



EVDO/HSPA Device Driver Installer

Version 2.02.04.002

July 9, 2008

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Purpose of this document is to provide information for Novatel Branded Device Driver that supports host application or SDK for 3rd party connection manager integration with Novatel Wireless EVDO/HSPA devices.

Release Label: DriverInstaller_2.02.04.002

Release Files:

- NvtlDriver_V2.02.04.002.exe
- NvtlDriver_V2.02.04.002.msi
- NvtlDriverCDFilter_V2.02.04.002.exe
- NvtlDriverCDFilter_V2.02.04.002.msi

Released Date: July 9, 2008

Reason for Release: New version of Modem, NDIS and CD Filter drivers are included in this release. Upgrades from prior driver versions, such as, v2.01.07 are supported.

Supported Systems: Windows 2000 Professional, Windows XP 32/64 (Home, Professional, Media Center, Tablet PC) and Windows Vista 32/64 (Enterprise, Ultimate, Business, Home Premium, and Home Basic).

Hardware:

- | | | | |
|----------|---------|----------|----------|
| • V620 | • S620 | • E725 | • MC870D |
| • V640 | • S720 | • E726 | • PC960D |
| • V740 | • EX720 | • PC720 | • MC950D |
| • USB720 | • U720 | • MC727 | • MC930D |
| • USB727 | • MC720 | • E725 | • X950D |
| • E727 | • U727 | • XU870 | |
| • EV620 | • MC727 | • EU870D | |
| • E725 | • ES720 | • EU860D | |

Driver versions included in this package:

Generic 32/64 bit Vista and XP:

- Modem v3.0.11.0 **WHQL**
- NDIS v1.0.21.0 **WHQL**
- CD Filter v1.0.5.0 **WHQL** (Only with CD Filter Driver Installer)

Notes:

This release of the Novatel Wireless Driver Installer (version 2.02.04.002), introduces new versions of the legacy modem and NDIS drivers. Use of this driver installer will upgrade any older versions of Novatel branded drivers if they are present on the system during the installation process.

NvtlDriver_V2.02.04.002.exe/msi installer drivers are designed to be backward compatible with all devices supported by the older versions, such as **NvtlDriver_V2.01.07.exe/msi (4/20/07)**.

NvtlDriverCDFilter_V2.02.04.002.exe/msi Driver Installer (version 2.02.04.002) includes a CD Filter driver. This driver provides auto installation support for auto-install capable devices, such as: MC950D/MC930D and MC727/U727/USB727/E727. This CD Filter driver installed on the system will not affect any other devices. This installer will also include all functionalities of the **NvtlDriver_V2.02.04.002.msi/exe**.

Known Issues with this Driver Installer:

- DFT53057 BSOD occurs with autoinstall and mass storage enabled on Win2k
- DFT53076 Modem doesn't respond after new driver install with USB727 inserted on both XP & Vista (new with DI v2.02.04.001, VZAM v6.7.8 only)
 - This problem won't occur if the drivers are installed without USB727 inserted into the system

What's New/Fixed in Driver Installer version 2.02.04.002:

- Updated CD Filter to version 1.0.5.0

What's New/Fixed in CD Filter Driver version 1.0.5.0:

- DFT53017 Smart CD Ejects without registry key
- DFT53019 Smart CD Filter: Different software on same carrier should not eject
- DFT53091 Smart CD Filter yellow bangs on 2K system

What's New/Fixed in Driver Installer version 2.02.04.001:

- Added GenSCR Whqlcd driver support new PID, added build process to include SCR driver installer.
- Modified Setuphelper.dll to version 1.0.13.0
- Corrected the spelling on the message that displays when a downgrade is attempted. Corrected "current" to "currently".
- Change inf file to include XU870 support in Smart card drivers.
- Fixed issues Modem and Status port missing issue after install.
- DFT52572 Add XU870 support in Smart card drivers.
- DFT52703 MC950/XU870 smartcard not enumerated at first if device is plugged in while installing
- DFT52755 Driver installer fails to upgrade from previous versions.
- DFT52685 BSOD on Win2k while uninstalling after removing MC990.

What's New/Fixed in Modem Driver version 3.0.11.0:

- Updated to match .sys and .inf product version strings.
- DFT52278 Virtual Network Adapter INF not removed at uninstallation
- DFT52506 Leftover oem files in inf folder after uninstallation
- DFT52332 Using XU870 with Driver Installer 2.02.02.402 only Modem and Status Port are installed
- DFT52011 BSOD with 7EH error code on nwusbmdm.sys
- DFT52331 Removed Download mode support PIDs for 990D device.
- DFT52261 MC990 frozen in device manager after resume from power management while connected
- ENH52284 Add download mode port to inf to meet new device requirements
- DFT51812 Merge QCOM 2050 branch as followings:
 - 1) Added power management support for the HS-USB composite device (QCOM 2.0.4.1)
 - 2) Corrected implementation for IRP_MN_CANCEL_REMOVE_DEVICE.(QCOM 2.0.4.1)
 - 3) Fixed the bug (race condition) during cancellation of write IRPs.(QCOM 2.0.4.1)
 - 4) Made changes so that the INT pipe is not polled when the port is not in use (QCOM 2.0.4.1)

