



# SMILOG

SOFTWARE FOR MOBILE INTEGRATION IN LOGISTICS

## **SmiTerm Licensing**

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## Revision History

1.0		• Initial Release	Mike Brandys	November, 2024
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## Background and History

SMITERM was developed to provide a migration path for existing TEKRF and TEKCONSOLE customers to allow them to continue to run their TEKRF or TEKCONSOLE solution with no changes to their Windows Servers or SAP systems. It provides a terminal emulation program that is compatible with TEKRF and TEKCONSOLE that will run on any Android device, including new industrial terminals, Android phones, and Android tablets.

SmiTerm is sold by device not by user and the Licensing supports SmiTerm's sales model which ensures that each device using the product has a paid license. Once a device is licensed, it can be upgraded to the most current version of SmiTerm without additional cost. In general, licenses cannot be transferred to another device (see FAQ). The customer is expected to purchase a new license when the device is replaced in the future.

The first version of SmiTerm was created in 2014. Since then the Android OS has evolved and has made major changes to various security features that has required creating new versions of SmiTerm.

Changes in security features have also impacted the licensing strategy. The original version used the device's serial number. But this was blocked in later versions of Android and proved to be unreliable across various hardware vendors. SmiTerm then used the device's MAC address, but this was blocked in Android 13. The most current release (SmiTerm 9) uses a unique ID. This has a number of draw backs. (these are outlined in the Appendix)

Smiterm 8 and 9 also provide an "Enterprise" licensing strategy that allows a single key to be used to allow multiple copies of SmiTerm to connect to a single host.

## How To Acquire a License

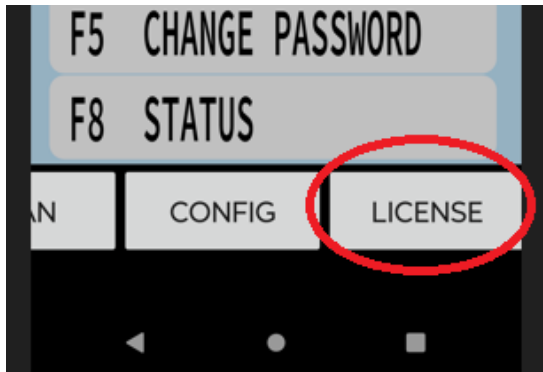
A license is enabled using an activation key.

This activation key is based on a unique identifier, referred to as an ID.

This unique identifier needs to be received by SMILOG before a activation key can be created.

Normally the Reseller will request this information and send it on to SMILOG.

The unique Identifier can be viewed by pressing the LICENSE button that appears on the Fling bar.



It will also appear each time SmiTerm is started, until a valid license is installed.

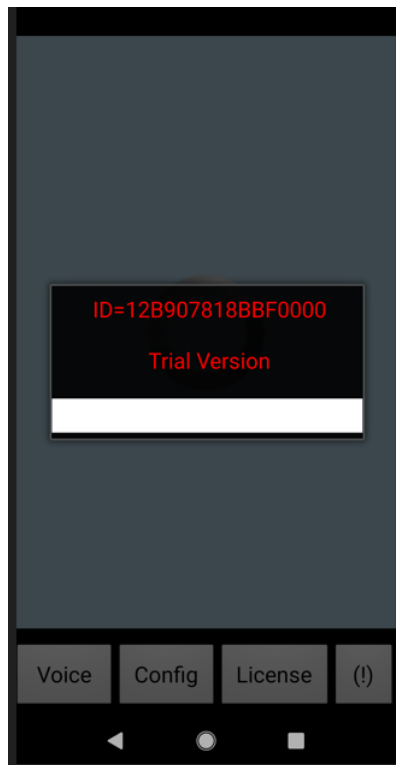
## *SMITERM 7 IDs*

In SmiTerm 7, the licensing popup shows an ID, which is based on the MAC address.

(these always end in 0000)

There is no warning if the MAC address has been randomized.

If the ID appears as 0200000000000000, this means that either the Wifi interface has been disabled or the version of SmiTerm is not compatible with the version of Android running on the device.



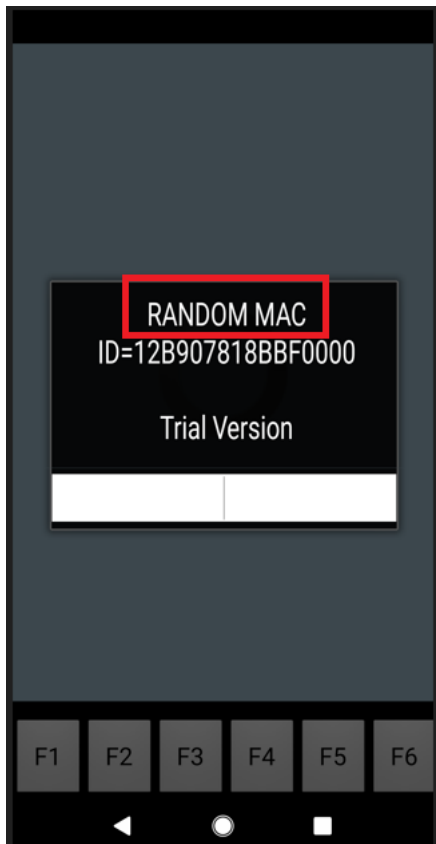
## SMITERM 8 IDs

In SmiTerm 8, the licensing popup shows an ID, which is based on the MAC address.

