

Release Note NCI Proximity Driver over I2C SPB Bus

Document information

Info	Content
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Abstract	

NXP

Revision History

Revision	Date	Description	Author
V8.0.1.0	2015/03/20	Initial release	GORAND Charles

Contents

Contents	3
1. Document purpose	4
2. Installation instructions.....	4
3. Driver version 8.0.1.0	4
3.1 Material list	4
3.2 Driver Informations.....	4
3.3 Possible problems and know errors and restrictions	4
4. Appendix.....	5
4.1 Installer's switches	5
4.2 Radio and Power status.	5
4.3 How to run Radio Manager WHCK system tests	6

1. Document purpose

This document is the release note of NCI 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 appear 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. Driver version 8.0.1.0

3.1 Material list

This package contains the following files:

- **release_note_npc100.pdf**: this document
- **setup.exe** : installer for Proximity Driver.
- **driver_binaries/** : Binaries for Proximity Driver x86 & x64 for Windows 8 and Windows 7
- **pdb/**: All pdb files for Proximity Driver for Windows 8 and Windows 7

3.2 Driver Informations

- NXP Generic Driver Version

This driver is based on 2.0.2.1RC3

- Firmware version 8.2.3

3.3 Possible problems and know errors and restrictions

None

4. Appendix

4.1 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 precised 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.

/RFOFF : The radio does not polling after installing the driver.

/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 crystal configuration.

4.2 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

4.3 How to run Radio Manager WHCK system tests

"Radio Manager - Verify Radio State" & "Radio Manager - Verify SetRadioState" WHCK system tests are known to failed on some configuration. This issue is caused by a registry key that does not have the right permission. During the WHCK test, these tests try to access this registry key but failed due to permission denied.

The tests may failed with the following errors in HCK logs :

"Could not CoCreate Media Radio Manager."

