **Name** for the connection.

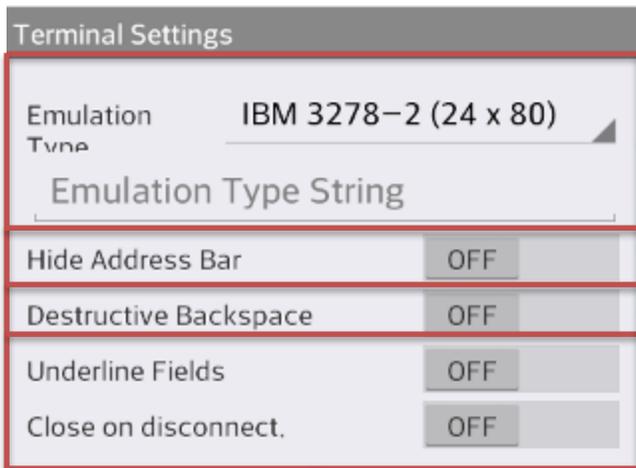
Then enter the **Hostname** and select the **Protocol**. The default **Port** is set to 23. On some systems, this value is different as an added security measure. In that case, you'll need to enter the correct **Port** as well. The **LU Name** is optional.

Auto Connect will cause this connection to start automatically when TinyTERM is launched. Only one session may have **Auto Connect** enabled. Turning it on for one session automatically turns it off in all others.

Auto Reconnect will cause this session to connect again automatically after it is disconnected.

Prevent Disconnect disables the **STOP** button for this session. To disconnect, the user must log out of the host system.

Terminal Emulator Settings



The screenshot shows the 'Terminal Settings' window. A red box highlights the 'Emulation Type' dropdown menu, which is currently set to 'IBM 3278-2 (24 x 80)'. Below it is an 'Emulation Type String' input field. Further down, four settings are listed with toggle switches: 'Hide Address Bar' (OFF), 'Destructive Backspace' (OFF), 'Underline Fields' (OFF), and 'Close on disconnect.' (OFF). Red lines connect these settings to their respective callout boxes on the right.

Select the specific 3270 **Emulation** required by your host system and application. Four are available:

- IBM 3278-2 (24X80)
- IBM 3278-3 (32X80)
- IBM 3278-4 (43X80)
- IBM 3278-5 (27X132)

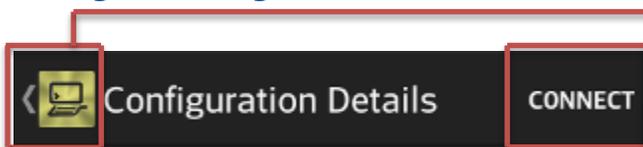
Hide Address Bar prevents the address bar from showing in the emulator session.

Destructive Backspace erases characters from the display as you use the Backspace key to move over them.

Underline Fields draws all input fields as underlined for easy identification.

Close on Disconnect causes TinyTERM to close when this session is disconnected.

Saving the Configuration



When finished, touch the back arrow to save the new configuration and return to the main screen.

Or touch the **Connect** button to save the configuration and connect immediately.

Once a configuration is saved, you can launch it by selecting the name in the list of configurations.

Create an IBM 5250 Emulation Session

After selecting a new 5250 terminal emulation configuration, you'll need the connection specifics. At a minimum, you need the **Hostname** or IP address of the server, and the communications **Protocol** and **Emulation** the server requires.

There are no generic settings that will work for these options. Each is specific to a given server, as determined by the server administrator.

Connection

The screenshot shows a mobile application interface for configuring an IBM 5250 connection. At the top, there's a header with a back arrow, a terminal icon, the text 'Configuration Details', and a 'CONNECT' button. Below the header is a section titled 'IBM 5250 Configuration'. The main content area is divided into sections: 'New Connection' with a text input field, 'Connection' with a 'Hostname' text input field containing '23' and a 'Protocol' section with three radio button options: 'Telnet' (selected), 'STARTTLS', and 'SSL/TLS'. At the bottom, there are three toggle switches: 'Auto Connect', 'Auto Reconnect', and 'Prevent Disconnect', all currently set to 'OFF'.

First, enter a **Name** for the connection.

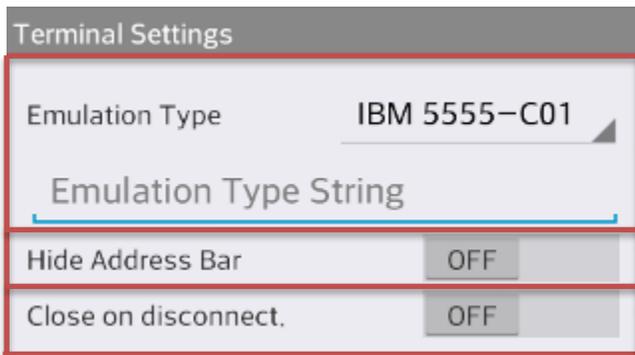
Then enter the **Hostname** and select the **Protocol**. The default **Port** is set to 23. On some systems, this value is different as an added security measure. In that case, you'll need to enter the correct **Port** as well. The **LU Name** is optional.

