



USER MANUAL

SecuRED

Encrypted Magstripe Reader

JPOS Reference Guide

Linux

80128505-001

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Revision History

Revision	Date	Description
A	9/9/2013	Initial Release

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1. Introduction

This design specification is a guide to the implementation of the JPOS for IDTECH MSR. It also is helpful for other connector and JPOS implementation.

2. Target Device

SecureMag, MiniMag, VluMag and SecuRED MSR for usbhid or usbkb,usbcdc, rs232 interface

3. Features & benefits

- Compatible with UPOS Specification v1.13
- Support Linux Red Hat Enterprise 5.4 or later(Red Hat Inc)
- Support Linux SUSE 11.1(Novell Inc)
- Support Linux Ubuntu 10.04
- Support Linux Centos5.6
- JRE 1.5, 1.6 or later

4. Terms, Standards & Related Documents

4.1 Glossary

ANSI	American National Standard Institute
R/W	Reader/Writer
RHEL5	Red Hat Enterprise5
FC5	Fedora Core 5
FC6	Fedora Core 6
Host	A PC, terminal, or controller running Application Software
ISO	International Organization for Standardization
JPOS	Java for Retail Point-of-Sale
JRE	Java Runtime Environment
LCD	Liquid Crystal Display
MAC	Message Authentication Code
MSR	Magnetic Stripe Reader
OPOS	OLE for Retail Point-of-Sale
PC	Personal Computer or similar hardware device
USB	Universal Serial Bus
UPOS	UnifiedPOS

4.2 Related Documents

MSR JPOS for Linux User Manual

4.3 Standards

UnifiedPOS Version 1.13 International Standard

5. Installation(Linux)

5.1 OS

Install Red Hat Enterprise Linux x86 or x64 on an architecture computer. The version is 5.4 or later. Then log on it with root user.

5.2 Install Java

Need the Java Runtime Environment (JRE) v1.5, 1.6 or later version. Download JRE from java.sun.com, for example jre-6-linux-i586.rpm or jre-7u5-linux-x64.rpm. Use the command to install it as following:

```
#rpm -ivh jre-6-linux-i586.rpm  
Or #rpm -ivh jre-7u5-linux-x64.rpm
```

or use following command to install if the JRE is .bin file

```
./jdk-6u17-linux-i586-rpm.bin
```

This command will install the JRE to directory /usr/java. Maybe other directory and make a link to current installed version. Run command;

```
#cd /usr/bin  
#ln -s -f /usr/java_1.6/bin/java  
#chmod 777 /usr/bin/java
```

"/usr/java_1.6/" is JRE directory which installed.

To make sure the proper JRE is installed, run command

```
#java -version
```

This command will show information such as: Java version "1.6.0_17".

5.3 Install the libusb tool package

Do it use following command:

```
#rpm -ivh libusb-1.0.8-1.i386.rpm  
Or #rpm -ivh libusb-1.0.8-1.x86_64.rpm
```

5.4 Install JPOS driver

Use following command:

```
#rpm -ivh IDTECHMSR-1.13.2-1-rehl.i386.rpm  
    or #rpm -ivh IDTECHMSR-1.13.2-1.i386.rpm  
Or #rpm -ivh IDTECHMSR-1.13.2-1-rehl.x86_64.rpm  
    Or #rpm -ivh IDTECHMSR-1.13.2-1.x86_64.rpm
```

5.5 Restart the System

Please restart the System.

5.6 Run

If you make sure current Linux user can access any USB device (see NOTE content please.), then follow commands to run test demo for JPOS.

```
#cd /IDTECHMSR-1.13.2-1/POStest  
#./ POStest.sh
```

- Change the logic name in the MSR Panel
- Click the button Open/Claim/DeviceEnabled
- Swipe a card

5.7 Special Instruction

Please make sure the polling interval is 1 when an USBKB device is used in the JPOS. This allows the USBKB device to respond swiping card faster. However, its speed may still not enough.

Important Note:

If the reader has been authenticated, the application should cancel the authentication before close the POS. Otherwise, the reader will stay in the authentication state 120 seconds.