



***GLINK***<sup>TM</sup>

***Glink 3270***

***for***

***Android***

***User Guide***

<http://www.gar.no/>



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Glink 3270 for Android, version 2.5.0  
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# ***Warranty***

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While Gallagher & Robertson AS have made every effort to ensure that this software package should function as described, no warranty of any kind, express or implied, is made by us. Gallagher & Robertson AS shall not be liable for any damages, direct, indirect, special, or consequential arising from a failure of this program to operate in the manner desired by the user. Gallagher & Robertson AS shall not be liable for any damage to data or property that may be caused directly or indirectly by the use of this program. In no event will Gallagher & Robertson AS be liable to you for any damages, including lost profits, savings or other incidental or consequential damages arising from your use or inability to use the program, or for any claim by any other party. Any dispute arising in connection with this warranty will be settled under Norwegian law.

Gallagher & Robertson AS confirm their intention that the software should function as described and will make all reasonable efforts to ensure that errors in the software reported in writing to our office in Norway be corrected in future releases of the software.

Gallagher & Robertson AS grant you as a registered user of a Glink for Android application a license to use the software and to make those copies you deem necessary for your own security. The package itself remains the property of Gallagher & Robertson AS and we expect you to take all reasonable precautions to ensure that illegal copies are not made by a third party.

# ***Privacy policy***

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Glink does not collect, store, or transmit information about its users, nor usage of the application. The applications access the camera only when the user activates barcode scanning with the built-in camera. Storage is only accessed when the user imports/exports a configuration, print, or send debug-trace, scroll back-data, screen-data with e-mail. The applications also access Bluetooth settings and pair with Bluetooth devices like keyboards and barcode scanners.

# Introduction

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Glink 3270 for Android is a port of Gallagher & Robertson's best-selling terminal emulation program, Glink Professional Edition for Microsoft Windows. Glink for Android runs on devices running the Android operating system, providing access to a wide range of host systems.

Glink 3270 is used to access applications running on IBM and Bull host systems. Glink 3270 has emulations for the IBM 3270 terminals.

Glink 3270 brings you a high quality and proven emulator on your Android devices.

## Features

- IBM3270 terminal emulation, all screen sizes
- TN3270 communication to host
- SSL/TLS support for secure communication
- SSH tunneling for TN3270 protocol
- Multiple concurrent host sessions
- Support for program texts in German, French, Portuguese and Norwegian
- Configurable multiline toolbar with function keys and macros
- Configurable hotspots for function keys, option numbers and URLs
- Macro recording for auto-login and for assignment to toolbar or key
- Pop-up standard keyboard with support of international characters
- Physical keys and buttons can be mapped to macros, function keys and other keys
- Tab/shift-Tab and arrow-keys supported on external Bluetooth keyboard
- Colors can be customized
- Multiple host configurations supported
- Export and import of configurations
- Supports Managed App Configuration, which allows users to configure Glink remotely through Mobile Device Management
- Optional password protected configurations
- Optional auto-connect at startup
- Optional use of double tap as Enter/Transmit or to toggle Action bar
- Configurable scroll-back buffer contains history of your host session
- Print or e-mail host print data
- Print or e-mail terminal emulation content or scroll-back buffer content

## Introduction

- Zoom and scroll
- Blinking attribute supported
- Blinking cursor supported
- Tap and hold to open http:// or https:// URL in internal or external browser
- Tap and hold to open Mail with e-mail address on screen
- Barcode scanning with built-in camera supported
- Zebra barcode scanner devices supported with DataWedge interface
- Honeywell barcode scanner devices supported with Data Intent interface
- Datalogic barcode scanner devices supported with Data Intent interface
- Denso barcode scanner devices supported with Data Intent interface
- AML barcode scanner devices supported with Data Intent interface
- M3 Mobile barcode scanner devices supported with Data Intent interface
- Point Mobile barcode scanner devices supported with Data Intent interface
- Urovo barcode scanner devices supported with Data Intent interface
- Cipherlab barcode scanner devices supported with Data Intent interface
- Unitech barcode scanner devices supported with Data Intent interface
- Seuic barcode scanner devices supported with Data Intent interface
- Socket Mobile barcode scanners connected in SPP mode (Serial Port Profile)
- Other Bluetooth barcode scanners like Opticon OPN2002 connected as external keyboard
- Chromebook and other Chrome OS devices supported

## Support

You can contact Gallagher & Robertson (G&R) technical support by sending an e-mail to [support@gar.no](mailto:support@gar.no) or by using our contact form on our website.

Please include product name, version number and information about the device you are running the product on in addition to your question or problem description. It may also be useful for us to have a debug trace of your complete host session up to the problem. You can send an e-mail with the debug-content as an attachment directly from the debug screen.

## ***How to purchase/order a license***

Glink for Android can be purchased online on Google Play and in the G&R Webshop (<https://www.gar.no/webshop/glink-for-android>). For larger quantities, contact us at [gar@gar.no](mailto:gar@gar.no) for a quote. Glink for iOS can be purchased on the Apple App Store.

## ***Delivery and Installation***

If you purchase Glink for Android on Google Play, installation and licensing is handled by the Google Play app on your Android device. You must be logged in to Google Play with the same account as you used to purchase the Glink application.

If you purchase the Glink for Android application in G&R's Webshop, you will receive an activation code that you use to download the Glink for Android application and later to activate it on your Android devices.

If the browser on your Android device does not support direct download of the Glink for Android installation file in .APK format, do the download to a PC, connect the Android device to your PC with an USB cable and transfer the .APK file to the Android device.

Tap the installation package (.APK file) and then tap Install to install it. When it is installed, tap Open or Run to run it.

For large orders you may receive a license file, instead of an activation code, that can be distributed to all devices using an MDM.

## ***Activation***

The first time you start Glink for Android, you must activate it. Tap ACTIVATE at the top right of the display and enter the Activation code and tap ACTIVATE. The Activation code can be scanned from a barcode or prefilled by your MDM if your device is managed by a MDM system.

Glink for Android will now connect to the G&R license server to obtain a license.

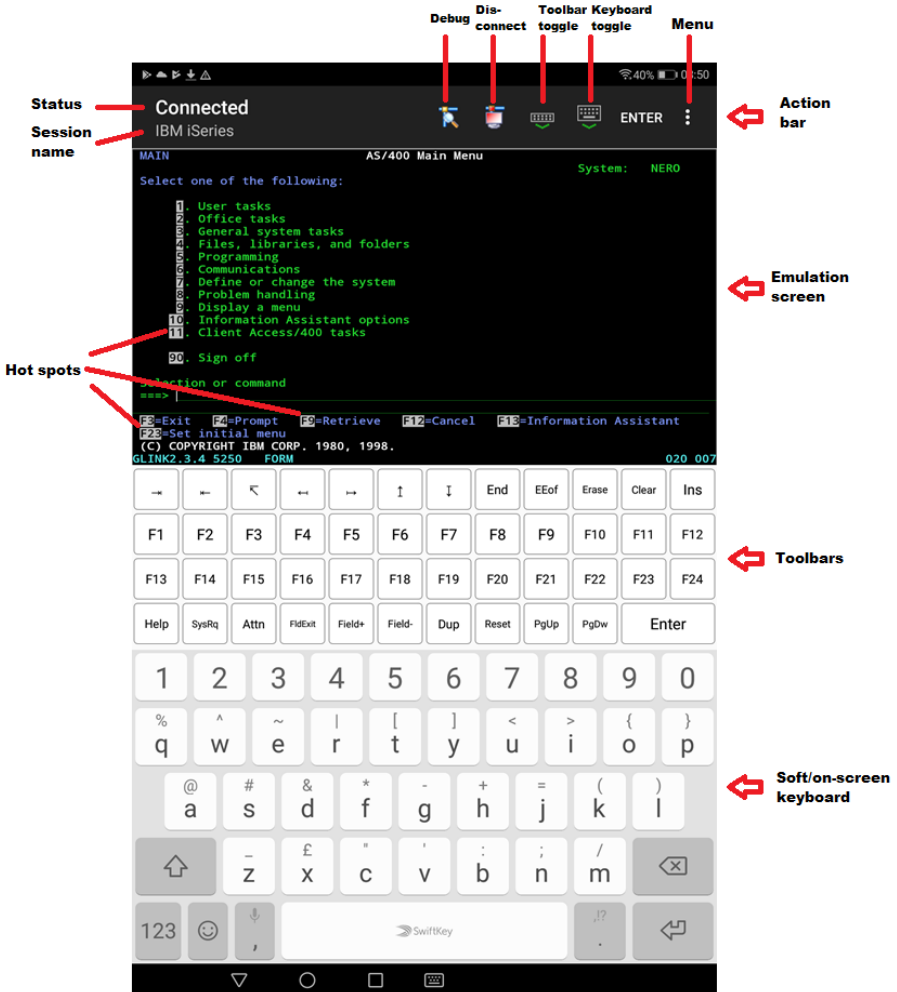
## **Introduction**

# **Setup**

If you are installing Glink for Android for the first time, you have no sessions defined. Tap **NEW** to define a new session. Choose a session name, set the host address and the other basic options before tapping **SAVE** in the upper right corner. To configure other options tap **SETTINGS**, to connect to the configured host tap **CONNECT**. When in the Glink main screen, tap the menu icon in the upper right corner and then **Help** to learn more about the product. Help is also available from the menu icon in all settings screens, explaining how to use and set all options.

You will also find a description of all available options in this document.

# The Glink emulator screen



## Introduction

# Action bar

You will find the Glink action bar at the top row of the Glink screen. Here you will find the status of the current session (*Connected/Disconnected*), the *name* of the current session, a *Disconnect icon* that will disconnect the session if tapped, a *Toolbar toggle icon* that will bring the toolbar up/down when tapped, a *Keyboard toggle* that will bring the on-screen keyboard up/down when tapped, an (optional) *ENTER* button that will send Enter to the host when tapped, an (optional) *Debug icon* that will show the content of the debug buffer when tapped, a *Print icon* that will be displayed if Glink has received print and that will show the received print data if tapped. To the very right, you will find the *Menu icon* that will bring up the main menu when tapped. In **Menu -> Settings -> Screen options** you can configure *Use double tap* to toggle the display of the Action bar. The Action bar can initially be off or on and toggled with a double tap on the screen. This way you can free up more space to the Emulation screen.

# Emulation screen

The emulation screen will show the data sent from the host and typed/scanned by the user. In **Menu -> Settings -> Screen options** you can customize the look of the emulation screen. The most important options are the *Font size*, *Show toolbar*, *Limit screen view (x,y)* and the options for *Hotspots*.

The Font size can be set to a specific size between 6 and 36, but it can also be set to Auto or Fit screen. If you have a large display, you probably want to set it to Fit screen. With this setting Glink will select the best font size and stretch/squeeze it to fill the entire screen. If you select Auto, Glink will normally display all rows in portrait mode and all columns in landscape mode, the rest of the host screen can be dragged into view by tap-and-drag left/right/up/down on the screen.

Show toolbar can be set to Auto, Multiline, Single-line and Off. In Auto mode Glink will switch between Single-line and Multiline, depending on the available space.

Limit screen view (x,y) is very useful if your host application only use the upper left part of the screen, for example 20 columns and 10 rows. Then you would set this parameter to 20,10 and maybe combine it with Font size Fit Screen.

In **Menu -> Settings -> Screen colors** you set the background color, foreground (text) color and you can adjust the colors themselves.



## ***Toolbars***

The toolbars are fully configurable. The toolbar is scrollable horizontally and you can have as many rows/bars and buttons as you want. In Multiline mode all rows are shown, while in Single-line mode only one row is shown at the time, but you can toggle between the different toolbars using the toggle-icon on the very left on the toolbar. You can also use the Toolbar toggle icon on the action bar to show/hide the toolbar. In Menu -> Settings -> Toolbar setup you can add, modify, remove and move (remove/paste) buttons and add/remove toolbars (rows) and adjust the button size.

## ***Soft/on-screen keyboard***

Glink can use any standard Android keyboard available on the device. This means that you can switch between keyboards for different languages, keyboards from the vendor, Google, default Android keyboard or other keyboards.

## ***Physical keys and keyboards***

Glink supports physical keys on the device itself and external keyboards connected with USB or Bluetooth. All keys can be mapped to terminal functions and macros in Menu -> Settings -> Keyboard ->

# Getting started

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## Create a new session

Glink always enters the *Sessions* screen at startup. Tap the *New configuration* button to define a configuration for your host.

Give your new configuration a name and type the IP address of your host system. The IP address may be a numeric address of the form 129.1.1.150, or a symbolic name (such as *www.gar.no*). If you need to connect to a port other than the default, this may be added to the end of the address, using a colon (:) to separate it from the rest of the address. For example, to connect to port 1311 you should specify 129.1.1.150:1311 or *www.gar.no:1311*.

If you are using the multi-emulation version of Glink, you can also choose terminal emulation and host communication protocol for the configuration in this screen. Tap *Save* when you are done. Repeat the process to configure more host systems. For IBM and VT hosts you may now be ready to go, and if you select the session in the sessions screen a connection attempt will be made. For Bull host systems and some IBM hosts you need to configure Ggate/TNVIP/TN3270/TN5250 protocol options before you can connect to your host system. Select the configuration and tap *Menu > Settings* to enter directly into the configuration menus. If you try to *Connect* to the selected configuration and the connection fails, then you must go to *Menu > Settings* to correct or complete the connection parameters. This is also the place to go if you need to modify the IP address of your host system.

## Start a session

Tap *Menu > Sessions* to see the list of available configurations. Tap the name of a configuration to select it and then the *Connect* icon. Glink will now return to the main screen and connect to the configured host. If there is a *Connect macro* defined in this configuration, it will be executed.

The session menu list is displayed when Glink is started. In the *General options* in the Action bar drop down menu in the main screen you can configure Glink to auto connect to the first session in the list instead.

To run multiple sessions, select *New Glink window* in the Action bar drop down menu in the main screen. If more than one session is configured, select the session to start.

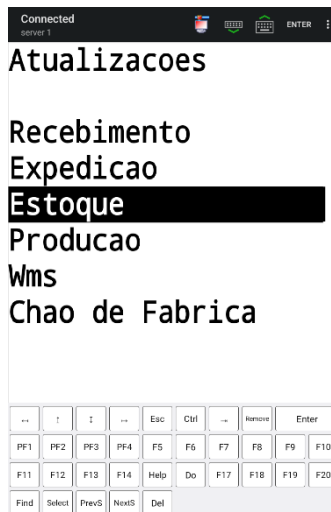
## Text/font size

The default value for a tablet device is to adjust the text size to match the screen size. To do that, the characters are stretched or squeezed.

The default value for a smaller device (phone) is to select a text size (font size) that is readable and, in most cases, suitable for the screen size.

Use zoom or scroll to see hidden parts of the display. The initial text size is set in *Menu->Settings->Screen options->Font size*. The default value for the option *Menu -> Settings -> Screen options -> Use double tap to is Reset screen size*. With this setting, you can double-tap the screen to get your initial screen setting back after a zoom or scroll operation.

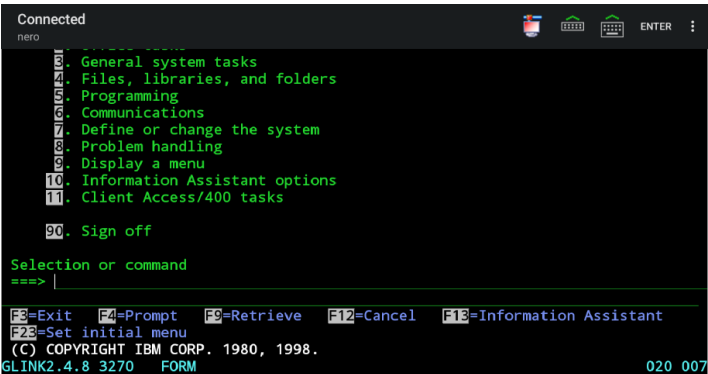
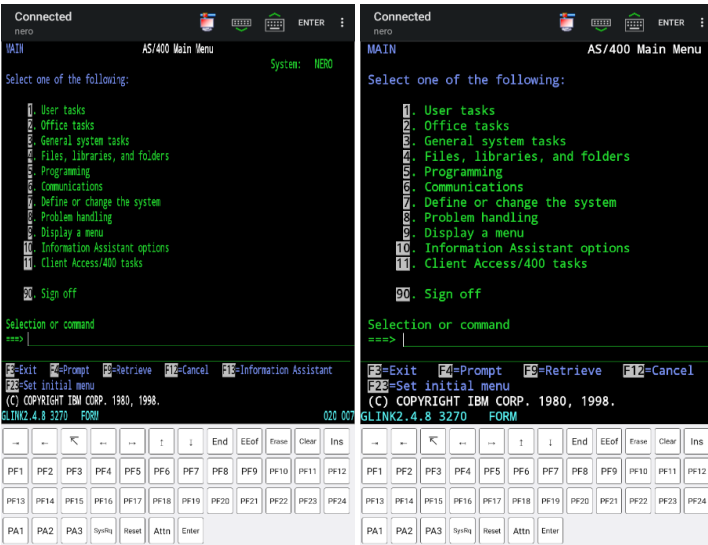
Here are some examples of how you can use *Font size* parameter and *Limit screen view (x,y)* parameter. If the terminal has 80 or 132 columns and 24 rows, but your application only uses 20 columns and 10 rows, it makes no sense to show columns above 20 or rows below 10 to the user. See example below:



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Glink to the left has *Font size = Fit screen* while Glink to the right has *Font size = Fit screen* and *Limit screen view (x,y) = 20,10*. These parameters are particularly useful on devices with a small display.

With *Font size* set to *Auto*, Glink will display all rows in portrait mode and allow you to scroll the screen horizontally, and display all columns in landscape mode and allow you to scroll vertically. Below you see screens with *Font size = Fit screen* and *Font size = Auto* in portrait and landscape mode:



# Keyboard

Glink uses the standard on-screen keyboard. The keyboard is activated by tapping the *keyboard* icon next to the *Menu* button or the main screen close to the cursor position or an input field. In the latter case the cursor will be positioned in the tapped field. Tap the *keyboard* icon next to the *Menu* button or main screen outside input fields or on a different line than the cursor is positioned, to remove the keyboard. The keyboard can be configured to always be up in *Menu > General options*.

## External keyboard

Glink support several keyboard shortcuts for function and control keys when using an external Bluetooth keyboard, see *Keyboard shortcuts* for a list. Device buttons and external keyboard buttons can also be remapped, select *Settings > Keyboard*, and then see *Keyboard mappings* button.

## Keyboard shortcuts

The default shortcuts for external keyboard are listed below. Glink also supports user defined key mapping. The listed shortcuts can therefore be remapped.

### Shortcuts for keyboards with function keys

For all emulations:

F1 to F12 : F1 to F12

For IBM emulations:

F13 to F24 : shift+F1 to shift+F12 or alt+F1 to alt+F12

### Shortcuts for keyboards without function keys

For the IBM 5250, IBM 3270 and VT emulations the following shortcuts are defined:

F1 to F10 : Alt+1 to Alt+0  
 F11 to F20 : Ctrl+1 to Ctrl+0  
 F21 to F24 : shift+Ctrl+1 to shift+Ctrl+4

## Getting started

### Other shortcuts

Escape	: Escape
Tab	: Tab
Backtab	: Shift/Tab
Home	: Alt+Cursor up
End field	: Alt+Cursor right
Arrow keys	: Cursor up/down/left/right
Connect	: Alt+C
Disconnect	: Alt+D
Break	: Alt+B
New/next window	: Alt+N
Show this page	: Alt+H

### Keyboard mapping

Glink is set up with a default keyboard mapping. You may override the default mapping or add a mapping for a hardware button (key) on the device itself or a key on an external keyboard.

The list box displays the keys mapped if any.

Press the key or button to map (i.e. Volume up button). Select the keyboard icon button to bring up the soft keyboard if need.

Once a key is pressed, a new row is added. Select the **Map** button to map the key to a function or macro.

If the key you want to map is the last one of two input keys, select **No** for mapping the first key and **Yes** for the second one.

If a macro is selected, select the **Macro** button to define the actual macro.

Select the **Remove** option from the drop-down list to remove a key mapping.

## Toolbar

The toolbar can be configured to show a single-line toolbar with a *select* button to step through the toolbar lines or as a multiline toolbar to show all the toolbar lines. Even when the multiline toolbar option is selected, Glink will in most cases use the single-line toolbar to save space when the keyboard is up. The default value for this option is to use multiline toolbar for a big screen (for example tablet) and single-line for a small screen (for example phone).

The default toolbars differ from emulation to emulation, but in general there is one for cursor movements, one or two for function keys and one for other keys. All toolbars can be customized to your needs, and you can add macros to all of them with your own text on the buttons. The toolbar area becomes horizontally scrollable if there are more buttons defined than can be displayed on the screen. Go to *Menu > Settings > Toolbar setup* to customize your toolbar, or to *Menu > Settings > Screen options* to change the setting of the *Use multiline toolbar* option.

## Hotspots

Glink can be configured to create dynamic push buttons for screen text that refer to function keys, number options and URLs.

For example, if *F1* is part of the screen text, it will be highlighted as a push button and the function F1 will be assigned to it and executed when tapped.

Likewise, if *1=Search* is part of the screen text, the number **1** will be highlighted. When tapped, this number is added to the current cursor position and optionally followed by the *Enter* function to transmit it.

## Copy/Paste

Long-tap a word to select it. Drag the set of bounding handles to highlight the text you want to copy. Tap *Copy* on the toolbar that appears. If more than one line is selected, tap *Line/Block* to switch between line and block mode selection.

Tap Paste on the toolbar that appears if you long-tap an input field.

The paste function may be added as a button to your toolbar.

# ***Hyperlinks and mail addresses***

If URLs or mail addresses are displayed, long-tap a hyperlink or mail address to bring up a popup menu. For URLs you may display the content in Glink or in a browser app. If a mail address is selected, you get the option to send a mail to the addressee.

# ***Export and Import configurations***

You can export your current set of configurations for back-up purposes or to share them with other users. The export function is an option in the action bar drop down menu. You will be asked if you want to include Connect macros before you are taken to the Send Mail function with your configurations attached to the message.

You can also export your configuration to the *Download* folder on your device from the *Sessions* menu. Glink will give you the full path to the exported file, for example */storage/emulated/0/Download/config.glinki*. Now you can use a *File manager* to copy the file or copy the device to a personal computer and use it to copy the file from your device.