(these always end in 0000)

There is a warning if the MAC address has been randomized.

If the ID appears as 0200000000000000, this means that either the Wifi interface has been disabled or the version of SmiTerm is not compatible with the version of Android running on the device.





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## SMITERM 9 IDs

In SmiTerm 9 the unique identifier is only available after the application has been installed.  
(these always end in 000A and the value can be scanned from the 2d barcode)



NOTE: SmiTerm 9 is required if your device uses Android 13 or higher. This is because Google has blocked the ability to read the MAC address.

If you install SmiTerm 9 on a device that is running a version of Android that is earlier than 13, you can use a license key based on a MAC address, but you must first install a Helper App that allow SmiTerm to find the MAC address.

Download the "Helper App" called myMAC from our webpage at [www.smilog.ca/x/test](http://www.smilog.ca/x/test)

Download MY\_MAC V4.apk





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## **RANDOMIZED MAC ADDRESSES**

Starting in Android 10, the Randomize MAC feature was turned on by default. This creates a MAC address that is randomly created for each Wireless Network defined on the device. This is not useful for licensing because the MAC address could change at any time making the activation key invalid.

In order to use a activation key based on a MAC address, the Randomized MAC feature must be disabled for the Wireless network you are using when installing the license key.

This is done in the Wireless Network Configuration Setting on the device. Unfortunately, each manufacturer has a slightly different interface for enabling and disabling this feature. You will need to look at the manual for your specific device if you cannot find this setting.

You can determine if a license key has been Randomized by looking at the 2<sup>nd</sup> digit of the MAC address (or the ID)

**2, 6, A, or E signifies randomized address**

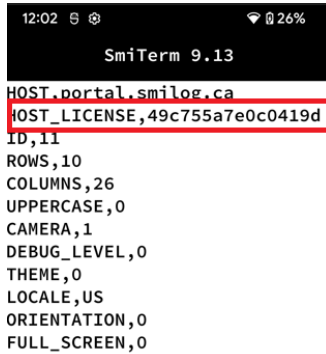
↓  
**92:B1:B8:42:D1:85**



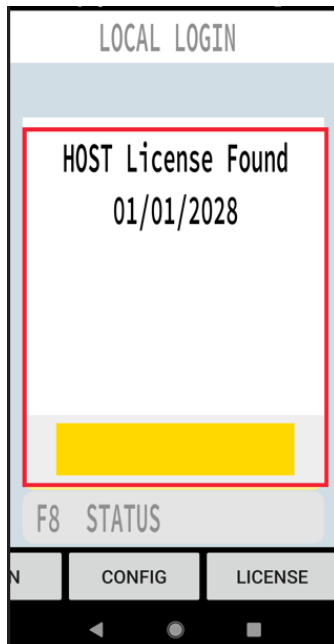
## HOST LICENSING

Host Licenses bypass the normal licensing procedures and will allow any terminal with a valid host license to connect to one specific Host. These must be requested directly from SMILOG.

Host Licensing is set in the Configuration, not in the Licensing popup shown in the previous section. This HOST\_LICENSE entry may need to be deleted before a license activation key can be used.



If a valid Host license is found, the Licensing popup will hide the ID and show the expiration date of the Host License.





## How To Install a License

The License Activation key is provided by SMILOG. The keys are sent in a PDF document and the key values are barcoded so they can be scanned into the Licensing Pop up. (see sample below)

If you purchased the keys from a Reseller, the Reseller will provide you with the PDF document

