



White Paper



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Introduction

The distribution of driver and connection manager installers on CDs and, now, DVDs, has long been a source of aggravation for users and distributors. Not only does the user's computer have to have the appropriate disc drive, it also means that the installation disc has to be present for every computer that a device is installed (or re-installed) on.

In this light, Sierra Wireless believes that users and distributors alike will welcome a plug and play experience that does away with the need for a physical CD or DVD.

This white paper describes how the Sierra Wireless TRU-Install™ solution removes the dependence on physical discs by providing a plug and play device-based solution.

With the Sierra Wireless TRU-Install solution users will **get connected faster with fewer steps!**

Problem

The dependency of wireless wide area network (WWAN) support on CDs and DVDs stems from the following issues:

- **No native operating system (OS) support**
Currently, there is no standard WWAN device architecture that is natively supported by mainstream OS's. Therefore, the driver and connection manager must be bundled with a wireless device when it is distributed.
- **Host upgrades**
The fast-changing world of WWAN technology systems means that native OS support would require constant upgrades. In order to ensure compatibility with new devices, software packages must still be provided.

More specifically, the problem that the TRU-Install solution targets is the ability to support plug and play functionality with non-natively supported devices.

The TRU-Install solution

The key to the TRU-Install solution is its ability to switch the modem between appearing as an OS natively-supported modem for installation/upgrade purposes, and a WWAN modem for modem functionality. This controlled ability to switch between modes has the following benefits:

- Removes the need for physical installation media resulting in plug and play functionality.
- Works on every computer the modem is inserted into, not just the first computer.
- Supports multiple TRU-Install-capable modems installed on the same computer.
- Supports multiple TRU-Install packages for different types of OS's on the same modem.
- Supports software upgrades via newer modem insertion.

How it works

The functionality of the TRU-Install solution is best explained by describing the supported modes of operation and how they are controlled.

Modes of operation

TRU-Install modems have two modes of operation: TRU-Install mode and modem mode.

TRU-Install mode The TRU-Install mode is the default mode. It is responsible for installing the modem drivers and connection manager on the user's computer system.

When the modem is in TRU-Install mode, it is displayed as a CD-ROM drive on the user's computer. The CD image with the installation information is stored inside the flash memory of the modem.

Note: Users will only see the installation files and user documentation applicable to the OS installed on their computer. I.e. A Windows user will not see Mac files, and a Mac user will not see Windows files.

The behaviour of the TRU-Install mode is slightly different for each OS:

- **Microsoft Windows® 2000/XP**
Upon insertion of the TRU-Install modem, the computer automatically detects the TRU-Install mode as a CD and runs the installer program. Auto-run of the installer can be disabled. Please refer to your Windows documentation for details on how to do this.
- **Microsoft Windows Vista™**
Upon insertion of the TRU-Install modem, the computer automatically detects the TRU-Install mode as a CD. It then asks users whether they would like to run the installer, open the contents of the CD, or do nothing.
- **Mac OS® X**
Upon insertion of the TRU-Install modem, the computer automatically detects the TRU-Install mode as a CD and displays the contents of the CD image to the user. It is the responsibility of the user to execute the installer.

Modem mode Modem mode is the standard mode in which the modem operates as a WWAN device. It is only operational when the device drivers and connection manager are detected on the system.

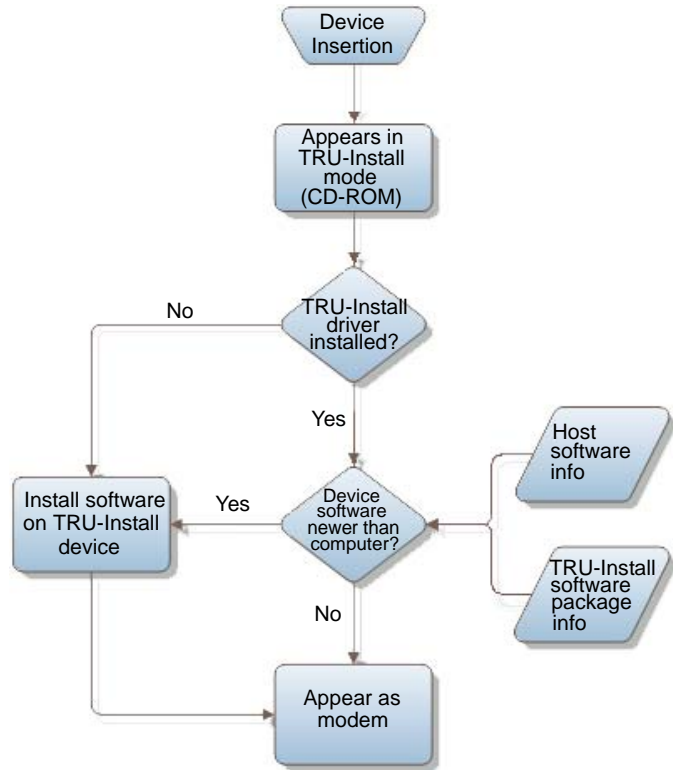
TRU-Install driver

When a TRU-Install modem is first inserted into a computer, the TRU-Install driver is installed, along with the modem drivers and connection manager. The TRU-Install driver is responsible for:

- Switching installed modems to modem mode.
- Detecting modems with newer software and allowing the upgrade to run.
- Detecting new modems with new software and allowing installation.

Flow Diagram

The following diagram illustrates the typical flow when a TRU-Install modem is inserted:



Conclusion

The TRU-Install solution simplifies the installation process for customers by placing all the necessary software on the modem. Customers will get connected faster in fewer steps with Sierra Wireless TRU-Install supported products.