The configurations are sent as a file-attachment named *config.glinki*. This filename-extension is associated with Glink. This means that if you receive a Glink configurations file as an e-mail attachment and export it to the files system, you can import it into Glink by tapping the file. Glink will be started and inform you that you have received a new set of Glink configuration files. If you tap the *Install* button to install it, you will get a new set of configurations that will replace your current configurations. All your current configurations will be overwritten and lost.

From the *Sessions* menu you can also manually import a configuration file that you have downloaded to the device, using the file picker, or put on a web server, by specifying the URL to this file or use the Auto-import feature described in the *Glink MDM configuration parameters* section.

The export and import functions allow administrators to prepare and customize configurations for a large group of users and distribute the configurations.



## ***MDM configuration support***

If Glink is deployed by a mobile device management (MDM) system, the Glink configuration can be completely controlled by the MDM system, making Glink ready for use without any need for configuration by the end user. See the *Glink MDM configuration parameters* section.

## ***Proxy server***

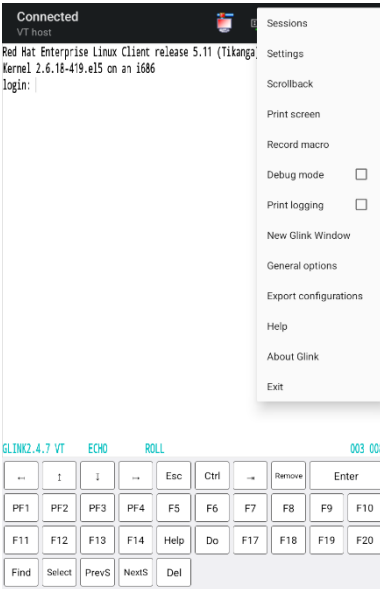
If the network connection to your host is unstable and there is a risk of losing the connection to the host from time to time, you should consider running our *GlinkProxy application* on a server.

The GlinkProxy application runs on a Windows server that can be located near the host computer. It will allow the traffic from the mobile computers with Glink to be routed through the GlinkProxy server to the host. The GlinkProxy server will keep the connection to the host application even if the connection to the mobile computer is lost. When Glink re-connects, the session with the host application will resume as if the connection was not lost.

See the section about *The GlinkProxy Session Persistence Server*.

# Menu

---



## Sessions

The Sessions screen allows you to change the current host session and add new host configurations. Most parameter settings are per session. The current configuration is displayed in blue. By tapping Settings in the Menu, you can change the configuration parameters for that particular session. By tapping a different session than the one that has a check mark, you can switch the main screen to this session.

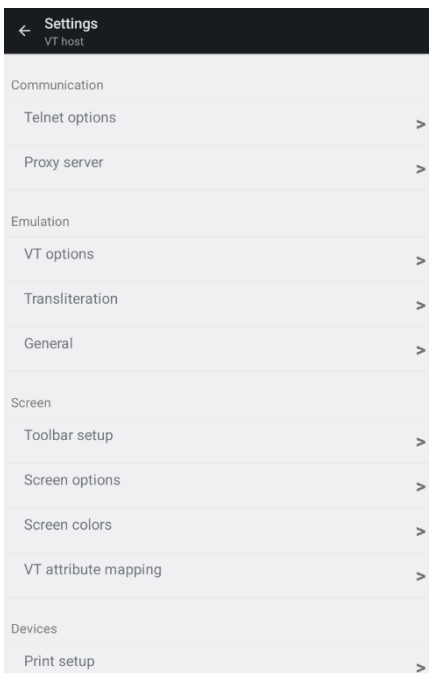
The Menu in the Sessions screen:

- **Connect** - Select a session name and tap the connect icon. Glink will now return to the main screen and connect to the configured host. If there is a Connect macro defined in this configuration, it will be executed.
- **Settings** - Change one or more of the parameters for the session selected.
- **New** - The New options lets you create a new session configuration. After a session is created, select the Settings option to change the default settings.
- **Remove** - Removes the session selected.

- **Rename** - Renames the session selected. If the new name starts with two underscores (“\_\_”), the session becomes a template.
- **Import** - Import a Glink configuration that is downloaded to the device. The current configuration will be overwritten and replaced.
- **Export** - Export the Glink configuration to the Download folder.
- **Templates** - List and manage templates. If you intend to define several sessions with similar settings, a predefined template can simplify the process of defining a new session.
- **Reorder the session list** - The session list can be reordered by doing a long press at a session entry, and then move the entry by dragging it when a rectangle is shown around the entry (wait with the move until the rectangle shows up).

## Settings

Tap here to modify configuration parameters for the current session.



# Scrollback

Tap here to enter the Scrollback buffer. Here you will see all the data that has scrolled off the top of your main screen and all the forms that you have accessed since you connected the current Glink session, provided that the size of your buffer is big enough. You configure the Scrollback length (in pages) in *Menu > Settings > General*. The content of the scrollback buffer can be printed or sent as an e-mail attachment and you can mark and copy selected text. If text is marked when you tap the *Mail* or *Print* button, only the marked text will be sent/printed. Tap the *Glink* button to return to the main screen.

# Print screen

Tap here to print or e-mail the current screen content. It can be printed/e-mailed either as text or as a JPEG image. Tap the *Glink* button to return to the emulation window. Read more about Print screen.

# Record macro

Tap here to record a macro. Before you tap the *Start recording* button to start recording, you must choose whether you want to record a *Toolbar macro* that you will assign to a button on the toolbar (default), or if you want to record a *Connect macro* that will be executed every time you connect this session to the host, or if you want to record a *Keyboard macro* that you want to assign to a physical key. The *Connect macro* is typically used to logon on to the host, start the desired host application and position the user in the desired startup form. *Toolbar macros* and *Keyboard macros* are typically defined for frequently used operations to avoid time consuming navigation and typing.

When recording a macro, you can use the *Pause* button next to the *Enter* button to specify that you want to wait for user input or that the execution of the macro should pause a number of milliseconds at this stage. This is useful if the host unlocks the keyboard and allows keyboard-/macro-input before it has completed its output to the terminal. User input can be collected at macro startup or at the stage where the input is required.

When you are at the end of the macro function you wanted to record, you go to *Menu > Record Macro* and assign a button text and tap *Save recording* or press a key that you want to map the recorded macro to. The macro will now be saved to the current toolbar or to the key you pressed. You can move it to a different toolbar from *Menu > Settings Toolbar setup*. If you made a typing error during the recording, you must tap *Cancel* in *Menu > Record Macro* to delete the recorded macro and

go back to the main screen. *Toolbar macros* are removed when you remove their buttons from the toolbar. *Keyboard macros* are removed when you remove their keyboard mapping from *Menu > Settings > Keyboard setup > Keyboard mapping*. To remove a *Connect macro* you first must tap *Connect macro* in *Menu > Record Macro*, then tap *Remove connect macro*. If you want to define a completely new *Connect macro*, you now tap the *Start recording* button. If you don't tap *Remove connect macro* before you tap the *Start recording* button, you will extend the current *Connect macro*.

## ***Pause the macro***

At any point during the macro recording sequence, you can specify that the execution of the macro can be suspended for either user input or for a time interval.

### ***Wait for user input***

#### **Header text**

Specify the prompt value.

#### **Ask user at macro start**

The user is requested for input either at startup or at the stage where the input is required.

#### **Password**

If checked, the input field is set as a password entry field.

#### **Input value**

You can also specify an input value that is added to the current screen but not recorded. For example, if a password is requested, your password should not be recorded if recording is to continue.

### ***Wait for a time interval***

Specify the number of milliseconds the macro should be suspended at this stage.

### ***Debug mode***

Tap here to enable/disable *Debug mode*. In this mode all data sent to and from the host is written to a Debug screen. When enabled, you will see a *Debug* icon at the top right of the screen, next to the *Enter* button. Tap the *Debug* icon to go to the Debug screen. The content of the debug screen can be printed or sent as an e-mail attachment, and you can mark and copy selected text. If text is marked when you tap the *Mail* or *Print* button, only the marked text will be sent/printed. Tap the *Glink* button to return to the main screen.

### ***New Glink window***

This option allows you to open another Glink window to run multiple concurrent host sessions. Use the switch session icon presented in the action bar at the top to switch between the sessions started.

### ***Remove Glink window***

This option is presented if more than one session is started.

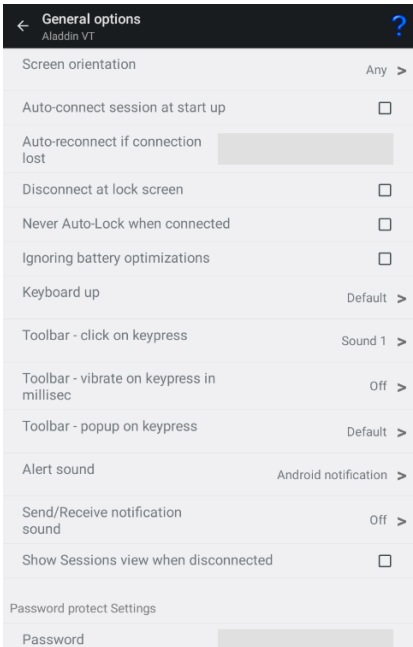
### ***Print logging***

Tap here to toggle this option. When enabled a check mark is shown and all sent and received data is logged/captured to the print buffer.

**Not available for Glink5250 and Glink3270**

# General options

These options are common for all the sessions defined.



## Screen orientation

This option locks the screen to the selected orientation.

## Auto-connect session at start up

Normally Glink displays the Session screen at startup. Use this option if you want to skip the Session screen and instead connect to the first session defined in the Session screen.

Please note that you can reorder the session list by doing a long press at a entry in the session list, and then move the entry by dragging it when a rectangle is shown around the entry.

## ***Auto-reconnect if connection lost***

If the host connect is lost for some reason, Glink can try to reconnect the session. You can specify both the number of retries and the time interval between each retry, for example:

```
4           Retry four times with a time interval of two seconds
3*4000     Retry three times with a time interval of four seconds
3*5000;2*60000  Retry three times with a time interval of five seconds, then retry two times with a time interval of one minute
```

The max value for retry is 100. The max value for timer interval is 300000 milliseconds (five minutes).

If user disconnects the session, no retry is performed.

## ***Disconnect at lock screen***

Disconnects the line if the screen is locked (turned off). Often the line is disconnected by Android even if this option is not turned on.

## ***Never Auto-Lock when connected***

When selected, this option disables the Android "sleep" setting when Glink is the active (visible) app and is connected to the host application.

## ***Ignore battery optimization***

When selected, Glink will ask for permission to ignore battery optimization. When the device is locked, this will allow Glink to run in the background to try to keep the connection to the host application. This option works for Android 6 Marshmallow and newer versions of Android.

## ***Keyboard up***

### *Default*

Glink will show the keyboard when you click at an input field and hide it when you click outside an input field.

### *On*



This option will always show the keyboard. You can still hide the keyboard with the keyboard button located at the toolbar.

*Off*

Keyboard appearance will be controlled by the keyboard button only.

## ***Toolbar - Click on keypress***

*Off*

No click

*Sound 1*

Click sound 1

*Sound 2*

Click sound 2

## ***Toolbar - Vibrate on keypress in millisec***

*Off*

No vibration

*20 – 300*

Duration time in milliseconds

## ***Toolbar - Popup on keypress***

*Default*

No popup on keypress for tablets, for other type of devices show popup on keypress

*On*

Show popup on keypress

*Off*

No popup on keypress

## ***Alert sound***

*Off*

No sound

*Android notification*

The Notification sound type and volume are configured in the Android Settings app

*Android alarm*

The Alarm sound type and volume are configured in the Android Settings app

## ***Send/Receive notification sound***

*Off*

No sound

*On*

Play sound when sending and receiving host messages

*Send only*

Play sound when sending host messages

*Recv only*

Play sound when receiving host messages

## Menu

### ***Show Sessions view when disconnected***

Glink will display the Sessions view after a one second delay when the connection with host is lost.

### ***Password protect Settings***

This option prevents users from changing or viewing the configurations.

### ***Show Menu/Action bar items***

Various Glink functions are either listed in the *drop-down Menu* or shown on the *Action bar* at the top of the Glink screen. Functions may be moved from the *drop-down Menu* to the *Action bar* or vice versa or hidden.

#### ***On Menu (by default)***

By default, the following functions are available in the drop-down menu. Some of the functions can be moved or hidden, others only hidden.

- Sessions (Menu, Action bar, Hide)*
- Settings (Menu, Action bar, Hide)*
- Scrollback (Menu, Action bar, Hide)*
- Print screen (Menu, Hide)*
- Record macro (Menu, Hide)*
- Debug mode (Menu, Hide)*
- Print logging (Menu, Hide)*
- New Glink window (Menu, Action bar, Hide)*
- Remove Glink window (Menu, Action bar, Hide)*
- General options (Menu, Action bar, Hide)*
- Export configurations (Menu, Hide)*
- Help (Menu, Action bar, Hide)*
- About (Menu, Hide)*
- Exit (Menu, Hide)*

## **On Action bar (by default)**

By default, the following functions are shown on the Action bar. Some of the functions can be moved or hidden, others only hidden.

*Toggle toolbar (Action bar, Hide)*  
*Toggle keyboard (Action bar, Hide)*  
*Connect (Menu, Action bar, Hide)*  
*Disconnect (Menu, Action bar, Hide)*  
*Enter (Action bar, Hide)*

## **Pop up on Action bar**

These functions may show or pop up on the Action bar. They can be configured to be listed in the drop-down menu or hidden.

*Scan barcode (Menu, Action bar)*  
*Print data (Menu, Action bar)*  
*Debug data (Menu, Action bar)*  
*SSL/SSH info (Action bar, Hide)*  
*Select Glink (Menu, Action bar)*  
*Pause (Menu, Action bar)*

## **Language**

The default language for Glink is *US English*. The other languages that can be configured in this version are *DE German*, *PT Portuguese*, *FR French* and *NO Norwegian*. Changing this parameter will change all menus and other program texts in Glink to the configured language. The help pages will however remain in US English.

## **Export configurations**

Use this function to export your configurations by mail for back-up purpose or for sharing. The configurations are sent as a file-attachment named `config.glinki`. You will be asked if you want to include Connect macros (if you have any) before you are taken to the Send Mail function with your configurations attached to the message. To import the configurations, send it to your device by mail and select the attachment.

## **Menu**

### ***Help***

Tap here to enter the online help pages.

### ***Connect icon (Green monitor)***

Tap here to connect to the host specified in the current session configuration. If a Connect macro is defined for this session, it will be executed.

### ***Disconnect icon (Red monitor)***

Tap here to disconnect the current session.

### ***Keyboard icon***

Tap here to bring the on-screen keyboard up/down.

### ***Toolbar icon***

Tap here to bring the on-screen toolbar up/down.

# Settings - Communication

## TN3270 options

← TN3270 options IBM 3270 host		?
Server address	10.78.0.53	
3270 model	3279-2 24x80 color, basic data stream >	
LU name		
Use Extended TN3270	<input checked="" type="checkbox"/>	
Send Associated LU	<input type="checkbox"/>	
Keep alive type	TCP >	
Keep alive interval		
Secure sockets		
Use secure sockets - SSL	<input type="checkbox"/>	
Authenticate server certificate	<input type="checkbox"/>	
File name client certificate:		
Password client certificate:		
Auto-login		
Login with		
Password		
External validation		
Use external validation app	<input type="checkbox"/>	

TN3270 is a variation on the Telnet protocol and is used by the IBM3270 emulation to connect to IBM hosts over a TCP/IP network. You can either connect directly to the host, if it's running a Telnet server, or via a TN3270 gateway.

### Server address

The Server address is normally the TCP/IP address to the server/gateway you connect through to reach the host, for example a G&R Ggate server (using native Ggate

## Settings – Communication

protocol, TNVIP, TN3270, TN5250 or Telnet), a Bull TNVIP server, an IBM TN3270 server, an IBM TN5250 server or the host itself.

The address may be a numeric address of the form 129.1.1.150, or a symbolic name (such as www.gar.no).

If you need to connect to a port other than the default, this may be added to the end of the address, using a colon (:) to separate it from the rest of the address. For example, to connect to port 1311 you should specify 129.1.1.150:1311 or www.gar.no:1311.

The default ports in Glink are:

G&R Ggate native protocol    30841  
Telnet, TNVIP, TN3270, TN5250    23

Note that the Bull TNVIP servers on Unix/Linux or Windows generally use non-standard ports, normally 7323, and you must add this to the IP address.

### **IPv6 address**

If an IPv6 address is specified and you have to specify a port number, use the following syntax:

[IPv6 address]:port

for example

[2001:db8:85a3:0:0:8a2e:370:7334]:673

### **3270 model**

This option is provided so that you may select the appropriate 3270 model. This will be used to set the screen size and to provide terminal identification to the host machine where appropriate. You may need to select an extended type (one of those with an E extension) to enable use of extended attributes from the host. The base model number determines the alternate screen size the host may use, where

327x-1 is 16 rows of 80 columns  
327x-2 is 24 rows of 80 columns  
327x-3 is 32 rows of 80 columns  
327x-4 is 43 rows of 80 columns  
327x-5 is 27 rows of 132 columns  
3287-1 is printer

If you select a printer type, you will probably also need to specify an LU name and select extended telnet mode in the host settings.

### ***LU name***

This option allows you to choose a specific LU name. It is only functional when you connect to a TN3270 server that has support for the option and should otherwise be left blank.

### ***Use Extended TN3270***

When this option is enabled, the program will use the extended (RFC1647) telnet protocol to talk to the TN3270 server (this will obviously only work if the server supports RFC1647). This protocol allows for more flexible configuration, selection and use of the TN3270 session.

### ***Send Associated LU***

This option should be enabled when the specified LU name for a printer (3287-1 type) is the name of a screen device which has been defined with an associated printer on the TN3270 server. The option is only available when you use extended TN3270 to talk to the server, and when an associated printer has been defined for the screen in question.

### ***Keep alive***

#### ***Keep alive type***

There are two keep alive types, **TCP** and **Telnet**. The TCP type is handled by the OS and the Telnet type is handled by Glink.

#### **TCP keep alive**

Specifies how often TCP sends keep alive probes. TCP sends keep alive probes to verify that an idle connection is still open. By default, keep alive probes are sent after 2 hours of inactivity or not at all. It depends on the version of the operating system. The number of keep alive probes that are sent is also system specific.

The keep alive parameter allows you to set both the keep alive time and the keep alive interval in seconds. The format is **time, interval**

## Settings – Communication

For example:

1200, 5

Specifies that keep alive probes will be sent after 20 minutes of inactivity, and then repeated every 5 seconds until the max number of keep alive probes has been reached.

1800

Specifies that keep alive packets will be send after 30 minutes of inactivity, and then repeated every second until the max number of keep alive probes has been reached. One-second interval is the default value.

### **Telnet keep alive**

Specifies how often Glink sends a telnet No Operation Packet (NOP). In this case only an interval can be specified in seconds. The format is **interval**

For example:

60

Specifies that a telnet NOP will be sent after one minute of inactivity, and then repeated every minute of inactivity.

## **Secure sockets**

### **Use secure sockets - SSL**

Check this option to use a secure connection to the host. The host side must of course support this type of connection. The default value for the port number is 992 (Ggate 30851). If the host side uses another port number, specify the port number in the host address field, for example:

```
myhost.com:842
```

When connected, a lock icon will be shown in the toolbar. Tap the icon to view the host certificate information.

#### *IPv6 address*

If an IPv6 address is specified and you have to specify a port number, use the following syntax:

```
[IPv6 address]:port
```



for example

```
[2001:db8:85a3:0:0:8a2e:370:7334]:673
```

### ***Authenticate server certificate***

Glink verifies that the server certificate is from a Trusted root certificate authority in order to accept the SSL connection.

### ***File name client certificate***

Specify the name of the client certificate if the server needs to validate the Glink client.

#### *Android version only*

If the configured client certificate file is not found, Glink will look for the file in the auto import directory. If still not found, the user gets the option to import a client certificate file using the configured file name.

#### *iOS version only*

If the client certificate is not found, the user will get a warning message that the client certificate file must be imported.

See also:

*How to import a PSKC #12 certificate (.p12 file)*

### ***Password client certificate***

Supply the PSKC #12 password if defined.

### ***How to import a private key file***

Glink will handle files with *.glinki* as the file name extension, i.e *myfile.glinki*. One way to import it is to send it as a mail to your device with *myfile.glinki* as an attachment. Click on the attachment and Glink will ask if you want to import it as a new configuration (your configuration will not be overwritten in this case).

The *myfile.glinki* must have the following format:

```
[file:my_pk_file]
Add the content of the private key here...
```

Glink will create a file with the file name *my\_pk\_file* with the content supplied. In the Telnet or SSH configuration dialog box, enter *my\_pk\_file* in the *Private key file* field.

## ***Auto-login***

If both the parameters below is specified, Glink will try to login to the host application.

Please note if a connect macro is defined it will be ignored.

### ***Login with***

Specify the login string.

### ***Password***

Specify the password.

#### **Note**

A *Tab* is performed after the Login string and a *Transmit* is performed after the password. If the parameter includes a function string at the end, the default function will be ignored. The syntax for the *Tab* function is `^"f58"` and for the *Transmit* function is `^"f44"`

The example shows how to do a *Transmit* after the name instead of a *Tab* function.

```
Login with: MyName^"f44"  
Password: MyPassword
```

## ***External validation***

This option allows you to configure an external app for access validation.

In Glink at connect time:

- Start a validation app if not already started
- Send a broadcast to this app to request validation.
- Listen for Broadcast reply from the started app.

Validation app:

- It will start a Broadcast receiver at startup.
- When a request is received, do validation and reply with a positive or negative reply broadcast to Glink.

Please contact G&R for more information.

## Proxy server setup

If the network connection is unstable and there is a risk of losing the connection to the host, you should consider running our GlinkProxy server. The GlinkProxy server runs on a Windows server that can be located near the host computer and supports large numbers of client sessions.

GlinkProxy is designed to provide persistent host connections for Glink clients where the connection from the client device is unreliable. This may be because the device enters sleep mode or goes out of Wi-Fi range. If the client connection to the proxy server is lost for some reason, the server will retain the connection to the host. This allows the client to reconnect to the server again and continue seamlessly from the point at which the connection was lost.

