Release Note NCI Unified Proximity driver

Document information

Info	Release Note
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Revision History

Revision	Date	Description	Author
V10.0.7.0	2016/09/22	Unified Proximity Driver Maintenance Release	Hariom Kesh

Contents

1. Document purpose

This document is the release note of NCI Unified Proximity driver. This document will describe content of the delivery and how to use installer.

2. Installation instructions

If the driver is provided as a silent installer, simply launch the setup.exe and the driver installation process should start. If the installer is not silent, a GUI should appears and let user proceed the installation. The installer can take several command line parameters:

/S : The installer will be silent if it's a non silent installer.

The installer may support additional switches, please have look in the related chapter in this document.

3. Material list

This package contains the following files:

- *NXP_ProximityDriver_Release_note.pdf* : this document

- *setup.exe* : Installer for Unified Proximity Driver for all OSs.

- *Win10/driver_binaries/* : Binaries for Proximity Driver x86 & x64 for Windows10

- *Win10/pdbs/*: All pdb files for Proximity Driver for Windows10

- *Win8x_Win7/driver_binaries/* : Binaries for Proximity Driver x86 & x64 for Win8.x & Win7

- *Win8x_Win7/pdbs/*: All pdb files for Proximity Driver for Win8.x & Win7

4. Scope

- **This package has Win10 RS1 HLK certified Proximity & PCSC driver.**
- This package also contains last released WHCK (Win8.x/Win7) certified driver.
- Installer "setup.exe" will install appropriate driver binaries based on underlying OS.
- This package has Unified driver binaries i.e. it is applicable for both HECI & SPB based platforms.

5. Binaries details

- **Win10 RS1**
  - Proximity driver Version : 10.0.7.0
  - PCSC Driver : 1.0.4.42
  - Firmware version
    - NPC 100/120 : 8.2.3
    - NPC 300/320 : 10.1.1D
  - GPIO Driver For Intel's HECI platform : 1.0.4.0
  - Proximity & PCSC driver is Win10 Device guard complaint.
  - Proximity & PCSC driver is signed by an Extended Validation (**EV**) Code Signing Certificate.

- **Win 8.x/Win7**
  - Proximity driver Version : 10.0.5.0
  - PCSC Driver : 1.0.4.42
  - Firmware version
    - NPC 100/120 : 8.2.3
  - NPC 300/320 : 10.1.11
  - GPIO Driver For Intel's HECI platform : Win8.x/Win7 : 1.0.2.0

6. PR/CR/IR Details

- PR/CR/IR Solved in this release
- [**External PRs**]
  - o [SC57514] NFC won't work after tapping T money tag multiple times
  - o [SC57691] Installer (Setup.exe) return code addition
  - o [SC57674] TX_PWR_REQ cannot generate from NPC300 module
  - o [SC57751] NFC driver files in Program Files directory are not removed during driver uninstallation
- [**Internal PRs**]
  - o [SC57674] EEPROMConfigBlobRegisters new param not overwritten if previous keys are present
  - o [artf191833] Driver crash on multiple Hibernate (S0->S4) cycles with P2P device in Proximity
  - o [artf196793] Support for NPC3xx HW IDs
  - o [PT_SC56862] ESD Check & NFCC Recovery mechanism is turned OFF by default
  - o [PT_SC57514] For NPC3xx don't apply BOOSTER_CTRL_CFG (A0 60) configuration

7. Appendix

7.1 Installer's switches

The driver installer support the following switches:

```
setup.exe [/SD] [/LOG=path] [/X=path] /RFOFF /WIZARD /ACCEPTLICENSE
```

Note : A valid path is an absolute path with the following format :

- − PATH_WITH_NO_SPACES
- − "PATH_WITH_NO_SPACES"
- − "PATH WITH SPACES"

Options :

/SD : Completely silent mode.

This option disables all the message boxes, no notification will appear, even on error.

/LOG : Log file.

By default, a log file named "install_log.txt" is created in the installation directory.
If this option is used, the log file name used is the complete path. The log file contains the following information :

- − The time when the application has been launched
- − The state of the silent mode (ON or OFF)
- − The confirmation of extraction of the driver in the path precise, if /X option has been used
- − If an error occurs, a description of this error
- − The final status of the installation, and the time when the application stopped.

/X : Extract driver binaries to specified path without installing anything else.

/DX : Extract driver following MUP specification.

/WIZARD : Enable Installer WIZARD for silent installer. /SD override this switch.

/S : Enable silent mode. Popup are still displayed if an error occurs.

/ACCEPTLICENSE : When using **/S** or **/SD**, this switch silently accept license.

/CONFIGXTAL : Force FW clock configuration to XTAL.

/PCSC :   Installs PCSC driver along with Proximity

/ ANTCONFIG : Applies required antenna configuration needed to pass analog test on SKL SDS(ONLY for NPC100)

/ UNINSTALLER : Adds Proximity driver Uninstaller under control panel ("Uninstaller a program")

7.1 Installer's Return codes

Return Code	Description
0x00	Driver is installed Successfully
0x01	Driver is NOT installed because no matching device node present
0x02	Driver is NOT installed because HWID doesn't match in INF
0x03	Driver is NOT installed because already better driver is installed
0x04	Driver is NOT installed due to other unknown reasons

0x05	Driver is NOT installed due to device node cannot be created (PCSC driver case)

7.2 Radio and Power status.

This table indicates the Radio status, Power status (Ven) and libnfc status depending on platform state.

Transition	Ven status	Radio status	LibNfc status
Boot	Toggled OFF/ON	**Polling ON**	initialized
SX/CS/BOOT => S0	Toggled OFF/ON	**Polling ON**	initialized
S0 => S1 (Screen Off)	Ven OFF	**Polling OFF**	deinitialized
S0 => S3	Ven OFF	**Polling OFF**	deinitialized
S0 => S4	Ven OFF	**Polling OFF**	deinitialized
S0 => S5	Ven OFF	**Polling OFF**	deinitialized
S0 => CS	Ven OFF	**Polling OFF**	deinitialized
Driver enabled	Toggled OFF/ON	**Polling ON**	initialized
Driver disabled	Ven OFF	**Polling OFF**	deinitialized
Air plane mode ON / NFC Off	Ven OFF	**Polling OFF**	deinitialized
Air plane mode OFF / NFC On	Toggled OFF/ON	**Polling ON**	initialized