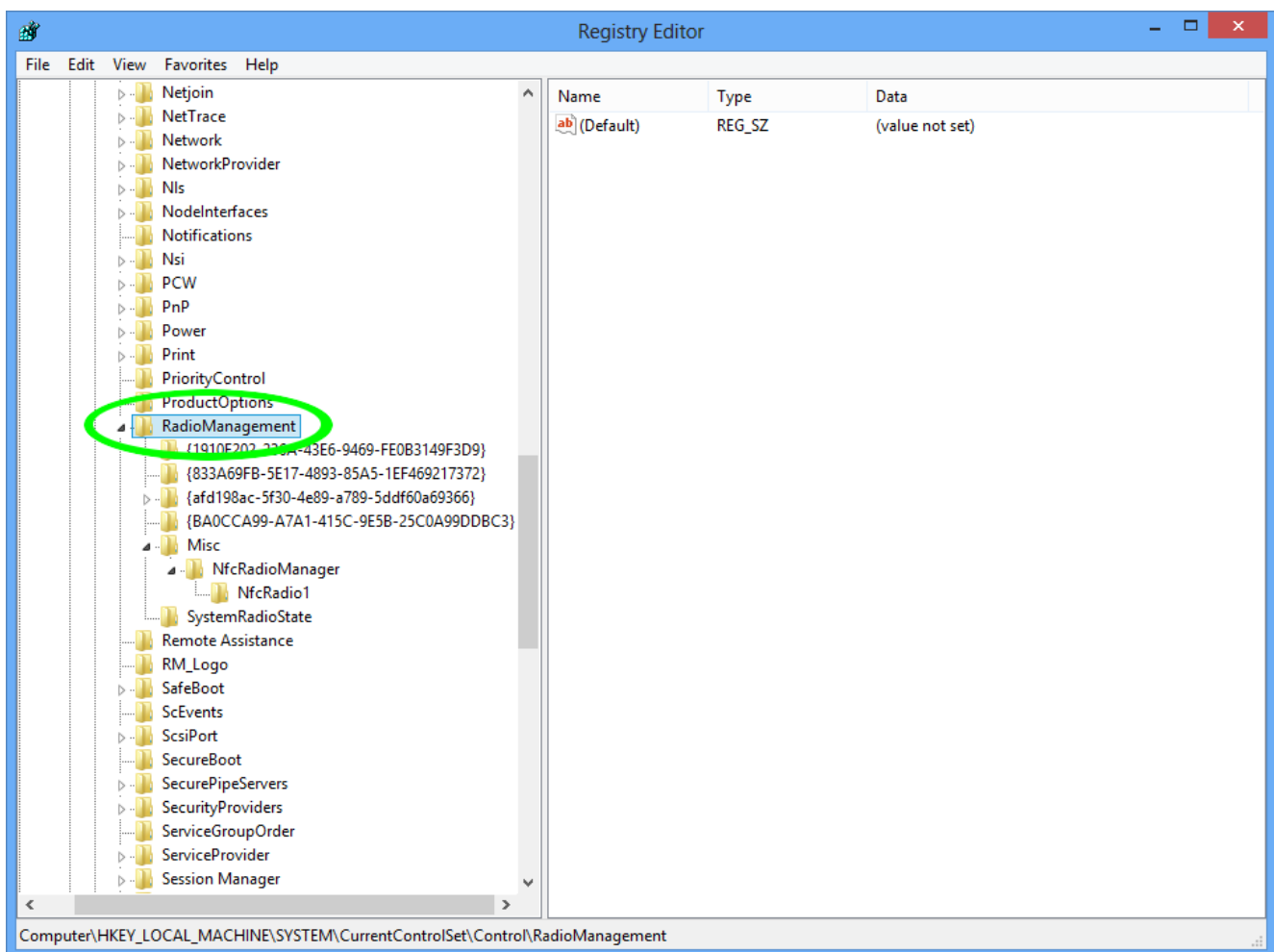
and

"Unable to find registered radio

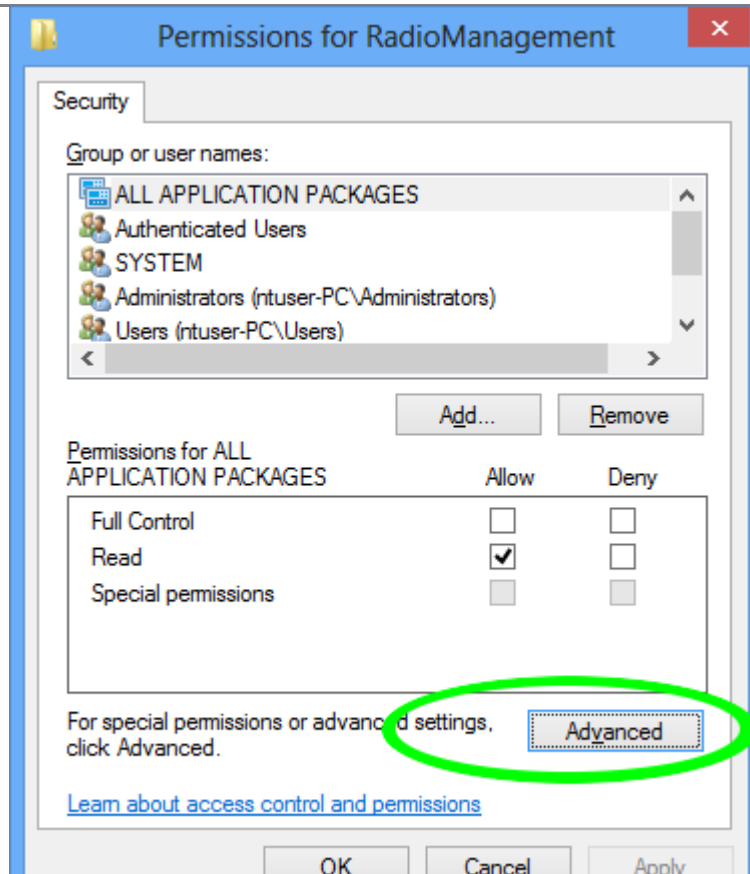
SYSTEM\CurrentControlSet\Control\RadioManagement\Misc\NfcRadioManager\NfcRadio1! Are the RadioMgrSignature and RadiInstanceID parameter correct?"

To solve the issue, follow this procedure on computer under tests :