### GlinkProxy parameters

Glink 5250, Glink 3270, Glink VT and Glink for Android and iOS can communicate with TN5250, TN3270, Telnet, TNVIP and Ggate protocols via GlinkProxy to host systems. This is enabled in the **Menu** → **Settings** → **Proxy server** menu:

Proxy server	
myhost	
Glink Proxy server	
Use server	<input checked="" type="checkbox"/>
Address	glinkproxy.mydomain.com
Port	30855
Secure communication	<input checked="" type="checkbox"/>
Proxy keeps connection to host in seconds when	
User disconnect	0
Connection lost	300

## **Settings – Communication**

When Glink is configured to use a proxy server, it will send server address and keepalive settings to the proxy server. The proxy server will use these parameters to connect to the host application server and maintain the connection to it. Keepalive settings, user disconnect and connection lost settings from Glink will override settings in GlinkProxy if GlinkProxy is set up to allow Glink to change these parameters. For all communications, the proxy server is a transparent communication gateway between Glink and the host application

### ***Use server***

Must be checked to use the GlinkProxy server

### ***Address***

The address of the proxy server (not the host application)

### ***Port***

The default port number is 30855

### ***Secure communication***

Specifies to encrypt the data flow between the Glink client and the Glink Proxy server.

### ***Proxy keeps connection to host in seconds when***

#### **User disconnect**

Specifies the number of seconds the proxy server should keep the connection to the host application after a user initiated disconnect. The default value is 0 which means that the connection to the host is disconnected immediately. This is what happens without a proxy server.

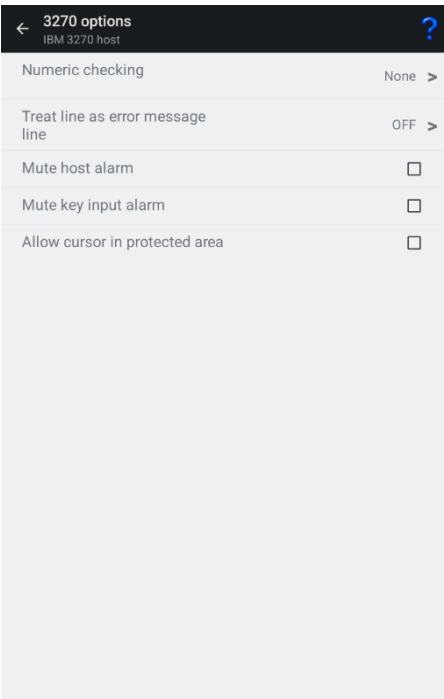
#### **Connection lost**

Specifies the number of seconds the proxy server should keep the connection to the host application after the connection to Glink is dropped, for example due to bad Wi-Fi signals. When the network connection is reestablished, the user can then reconnect and resume the session with the host application.

# Settings – Emulation

---

## IBM 3270 emulation options



### **Numeric check**

This option specifies what type of numeric checking should be done by the emulator when the host defines an unprotected field as being numeric. There are four possible values that can be set:

## Settings – Emulation

None	No numeric checking is done. This is equivalent to a Type-writer keyboard selection in some emulators.
Strict	Numeric checking is enforced, and only numeric digits, decimal point, comma, and minus sign may be entered in the un-protected field.
Emula- tor	Same as above but also allows plus sign (this is the numeric checking that is implemented in several other emulators).
Re- laxed	Allows all the above, also uppercase letters and shifted numerics (for example "!" and "#"). This is equivalent to a Data Entry keyboard selection in some other emulators.

The default setting is None, i.e., numeric checking is not performed.

### ***Treat line as error message line***

Text from the host at the line specified will be regarded as an error text and will be displayed at the status line together with a notification sound. Text starting after position 10 at this line will not be regarded as an error text.

### ***Mute host alarm***

Ignore alarms issued by the host application (The volume control and alarm sound is configured in the iOS/Android Settings).

### ***Mute key input alarm***

Ignore key input error alarms (The volume control and alarm sound is configured in the iOS/Android Settings).

### ***Allow cursor in protected area***

Normally if you point outside an input field, the cursor is not moved to this location. Instead, the keyboard, if displayed, is hidden (removed). If this option is checked,

the cursor is instead moved to the protected location without changing the keyboard state.

## ***3270 Transliteration – Host code page***

The IBM host is set up to use an EBCDIC code page. Glink needs to know which code page is used by the host to convert EBCDIC characters to Unicode characters used internally by Glink.

<b>Code page</b>	<b>Euro</b>	<b>Countries</b>
037	1140	Australia, Brazil, Canada, New Zealand, Portugal, South Africa, USA
273	1141	Austria, Germany
1025		Cyrillic
277	1142	Denmark, Norway
278	1143	Finland, Sweden
280	1144	Italy
870		Latin 2
284	1145	Latin America, Spain
285	1146	Ireland, United Kingdom
297	1147	France
500	1148	International
	1149	Iceland

## ***3270 General Options***

### ***Auto Tab Local***

If this option is selected, then an automatic tab to the next field of a form will be performed as soon as the last character of the field has been typed. If not selected, then no action will be performed until either the Tab key or the next character is entered.

### ***Destructive backspace***

Effective only for modes where characters are being echoed locally by the emulator, this option specifies that the backspace key should replace the character backspaced over with a space character. Note that in insert mode backspace will in any case delete such characters and move that part of the line following the cursor one character to the left.

### ***Scrollbar length***

This option lets you specify the maximum number of scrollbar pages saved. Note that each extra page of scrollbar you configure will cost extra memory allocated.



# Settings – Screen

---

## Toolbar setup



## Add

This option allows you to add new buttons to the current position in the current toolbar, so before tapping Add select the toolbar and toolbar-position where you want to add the new button(s). From the Add button screen you can select one or more buttons to be added. The button can either be used to activate a predefined function (key) or a Macro. Tap Save when you have completed your selection. If you decided to add a Macro, use the Modify menu function to set the button name and the macro string to be executed. See Macro string section below on how to define a macro string.

## **Settings – Screen**

Note that the simplest way to define a Toolbar macro is to use the macro-recording feature available from Menu > Record macro. See the help page for Record macro.

### ***Modify***

Each button in a toolbar can be modified by Modify menu function. You can modify the text displayed on the button for this function by editing the Button text field. If the Button selected is a Macro, you must define the Macro string to be executed when the button is tapped.

### ***Remove***

Use the Remove menu function to remove a button from the toolbar. The last button removed can be added again using the Paste menu function. Select a new position to paste the button at a new location.

### ***Paste***

See Remove menu function above.

### ***Add toolbar***

This option allows you to add new buttons to a new toolbar. From the Add toolbar screen you can select one or more buttons to be inserted. Tap Save when you have completed your selection.

### ***Button size***

This option allows you to adjust the width and height for all the toolbar buttons with a scaling factor (from 0.2 to 5.0).

Please note that the width for an individual button can be doubled by preceding the button text with a \* (star). If the button text starts with \*\*, the button width will be tripled and so on. For example, if the button text is modified from Enter to \*Enter, the button text shown is Enter but the button width is doubled.

## Macro string

When entering a macro string, in addition to plain text, there are several conventions, all of which are signaled using the caret (^). If you wish to enter a 'real' caret, then you must type it twice (^<sup>^</sup>).

Control characters may be entered using the normal convention with a letter following the caret symbol. For example, a return is ^M and a line feed is ^J.

You may also send specific ASCII codes in hexadecimal, decimal, or octal form by following the caret with a \$, #, or & character, and the desired code:

```
^#ddd decimal specification
^&ooo octal specification
^$hh hexadecimal specification
```

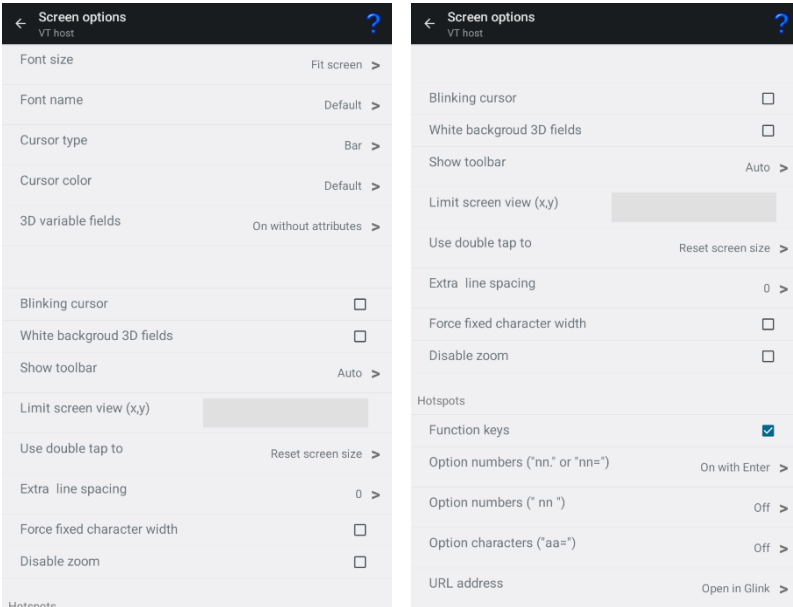
Note that decimal and octal codes must be 3 digits and prefixed with 0 if it is 2-digit codes.

Transmitting the string you have defined on a macro can be awkward if you are working in multiple environments where you sometimes need a CR terminator and sometimes need an ETX or EOT. To do this transparently, use the conventional form ^! (caret + exclamation mark). The correct line terminator will be sent depending on the mode in which the emulator is operating. Note that if a macro contains multiple transmits then the macro execution will be suspended on each transmit and resumed when the host has responded. This functionality is only reliable for host connections with a 'turn' mechanism that signals when the host response is finished (DSA, Ggate and TNVIP).

Function codes (for those using synchronous interfaces) may be sent using the form ^=x', where 'x' is the function code you wish to be sent with the next message to be transmitted.

If the last character in the macro string typed in is '^', it will be ignored. This can in fact be useful: in that trailing spaces are deleted from the input you type; you can use an appropriately placed '^' at the end of the string to ensure that required trailing spaces are actually included. For example, entering 'ABC ^' will provide a trailing space after the 'ABC'.

# Screen Options



## Font size

This option defines the initial font size to be used when Glink is started. If a large font is selected, some part of the screen display may not be visible without scrolling to it.

The *Auto* value selects a font size that is readable and, in most cases, suitable for the screen size.

The *Fit screen* options adjust the Glink display to fit the screen size. To do that, the characters will be stretched or squeezed.

## Font name

This option defines the name of the font used in the emulator window. Only mono spaced fonts are available.

### Font style

Here you may choose the display style for your chosen font (iOS only).

## ***Cursor type***

The cursor indicates the current screen position for the emulator (as opposed to the mouse cursor, which operates independently). This option is used to choose one of the three available cursor types — a block cursor, a horizontal line cursor, or a vertically bar cursor.

## ***Cursor color***

This option is used to change the cursor color if the default value is not optimal. The cursor color has most effect for the block cursor type. For block cursor the underlying character will either have a white or black color.

## ***3D variable fields***

This option enables use of 3D effects for variable fields for those emulations that support the use of forms. You have four options, "On without attributes", "On with attributes", "On without underline" and "Show as underline". Normally a 3D field has white background, but you may keep the initial attributes set by the host for those input fields. The attributes can for example be specific background color or underlined text.

## ***Blinking cursor***

Here you may choose the cursor to blink. Please have in mind that a blinking cursor requires more resources, so screen updating, and scrolling might look better without it.

## ***White background 3D fields***

This option forces the background of a 3D variable field to always be white regardless of the default background color selected.

Similar, if the host specific sets the background color for an input field, the background color will still be white.

## Settings – Screen

if you want the foreground color to always be black, select the 3D variable fields option "On without attributes".

### **Show toolbar**

The toolbar can be shown as a single-line toolbar with a toggle button to switch between the toolbars defined or as a multiline toolbar where all the toolbars defined are shown. If the multiline toolbar option is selected, Glink will still use the single-line toolbar to save space when the keyboard is up.

The *Auto* value means *Multiline* for a big screen (for example tablet) and *Single line* for a small screen (for example phone).

The *Off* value means that the toolbar is not shown by default.

Please note that you can change the number of buttons and the number of toolbar lines with the Toolbar setup function.

### **Limit screen view (x,y)**

If a host application uses just a part of the screen, the screen view may be decreased to match this size. The right and lower part will just be cut off and not visible. For example, if the parameter is set to "40,20", only the first 40 characters of each line up to line 20 will be visible. This parameter has no impact on the emulation itself. "x" limits only the number of columns, "y" limits only the number of rows.

### **Use double tap to**

This option specifies the action performed when double tapping the Glink screen, either Reset screen size, Perform Enter, Toggle Action bar On/Off or Enable/Disable touchscreen.

The Reset screen size sets the initial screen size, the Perform Enter does an Enter (Send) command.

The Toggle Action bar On/Off (On) and Toggle Action bar On/Off (Off) toggles the Action bar On or Off. In the latter case, the Action bar is initially hidden. When the Action bar is hidden, it can be handy to add an Enter button to the toolbar (acts as a connect command if the session is disconnected).

The Enable/Disable touchscreen (Enable) and Enable/Disable touchscreen (Disable) enables/disables the touch screen. In the latter case the touchscreen is initially

disabled. When the touchscreen is disabled, both the Action bar and the Toolbar is hidden. External keyboard (keys) or scanner is not disabled.

## ***Double tap again to confirm***

If this option is set, a message informs the user to double tap again to perform the selected double tap action. The second double tap must follow within a short period not to be ignored.

## ***Extra line spacing***

Add extra space between the lines (gives more space for hotspots if used). A negative number will decrease the standard line spacing.

## ***Force fixed character width***

Glink uses a fixed font, but for some special characters and symbols, the width may still vary. This option forces Glink to update the screen character by character at the correct position. Might slow down the screen update (Android option only).

## ***Disable zoom***

Disable the zoom function for the main Glink screen.

## ***Show key input on status line***

The key input is shown on the status line before it is handled by Glink. Please note that hidden input, like passwords, will also be shown on the status line when this option is enabled (Android option only).

## ***Hotspots***

The hotspot options tell Glink to search for specific keywords on the screen and highlight these as push buttons and assign a function to each of them.

For example, if the F6 text is on the screen, it will be highlighted as a push button and the function F6 will be assigned to it and executed when tapped.

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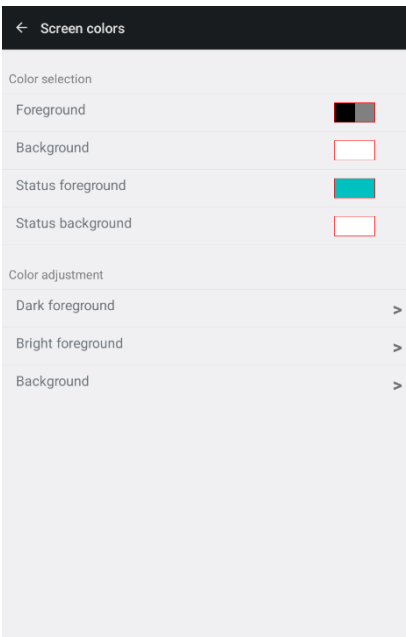
If Option numbers is enabled, text like 2. or 2= will be searched for and highlighted (the number only). If this hotspot is tapped, the number is added at the current cursor position. Optionally it can be followed by the Enter function to transmit it. Numbers larger than 99 is not converted to hotspots.

If the next Option numbers is enabled, numbers that are both proceeded and followed by a space will be searched for and highlighted. If this hotspot is tapped, the number is added at the current cursor position and optionally followed by an Enter function to transmit it. Numbers larger than 99 is not converted to hotspots.

If Option characters is enabled, characters followed by the = character will be highlighted. If this hotspot is tapped, the character(s) is added at the current cursor position and optionally followed by an Enter function to transmit it. For example, S will be regarded as a hotspot for the text S=Search.

If URL address is enabled, URLs will be highlighted. If this hotspot is tapped, Glink will either open an external browser or use the built-in browser in Glink to display the URL content.

## Screen Colors





## ***Color selection***

The screen color options allow you to choose the default foreground and background colors for the emulator screen and for the status line.

The default name of the colors available are listed together with icon. If the color name does not match the color icon, the color has been adjusted.

## ***Color adjustment***

The color adjustment options allow you to adjust the 8 dark plus 8 bright foreground colors and the 8 background colors. The original color's names are displayed in the color adjustment display. If a color has been adjusted, it may not match the name for that color.

## ***VIP attribute mapping***

This menu allows you to select which visual attributes are to be associated with every type of field setting from the host. Each attribute defined by the host has a specific letter associated with it.

For each of the attributes that may be set by the host, you can specify which of the visual attributes should be associated with it. Each of the visual attributes may be left **as is** (leave blank), turned **ON**, or turned **OFF**. As an example: you wish all unprotected fields to be presented in red inverse video. You would first select the VIP attribute Unprotected at the top, then set Red ON, Green and Blue Off and last Inverse On. Note that colors are mixed, so to produce yellow for example, you would turn red and green ON, while turning blue OFF.

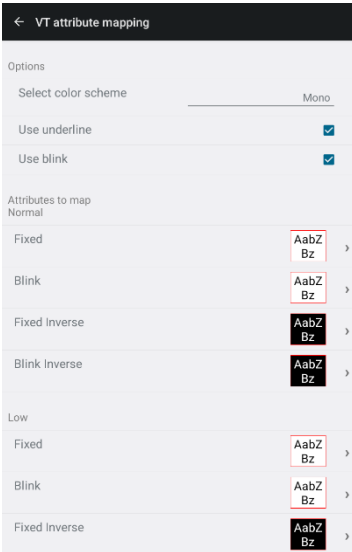
One additional VIP attribute is available and is listed as user input. This attribute will be applied to all user input typed at the keyboard so long as no attribute has been set at the current position by the host computer. This may be used to provide easy differentiation of text you yourself have typed and text that came from the host. (Note: this does not apply to ECHO mode - in ECHO mode all characters displayed come from the host). This specific attribute is not part of the standard VIP attribute set, but may be accessed by the host using the sequence <esc>s[.

Obviously, some of the attributes will already be set for you, for example the VIP attribute Inverse will be set by default to turn on inverse while leaving the other

## Settings – Screen

attributes alone. In the example above, if you wanted to ensure that the **ONLY** inverse video fields to be shown were the unprotected ones, then you should reset (clear) the settings for the VIP attribute Inverse.

# ANSI/VT/DKU attribute mapping



This configuration table allows you to select which attributes should be used in practice for various combinations of attributes sent by the host application.

There are four different color schemes available. In addition, a Custom color is available if you have modified one of the default ones.

Normally Glink will preserve the state of the underline as it is sent by the host, but if you have mapped underline to a specific color then you may find that to be enough. In that case uncheck the Use underline option.

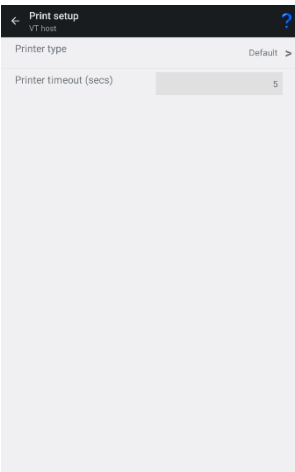
You may modify the color scheme selected to create your own one. Click on the attribute field to remap. Then choose the desired foreground and background colors from the list boxes. Repeat these operations for the other attribute fields to be remapped.

If you have modified one of the existing colors schemes, it will be saved as Custom colors scheme. If custom colors scheme already exists, it will be overwritten.

# Settings – Devices

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## Print options



### Printer type

This option allows you to select where to print the data.

The Default option directs the print to a Print screen window for further processing. A print icon will be displayed at the action bar when print is available. Tap the icon to see the print data and the options available.

The LPD server option directs the print to a LPD print server. Tap the config icon to specify the LPD print parameters.

The Bluetooth printer option directs the print to a Bluetooth connected printer. Tap the config icon to select a paired Bluetooth printer.

The None option will ignore the print data.

### ***Bluetooth printer options***

#### **Bluetooth device**

Tap the **SELECT** button to select a Bluetooth printer device. The printer must already be paired to show up in the list. This is done from the Android Settings app (*Settings->Bluetooth*).

Alternative, type the Bluetooth address of the printer using the following format *xx:xx:xx:xx:xx:xx*

#### **Init string**

Some printer requires that an Init string is sent before the actual print data. Some Init strings contain low ascii character. Use the following syntax to specify the hex value for a character.

**^\$nn**

where **nn** is the hex value for the character. For example, the Esc character (0x1b) is specified with the syntax **^\$1b**.

Some Intermec printers requires a Query to be sent in ESC/P mode and Fingerprint (FP) mode to "wake up" the printer, for example **^\$1b{QST:HW}** (ESC/P mode) or **\$\$SYSHEALTH\$*n*** (FP mode).

#### **Character encoding**

The character encoding must match the encoding used by the printer.

### ***LPD server options***

The **LPD server address** option specifies the host name or IP address of the LPD server handling print.

The **LPD queue name** option specifies to which printer queue print data should be directed for LPD servers which service more than one printer.

The **Pre-print character** option specifies which characters, if any should be sent to the LPD printer before output is printed.

The Pre-print control characters are added only if the *Print screen* function is used or the *Use print ctl for host data* option is checked.

The **Post-print character** option specifies which characters, if any should be sent to the LPD printer after the output has been printed.

The Post-print control characters are added only if the *Print screen* function is used or the *Use print ctl for host data* option is checked.

The **Transparent** option requests the LPR server to send the print data directly to the printer with no formatting. This may be needed if the data coming from the host is already set up for printing on a 'real' printer or contains control sequences specific to the lpd printer you are using.

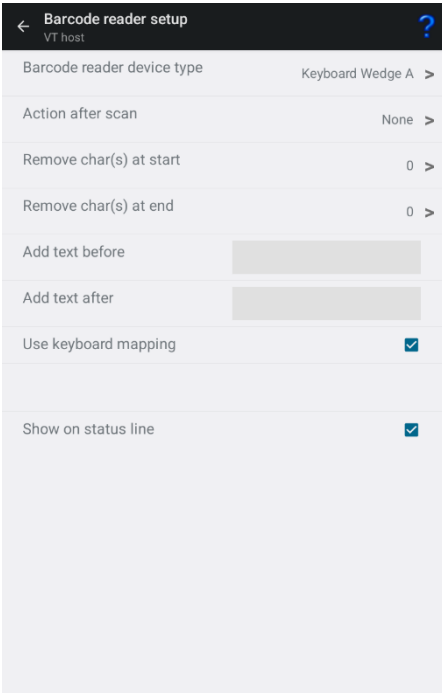
This option may be used in combination with the *Use print ctl for host data*, the *Pre-print character* and the *Post-print character* options.

**Use print ctrls for host data** option. Glink will only supply any configured pre- and post-print control characters when doing the *Print screen* function. If you want these also to be applied to host data then check this option. Note that this is only useful when the host sends complete data blocks.

### ***Timeout***

This option specifies how long Glink should wait before emptying print output from the host to the printer.