Auto Connect will cause this connection to start automatically when TinyTERM is launched. Only one session may have **Auto Connect** enabled. Turning it on for one session automatically turns it off in all others.

Auto Reconnect will cause this session to connect again automatically after it is disconnected.

Prevent Disconnect disables the **STOP** button for this session. To disconnect, the user must log out of the host system.

Terminal Emulation Settings



The screenshot shows a 'Terminal Settings' dialog box with three sections. The top section has 'Emulation Type' set to 'IBM 5555-C01' and an empty 'Emulation Type String' field below it. The middle section has 'Hide Address Bar' set to 'OFF'. The bottom section has 'Close on disconnect.' set to 'OFF'. Red boxes highlight the Emulation Type section, the Hide Address Bar section, and the Close on disconnect section.

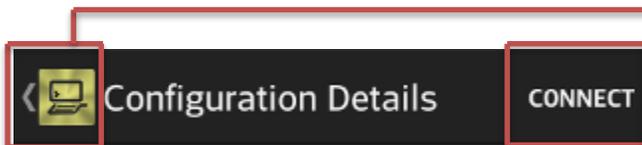
Select the specific 5250 **Emulation** required by your host system and application. Three are available:

IBM 5555-C01 (24X80 Unicode)
IBM 3477-FC (27X132)
IBM 3179-2 (24X80 EBCDIC)

Hide Address Bar prevents the address bar from showing in the emulator session.

Close On Disconnect causes TinyTERM to close when this session is disconnected.

Saving the Configuration



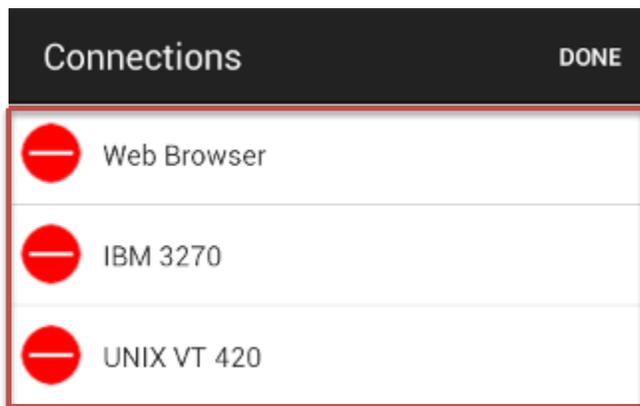
When finished, touch the back arrow to save the new configuration and return to the main screen.

Or touch the **Connect** button to save the configuration and connect immediately.

Once a configuration is saved, you can launch it by selecting the name in the list of configurations.

Modify an Existing Configuration

Modifying an existing TinyTERM Enterprise for Android configuration is as easy as [creating one](#).



From the main screen, touch the **Edit** button at top right. Edit circles come up by the configuration names.

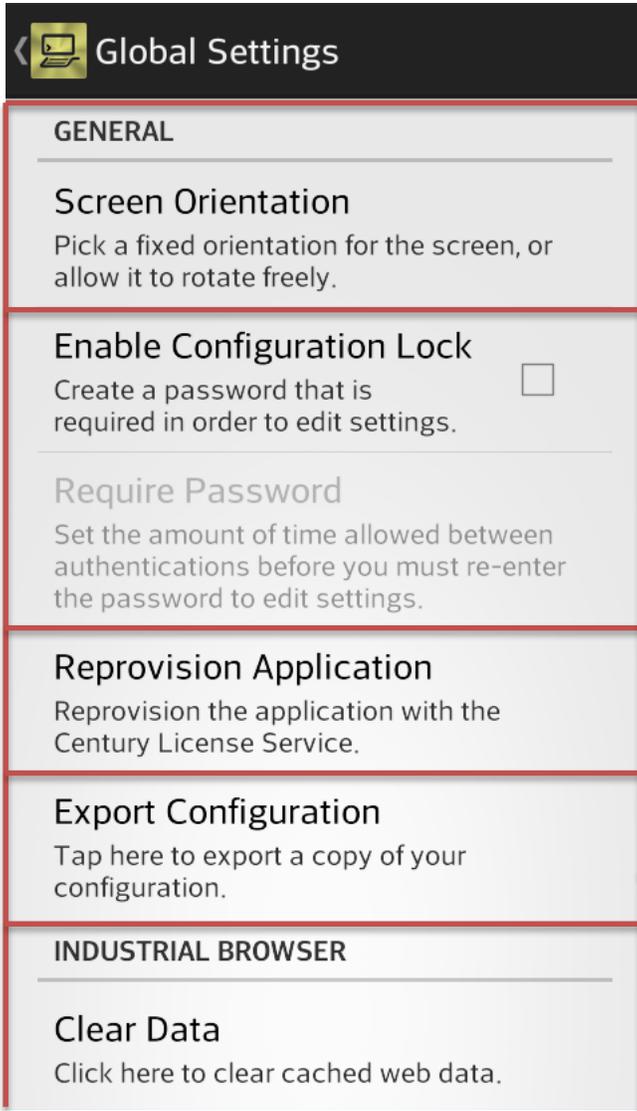
Select the configuration you want to edit. Its settings window will come up. The settings can be changed as needed.

