



SmartLinux driver installation guide for SuSE 7.2 Kernel 2.4.4-4GB

Version 1.0

Release Notes

- * This release supports V.90 operation (up to 56 Kbps).
- * Smart Link Linux modem driver does not support SMP Linux kernel.

HW Pre-Requirements

- * Mainboard: Intel 810, 815, 850, 845, VIA 686A/B and SiS630 based chipsets.
- * Minimum CPU requirement: Intel Pentium 400MHz (or equivalent) or higher.
- * 128 MB RAM.
- * Smart Link HAMR5600-based AMR/MDC/CNR/ACR/PCI and USB modem.

OS Pre-requirements

- * SuSE Linux 7.2 with kernel version 2.4.4-4GB

Smart Link Linux driver Installation

The "2.05-03_SuSE7.2" is the name corresponding to the driver version. Following is the procedure of installing Smart Link modem Linux driver.

1. Power off the PC and install a Smart Link HAMR5600-based AMR/PCI/CNR/MDC/ACR or USB modem into the correspondent slot.
2. Power on the PC.
3. Change to the user as "root" by using the following command:

```
# su -
```

4. If a previous version of Smart Link driver was installed on the machine, use RPM to remove it with the following command:

```
# rpm -e slmdm-amr or rpm -e slmdm-usb  
# rpm -e slmdm
```

5. Install the drivers, using the following command:

```
# rpm -ivh slmdm-2.05-03_SuSE7.2.i386.rpm
```

select the corresponding device (AMR or USB) that you would like to install.

```
# rpm -ivh slmdm-amr-2.05-03_SuSE7.2.i386.rpm    for AMR
```

or

```
# rpm -ivh slmdm-usb-2.05-03_SuSE7.2.i386.rpm    for USB modem
```

Note: During installation, you may see some "Unresolved symbols" warnings with file "slmdm.o" or "slusb.o". These warnings do not affect the driver installation and they could be ignored. The modem would work correctly.

Do remember it allows installing only one device either AMR or USB at one time.

AMR driver is also suitable for CNR, PCI, ACR, MDC and MiniPCI modem devices

6. Configure the modem for the country you're in:

- a). Change directory to '/usr/lib/slmdm':

```
# cd /usr/lib/slmdm
```

- b). Select country you are in. Use text editor (such as 'vi' or 'emacs') to open the file 'm.info' and change the following line (number 66):

```
"CountryName"="YourCountryName"
```

Valid country names can be found in the same file, in section 'HomologationParameters'. Default country setting is USA.

Loading the modem manually

By default, the drivers will be loaded on demand. However, you can always load them manually:

As superuser ('root') run the script 'load_slmdm':

```
# ./load_slmdm
```

After un-load driver, run unload_slmdm script as 'root':

```
# ./unload_slmdm
```

Using the modem with applications

Use any modem application (such as 'minicom', 'pppd' or 'chat') as usual.

The modem has tested by using 'minicom' terminal emulation and 'kppp' Internet Dialer program.

NOTE: The document ppp-howto.txt provides the basic instructions of how to configure PPP. The version of pppd needs to be 2.4.0 or higher.

Un-installation

To un-install the Smart Link Linux driver :

```
# rpm -e slmdm-amr (for AMR card installed)
```

or

```
#rpm -e slmdm-usb (for USB modem installed)
```

```
# rpm -e slmdm
```

New Features in Smart Link Modem driver for Linux:

- slmon
- Restrictive Dialing

What is slmon ?

slmon is a debbuging tool for Linux (similar to SLRec in Windows).

When end user is facing problem with Modem connection, He can use slmon and send the log file to Smart Link for analyzing.

slmon provides 3 files:

logger.bin

logger.txt

machine.txt

How to use slmon ?

In order to use slmon you should do the following:

Verify that Modem is installed and 'start_slmon' application is located in the following directory: usr/lib/slmdm

Before using slmon, the Modem driver must be uploaded to memory.

Open minicom application to upload Modem driver into memory.

Change directory to usr/lib/slmdm

Type the command: `./start_slmon`

You will get the following messages:

Start Monitoring?

Monitoring started.

Please stop it by pressing (cntr+c) when modem's session will be closed

Please be patient after you press (cntr+c) - termination of the process take some time

Connect to an ISP.

Press cntr+c to stop slmon

You will get the messages:

Please wait - compressing files?

Files compressed into `/root/slmon_log/sllog.tar.gz`

Please send this file to SmartLink.

As you can notice, the directory `slmon_log` was automatically created.

This directory contains `sllog.tar.gz` file which includes three files for analyzing:

`logger.bin`: Includes the DSP file (LogSample.In/Out) and can be opened by `vxdmon.exe` under Windows.

`logger.txt`: This is the trace file same as `vxdtrace` in Windows.

`machine.txt`: This file contains information about the computer (cpu, memory..)

Restrictive Dialing

What is Restrictive Dialing ?

Restrictive Dialing is a feature that allows the Modem to dial specific numbers.

Restrictive Dialing applies only to data calls, The Modem is still able to receive fax, and answer incoming calls freely.

Note: Right now Smart Link Modem Driver for Linux supports only modem and fax applications and not voice applications.

How to use Restrictive Dialing on Linux?

In order to use Restrictive Dialing for Linux, you need to know how Restrictive Dialing works on Windows.

Make sure you have the `smcfg.ini` file that you created in Windows with `SLNcoder.exe`, This file is also required for Linux to enable Restrictive Dialing and it is the same file used for Windows.

- Uninstall Modem driver before using Restrictive Dialing.
- Copy the `smcfg.ini` file into `/etc` directory.
- Install Modem driver.
- During Installation `m.info` file is updated with the Restrictive Dialing numbers.

To return to a non Restrictive Dialing mode, uninstall the Modem driver and reinstall it again (The smcfg.ini file is automatically deleted during un-installation).

Feedback

Please send feedback to Smart Link. Refer to Smart Link web site for contact information (www.smlink.com) or directly to quentin@smlink.com.

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