# Barcode reader options



Glink can either receive scanner data as simulated keyboard input (Keyboard Wedge) or receive scanner data through device specific configuration. Most scanners are using Keyboard Wedge by default.

It is however recommended to use device specific configuration if available (or Keyboard Wedge A) since that gives better performance and more control of how scanned data is handled.

When device specific configuration is selected, scanned data is also displayed on the status line. If scanned data is received, but not displayed on the status line, you should check your settings, since scanned data is still received as keyboard input.

## **Barcode reader device type**

Select the proper barcode reader device type:

Keyboard Wedge	Default. Scanned data is received as keyboard input. Glink cannot separate scanned data from keyboard input.
Keyboard Wedge A	Scanned data is still received as keyboard input, but if a special prefix and suffix character is configured, Keyboard Wedge Advanced is used.
Camera	Enables scanning using the camera. An icon is added to the action bar at the top of the Glink display. Tap the icon to use the camera for barcode scanning.
AML scanner	Use with AML devices. Use the AML Barcode Scanning app supplied with the device to set scanner parameters.
Ci- pherlab scanner	Use with Cipherlab devices. Use the ReaderConfig application supplied with the device to set scanner parameters.
Data- logic scanner	Use with Datalogic devices. Use the standard <b>Android Settings</b> app to set the Datalogic scanner parameters.
Denso scanner	Use with Denso devices. Tap the settings icon on the action bar to set Denso scanner options.

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Honey-  
well  
scanner

Use with Honeywell devices. Tap the settings icon on the action bar to set Honeywell scanner options.

M3 Mo-  
bile

Use with M3 Mobile devices. Use the ScanEmul application supplied with the device to set scanner parameters.

Point  
Mobile

Use with Point Mobile devices. Use the standard **Android Settings** app and select the Scan-Settings option to configure the scanner.

Seuic  
Scanner

Use with Seuic scanner devices. Use the **Scan tool** app supplied with the device to set scanner parameters.

Socket  
Mobile

Use with *Socket Mobile Scanner (CHS)*. Use the Socket Mobile Companion App to pair and set up the scanner to use Application Mode (SPP) for Android.

Unitech  
scanner

Use with Unitech devices. Tap the settings icon on the action bar to set Unitech scanner options.

Urovo  
scanner

Use with Urovo devices. Use the standard **Android Settings** app and select Scanner Settings option to configure the scanner. Glink will by default use the Intent Output mode of the scanner setting to receive scanned data. If the scanner is set up with Keyboard output mode, Glink will just switch to the Intent mode when Glink is active and back to whatever is configured in the Scanner settings when Glink becomes inactive.



Tap the settings icon on the action bar to set Urovo scanner Intent options.

Zebra  
scanner

Use with Zebra devices. Tap the settings icon on the action bar to set Zebra scanner options.

## ***More options***

Please note that most scanner software can be configured with options like the ones below. Make sure that these options either is set here in Glink or in the Device Scanner settings itself. Check the Device Scanner manual.

### ***Action after scan***

None	Do no action after scanning
Tab	Do Tab after scanning
Enter	Do Enter after scanning
FldExit	Do Field Exit after scanning (5250 emulation mode only)

### ***Remove char(s) at start***

Removes one or more characters at the beginning of the barcode.

### ***Remove char(s) at end***

Removes one or more characters at the end of the barcode.

### ***Add text before***

Add text before the barcode.

### ***Add text after***

Add text after the barcode (the Action after scan will be added after this text).

### ***Use keyboard mapping***

Check this option if keyboard mapping should apply for scanned data. For example, if colon (:) is mapped to the *Tab* function and the semicolon (;) is mapped to the

## Settings – Devices

*Enter* function, a scanned barcode text 1234:5678; will be interpreted as key input 1234**Tab**5678**Enter**

### **Show on status line**

Display the scanned data as a status message at the bottom of the screen as well.

## **Keyboard Wedge A**

The Keyboard Wedge Advanced mode requires that the device specific settings for the scanner (not Glink) is set up with hex 0E (SO) as prefix character and hex 0F (SI) as suffix character. Some devices let you select SO (shift out) as the prefix and SI (shift in) as the suffix, others let you just type the hex value. For others it is not possible to specify these low ascii characters or low ascii characters is stripped off. In this case, specify the prefix as ^\$0E and the suffix as ^\$0F.

If the prefix and the suffix is not set up properly, the default Keyboard Wedge mode will be used instead.

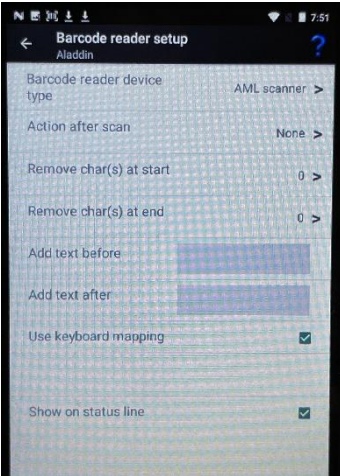
When the Keyboard Wedge Advanced mode is selected, the options described under More options in Glink are available.

To check that Keyboard Wedge Advanced is configured correctly, the scanned data should be shown on the status line at the bottom of the Glink screen.

## AML Scanner setting

Use the AML Barcode Scanning app supplied with the device to set various scanning parameters.

Please note that the prefix and suffix parameters set in the AML Barcode Scanning app will be ignored if the *Add text before* and the *Add text after* parameters are specified in Glink. The AML Barcode Scanning suffix parameter will also be ignored if the *Action after scan* parameter is specified in Glink.



## Cipherlab ReaderConfig app

The ReaderConfig app is used for the configuration of the scanner. A Default profile is defined, and this profile is set up to deliver scanned data as simulated keyboard input. Glink can therefore not distinguish scanned data from keyboard data. A better solution is to configure the scanner to send data with Intent Action to Glink.

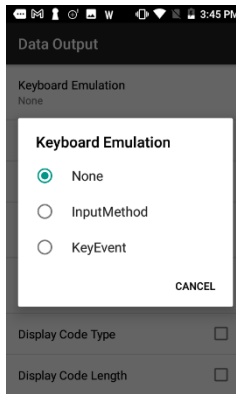
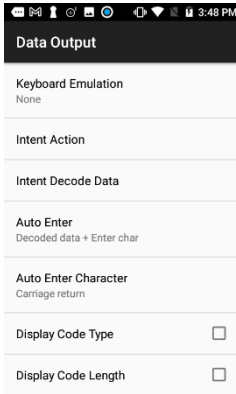
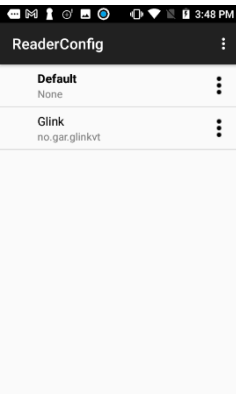
To check that data is received with Intent Actions, the scanned data should also be displayed on the status line at the bottom of the Glink screen.



### Intent Action configuration

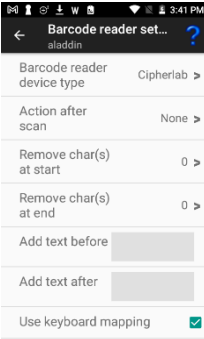
To set up the scanner software to use intent action, set the following parameter in the ReaderConfig app:

Default->Data Output->Keyboard Emulation->None



In Glink, if not already done, select the parameter:

Settings->Barcode reader setup->Barcode reader device type->Cipherlab



### ***Prefix and suffix settings***

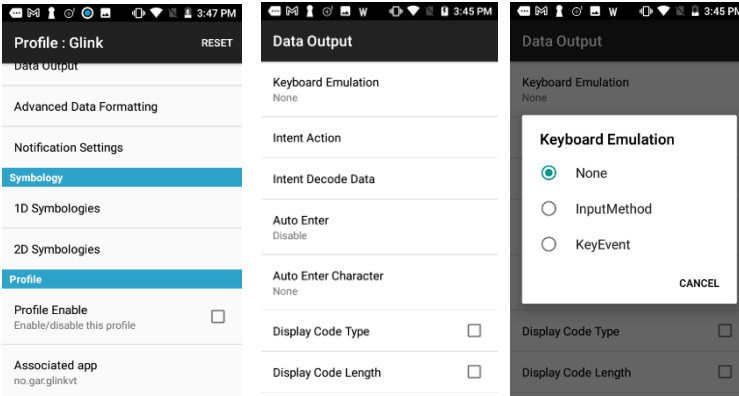
When the scanner is set up to use Intent Action, Prefix, Suffix and Action after scan can be configured both in the ReaderConfig app and in Glink. Make sure to set these parameters in one place only.

### ***Specific profile for Glink***

In the ReaderConfig app a new profile can be defined and associated with a given app, for example Glink.

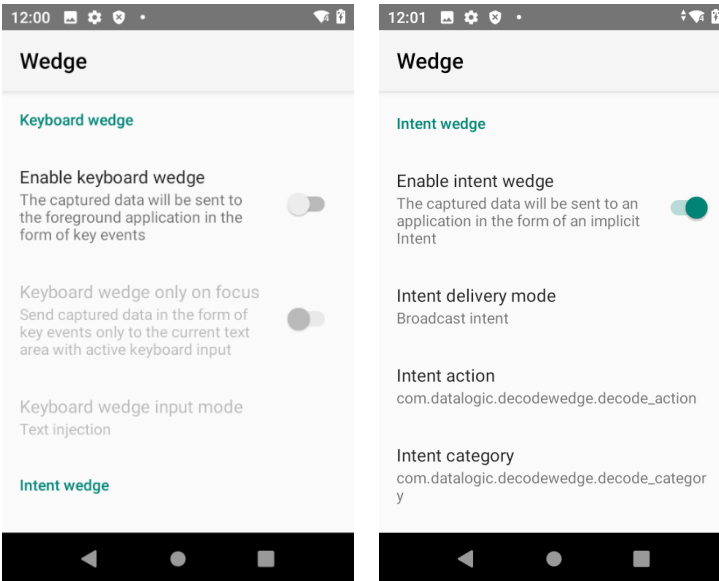
In the main screen for the ReaderConfig app select the Drop-down menu->New. Enter a name. Then select Associated App->Glink (VT/5250/3270) and then check Profile Enabled parameter. Finally set the parameter Data output->Keyboard Emulation->None

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## Datalogic scanner settings

Go to Android Settings->Datalogic Settings->Scanner settings->Wedge or for Android 9 or older Settings->System->Scanner settings->Wedge and disable Enable Keyboard Wedge and enable Enable Intent Wedge.



In addition, please check/set the following parameters:

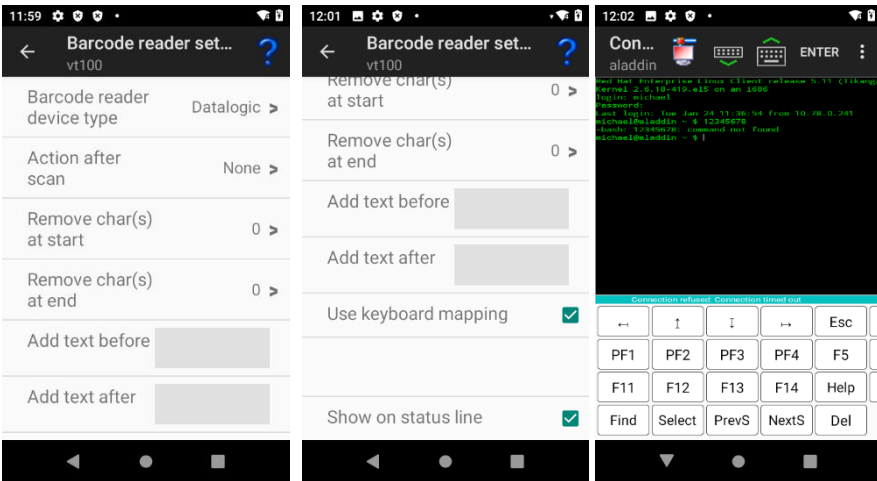
Intent delivery mode: **Broadcast intent**

Intent action: **com.datalogic.decodededge.decode\_action**

Intent category: **com.datalogic.decodededge.decode\_category**

If scanned data is received twice, Enable Keyboard Wedge might still be on.

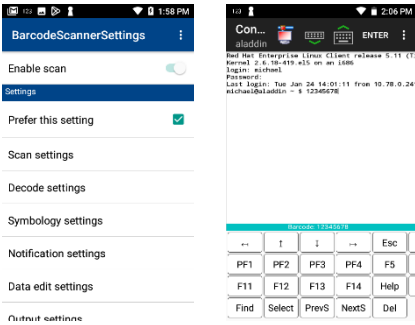
To check that scanned data is received with Data intent, the scanned data should also be displayed on the status line at the bottom of the Glink screen. If scanned data is received without data displayed on the status line, check that the parameter Show on status line is enabled and Enable Keyboard Wedge is disabled.



Please note that similar parameters in Glink, like prefix and suffix, will not override the parameters specified in Android settings. They will be added to the parameters specified in Android settings.

## Denso scanner options

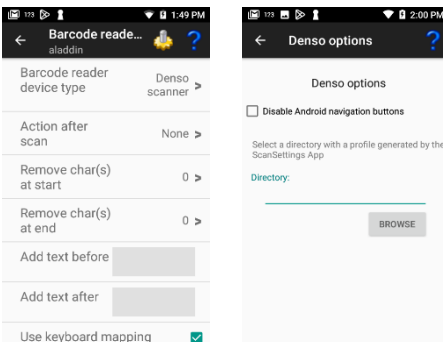
The configuration of the barcode scanner software is done with the ScanSettings app that is delivered with the Denso device. If the parameter Prefer this setting is checked in the ScanSettings app, the scanner software will always use this setting. If the parameter Prefer this setting is NOT checked, the scanner software will use a default setting provided by Glink that will work in most cases.



## ScanSettings profile directory

Customized scanner profiles can be prepared for use by Glink and exported from the ScanSettings app. Before the profile is exported, make sure that the parameter Prefer this setting is checked. If more than one profile is needed, export the profiles to different directories.

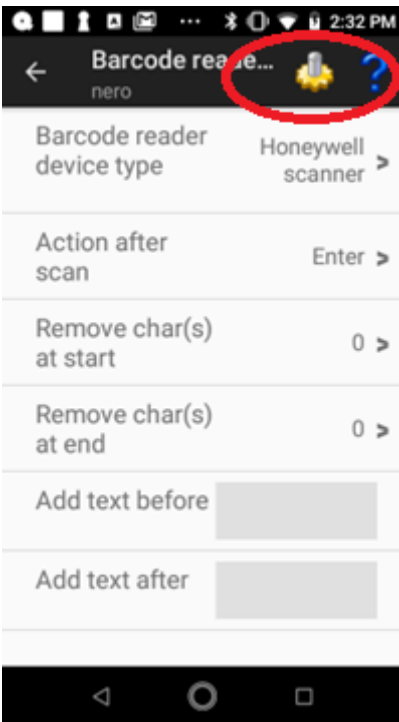
In Glink you can specify a profile directory that will be used when the Glink session is active. If specified, Glink will instruct the scanner software to load the profile found in this directory. Use the BROWSE button to locate the directory that contains the scanner profile. If more than one scanner profile exists in the selected directory, the result is unpredictable.





## Honeywell scanner options

Glink can either receive scanner data as simulated keyboard input or receive scanner data with Data intent. In the latter case, a Honeywell scanner profile must match the Glink settings.



### Profile name

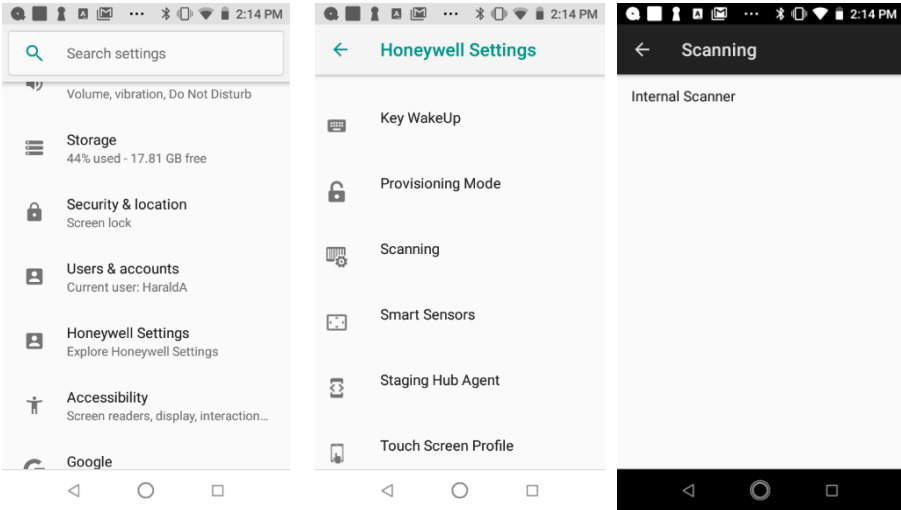
Specify the name of the Honeywell scanner profile to be used with this Glink session configuration. The default value is *Glink*

### Intent action

Glink will listen for an Intent action (default value is *no.gar.glink.data*) sent by the Honeywell scanner. The scanner profile must be configured with a matching Intent action, see Honeywell scanner profile settings below:

### ***Honeywell scanner profile settings***

For Glink to receive scanned data, a Scanner profile must be configured. Select the standard Android **Settings** app, scroll down to the *Honeywell Settings* section, select *Scanning*->*Internal Scanner* to setup the internal scanner or *Scanning*->*Bluetooth Scanner* to setup an external Bluetooth scanner.



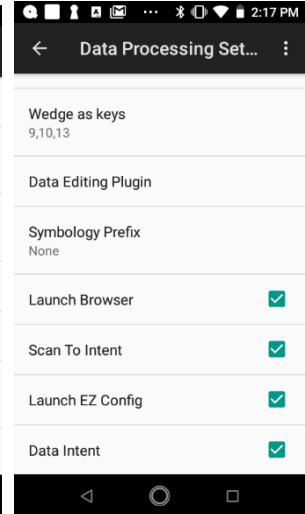
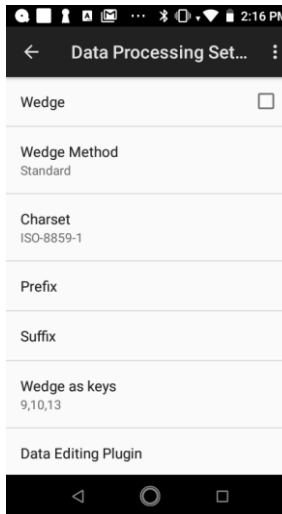
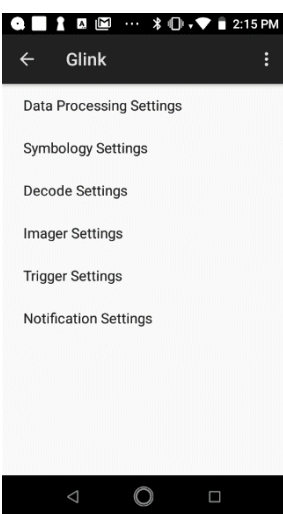
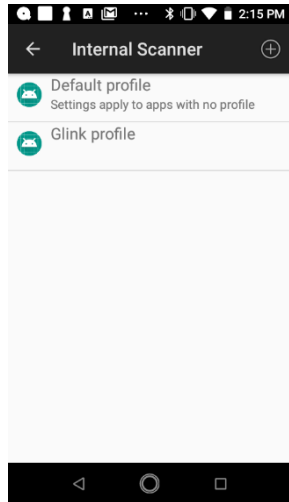
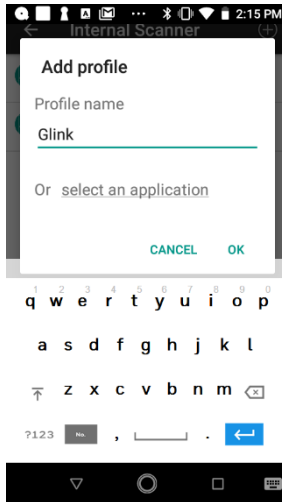
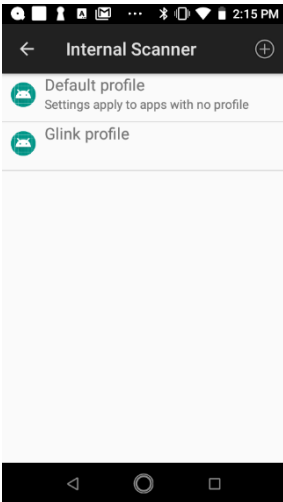
### ***Internal scanner***

In the upper right corner, select the + symbol to create a new Scanner Profile. Use *Glink* as the profile name. Select the new *Glink* profile and then select *Data Processing Settings*. Scroll down to *Data intent*, select it and set Action field to *no.gar.glink.data*.

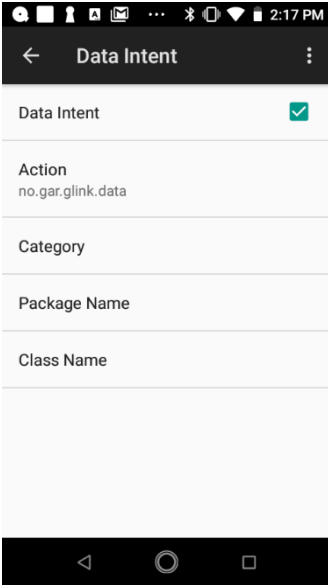
### ***Bluetooth scanner***

Select the Default profile and then select *Data Processing Settings*. Scroll down to *Data intent*, select it and set Action field to *no.gar.glink.data*.

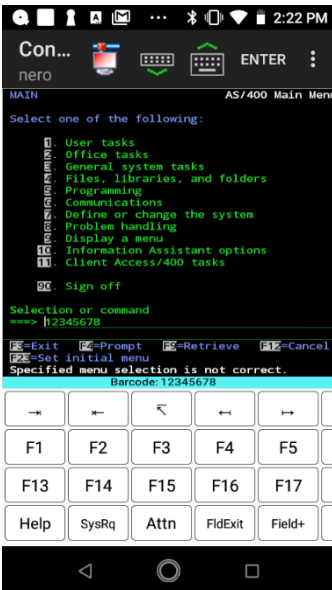
To check that scanned data is received through this interface, the scanned data should also be displayed on the status line at the bottom of the Glink screen. If scanned data is received without data displayed on the status line, the scanned data is received as keyboard input data (Wedge mode).



## Settings – Devices



When you scan a barcode with this setting, the scanned barcode is shown on the status line. In the image below, we have scanned the barcode “12345678” with Enter as the action after scan. AS400 responds that the “*Specified menu selection (12345678) is not correct.*”.