Tap the back arrow or **Connect** button to save the changes. Or tap the **Done** button to exit edit mode.

Global Settings

The **Global Settings** button brings up a list of settings common to all TinyTERM connection configurations.

General



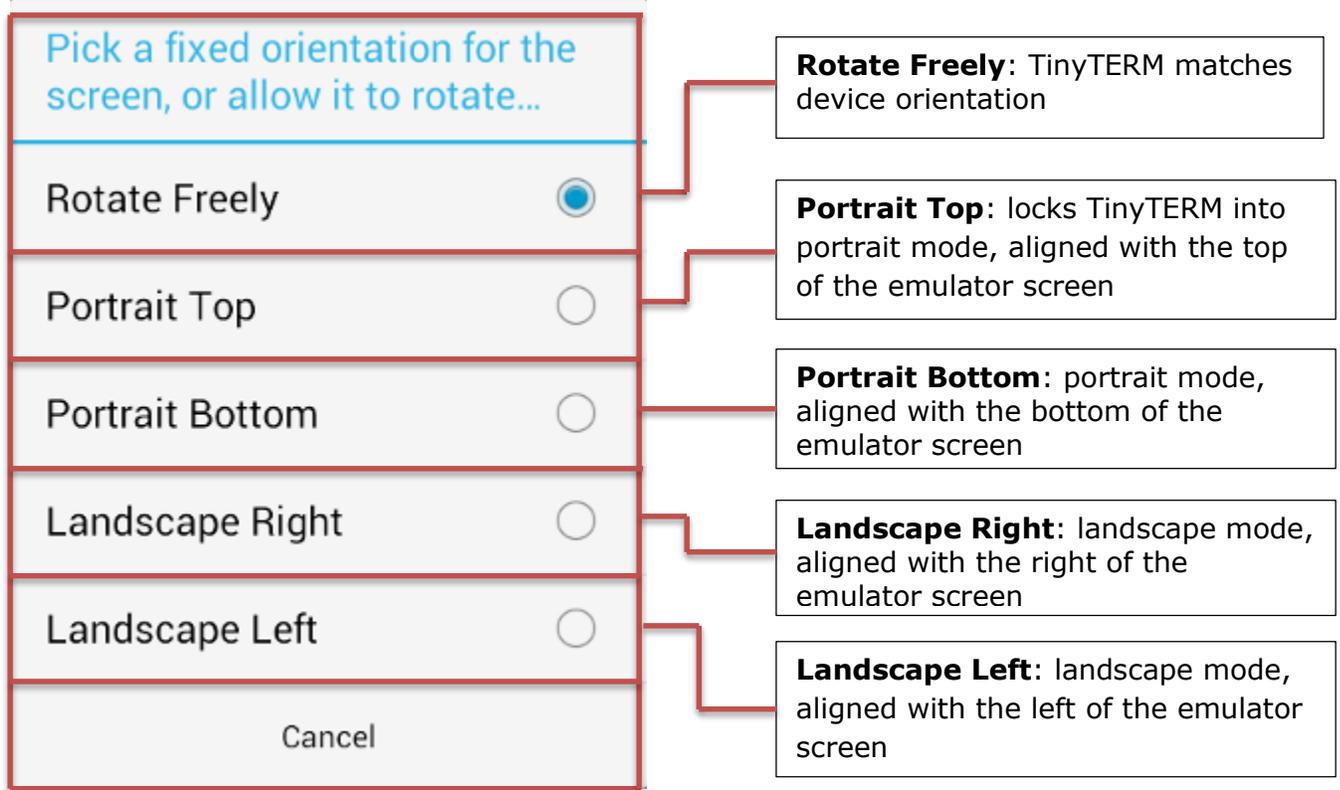
Screen Orientation determines the basic position of the TinyTERM emulator display. There are five available positions: (see below)

Once you **Enable Configuration Lock**, you'll be asked to enter a password with a minimum of eight characters. After that, the password is required to edit TinyTERM's configuration. The **Require Password** option sets the amount of time TinyTERM will allow changes before asking for the password again.