1. MAC ADDRESS: C8:1C:FE:42:3D:3A

DEVICE ID = C81CFE423D3A0000

KEY = 5be3ed3652c80010



2. MAC ADDRESS: C8:1C:FE:42:41:1C

DEVICE ID = C81CFE42411C0000

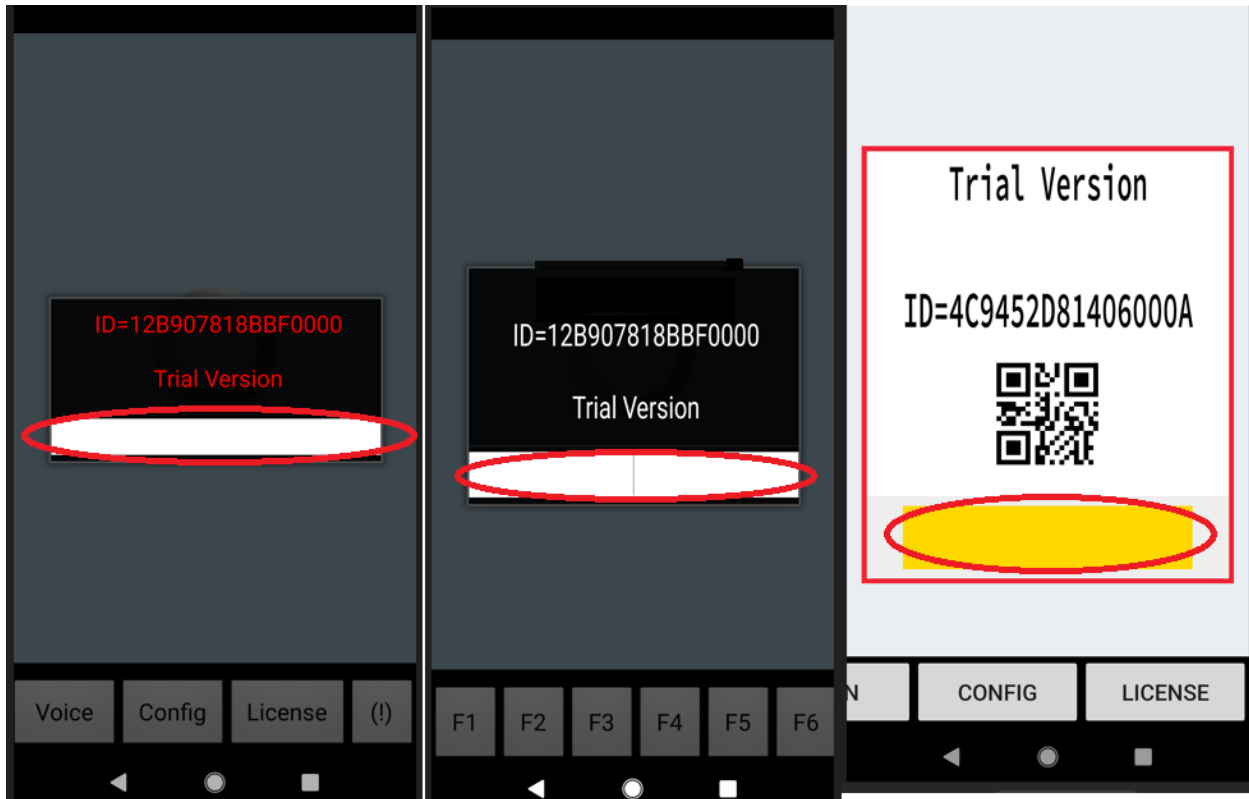
KEY = 097b6a17dd0129e7



The key may installed manually (device by device), automatically over the internet, or using Mobile Device Management.

## MANUAL ENTRY

The Key must be manually entered or scanned into the Licensing popup  
This is the area in circled in RED.





## *AUTOMATIC ENTRY VIA THE INTERNET*

If the device is connected to a wireless network that can reach the internet then the license can be automatically installed by SMILOG's License server.

SMITERM will attempt to connect to the license server each time it is started, until a valid key is installed.

## *ENTRY USING MDM*

If you are using SmiTerm 9 and have registered the device using a MDM (Mobile Device Management) product like SOTI or INTUNE, you can set the value of the license key as well as other configuration parameters.

There are versions of SmiTerm 8 that can be integrated with MDM products, these are available on request.



## **FAQ – Frequently Asked Questions.**

### **If my Device breaks can I get a new key ?**

Yes, but this is handled on a case by case based. We may request the RMA number if the device is being replaced under warrantee or has been sent to Vendor for repair. Normally, we would expect the replacement device would be the same make and model.

### **If I replace my old device with a new device can I transfer the license?**

No, new devices require new licenses. The exception are host licenses which continue to be valid for any device that is configured to connect to the host the license was created for.

### **Can I run SmiTerm without a License Key ?**

Yes, but it will continue to request the license key every 100 key presses. The application is still fully functional, no features are blocked or disabled by licensing.

### **Can I get a new key if I upgrade from SmiTerm 8 to SmiTerm 9**

Yes, you would need to send us the MAC address and the new ID for each device that requires a new key. If the MAC address is valid we will provide a replacement key for the new ID.

### **Can I get a Demo License Key ?**

Yes, These are available on request, and are valid for 30 days

### **Can I get a Demo Host License ?**

Yes, These are available on request, and are valid for 30 days.



## APPENDIX A – MAC vs Android ID

### MAC

The MAC address is a unique 12 character Hex value assigned to every Network Card. It is used to uniquely identify data sent on any 802.xx based network.

It was a good Unique Identifier for licensing since it does not change if the device is factory reset or the Android OS is upgraded.

Its use has been complicated by the introduction of Randomized MAC addresses, which are turned on by Default in Android 10 and higher.

It can no longer be used for Android 13 and higher, as Google has blocked the ability to read it from an Application.

The major advantage it has over the Android ID is that it is known in advance (it is stamped on the shipping label and on the device).

### ANDROID ID

The Android ID is a unique number set by the Android OS. This is used to create unique IDs for each App based on the App's Name Space and the user that is logged in.

The major disadvantage to using this as a Unique Identifier for licensing is that it will change if the device is factory reset, and can change if the Android OS is upgraded.

It also cannot be determined in advance. The SmiTerm App must first be loaded before the ID is shown.