## M3 Mobile options

### Glink sets Output Mode

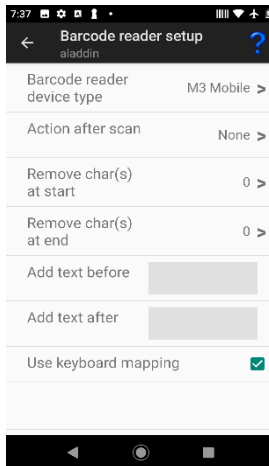
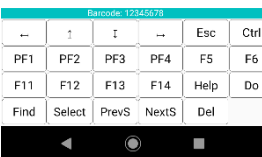
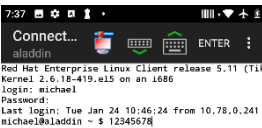
When the **Glink sets Output Mode** option is enabled, Glink will set **ScanEmul Output Mode** to *None* while in the main emulator screen and set it to *Copy and Paste* when this screen is exited. When this option is disabled, Glink will not make any changes to the **ScanEmul Output Mode**.

Disable this option when you do not want Glink to set the Default option to *Copy and Paste* when Glink exit, for example because other applications using the Default profile depend on a different setting.

When using an associated profile with Glink you should also disable the **Glink sets Output Mode** option in Glink and set **ScanEmul Output Mode** to *None* (Copy to clipboard).

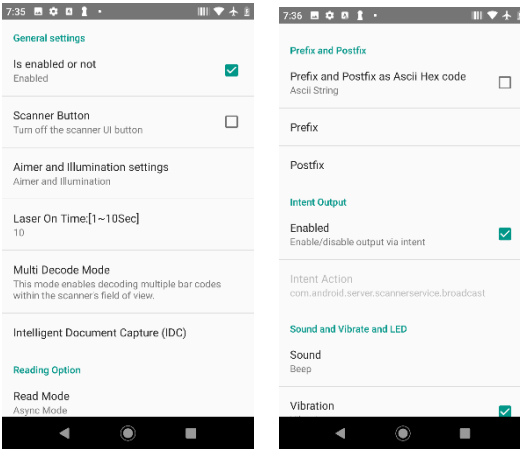
### M3 Mobile ScanEmul app

The **M3 ScanEmul** app is used for the configuration of the scanner. A **DEFAULT** profile is defined, and this profile is set up to deliver scanned data with *Intent Actions* which is the preferred method to deliver scanned data to Glink. In Glink, the scanned data should be displayed both in the current input field and on the status line of Glink.



## Settings – Devices

If scanned data is not displayed on the status line at the bottom of the Glink screen, check in the Barcode reader setup in Glink that **M3 Mobile** is selected as the device type. In the ScanEmul app check that *Intent Output* is enabled for the Default profile.



### ***Prefix and suffix settings***

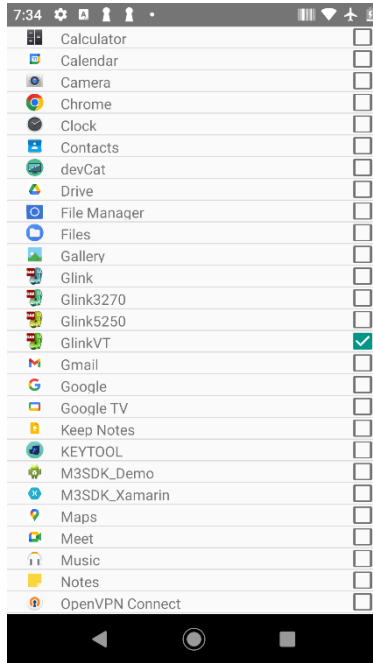
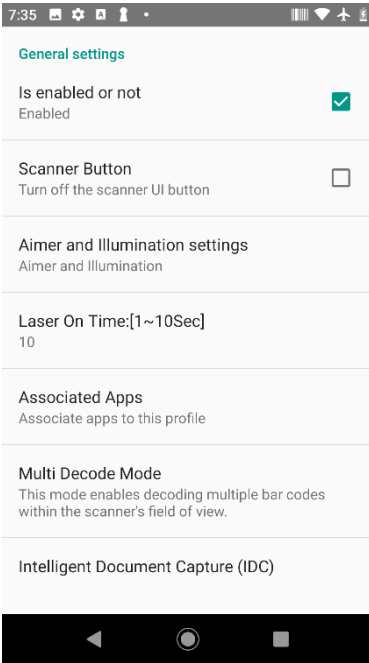
When the scanner is set up to use Intent Action, *Prefix*, *Suffix* and *Action after scan* can be configured both in the ScanEmul app and in Glink. Make sure to set these parameters in one place only.

### ***Specific profile for Glink***

In the ScanEmul app a new profile can be defined and associated with a given app, for example Glink.

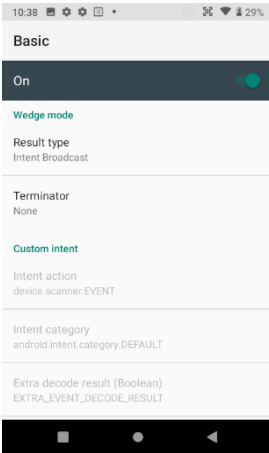
In the main screen for the ScanEmul app select the *Drop-down menu*->*Add Profile*. Enter a name. Then select *Associated Apps* -> *GlinkVT / Glink5250 / Glink3270 / Glink* .

Please note that an app can only be associated with one profile at a time.



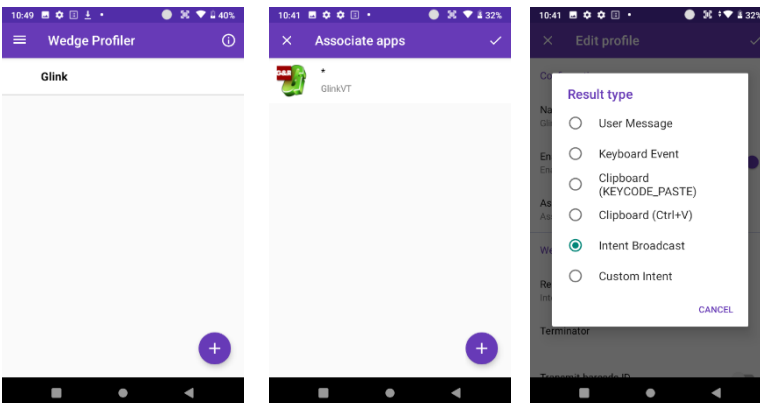
## Point Mobile scanner settings

Go to Android **Settings->ScanSettings->Basic**. Scroll down to Wedge mode and select **Result type** and enable **Intent Broadcast**.

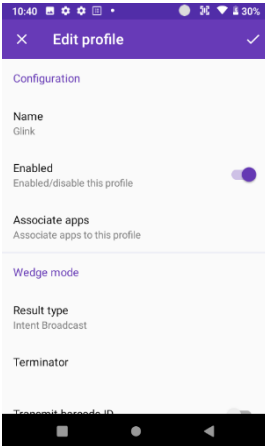


## Wedge Profiler

If you have multiple apps on your device, where each app requires different data capture rules, you should use the **Wedge Profiler** app from Point Mobile to define and assign a unique scanner profile for each app instead of using the global Scanner settings. Use **Wedge Profiler** to create a new profile for Glink, name it for example **Glink**, enable the profile, tap **Associate apps**, select **Glink** and select **all activities** by selecting the **Glink \*** item. Tap the Check icon to save the changes. Finally, under **Wedge mode** select **Result type** and enable **Intent Broadcast**.

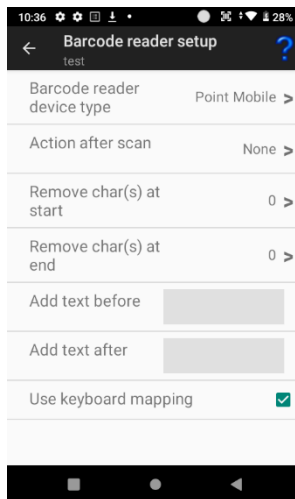
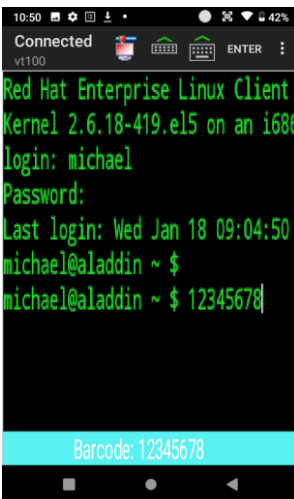






## Show on status line

To check that scanned data is received with Data intent, the scanned data should also be displayed on the status line at the bottom of the Glink screen. If scanned data is received without data displayed on the status line, check that the parameter **Show on status line** is enabled in **Glink -> Settings -> Barcode reader setup**.

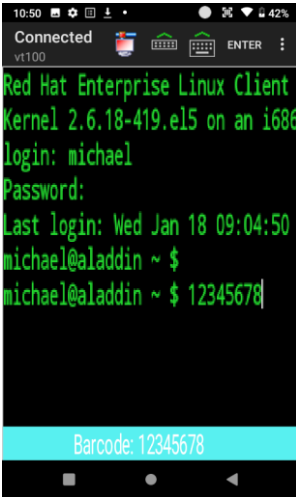


Please note that similar parameters in Glink, like prefix and suffix, will not override the parameters specified in Android settings. They will be added to the parameters specified in Android settings.

## Seuic scanner settings

### Show on status line

To check that scanned data is received with Data intent, the scanned data should also be displayed on the status line at the bottom of the Glink screen. If scanned data is received without data displayed on the status line, check that the parameter **Show on status line** is enabled in **Glink -> Settings -> Barcode reader setup**.



Please note that similar parameters in Glink, like prefix and suffix, will not override the parameters specified in Android settings. They will be added to the parameters specified in Android settings.

## Socket Mobile Companion App

The Socket Mobile device is by default setup in HID-Keyboard mode. In this mode the scanner acts as an external Bluetooth keyboard and scanned data is received in Glink as keyboard input.

A better solution is to download from Google Play the **Socket Mobile Companion App** and use it to pair the scanner with the Android device and set the scanner to use Application Mode (SPP) for Android. Then select Socket Mobile as the Barcode reader device type in Glink.

## ***Unitech scanner options***

Glink can either receive scanner data as simulated keyboard input or receive scanner data with Data intent. In the latter case, the *Intent action* and *Intent string extra* must match the settings in the **Scanner settings** app.

### ***Enable Data intent mode***

#### **Android 9 or older versions**

To enable Data intent mode on the unitech device, start the **Scanner settings** app from the Android settings. Check the Scanner Settings option and uncheck **Key-board output mode**. Then make sure the two parameters *Intent action* and *Intent string extra* is the same in both the Glink barcode settings and the **Scanner settings** app.

#### **Android 10 or newer versions**

Glink will by default use Data intent and additional settings is normally not required. Start the **USS** (unitech Scanner Service) app from the Android settings to set various scanner parameters.

### ***Intent action***

Glink will listen for an Intent action sent by the unitech scanner. This parameter must match the value set in the **Scanner settings** app. If nothing is specified in Glink, Glink will use the default value *android.intent.ACTION\_DECODE\_DATA* for Android 9 and *unitech.scanservice.data* for Android 10 or newer.

### ***Intent string extra***

This parameter must match the value set in the **Scanner settings** app. If nothing is specified in Glink, Glink will use the default value **barcode\_string** for Android 9 and **text** for Android 10 or newer.

### ***Show on status line***

Make sure the parameter *Show on status line* is enabled to see scanned data received with Data intent on the status line at the bottom of the Glink screen. When this parameter is not enabled or scanned data is received as simulated keyboard input, you will only see the scanned barcode in the emulator screen.

## ***Urovo scanner options***

Glink will by default use Data intent and additional settings is normally not required. Select **Scanner Settings** from the Android settings to set various scanner parameters.

### ***ScanWedge***

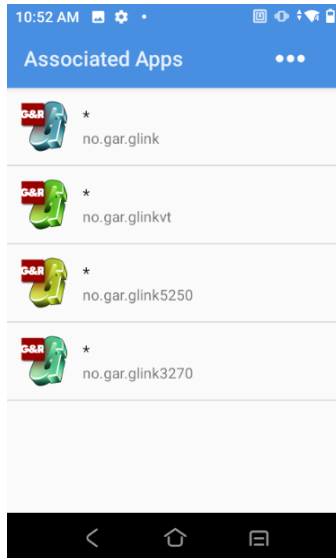
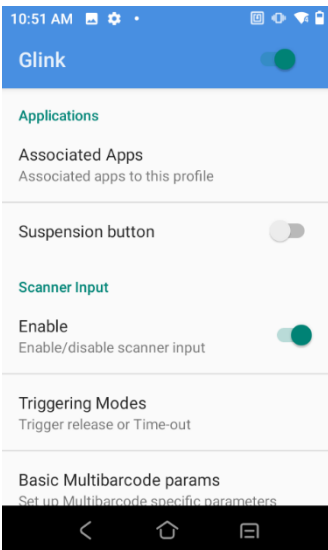
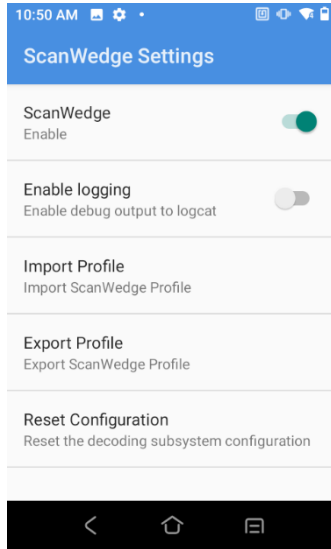
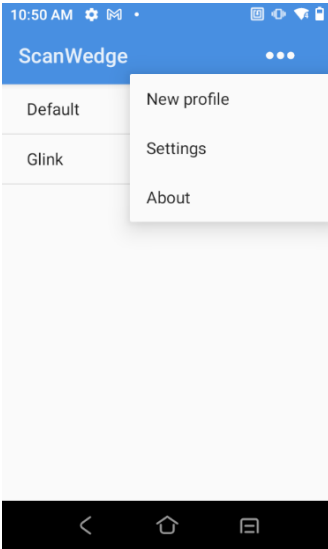
If you are using multiple apps for barcode scanning on your device, and each app requires different data capture rules, you should use the **ScanWedge Profiles** app to define and assign a unique scanner profile for each app instead of using the Default Scanner Settings. You will find **ScanWedge Profiles** in Android settings. Use **ScanWedge** to create a new profile for Glink, name it for example *Glink*, enable the profile, tap **Associated Apps -> Menu -> Associate more app**, select **Glink** and select **all activities** by selecting the **Glink \*** item.

### ***Intent action***

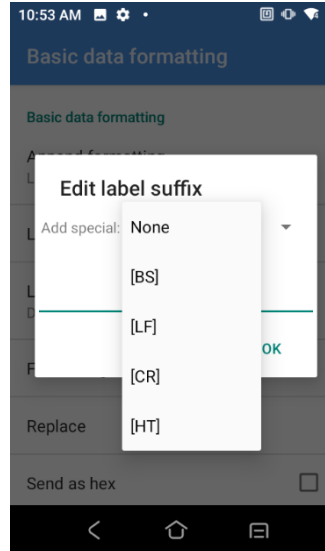
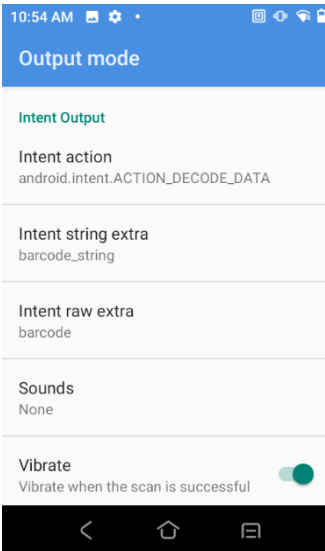
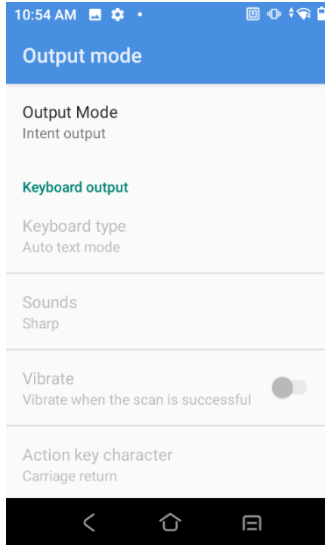
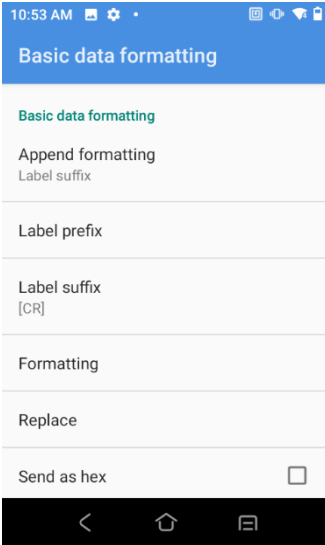
Glink will listen for an Intent action sent by the Urovo scanner. This parameter must match the value set in the **Scanner settings / ScanWedge** app. If nothing is specified, Glink will use the default value **android.intent.ACTION\_DECODE\_DATA**.

### ***Intent string extra***

This parameter must match the value set in the **Scanner settings / ScanWedge** app. If nothing is specified in Glink, Glink will use the default value **barcode\_string**.



## Settings – Devices



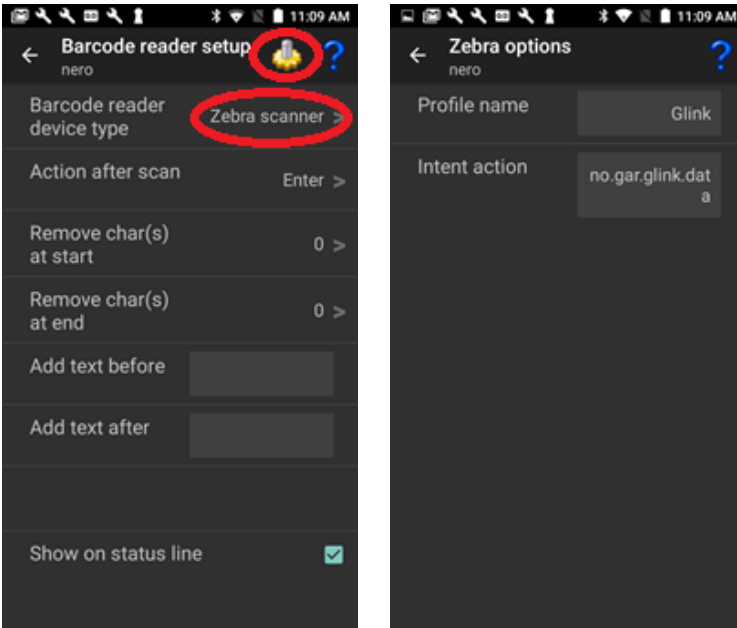
### ***Show on status line***

Make sure the parameter *Show on status line* is enabled to see scanned data received with Data intent on the status line at the bottom of the Glink screen. When this parameter is not enabled or scanned data is received as simulated keyboard input, you will only see the scanned barcode in the emulator screen.

## Zebra scanner options

Glink can either receive scanner data as simulated keyboard input or receive scanner data with Data intents.

The text below describes how to use Data intents. If set up correctly, scanned data will be displayed in the input field and in the Glink status line.



## Glink settings

To receive scanner data with Data intents, the Zebra DataWedge profile must match the Glink settings.

### Profile name

Specify the name of the Zebra DataWedge profile to be used with this Glink session configuration. The default value is *Glink*

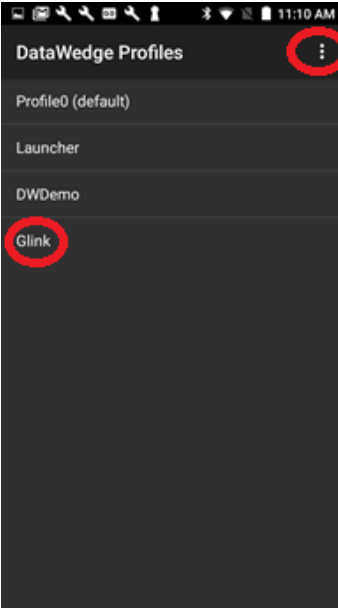
### Intent action

Glink will listen for an Intent action (default value is *no.gar.glink.data*) sent by the Zebra scanner. The Zebra DataWedge profile must be configured with a matching Intent action, see Zebra DataWedge profile settings below.

### **DataWedge app**

The DataWedge app is delivered by Zebra and it used to configure new DataWedge profiles or modify existing ones.

Create a new profile and name it *Glink* (if that is specified as the Profile name above).



### **Zebra DataWedge profile settings**

For Glink to receive scanner data from Zebra DataWedge, the Glink profile must include the settings:

#### Applications

Associated Apps -> No supported apps should be shown.

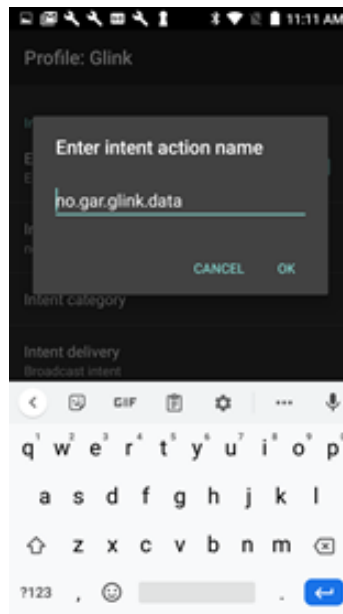
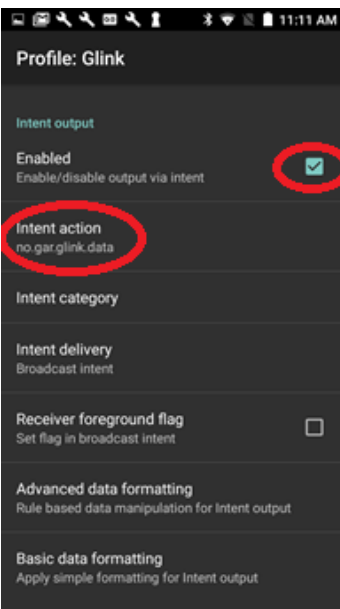
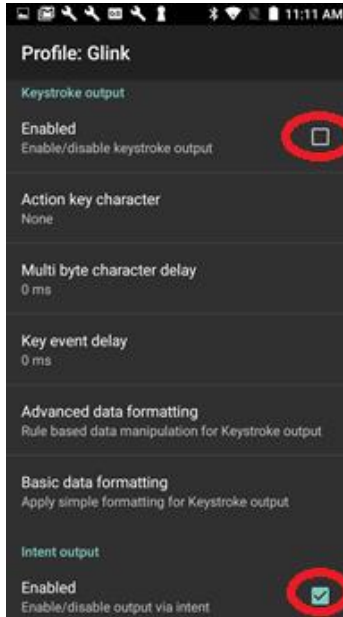
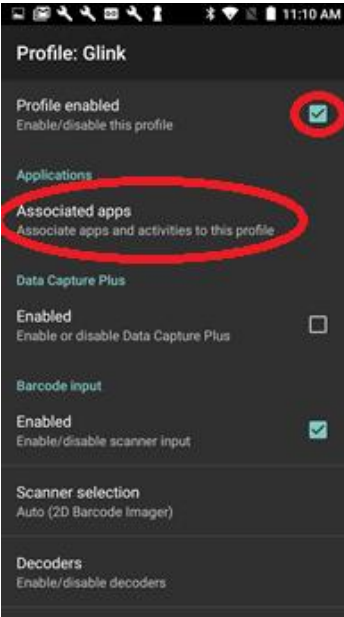
#### Keystroke Output

Enabled -> Unchecked.