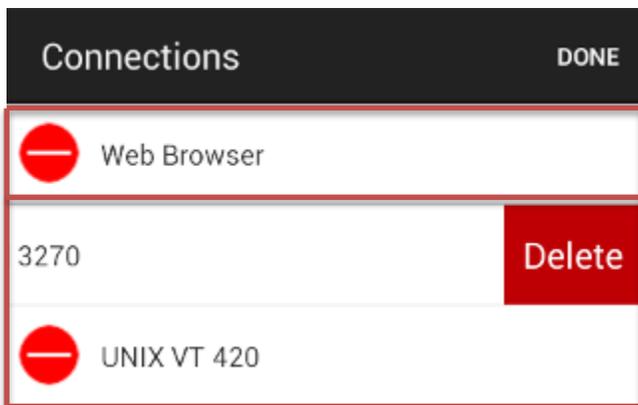
TinyTERM requires a license to run. **Reprovision Application** allows you to update the license. This can extend an evaluation or add a purchased license.

You can **Export Configuration** via email. This creates a `TinyTERM.ttconfig` container file that includes all connection configurations, keyboard and code page customizations, and printer settings saved in TinyTERM. This `TinyTERM.ttconfig` file can be imported into another device running TinyTERM for Android, or even into [TinyTERM Enterprise for iOS](#).

The **Clear Data** button clears all data from the Web Browser cache.



Delete a Configuration



To delete a configuration, tap the **Edit** button at top right. When the edit circles come up, tap the one next to the configuration you want to delete. This pushes the configuration name to the left and brings up a **Delete** button.

Or while in the main list of configurations, swipe a finger over a configuration name from right to left. This also brings up the **Delete** button.

Tap the **Delete** button, and the configuration will be removed from the list. Tap the **Done** button to cancel the delete operation, or when done deleting configurations.

Using TinyTERM Enterprise for Android

In addition to rock-solid connectivity, TinyTERM Enterprise for Android has several features to increase usability and security.

Title Bar

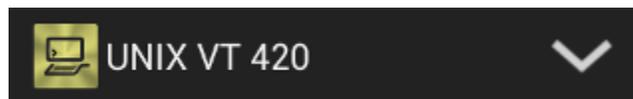
While connected, the title bar displays the name of the currently selected configuration and several buttons.



Web Browser title bar

In the Web browser, the title bar shows the current URL. The left and right arrow keys move back and forward through the browser history.

In terminal emulator sessions, the session name displays in the title bar.



Terminal Emulator title bar

In either mode, down arrow at the right opens the list of configurations, allowing you to [create new configurations](#) or [edit existing ones](#).

Pinch Zoom

TinyTERM fills the available screen not used by the keyboard. In portrait mode, the terminal font is sized to fit in the window. In landscape mode, the terminal emulator font sizes by default to its maximum zoom.

In either portrait or landscape, the Industrial Browser fits the current page to the screen width.

With pinch zoom, you can shrink the TinyTERM display to fit the entire available space, or expand it to focus on a portion of the screen. When zoomed in, you can move around the current screen with a finger swipe. This works in either orientation, for browser or terminal sessions.

External Keyboards

TinyTERM supports both USB and Bluetooth keyboards. This includes all alphanumeric keys, as well as symbols, **tab**, **return** and **delete** keys. TinyTERM also allows use of arrow keys from most external keyboards.

TinyTERM will also accept any device that uses the Bluetooth HID profile as a keyboard. This normally includes keyboards and barcode scanners, but can also include other devices. If in doubt, check with your Android device manufacturer to determine which HID peripherals are supported.

Sync Files

TinyTERM Enterprise for Android can import `.ttconfig` files created on other Android or iOS devices. And `.tpx` connection files can be created or edited in [TinyTERM Plus for Windows](#), [TinyTERM for Mac](#) or [TinyTERM for Linux](#), then imported into TinyTERM Enterprise for Android.



Complete action using

 TinyTERM	
Always	Just once

Once your file has been created, any application that allows file sharing with the Android device can transfer it to TinyTERM. This includes email attachments, [Google Drive](#) and similar apps. Select the email attachment or the app's share button to import the file.

This opens the list of applications that can use the file. Select **TinyTERM**, then tap **Always** to open the file. TinyTERM will import the file. If there are duplicate configuration names, TinyTERM will offer to replace the existing configuration of the same name. Once import has finished, TinyTERM comes to the foreground.

Using Imported Files

After importing a file, new sessions will display in the list of configurations. New keyboard layouts will be available in appropriate connections. Imported `.tpx` files are added to the list of configurations, with all available settings ported over.