- 5) Changes were made so that the IOCTL_QCUSB_SYSTEM/DEVICE_POWER can be processed at DISPATCH level. (QCOM 2.0.4.2)
 - 6) Added support of byte padding for hi-speed USB to workaround a hardware bug (QCOM 2.0.4.2)
 - 7) Made some fixed for Windows logo test. (QCOM 2.0.4.2)
 - 8) Made changes so that the host driver would wake up device from selective suspension during device removal. This prevents Windows from crashing when a logical device is uninstalled. (QCOM 2.0.4.3)
 - 9) Made changes so that power management and selective suspension are always enabled by default for HS-USB device. (QCOM 2.0.4.3)
 - 10) Fixed the bug which could cause system to hang when device was disconnected or driver was uninstalled with USB selective suspension enabled(QCOM 2.0.4.4)
 - 11) Fixed the bug which could cause BSOD when the file object in the CREATE IRP was accessed at DISPATCH_LEVEL. (QCOM 2.0.4.4)
 - 12) Changes were made so that the PnP sound may be suppressed. (QCOM 2.0.4.4)
 - 13) Changes were made so that the reference count is correctly applied to the device stack to avoid BSOD when device is disconnected during busy IO operations. (QCOM 2.0.4.4)
 - 14) Added more sanity checking for USB descriptors. (QCOM 2.0.4.4)
 - 15) Fixed the bug which would incorrectly acquire the device removal lock and prevent driver from being unloaded. (QCOM 2.0.4.4)
 - 16) Added support for bearer rates in the modem INF files. (QCOM 2.0.4.4)
 - 17) Fixed the bug which would prevent driver from being unloaded when the device is disabled or uninstalled. (QCOM 2.0.4.5)
 - 18) Added validation of USB device descriptor. (QCOM 2.0.4.5)
 - 19) Added the code to wake up the device outside the write thread to avoid possible write failure after the driver enables USB selective suspension (QCOM 2.0.4.5)
- o ENH52172 Enable Selective suspend for 990D
 - o ENH51855 Change USB ID device name to show HSPA
 - o DFT51626 Add logic to wake-up device from Selective Suspend when bus is no longer in IDLE mode.
 - o DFT51056 TME reported XP freeze when user start Hibernate while DUN is connected with internet

What's New/Fixed in NDIS Driver version 1.0.21.0:

- o ENH52170 Incorporate VID PID Planning document version 2.8 changes (V720 was missing from the list)
- o DFT52880 Machine freezes when switching from RAS to NDIS.
- o DFT52550 On resume from hibernate, connection will be not be established until Mobilink is started
- o DFT52866 DRIVER_UNLOADED_WITHOUT_CANCELLING_PENDING_OPERATIONS (ce) in NVWNDIS.sys
- o DFT52550 On resume from hibernate, connection will be not established until Moblink is started
- o DFT51583 NDIS MANUAL cannot make connection after resume from standby - Vista 64
- o DFT52549 [BSOD] Panasonic found BSOD in NDIS 1.0.18.0
- o DFT52393 [BSOD] BUGCODE_ID_DRIVER (40000080) in NDIS.sys while unplugging device
- o DFT51896 After NDIS is disconnected, re-initializing the retry counter in CloseDevice() to be ready for the next CONNECT request from Connection Manager
- o DFT52369 Cannot uninstall NDIS driver
- o DRV52122 [BSOD] SYSTEM_THREAD_EXCEPTION_NOT_HANDLED (7e) in NWVNdIs.sys
- o DFT52144 NDIS will stay in connecting indefinitely
- o ENH52170 Extended NDISFlags size from 14 to 16 to enumerate MCD990 devices
- o DFT00094 [DCR] Enable compression in PPP Stack

- DFT00090 Drop DTR When connection is disconnected
- DFT51716 Connection Manager locks up when attempting to connect using "PAP"
- DFT51896 NDIS state stuck in Disconnected after hardware radio enable/disable
- DFT51577 NDIS MANUAL connection reestablished on resume from power management
- DFT52007 NDIS driver doesn't recover after failing LCP attempts
- DFT51577 NDIS MANUAL connection reestablished on resume from power management

What's New/Fixed in CD Filter Driver version 1.0.4.0:

- CD Filter driver support new PID 5020.
- DFT52510 CD filter driver not removed after uninstall on XP, DI 2.02.03.001
- ENH52869 Add Blue support when device is configured for CDRom + Flash

Installation Instructions:

1. Driver Installation Package Files

NvtlDriverCDFilter_V2.02.04.001 MSI/EXE:

Or NvtlDriver_V2.02.04.001 MSI/EXE:

- NvtlDriverCDFilter_V2.02.04.001 MSI/EXE: Modem, NDIS, and CD Filter driver for HSPA/EVDO Novatel branded devices.
- NvtlDriver_V2.02.04.001 MSI/EXE: USB Modem and NDIS driver for HSPA/EVDO Novatel branded devices.

2. Driver Versions:

Generic Driver installer included:

- Generic Windows Vista/XP/2000:
 - Modem v3.0.11.0
 - NDIS v1.0.21.0
 - CD Filter v1.0.4.0 (only within CDFilter driver installer)

3. Interactive Installation Steps:

- Double-click the installer to execute the InstallShield Wizard
- Accept the License Agreement
- Select the Install button
- Select the Finish button

4. Factory Installation Command-Line Option (Windows 2000/XP):

- Silent Install:
 - `msiexec.exe /i "NvtlDriverCDFilter_V2.02.04.001.msi" /qn`
 - `NvtlDriverCDFilter_V2.02.04.001.exe /s /v"qn"`
- Uninstall:
 - `msiexec.exe /x "NvtlDriverCDFilter_V2.02.04.001.msi" /qn`

5. Factory Installation Command-Line Option (Vista):

- Silent Install:
 - `msiexec.exe /i "NvtlDriverCDFilter_V2.02.04.001.msi" /qb`
 - `NvtlDriverCDFilter_V2.02.04.001.exe /s /v"qb"`
- Uninstall:
 - `msiexec.exe /x "NvtlDriverCDFilter_V2.02.04.001.msi" /qb`

6. Upgrades previous Driver Installer:

- NvtlDriver_V2.01.07.msi
- Other host applications or SDK drivers.