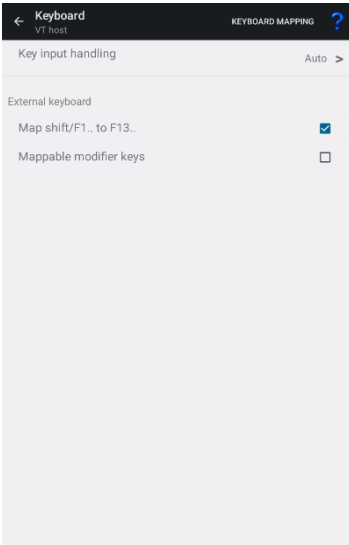
#### Intent Output

Enabled -> Checked  
Intent action -> *no.gar.glink.data*  
Intent category ->  
Intent delivery -> Broadcast Intent





# Keyboard options



## Keyboard mapping

Select the Keyboard mapping icon on the Action bar for keyboard mapping.

Glink is set up with a default keyboard mapping. You may override the default mapping or add a mapping for a hardware button (key) on the device itself or a key on an external keyboard.

## Keyboard input handling

There are several Input Methods available for Android with slightly different behavior. The Auto option normally handles these differences, but in some cases, it might be necessary to select another Key input handling option.

### *Auto*

This is the default value and uses either the Standard or the Advanced implementation depending of the device.

### *Standard*

Use this option if you experience an extra toolbar line at the top of the soft keyboard.

*Extended*

Use this option if you are using a soft keyboard that requires an extra toolbar line (like Chinese or Japanese) and this is not working properly.

*Basic*

This implementation might work better for some devices or special device setup.

## **External keyboard**

### **Map shift/F1.. to F13..**

If you have an external keyboard with 12 function keys, check this option if you want the shift/F1 to shift/F12 keys mapped to the functions F13 to F24. The default value is that the shift/F1 to shift/F10 keys is mapped to function F11 to F20 and the alt/F1 to alt/F4 is mapped to the functions F21 to F24.

This option is only valid for Glink3270 and Glink5250.

### **Mappable modifier keys**

Normally modifier keys (Ctrl, Alt, Shift..) are used in combination with other keys. If you need to map a specific modifier key, enable this option, and go to the Keyboard mapping dialog box and press the modifier key to map.

# ***Distributing Glink configurations from an EMM/MDM***

---

Glink has many configuration parameters that are available through the *Settings* screens in Glink.

A Glink configuration can be prepared and tested on one device, then exported from this device and imported by Glink on other devices. If your MDM does not allow you to distribute the exported Glink configuration file as it is, it will probably allow you to distribute Glink parameters to a managed Enterprise version of Glink, either using a menu to set the Glink parameters or by importing a JSON formatted configuration file containing the Glink parameters. Either way, you will find the parameters in the exported Glink configuration file very useful when setting up such a configuration. Make a note of which parameters you have set/changed, because these are the parameters you must configure and distribute from your MDM. It is not necessary to distribute default parameter values.

Below you will find some examples on how you can distribute a Glink configuration file.

## ***Auto import from file location on Android device***

Some MDM servers can distribute files to the MDM controlled Android devices. You can use this feature to distribute exported Glink configuration files to the devices. Glink for Android will check the following path for a new Glink configuration file at start-up and when the user enters the *Sessions* menu:

```
/SD Card/.GlinkXX/import/config.glinki
```

(Where XX is either VT,5250, 3270 or omitted for the full version)

The "SD Card" folder (sometimes also referred as Phone Storage or Internal Storage) is often addressed like "/storage/emulated/0". For example:

```
/storage/emulated/0/.GlinkVT/import/config.glinki  
/storage/emulated/0/.Glink5250/import/config.glinki
```

## How to install SSL/TLS client certificates and SSH private key files

```
/storage/emulated/0/.Glink3270/import/config.glinki  
/storage/emulated/0/.Glink/import/config.glinki
```

If/when Glink finds a *config.glinki* file in the import folder, the file will be imported and renamed to *config-*nn*.glinki* in the import folder. This is to make sure it is only imported once. *nn* is the next available number. The current configuration will be overwritten by the imported configuration file and lost.

If you have many devices and have received a Glink license file (*licenses.glinki*) from G&R, you can also use the auto-import feature in Glink to distribute the license file to your devices. Set up your MDM to distribute the Glink license file to:

```
/SD Card/.GlinkXX/import/licenses.glinki
```

(Where XX is either VT,5250, 3270 or omitted for the full version)

SOTI and AirWatch are examples of MDMs that allow you to distribute Glink configuration and license files this way.

## ***Download the Glink configuration from a web server***

The managed versions of Glink (all iOS versions and Glink VT/5250/3270 Enterprise for Android) can be configured directly from the MDM if the MDM supports managed app configuration. The MDM either use a menu to set the Glink parameters or it imports a JSON formatted configuration file containing the Glink parameters. The method and format vary with the different MDMs.

The MDM server can instruct Glink to import a Glink configuration file from a network location with the following parameters:

con- fig.ver- sion	This parameter (key-name) specifies the version of the MDM parameters. If the version number is equal to the version number on the device, the rest of the parameters are ignored by Glink.
con- fig.url	This parameter (key-name) provides the URL of the Glink configuration file. Please note that this parameter is ignored if the <i>con-fig.version</i> parameter is missing or the version number is the same as the version number on the device. So every time you update the configuration file, you must remember to update the <i>config.version</i> parameter

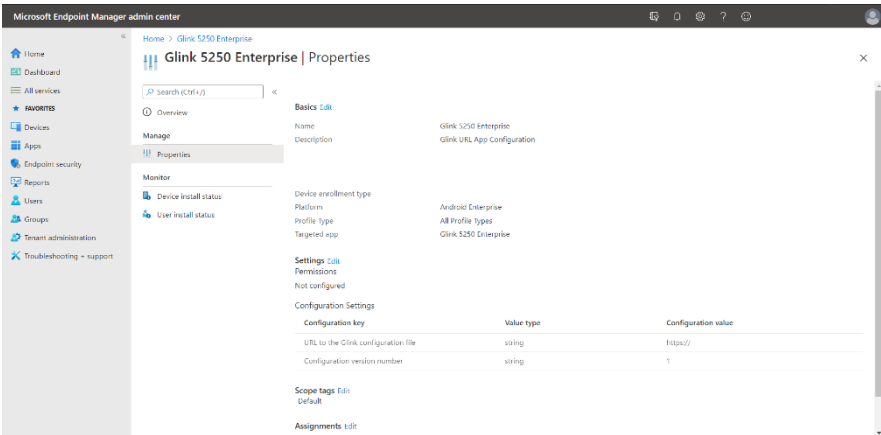
Here is an example:

## How to install SSL/TLS client certificates and SSH private key files

```
config.version=2
config.url=http://myhost.mydomain.xx/glink/group1/config.glinki
```

Depending on the MDM, these two parameters are either configured in a menu in the MDM console (MobileIron, Meraki, Intune) or in a JSON file uploaded to the MDM (Google Admin) or defined in an MDM-menu (Intune).

Here is an example from Microsoft Intune (Android):



## Set Glink parameters from the MDM

The iOS versions and the managed Glink Enterprise for Android versions of Glink (Glink 5250 Enterprise, Glink VT Enterprise, Glink 3270 Enterprise and Glink Enterprise) can be configured directly from the MDM if the MDM supports managed app configuration. The MDM either use a menu to set the Glink parameters or it imports a JSON formatted configuration file containing the Glink parameters. The method and format vary with the different MDMs.

Here are three key parameters that are explicitly defined with information texts and that are the minimum set of parameters required for a host session configuration:

`config.ver-`  
`ision`

This parameter (key-name) specifies the version of the MDM parameters. If the version number is equal to the version number on the device, the rest of the parameters are ignored.

## How to install SSL/TLS client certificates and SSH private key files

<code>config.name</code>	This is the name of the configuration (session) and must be provided. The configuration is created if it does not already exist. Additional parameters will be set for this selected configuration.
<code>com.servername</code>	This specifies the IP address of your host

Here is an example:

```
config.version=1
config.name=myhost
com.servername=myhost.mydomain.com
```

These parameters are sufficient to create a host configuration with default values. For other parameters you have to check your exported Glink configuration file, *config.glinki*. These parameters must be defined as `parameter_key / parameter_value` pairs.

For example:

```
Parameter key 1_config.name / Parameter value myhost2
Parameter key 1_com.servername / Parameter value host2.mydomain.com
Parameter key 2_config.name / Parameter value myhost3
Parameter key 2_com.servername / Parameter value host3.mydomain.com
```

Parameters for the first session, named with *config.name*, you do not need a prefix, but other sessions need a prefix. Session 2 parameters are prefixed with **1\_**, session 3 parameters are prefixed with **2\_** and so on.

How you set these parameters will depend on your MDM. Different methods are used. While some MDMs present a menu with the parameters that can be set (MobileIron, Meraki, Intune), others require a JSON-/XML-file with key-name and key-value pairs (Google Admin, Intune).

Here are some examples:

# How to install SSL/TLS client certificates and SSH private key files

## MobileIron (Android):

The screenshot shows the configuration page for 'Managed Configurations for Android' in the Glink 5250 Enterprise interface. The page includes a header with the product name and user information, a navigation bar with tabs for 'Details', 'Distribute', 'App Configurations', 'Reviews', and 'App Config Feedback'. Below the navigation bar, there are 'Cancel' and 'Update' buttons. The main content area is titled 'Managed Configurations (0)' and contains several sections for configuring the application.

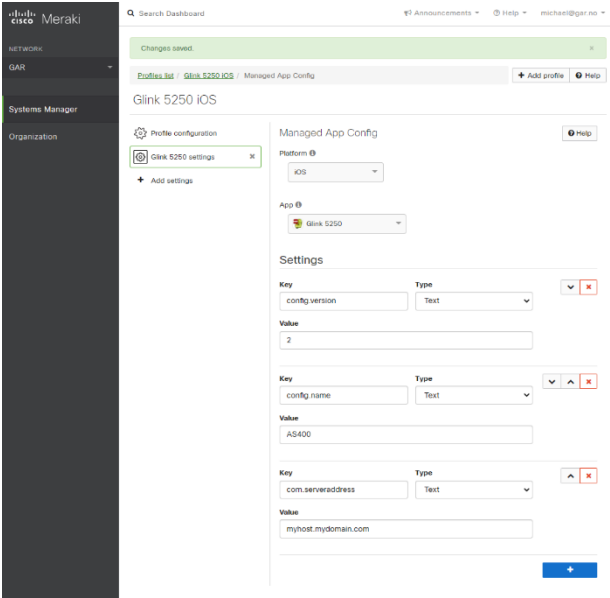
Configuration Name	Value
Configuration version number <small>New version number requires an updated configuration file</small>	2
URL to the Glink configuration file <small>Version number must differ from current one</small>	
Configuration name <small>Create or modify a session configuration</small>	AG400
Host address <small>Address to host application</small>	myhost.mydomain.com
<b>Additional parameters</b>	
<b>Add parameter</b>	
Parameter key <small>See expected configuration file</small>	com.firmi220user
Parameter value <small>See expected configuration file</small>	myuser@me
<b>Add parameter</b>	
Parameter key <small>See expected configuration file</small>	com.firmi220subapp
Parameter value <small>See expected configuration file</small>	#myaccount
<b>Add parameter</b>	
Parameter key <small>See expected configuration file</small>	_com.firmi220
Parameter value <small>See expected configuration file</small>	AG400-2
<b>Add parameter</b>	
Parameter key <small>See expected configuration file</small>	_com.firmi220
Parameter value <small>See expected configuration file</small>	myhost2.mydomain.com

## MobileIron (iOS):





# How to install SSL/TLS client certificates and SSH private key files



## General options

Parameters that are common to all sessions and configured in the *General options* menu, must be configured in a *config.name* named *GeneralOptions*, **without** a *n\_* prefix.

For example:

**Parameter key** *config.name* / **Parameter value** *GeneralOptions*  
**Parameter key** *screen.noautolock* / **Parameter value** *true*

## Passwords

Passwords are normally entered as the encrypted string you see in an exported Glink configuration file. Starting from version 2.4.3 you can also specify passwords in clear text if you use the prefix *##*. For example, the password that protects access to *Settings*, *General options*, *New configuration*, *Export configurations* and more:

**Parameter key** *config.name* / **Parameter value** *GeneralOptions*  
**Parameter key** *screen.cfpasswd* / **Parameter value** *##settingpassword*

or the password for an auto-logout to IBM AS400/iSeries:

## How to install SSL/TLS client certificates and SSH private key files

```
Parameter key config.name / Parameter value AS400
Parameter key com.servername / Parameter value myhost.mydomain.com
Parameter key com.ibm5250user / Parameter value username
Parameter key com.ibm5250subspw / Parameter value ##as400password
Parameter key com.ibm5250usealtlogin / Parameter value true
```

## Toolbar

If you want to configure your own toolbar(s), you might want to remove the default toolbars with all their buttons before you start defining your own. To do that, you can use the parameter *toolbar.remove* and set it to *true*. Then you can add your own buttons, for example like this:

```
Parameter key toolbar.remove / Parameter value true
Parameter key toolbar.cmd0 / Parameter value 54,Left,,\u21a4
Parameter key toolbar.cmd1 / Parameter value 51,Up,,\u21a5
Parameter key toolbar.cmd2 / Parameter value 52,Down,,\u21a7
Parameter key toolbar.cmd3 / Parameter value 53,Right,,\u21a6
```

## Remove a session configuration

If you want to remove a session (*config.name*) from your configuration, you can use the parameter *config.remove*, for example:

```
Parameter key config.remove / Parameter value AS400
```

Type the characters in the Parameter value with the same case as the session name is configured in Glink. You can also use *config.remove* to remove “all” session configurations or to reset “GeneralOptions”.

## Activation key

You can send the activation key to your devices with the parameter *config.actkey*, for example:

```
Parameter key config.actkey / Parameter value ABCD1234EFGH5678
```

When you have sent the activation key to the devices, the user does not have to enter it when activating Glink on the device. When they tap **ACTIVATE**, they will see that the activation key has been prefilled and all they have to do, is to tap the **ACTIVATE** button.

## XML Schema

[The AppConfig Community](#), supported by a collection of industry leading EMM solution providers, have defined a standard schema to configure apps. Using this definition, the Glink parameters can be specified in an XML document using the following syntax:

```
<managedAppConfiguration>
<version>1</version>
<bundleId>no.gar.glink5250</bundleId>
<dict>
  <string keyName="config.name">
    <defaultValue>
      <value>MyConfigName</value>
    </defaultValue>
  </string>
  <string keyName="com.servername">
    <defaultValue>
      <value>MyServerAddress</value>
    </defaultValue>
  </string>
</dict>
</managedAppConfiguration>
```

Please note that the **bundleId** must match the Glink version you are using; either no.gar.glink5250, no.gar.glink3270, no.gar.glinkvt or no.gar

# MDM Parameter list

<b>General parameters</b>			
Version number for the configuration	config.version	number	Integer
Web Address where Glink can download config file	config.url	http/https address to config file	String
Name of new or existing host session	config.name	Define name for a session or GeneralOptions	String
Remove a session, General options or everything	config.remove	Name of session to remove or GeneralOptions / all	String
Send activation key to the devices	config.actkey	Product activation key with hyphens ('-') removed	
Remove all toolbar definitions	toolbar.remove	true, false	Boolean
<b>General options</b>			
Screen orientation - Android only	screen.orientation	<b>0=Any</b> , 1=Portrait, 2=Landscape	Integer
Auto-connect session at start up	screen.autoConnect	true, <b>false</b>	Boolean
Auto-reconnect if connection lost - Android only	screen.autoReconnect	true, <b>false</b>	String
Disconnect at lock screen - Android only	screen.discntAtLock	true, <b>false</b>	Boolean
Never Auto-Lock when connected	screen.noAutoLock	true, <b>false</b>	Boolean
Ignoring battery optimizations - Android only	screen.ignoreBattery	true, <b>false</b>	Boolean
Keyboard up	screen.showKeyboard	<b>0=Default</b> , 1=On, 2=Off	Integer
Toolbar - click on keypress	screen.toolbarClicks	<b>0=Off</b> , 1=Sound 1, 2=Sound 2	Integer
Toolbar - vibrate on keypress in millisecc - Android only	screen.toolbarVibr	<b>0=Off</b> , 20, 50, 100, 150, 200, 300	Integer
Toolbar - popup on keypress - Android only	screen.toolbarPopup	<b>0=Default</b> , 1=On, 2=Off	Integer
Send/Receive notification sound - Android only	screen.sndRcvSound	<b>0=Off</b> , 1=On, 2=Send only, 3=Recv only	Integer

## How to install SSL/TLS client certificates and SSH private key files

Show Sessions view when disconnected - Android only	screen.showSess	true, <b>false</b>	Boolean
Alert sound - Android only	screen.alertSound	0=Off, 1= <b>Android notification</b> , 2=Android alarm	Integer
Language	screen.language	Default, us= <b>US English</b> , de=DE German, pt=PT Portuguese, fr=FR French, no=NO Norwegian	String
Password	screen.cfgPassword		String
Key repeat – iOS Only	Screen.keyRepeat	true, <b>false</b>	Boolean
Show IOS status bar - iOS Only	screen.iosStatusBar	<b>0=Always</b> , 1=Portrait only, 2=Never	Integer
<b>Show Menu/Action bar items - Android only</b>			
<b>On Menu (by default)</b>			
Sessions	screen.mitem8	0= <b>Menu</b> , 1=Action bar, 2=Hide	Integer
Settings	screen.mitem10	0= <b>Menu</b> , 1=Action bar, 2=Hide	Integer
Scrollback	screen.mitem11	0= <b>Menu</b> , 1=Action bar, 2=Hide	Integer
Print screen	screen.mitem12	0= <b>Menu</b> , 2=Hide	Integer
Record macro	screen.mitem13	0= <b>Menu</b> , 2=Hide	Integer
Debug mode	screen.mitem14	0= <b>Menu</b> , 2=Hide	Integer
Print logging	screen.mitem15	0= <b>Menu</b> , 2=Hide	Integer
New Glink Window	screen.mitem21	0= <b>Menu</b> , 1=Action bar, 2=Hide	Integer
Remove Glink Window	screen.mitem22	0= <b>Menu</b> , 1=Action bar, 2=Hide	Integer
General options	screen.mitem16	0= <b>Menu</b> , 1=Action bar, 2=Hide	Integer
Export configurations	screen.mitem23	0= <b>Menu</b> , 2=Hide	Integer
Help	screen.mitem18	0= <b>Menu</b> , 1=Action bar, 2=Hide	Integer
About	screen.mitem19	0= <b>Menu</b> , 2=Hide	Integer
Exit	screen.mitem25	0= <b>Menu</b> , 2=Hide	Integer
<b>On Action bar (by default)</b>			
Toggle toolbar	screen.mitem24	1= <b>Action bar</b> , 2=Hide	Integer

## How to install SSL/TLS client certificates and SSH private key files

Toggle keyboard	screen.mitem1	1= <b>Action bar</b> , 2=Hide	Integer
Connect	screen.mitem6	0= Menu, 1= <b>Action bar</b> , 2=Hide	Integer
Disconnect	screen.mitem9	0= Menu, 1= <b>Action bar</b> , 2=Hide	Integer
Enter	screen.mitem7	1= <b>Action bar</b> , 2=Hide	Integer
<b>Pop up on Action bar</b>			
Scan barcode	screen.mitem2	0= Menu, 1= <b>Action bar</b>	Integer
Print data	screen.mitem3	0= Menu, 1= <b>Action bar</b>	Integer
Debug data	screen.mitem4	0= Menu, 1= <b>Action bar</b>	Integer
SSL/SSH info	screen.mitem17	1= <b>Action bar</b> , 2=Hide	Integer
Select Glink	screen.mitem20	0= Menu, 1= <b>Action bar</b>	Integer
Pause	screen.mitem26	0= Menu, 1= <b>Action bar</b>	Integer
<b>Communication</b>			
Comms interface	com.type	Telnet, TN5250, TN3270, SSH, Ggate, TNVIP, Raw	String
<b>Telnet options</b>			
Server address	com.serverName		String
Terminal type	com.telnetType	<b>vt220</b>	String
Line terminator	com.telnetCRNUL	<b>0=CR+LF</b> , 1=CR+NULL, 2=CR	Integer
Use IP for BRK	com.telnetUseIP	true, <b>false</b>	Boolean
Binary mode	com.telnetBinary	true, <b>false</b>	Boolean
Simulate parity	com.telnetSimulateParity	true, <b>false</b>	Boolean
Keep alive type	com.keepAtype	<b>0=TCP</b> , 1=Telnet	Integer
Keep alive interval	com.keepAlive		String
Wait for login prompt	com.tnWaitUsr		String
Login with	com.tnUser		String
Wait for password prompt	com.tnWaitPsw		String

## How to install SSL/TLS client certificates and SSH private key files

Password	com.tnPassword		String
Wait for command	com.waitprompt		String
Do command	com.docommand		String
Use secure sockets - SSL	com.useSSL	true, <b>false</b>	Boolean
Authenticate server certificate	com.valServerCert	true, <b>false</b>	Boolean
File name client certificate:	com.clientCert		String
Password client certificate:	com.clientCertPW		String
Use SSH connection	com.useSSH	true, <b>false</b>	Boolean
Server address:	com.sshHost		String
User name:	com.sshUser		String
Password:	com.sshPassword		String
Private key file:	com.sshKeyFile		String
Keep alive interval in seconds	com.sshKeepA	<b>0</b>	Integer
<b>SSH options</b>			
Server address	com.serverName		String
Use SSH connection	com.useSSH	<b>true</b>	Boolean
User name:	com.sshUser		String
Password:	com.sshPassword		String
Private key file:	com.sshKeyFile		String
Terminal type:	com.sshTerminal	<b>vt220</b>	String
Number of cols:	com.sshCols	<b>80</b>	Integer
Number of rows:	com.sshRows	<b>24</b>	Integer
Keep alive interval in seconds	com.sshKeepA	<b>0</b>	Integer
Wait for command	com.waitprompt		String
Do command	com.docommand		String
<b>TN3270 options</b>			
Server address	com.serverName		String



## How to install SSL/TLS client certificates and SSH private key files

3270 model	com.ibm3270Model	<b>0=3279-2</b> , 1=3279-3, 2=3278-1, 3=3278-2, 4=3278-3, 5=3278-4, 6=3278-5, 7=3287-1, 8=3279-2E, 9=3279-3E, 10=3278-1E, 11=3278-2E, 12=3278-3E, 13=3278-4E, 14=3278-5E	Integer
LU name	com.tn3270LuName		String
Use Extended TN3270	com.tn3270Extended	<b>true</b> , false	Boolean
Send Associated LU	com.tn3270AssociateLU	true, <b>false</b>	Boolean
Keep alive type	com.keepAtype	<b>0=TCP</b> , 1=Telnet	Integer
Keep alive interval	com.keepAlive		String
Use secure sockets - SSL	com.useSSL	true, <b>false</b>	Boolean
Authenticate server certificate	com.valServerCert	true, <b>false</b>	Boolean
File name client certificate:	com.clientCert		String
Password client certificate:	com.clientCertPW		String
Login with	com.tnUser		String
Password	com.tnPassword		String
Use external validation app - Android only	com.validateApp	true, <b>false</b>	Boolean
<b>TN5250 options</b>			
Server address	com.serverName		String
5250 model	com.ibm5250Model	<b>0=3179-2</b> , 1=3180-2, 2=3196-A1, 3=3477-FC, 4=3477-FG, 5=5251-11, 6=5291-1, 7=5292-2, 8=5555-C01, 9=5555-B01, 10=3812-1, 11=5553-B01	Integer
Device Name	com.tn5250MainDevice		String
Keep alive type	com.keepAtype	<b>0=TCP</b> , 1=Telnet	Integer
Keep alive interval	com.keepAlive		String
User ID	com.ibm5250User		String
Password	com.ibm5250SUBSPW		String
Use alternate auto login	com.ibm5250UseAltLogin	true, <b>false</b>	Boolean

## How to install SSL/TLS client certificates and SSH private key files

Use secure sockets - SSL	com.useSSL	true, <b>false</b>	Boolean
Authenticate server certificate	com.valServerCert	true, <b>false</b>	Boolean
File name client certificate:	com.clientCert		String
Password client certificate:	com.clientCertPW		String
Message queue	com.ibm5250IBMMMSGQNAME	<b>QSYSOPR</b>	String
Message library	com.ibm5250IBMMMSGQLIB	<b>*LIBL</b>	String
Font ID	com.ibm5250IBMFONT	<b>11</b>	Integer
Form feed type	com.ibm5250IBMFORMFEED	<b>A=Auto feed sheets, C=Continuous paper, U=Manual feed sheets</b>	String
<b>TNVIP options</b>			
Server address	com.serverName		String
CoName or Resource	com.serverTarget		String
Terminal type	com.telnetType		String
Initial turn	com.initialTurn	<b>0=Default, 1=Glink, 2=Host</b>	Integer
Keep alive type	com.keepAtype	<b>0=TCP, 1=Telnet</b>	Integer
Keep alive interval	com.keepAlive		String
Use secure sockets - SSL	com.useSSL	true, <b>false</b>	Boolean
Authenticate server certificate	com.valServerCert	true, <b>false</b>	Boolean
<b>Ggate options</b>			
Server address	com.serverName		String
Alternate server address	com.altServerName		String
Random connect	com.tcpConnectRandom	true, <b>false</b>	Boolean
Use secure sockets - SSL	com.useSSL	true, <b>false</b>	Boolean
Authenticate server certificate	com.valServerCert	true, <b>false</b>	Boolean
CoName or Resource	com.serverTarget		String
Ggate protocol	com.ggateType	<b>DSA, DIWS</b>	String
Remote mailbox name	com.ggateDa		String
Remote mailbox extension	com.ggateDx		String

## How to install SSL/TLS client certificates and SSH private key files

Remote node name	com.ggateDn		String
Local mailbox name	com.ggateMn		String
User ID	com.ggateDu		String
Password	com.ggatePw		String
Project	com.ggateDp		String
Billing	com.ggateDb		String
Host mode	com.ggateHm	<b>CXI, DN, DPS7, DPS8, IBM, ROUTER, UNIX</b>	String
Terminal mode	com.ggateTm	See Glink	String
GRTS/LID user string	com.ggateUr		String
IBM log mode	com.ggateLm		String
Additional parameters	com.ggateExtra		String
Keep alive (secs)	com.ggateKeepAliveInt	<b>0</b>	Integer
Initial turn	com.initialTurn	<b>0=Default, 1=Glink, 2=Host</b>	Integer
Send commands as data	com.ggateCommandsAsData	true, <b>false</b>	Boolean
<b>Raw TCP/IP options</b>			
Server address	com.serverName		String
Use SSH connection	com.useSSH	true, <b>false</b>	Boolean
User name:	com.sshUser		String
Password:	com.sshPassword		String
Terminal type:	com.sshTerminal	<b>vt220</b>	String
Number of cols:	com.sshCols	<b>80</b>	Integer
Number of rows:	com.sshRows	<b>24</b>	Integer
Wait for command	com.waitprompt		String
Do command	com.docommand		String
<b>Proxy server options</b>			
Use server	com.useProxy	true, <b>false</b>	Boolean
Address	com.proxyN		String
Port	com.proxyP	<b>30855</b>	Integer
Secure communication	com.proxyEncrypt	true, <b>false</b>	Boolean

## How to install SSL/TLS client certificates and SSH private key files

User disconnect	com.proxyDC	<b>0</b>	Integer
Connection lost	com.proxyDH	<b>300</b>	Integer
<b>Emulation</b>			
Emulation Mode	emu.type	3270, 5250, VT, ANSI, VIP, DKU, TTY, 7102, 7700	String
<b>VT options</b>			
ECHO mode	emu.vtInitEcho	<b>true</b> , false	Boolean
ROLL mode	emu.vtInitRoll	<b>true</b> , false	Boolean
Line mode	emu.vtLineMode	<b>0=Off</b> , 1=Basic, 2=Extended	Integer
Add LFs to CRs	emu.vtAddLFs	true, <b>false</b>	Boolean
No column 81	emu.vtNo81	true, <b>false</b>	Boolean
Backspace key action	emu.vtDelToBs	<b>0=BS</b> , 1=DEL, 2=BS+DEL	Integer
Answerback string	emu.vtAnswerB		String
VT DA Alias	emu.vtAliasDA	0=Glink,1=VT100,2=VT101,3=VT102,4=VT125,5=VT131,6=VT220,7=VT240,8=VT320,9=VT340,10=VT420, <b>11=VT440</b>	Integer
F5 send PuTTY sequence	emu.vtAltF5	true, <b>false</b>	Boolean
Mute host alarm	emu.muteHAlarm	true, <b>false</b>	Boolean
<b>ANSI options</b>			
ECHO mode	emu.vtInitEcho	<b>true</b> , false	Boolean
ROLL mode	emu.vtInitRoll	<b>true</b> , false	Boolean
Line mode	emu.vtLineMode	<b>0=Off</b> , 1=Basic, 2=Extended	Integer
Add LFs to CRs	emu.vtAddLFs	true, <b>false</b>	Boolean
No column 81	emu.vtNo81	true, <b>false</b>	Boolean
Backspace key action	emu.vtDelToBs	<b>0=BS</b> , 1=DEL, 2=BS+DEL	Boolean
Answerback string	emu.vtAnswerB	ansi	String

## How to install SSL/TLS client certificates and SSH private key files

<b>VT / ANSI / VIP 7800 / VIP 7700 / DKU 7107 / DKU 7102 Transliteration</b>			
UTF-8 encoding	emu.UTF8Encoding	true, <b>false</b>	Boolean
8-bit Host	emu.host8bit	<b>true</b> , false	Boolean
Allow lowercase to host	emu.allowLcase	<b>true</b> , false	Boolean
Host character set	emu.charset	<b>Default (Latin 1)</b> , ISO-8859-2 Latin 2, ISO-8859-5 Latin/Cyrillic, IBM-437, IBM-850, Windows-1251, Windows-1253, koi8-r	String
National transliteration (7-bit host)	emu.xlitFile8	<b>Default (No transliteration)</b> , CYR Cyrillic, FIN Finnish, FRA French, FRC French-Canadian, GER German, GR Greek, ITA Italian, LT2 Latin 2, NOR Norwegian, SF Swedish/Finnish, SPA Spanish, SWE Swedish, SWI Swiss, UK United Kingdom, US United States	String
Use SISO encoding	emu.useSISO	true, <b>false</b>	Boolean
<b>VT / ANSI / VIP 7800 / VIP 7700 / DKU 7107 / DKU 7102 General</b>			
Destructive BS	emu.destructBS	<b>true</b> , false	Boolean
Capture on CR	emu.captureOnCR	<b>0=LF</b> , 1=CR, 2=CRLF	Integer
Scrollback length (in pages)	emu.sbackMaxPages	<b>32</b>	Integer
Initial screen width	emu.initColumns	40, <b>80</b> , 132	Integer
Initial screen height (rows)	emu.initRows	<b>24</b>	Integer
<b>5250 options</b>			
Any command key resets error	emu.anyCmdResets	<b>true</b> , false	Boolean
Display errors on status bar	emu.errToStatBar	<b>true</b> , false	Boolean

## How to install SSL/TLS client certificates and SSH private key files

Treat line as error message line	emu.ibmErrLine	<b>0=OFF</b> , 1 -> 27	Integer
- If error message line contains	emu.ibmErrMsg		String
Mute host alarm	emu.muteHALarm	true, <b>false</b>	Boolean
Mute key input alarm	emu.muteKALarm	true, <b>false</b>	Boolean
Show SO/SI characters	emu.ibmShowSoSi	true, <b>false</b>	Boolean
Allow cursor in protected area	emu.anywhereOk	true, <b>false</b>	Boolean
Alternate arrow keys mode	emu.altArrowMode	true, <b>false</b>	Boolean
Show light pen fields in blue	emu.ibmLightPen	true, <b>false</b>	Boolean
Auto tab when input field is filled	emu.autoTabL	<b>true</b> , false	Boolean
Auto tab when field is filled with scanned data	emu.autoTabScan	<b>true</b> , false	Boolean
Continuous backspace	emu.continuousBS	true, <b>false</b>	Boolean
Bypass Right Adjust field check	emu.bypassRACheck	true, <b>false</b>	Boolean
Only scanner input allowed in selector pen field	emu.onlyScanData	true, <b>false</b>	Boolean
Unicode data stream	emu.ibmUnicode	true, <b>false</b>	Boolean
<b>3270 options</b>			
Numeric checking	emu.numCheck3270	<b>0=None</b> , 1=Strict, 2=Emulator, 3=Relaxed	Integer
Treat line as error message line	emu.ibmErrLine	<b>0=OFF</b> , 1 -> 43	Integer
Mute host alarm	emu.muteHALarm	true, <b>false</b>	Boolean
Mute key input alarm	emu.muteKALarm	true, <b>false</b>	Boolean
Allow cursor in protected area	emu.anywhereOk	true, <b>false</b>	Boolean
<b>IBM 5250 / IBM 3270 Host code page</b>			
Host code page	emu.ibmCodePage	<b>500 International</b> , See list in Glink	String
<b>IBM 5250 / IBM 3270 General</b>			
Auto tab when input field is filled	emu.autoTabL	<b>true</b> , false	Boolean
Auto Tab host	emu.autoTabH	true, <b>false</b>	Boolean

## How to install SSL/TLS client certificates and SSH private key files

Destructive BS	emu.destructBS	<b>true</b> , false	Boolean
Scrollback length (in pages)	emu.sbackMaxPages	32	Integer
<b>VIP 7800 options</b>			
Auto tab when input field is filled	emu.autoTabL	<b>true</b> , false	Boolean
Auto Tab host	emu.autoTabH	true, <b>false</b>	Boolean
Start in TEXT mode	emu.vipInitText	<b>true</b> , false	Boolean
Extended status	emu.vipExtStatus	true, <b>false</b>	Boolean
Non-linear forms	emu.vipScrewyForms	true, <b>false</b>	Boolean
Preserve roll mode	emu.vipStickyRoll	<b>true</b> , false	Boolean
Suppress status line	emu.vipNoStatusLine	true, <b>false</b>	Boolean
TX on return	emu.vipTxRetMode	true, <b>false</b>	Boolean
ECHO mode	emu.vipInitEcho	true, <b>false</b>	Boolean
ROLL mode	emu.vipInitRoll	<b>true</b> , false	Boolean
Block mode	emu.vipInitBlock	true, <b>false</b>	Boolean
Disallow status line lock	emu.vipSuppressLock	true, <b>false</b>	Boolean
Space suppression	emu.vipSpaceSuppress	<b>true</b> , false	Boolean
Add CRLF to transmit	emu.vipAddCRLFs	true, <b>false</b>	Boolean
Add LFs to CRs	emu.vipAddLFs	true, <b>false</b>	Boolean
Send NL after XMIT	emu.vipNLAfterXmit	true, <b>false</b>	Boolean
Send ETX for end of transmission	emu.etxSend	<b>true</b> , false	Boolean
Enquiry reply string	emu.vipEnqString		String
7200 attributes	emu.vipV7200A	<b>0=No</b> , 1=Yes, 2=Extended	Integer
<b>VIP 7700 options</b>			
Auto tab when input field is filled	emu.autoTabL	<b>true</b> , false	Boolean
Auto Tab host	emu.autoTabH	true, <b>false</b>	Boolean
Start in TEXT mode	emu.vipInitText	<b>true</b> , false	Boolean
Wraparound tabbing	emu.dkuWrapTab	<b>true</b> , false	Boolean
Add LFs to CRs	emu.vipAddLFs	true, <b>false</b>	Boolean

## How to install SSL/TLS client certificates and SSH private key files

Space suppression	emu.vipSpaceSuppress	<b>true</b> , false	Boolean
Suppress status line	emu.vipNoStatusLine	true, <b>false</b>	Boolean
ROLL mode	emu.vipInitRoll	true, <b>false</b>	Boolean
Show 7700 spaces	emu.vip77SpaceReplace	true, <b>false</b>	Boolean
VIP compatibility	emu.vipCompat	<b>0=Normal</b> , 1=ITTCourier, 2=ThomasBox	Integer
<b>DKU 71707 options</b>			
Auto tab when input field is filled	emu.autoTabL	<b>true</b> , false	Boolean
Blink/blank with ^/~	emu.dkuBlinkAv	<b>true</b> , false	Boolean
Show ^/~ in blink/blank	emu.dkuBlinkShow	<b>true</b> , false	Boolean
Cursor straight up/down	emu.dkucud	true, <b>false</b>	Boolean
Allow cursor out of field	emu.dkucuf	<b>true</b> , false	Boolean
New line after Xmit	emu.dkuNewLine	<b>true</b> , false	Boolean
SDP attributes	emu.dkuSDPAtt	true, <b>false</b>	Boolean
Wrap on page overflow	emu.dkuWrap	true, <b>false</b>	Boolean
Wraparound tabbing	emu.dkuWrapTab	<b>true</b> , false	Boolean
ROLL mode	emu.dkuInitRoll	true, <b>false</b>	Boolean
Use SS2 for 8bit chars	emu.dkuExtend	true, <b>false</b>	Boolean
Send ETX for end of transmission	emu.etxSend	<b>true</b> , false	Boolean
Wincom compatibility	emu.dkuWincom	true, <b>false</b>	Boolean
Fix DKU attributes	emu.dkuFixAttr	<b>true</b> , false	Boolean
DKU model	emu.dkuTermID	<b>0=7107</b> , 1=7211	Integer
Right justify with	emu.dkuRjfChar	<b>32=Space</b> , 48=Zero, 42= Asterisk, 36=Dol- lar, 164=Euro, 250=Pound	Integer
<b>DKU parameters not configurable in Glink</b>			
Printer lines per page	emu.dkuPrtNbl		Integer
Printer columns	emu.dkuPrtNbc		Integer
Printer cps	emu.dkuPrtCps		Integer
Enable local forms	emu.formsEnable		Boolean



## How to install SSL/TLS client certificates and SSH private key files

<b>DKU 7102 options</b>			
Add LFs to CRs	emu.vipAddLFs	true, <b>false</b>	Boolean
ECHO mode	emu.dkuInitEcho	true, <b>false</b>	Boolean
ROLL mode	emu.dkuInitRoll	<b>true</b> , false	Boolean
Tab key sends HT	emu.dkuTabSendsHT	true, <b>false</b>	Boolean
No column 81	emu.vtNo81	true, <b>false</b>	Boolean
<b>Screen</b>			
<b>Toolbar options</b>			
Button width with scaling factor	toolbar.buttonScaleX	<b>1.0</b>	String
Button height with scaling factor	toolbar.buttonScaleY	<b>1.0</b>	String
Button font scaling factor	toolbar.buttonScaleF	<b>1.0</b>	String
<b>Toolbar buttons</b>			
Toolbar button on row L position N	toolbarL.cmdN	Create Toolbar config in Glink, export and copy	String
Remove all toolbar definitions	toolbar.remove	true, false	Boolean
<b>Screen options</b>			
Font size	screen.fontSize	-1=Auto, -2=Fit screen, 6-36	Integer
Font name	screen.fontName	<b>Android: Default</b> , Courier-New, Courier-NewBold, Cousine-Regular, Cousine-Bold, DroidSansMono, Menlo-Regular, Menlo-Bold, SourceCodePro-Regular, SourceCodePro-SemiBold, SourceCodePro-Bold <b>iOS: CourierNew</b> , Courier, Menlo-Regular	String

## How to install SSL/TLS client certificates and SSH private key files

Font style - iOS Only	screen.fontStyle	0=Plain, <b>1=Bold</b> , 2=Italic, 3=Bold & Italic	Integer
Cursor type	screen.cursortype	0=Block, <b>1=Bar</b> , 2=Line	Integer
Cursor color	screen.usecursorcolor	<b>0=Default</b> , 1=User defined (white ch), 2=User defined (black ch)	Integer
Cursor color	screen.cursorColor	Change color in Glink and export config	String
3D variable fields	screen.variable3Ds	<b>0=Off (5250/3270)</b> , <b>1=On without attribute(VT/ANSI/VIP/DK U/7700/7102)</b> , 2=On with attribute, 3=On without underline, 4=Show as underline	Integer
Blinking cursor	screen.cursorBlink	true, <b>false</b>	Boolean
White background 3D fields	screen.whiteBg3D	true, <b>false</b>	Boolean
Show toolbar	screen.multiLineTB	<b>0=Auto</b> , 1=Multiline, 2=Single-line, 3=Off	Integer
Limit screen view (x,y)	screen.limitXY	col,row	String
Use double tap to	screen.dblTapEnt	<b>0=Reset screen size</b> , 1=Perform Enter, 2=Toggle Action bar On/Off (On), 3=Toggle Action bar On/Off (Off), 4=Enable/Disable touchscreen (Enabled) <b>Android only</b> , 5==Enable/Disable touchscreen (Disabled) <b>Android only</b>	Integer
Double tap again to confirm - Android only	screen.dbltapcfirm	true, <b>false</b>	Boolean
Extra line spacing	screen.extraPixelsY	From -4 to +8 <b>Default: 0</b>	Integer
Force fixed character width	screen.variableFont	true, <b>false</b>	Boolean
Disable zoom	screen.noZoom	true, <b>false</b>	Boolean
Show key input on status line	screen.showkeyinput	true, <b>false</b>	Boolean
Function keys	screen.hotspotFn	<b>true</b> , false	Boolean
Option numbers ("nn." or "nn=")	screen.hotspotNn	0=Off, 1=On, <b>2=On with Enter</b>	Integer
Option numbers (" nn ")	screen.hotspotN2	<b>0=Off</b> , 1= On, 2=On with Enter	Integer
Option characters ("aa=")	screen.hotspotAa	<b>0=Off</b> , 1= On, 2=On with Enter	Integer

## How to install SSL/TLS client certificates and SSH private key files

URL address	screen.hotspotUrl	0=Off, 1=Open in browser, 2=Open in Glink	Integer
<b>Screen colors</b>			
<b>Color selection</b>			
Screen color	screen.scrColor	Make Color selection in Glink and export config	Integer
Status line color	screen.stsColor	Make Color selection in Glink and export config	Integer
<b>Color Adjustment</b>			
<b>Dark foreground</b>			
Black	screen.foreground_BlackLo	Make Color adjustment in Glink and export config	String
Blue	screen.foregroundBlueLo	Make Color adjustment in Glink and export config	String
Green	screen.foregroundGreenLo	Make Color adjustment in Glink and export config	String
Cyan	screen.foregroundCyanLo	Make Color adjustment in Glink and export config	String
Red	screen.foregroundRedLo	Make Color adjustment in Glink and export config	String
Magenta	screen.foregroundMagentaLo	Make Color adjustment in Glink and export config	String
Yellow	screen.foregroundYellowLo	Make Color adjustment in Glink and export config	String
White	screen.foregroundWhiteLo	Make Color adjustment in Glink and export config	String
<b>Bright foreground</b>			
Black	screen.foreground_BlackHi	Make Color adjustment in Glink and export config	String
Blue	screen.foregroundBlueHi	Make Color adjustment in Glink and export config	String

## How to install SSL/TLS client certificates and SSH private key files

Green	screen.foregroundGreenHi	Make Color adjustment in Glink and export config	String
Cyan	screen.foregroundCyanHi	Make Color adjustment in Glink and export config	String
Red	screen.foregroundRedHi	Make Color adjustment in Glink and export config	String
Magenta	screen.foregroundMagentaHi	Make Color adjustment in Glink and export config	String
Yellow	screen.foregroundYellowHi	Make Color adjustment in Glink and export config	String
White	screen.foregroundWhiteHi	Make Color adjustment in Glink and export config	String
<b>Background</b>			
Black	screen.backgroundBlack	Make Color adjustment in Glink and export config	String
Blue	screen.backgroundBlue	Make Color adjustment in Glink and export config	String
Green	screen.backgroundGreen	Make Color adjustment in Glink and export config	String
Cyan	screen.backgroundCyan	Make Color adjustment in Glink and export config	String
Red	screen.backgroundRed	Make Color adjustment in Glink and export config	String
Magenta	screen.backgroundMagenta	Make Color adjustment in Glink and export config	String
Yellow	screen.backgroundYellow	Make Color adjustment in Glink and export config	String
White	screen.backgroundWhite	Make Color adjustment in Glink and export config	String
<b>VT / ANSI / DKU / 7102 attribute mapping</b>			
Color scheme	screen.sgrColor	<b>0</b> =Mono, <b>1</b> = 4-color A, <b>2</b> =4-color B, <b>3</b> =7-color	Integer
Use underline	screen.sgrUseUnderline	<b>true</b> , false	Boolean

## How to install SSL/TLS client certificates and SSH private key files

Use blink	screen.sgrUseBlink	<b>true</b> , false	Boolean
Attributes to map	screen.sgrusermap	Create mapping in Glink and export config	String
<b>VIP attribute mapping</b>			
Parameter only needed when default is changed	screen.orattss	Create mapping in Glink and export config	
Parameter only needed when default is changed	screen.andattss	Create mapping in Glink and export config	
<b>Devices</b>			
<b>Print setup</b>			
Printer type - Android only	print.type	<b>File=Default</b> , LPD=LPD server, BT=Bluetooth printer	String
Font size - iOS only		<b>14</b>	
Page Orientation - iOS only		<b>Portrait</b>	
Printer timeout (secs)	print.timeout	<b>5</b>	Integer
LPD server address - Android only	print.lpdServerName		String
LPD queue name - Android only	print.lpdQueueName		String
Pre-print character - Android only	print.pccBefore	<b>0=None</b> , 1=CR, 2=CR+LF, 3=CR+FF, 4=CR+VT	Integer
Post-print character - Android only	print.pccAfter	<b>0=None</b> , 1=CR, 2=CR+LF, 3=CR+FF, 4=CR+VT	Integer
Transparent print - Android only	print.transparent	true, <b>false</b>	Boolean
Use print ctl for host data - Android only	print.pCtlHostData	true, <b>false</b>	Boolean
Bluetooth device - Android only	print.btDevice		String
Init string - Android only	print.btInit		String
Character encoding - Android only	print.btEncoding	<b>IBM437</b>	String
<b>DKU option</b>			

## How to install SSL/TLS client certificates and SSH private key files

Use 0x19 as SS2	print.ss2X19	true, <b>false</b>	Boolean
Use Esc E as SS2	print.ss2EscE	true, <b>false</b>	Boolean
Combine double escapes	print.ss2EscEsc	true, <b>false</b>	Boolean
<b>Barcode reader setup</b>			
Barcode reader device type	print.bcEnable	<b>Android:</b> 0=Keyboard Wedge, 7=Keyboard Wedge A, 1=Camera, 8=AML Scanner, 10=Cipherlab, 9= Data-logic, 4=Denso Scanner, 5=Honeywell Scanner, 11=M3 Mobile, 12=Point Mobile, 6=Socket Mobile, 3=Unitech Scanner, 13=Urovo scanner, 2=Zebra skanner <b>iOS:</b> <b>0=Keyboard Wedge</b> , 1=Camera, 2=Linea/in-finea, 3=Socket Mobile	Integer
Action after scan	print.bcDoAfter	<b>0=None</b> , 1=Tab, 2=Enter, 3=FldExit (5250)	Integer
Remove char(s) at start	print.bcRemFirst	<b>0</b>	Integer
Remove char(s) at end	print.bcRemLast	<b>0</b>	Integer
Add text before	print.bcAddFirst		String
Add text after	print.bcAddLast		String
Use keyboard mapping	print.bcUseKeyMap	<b>true</b> , false	Boolean
Show on status line - Android only	print.bcShow	<b>true</b> , false	Boolean
Profile name - Android only	print.dwProfile	<b>Glink</b>	String
Intent action - Android only	print.dwIntent	<b>no.gar.glink.data</b>	String
Intent string extra - Android only	print.dwIntentEx		String
Glink sets Output Mode (M3 Mobile only)	print.m3glinkmode	<b>true</b> , false	Boolean
Card data format string Linea/Infinea - iOS only	print.bcCardFmt	<b>{0}\t{1}\t{2}\t{3}\t{4}</b> <b>}</b>	String
<b>Keyboard</b>			

## How to install SSL/TLS client certificates and SSH private key files

Key input handling - Android only	keyboard.altInput	0=Auto, 1=Standard, 2=Extended, 3=Basic	Boolean
Map shift/F1.. to F13..	keyboard.F13F24	<b>true</b> , false	Boolean
Mappable modifier keys - Android only	keyboard.mapModifier	true, <b>false</b>	Boolean
Detect long press keys - Android only	keyboard.useLongPress	true, <b>false</b>	Boolean
Macro 1	keyboard.macroNN	Create macro in Glink, export config and copy	String
Mapped keys	keyboard.kc.NN_C	Create mapping in Glink, export config and copy	String

# ***How to install SSL/TLS client certificates and SSH private key files***

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## ***SSL/TLS Client certificates***

### ***How to import a PSKC #12 certificate (.p12 file)***

If you have specified a file name for the client certificate in the Glink settings, Glink will check if a file with that name exists internally in the Glink file structure. If the file does not exist, Glink for iOS will display an error message and you must import it, see below. On Android, Glink will look for the file in the Glink auto import folder and import it if it exists. If not found, Glink gives the user the option to select a client certificate. If a file is selected, Glink will import the file and save it with the name specified in the Glink Settings regardless of the name of the file selected.

### ***Distribute the p12 client certificate file to the auto-import folder (Android only)***

Use MDM to distribute client certificates to the Glink auto import folder and Glink will pick it up as described above.

### ***Use AppConfig parameter in MDM to download p12 client certificate (Android and iOS)***

When configuring Glink from a MDM, you can use the config.url parameter to specify the URL to a p12 certificate file. If the file name is my\_cert.p12 the certificate will be saved with that name and can be used from any session in the File name client certificate option.



## Send p12 client certificate as e-mail attachment (iOS)

Another way to import the client certificate file (with extension *.glinki*) is to send an e-mail to your device with the file as an attachment.

Glink is set up to accept files with **.glinki** as the file name extension. So if your certificate is named *my\_cert.p12*, rename it to *my\_cert\_p12.glinki*.

On your device, open your mail client, select the mail, and click on the attachment. Glink will then be launched and ask if you want to import the file as a new configuration (your configuration will not be overwritten in this case). The file will be stored internally in Glink as *my\_cert\_p12*. Use this name when you configure the certificate in Glink.

## SSH private key file

### How to import a private key file

Glink will handle files with *.glinki* as the file name extension, i.e *myfile.glinki*. One way to import the SSH private key file, is to send it as an e-mail to your device with *myfile.glinki* as an attachment. Click on the attachment and Glink will ask if you want to import it as a new configuration (your configuration will not be overwritten in this case).

The *myfile.glinki* must have the following format:

```
[file:my_pk_file]
Add the content of the private key here...
```

You can also append this at the end of your *config.glinki* file:

```
[file:my_pk_file]
Add the content of the private key here...
```

Glink will create a file with the file name *my\_pk\_file* with the content supplied.

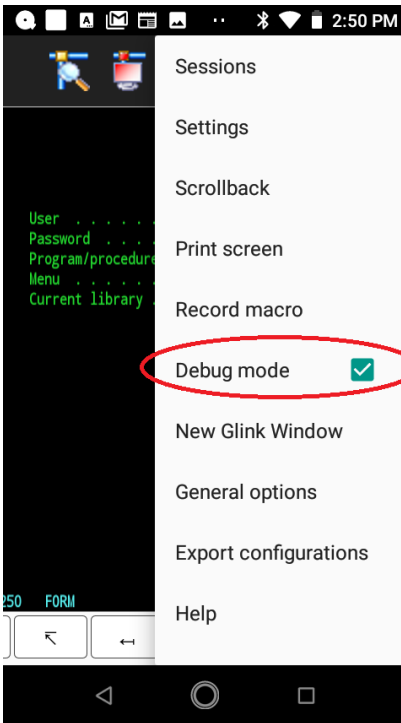
In the Telnet or SSH configuration dialog box, enter *my\_pk\_file* in the *Private key file* field.

# How to export/send a debug trace and configuration file

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## Enable, capture and export debug file

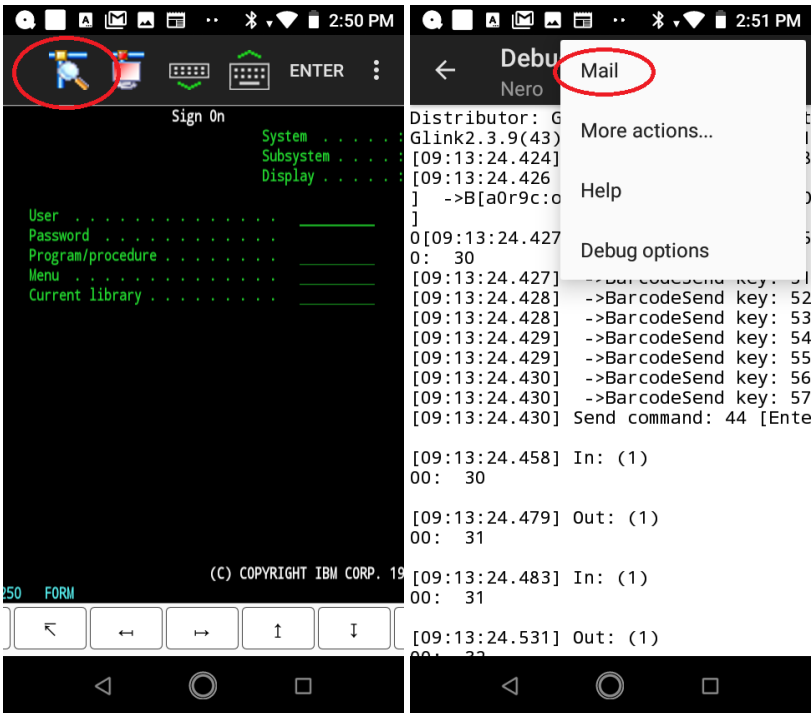
1. Enable debug mode: Tap **Menu** -> **Debug Mode** (image 1 below)



2. Return to emulation screen and tap Disconnect + Connect
3. Interact with the host application until you have collected the request information

## How to export/send a debug trace and configuration file

4. Send debug trace file: tap **Debug icon** -> **Menu** -> **Mail** to send debug file as file attachment.



An alternative is to connect the device to a PC with an USB cable and copy the debug file

```
<Internal storage> /Android/Data/no.gar.glinkXXX/files/debug.txt
```

from the mobile to the PC.

## ***Export configuration file***

The config file (config.glinki) you can either send directly by e-mail from the device (**Menu -> Export configuration**) or first export to file system and then copy to PC (**Menu -> Sessions -> Menu -> Export**).

# *The GlinkProxy Session Persistence Server*

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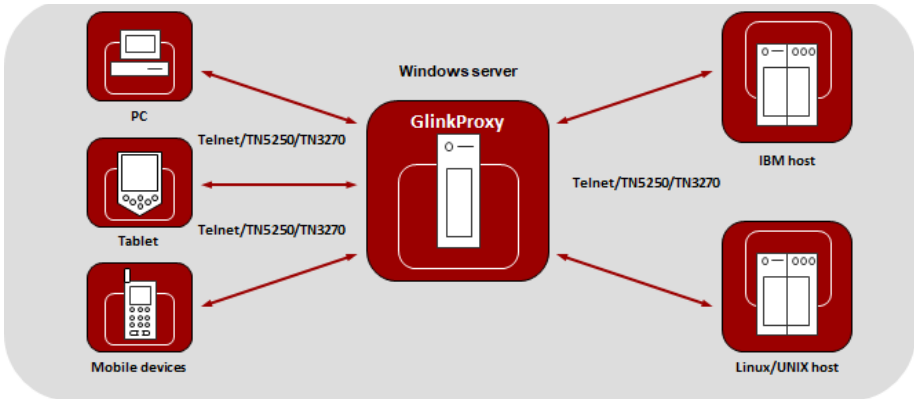
*GlinkProxy* runs on a Windows server, can be located close to the host computer, and is designed to extend the life of sessions between Glink terminal emulation clients and hosts. A device running Glink might go idle, enter power-saving mode or move out of WiFi range and prematurely terminate the session between Glink and the host. The *GlinkProxy* software maintains the session with the host, even if the device goes to sleep or the connection is temporarily lost. This enables Glink to seamlessly resume the session without loss of productivity when it reconnects to *GlinkProxy*.

## *How it works*

*GlinkProxy* is a server application that acts as a link between a Glink terminal emulation client and a host, maintaining an established session with the host even though the client device might go idle or lose WiFi connection. This is how it works:

1. Glink connects to the GlinkProxy application server.
2. GlinkProxy connects to the host application and establishes a session with the host on behalf of Glink and keeps track of the session information.
3. GlinkProxy maintains the host connection, even if the connection between Glink and GlinkProxy goes idle or dead. You can configure how long GlinkProxy should maintain the host connection after the connection between Glink and GlinkProxy has been terminated. GlinkProxy can also differentiate between normal user initiated disconnects and unexpected disconnects with an error.
4. When a Glink client reconnects after having been idle or lost the connection, the GlinkProxy server sends the session information to Glink and Glink continues the session.

The following image provides a conceptual overview of GlinkProxy.



*The GlinkProxy application runs on a Windows server that can be located near the host computer. It will allow the traffic from the mobile computers, tablets or PCs with Glink to be routed through the GlinkProxy server to the host. The GlinkProxy server will keep the connection to the host application even if the connection to the client computers with Glink is lost. When Glink reconnects, the session with the host application will resume as if the connection was not lost.*

## **Delivery**

The GlinkProxy application is delivered as a zip-file containing the GlinkProxy executable file and the product documentation.

## **Install and setup**

Copy the file to the Windows server on which you want to run the GlinkProxy software.

Create a folder for GlinkProxy, for example C:\GlinkProxy, and unzip the GlinkProxy package here.

Start *glinkproxy.exe* without parameters by double-clicking the icon or typing in *glinkproxy.exe* at a command prompt. You will now be requested to enter your license information. Either type it in or copy-and-paste it into the text box. Click "OK" twice and "Allow access" to the network for GlinkProxy when Windows Defender Firewall or other firewall prompts for it.

You now have a running instance of GlinkProxy with default parameters.

With default parameters, GlinkProxy will

## The GlinkProxy Session Persistence Server

Keep the host connection for 30 minutes if the Glink device goes idle, enters power-saving mode or moves out of WiFi range and prematurely terminates the session to GlinkProxy. If Glink reconnects within 30 minutes, the session is resumed as if it never was disconnected from GlinkProxy.

Disconnect the host connection immediately if the Glink user disconnects the session.

Allow Glink to change the disconnect timeout values.

Not send any keepalive packets unless specified by Glink.

Open the Settings menu if you want to change some of these values and Save the changes.

Below you can read more about the Settings menu, its parameters and how you can set them from the command prompt. You will also find a description of the proxy server parameters that can be set in Glink for iOS and Glink for Android.

## **Startup**

If GlinkProxy is started without command line parameters, it will use default parameters the first time it is started and saved parameters on all following executions. If started with command line parameters (listed below), the command line parameters will override the previously saved parameters. For simplicity, it is recommended that you click Settings inside GlinkProxy to modify and save parameters and that you start GlinkProxy without any command line parameters.

## **Settings**

Click "Settings" on the menu bar to open the settings menu.

Glink Proxy Server settings

Time to retain host connection when client disconnects in error: 0 hours 30 minutes 0 seconds

Time to retain host connection when client disconnects normally: 0 hours 0 minutes 0 seconds

Time to keep host disconnect status available: 0 hours 1 minutes 0 seconds

Use Telnet keepalive for host connection with interval: 0 seconds

Use TCP keepalive for host connection

Allow client disconnect redefinition

Ask for confirmation when killing sessions

Save Restore Defaults

OK Cancel

In this menu you can configure:

**Time to retain host connection when client disconnects in error.** The server will preserve sessions to the host when the connection is terminated abnormally. This parameter may be used to specify a timeout (in seconds) after which the host connection will be closed (same as /ED command line parameter). Note that the Glink client may redefine this timeout if this has not been disabled (/ACR, /NCR or Allow client disconnect redefinition)

**Time to retain host connection when client disconnects normally.** This parameter specifies how a normal disconnect from the client should be processed. The default is zero, i.e., simply terminate the host connection immediately. Otherwise, the parameter tells the server to keep the connection active for the configured amount of time, allowing the client to reconnect until the timer expires (same as /ND command line parameter). Note that the Glink client may redefine this timeout if this has not been blocked (/ACR, /NCR or Allow client disconnect redefinition)

**Time to keep host disconnect status available.** This parameter specifies how long the server will retain host disconnect status (in seconds). The default value is 3600.

**Use Telnet keepalive for host connection with interval.** This parameter enables use of Telnet keepalives between GlinkProxy and the host. The default is not to use Telnet keepalives, but it can be very useful if the session is idle for long periods, and you want to avoid that you are disconnected by the host due to inactivity.

## The GlinkProxy Session Persistence Server

**Use TCP keepalive for host connection.** This parameter enables use of TCP keepalives between GlinkProxy and the host. The default is not to use TCP keepalives. The actual keepalive interval is a Windows system parameter.

**Allow client disconnect redefinition.** This parameter allows redefinition of the /ND and /ED timeouts by the Glink client. This is the default, but you may use this parameter to override /NCR that might have been saved in Settings/Save.

**Ask for confirmation when killing sessions.** In the Manage sessions menu, you can kill selected sessions. When this option is enabled, the administrator must confirm the intention to kill the specific session.

**Save** Click to save modified parameter values

**Restore** Click to restore parameter values to the saved values

**Defaults** Click to set default parameter values

**OK** Click to save parameters and exit the settings menu

**Cancel** Click to cancel changes and exit the settings menu

## Command line parameters

The GlinkProxy application is provided as a standalone program *glinkproxy.exe*. Its behavior is controlled by parameters set and saved in the Settings menu inside the application, but you can also use the following command line parameters to override the saved parameters.

Parameter	Description	Comment
/ACR	Allow Client Redefine	This parameter allows redefinition of the /ND and /ED timeouts by the Glink client. This is the default, but you may use this parameter to override /NCR that might have been saved in Settings/Save.
/DLT nn	Disconnect List Timeout	This specifies how long the server will retain host disconnect status (in seconds). The default value is 3600.
/DEBUG	Debug	If this is specified then a separate window will open to display debug information for server activity.
/ED nn	Error Disconnect timeout	The server will preserve sessions to the host when the connection is terminated abnormally or when the /ND parameter has kept the



## The GlinkProxy Session Persistence Server

		session in hold. The /ED parameter may be used to specify a timeout (in seconds) after which the host connection will be closed. Note that the Glink client may redefine this timeout if this has not been disabled by the /NCR command line parameter.
/EK	Enter Key	When this option is specified, the licensing form will be displayed to let you inspect or modify the licensing data. The server will terminate immediately after exiting the dialog
/KT nn	Telnet KeepAlive	This parameter enables sending of Telnet keepalive packets every nn seconds from GlinkProxy to the host. The default is not to send Telnet keepalive packets, but it can be very useful if the session is idle for long periods and you want to avoid being disconnected by the host due to inactivity.
/KA	TCP KeepAlive	This enables use of TCP keepalives between GlinkProxy and the host. The default is not to use TCP keepalives. The actual keepalive interval is a Windows system parameter.
/NCR	No Client Redefine	This parameter prevents redefinition of the /ND and /ED timeouts by the Glink client.
/ND nn	Normal Disconnect timeout	This specifies how a normal disconnect from the client should be processed. The default is zero, i.e., simply terminate the host connection immediately. Otherwise, the parameter tells the server to keep the connection active for that number of seconds, allowing the client to reconnect until the timer expires. Note that the Glink client may redefine this timeout if this has not been blocked by the /NCR command line parameter.
/PORT nn	Port number	The server listens by default on port number 30855 (0x7887). This parameter may be used to override this with a port number of your choice.

## The GlinkProxy Session Persistence Server

<code>/VERBOSE</code>	Verbose debug	Supplied as well as the <code>/DEBUG</code> parameter this tells the server to display all data sent and received (default is to display only the first 16 bytes of each block).
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The Settings/Save option available while the server is running will save many of these settings and you will then only need to use the above to override the saved values. This applies to `/ACR`, `/DLT`, `/ED`, `/KA`, `/NCR` and `/ND`.

## ***Glink for iOS/Android Proxy Server Settings***

Glink 5250, Glink 3270, Glink VT and Glink for iOS/Android can communicate with TN5250, TN3270, Telnet, TNVIP and Ggate protocols via GlinkProxy to host systems. This is enabled in the **Menu -> Settings -> Proxy server** menu:

<b>Parameter</b>	<b>Value</b>	<b>Description</b>
Use server	on/OFF	Check this option to enable communication thru a GlinkProxy server
Address	ip-addr	Configure the address of the server running GlinkProxy (not the application host)
Port	nn	Configure the port number GlinkProxy is listening to. The default is 30855
User disconnect	nn	Specifies the number of seconds the proxy server should keep the connection to the host application after a user initiated disconnect. The default value is 0, which means that the connection to the host is disconnected immediately. This is what happens without a proxy server. Set this parameter to a non-zero value if you want that the proxy server should keep the session to the host the configured number of seconds after a user initiated disconnect

Con- nec- tion lost	nn	Specifies the number of seconds the proxy server should keep the connection to the host application after the connection to Glink is dropped with an error, for example if the device goes idle, enter power-saving mode, or move out of WiFi range. When the device is woken up or the network connection is reestablished, the user can reconnect and resume the session with the host application.
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When Glink is configured to use a proxy server, it will send server address and keepalive settings to the proxy server. The proxy server will use these parameters to connect to the host application server and maintain the connection to it. Keepalive settings, user disconnect and connection lost settings from Glink will override settings in GlinkProxy if GlinkProxy is set up to allow Glink to change these parameters. For all communications, the proxy server is a transparent communication gateway between Glink and the host application.