1. Launch regedit
2. go to HKLM\SYSTEM\CurrentControlSet\Control\RadioManagement

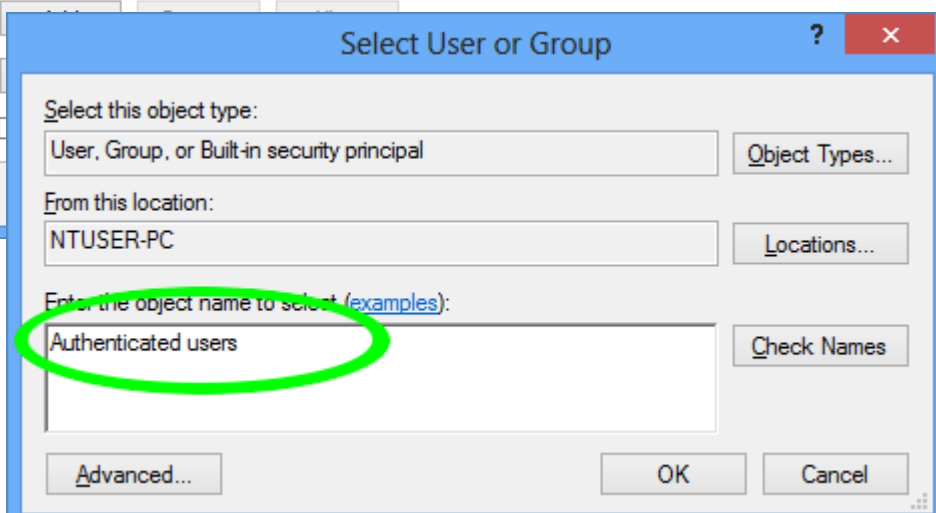
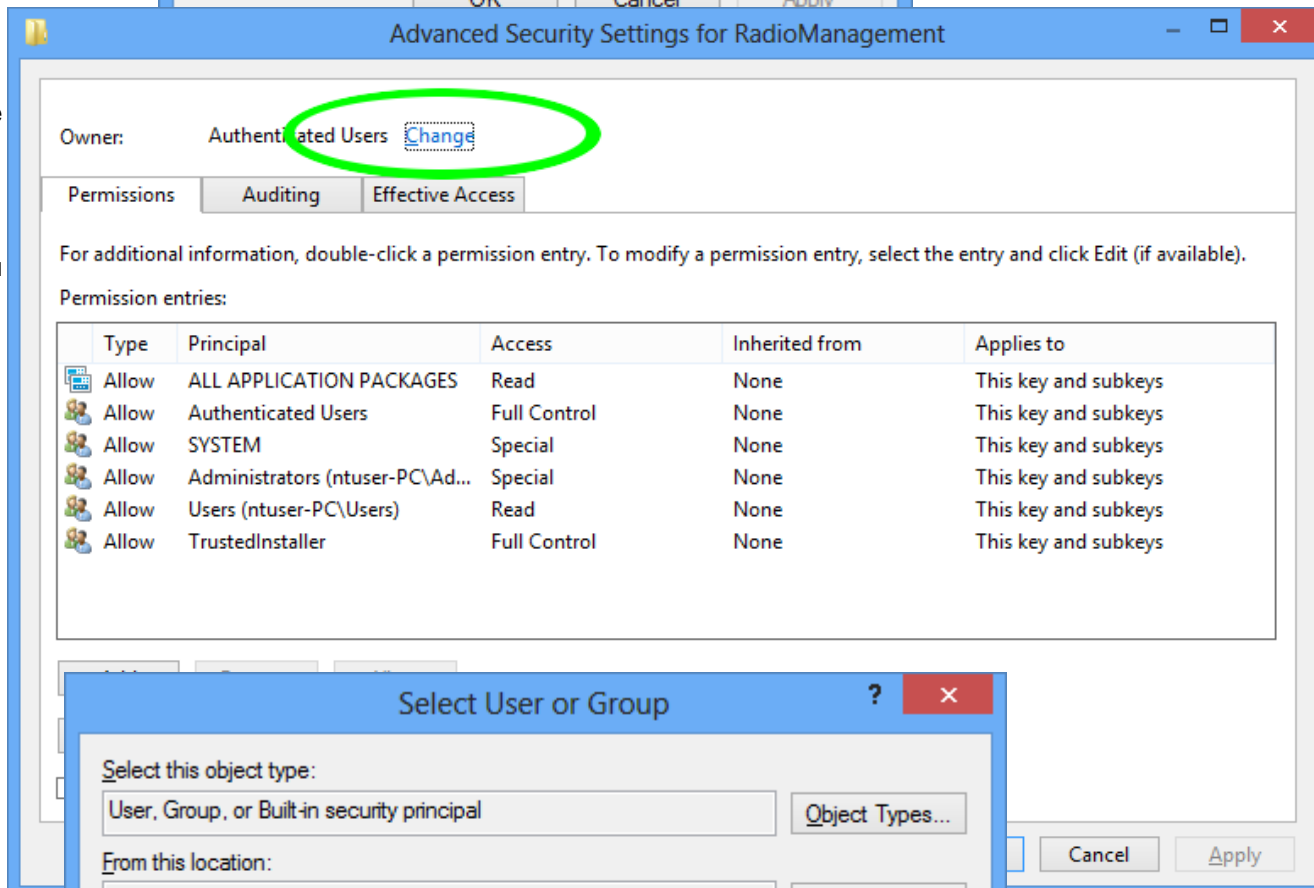


3. Right click on "RadioManagement" => Permissions
4. Click on Advanced

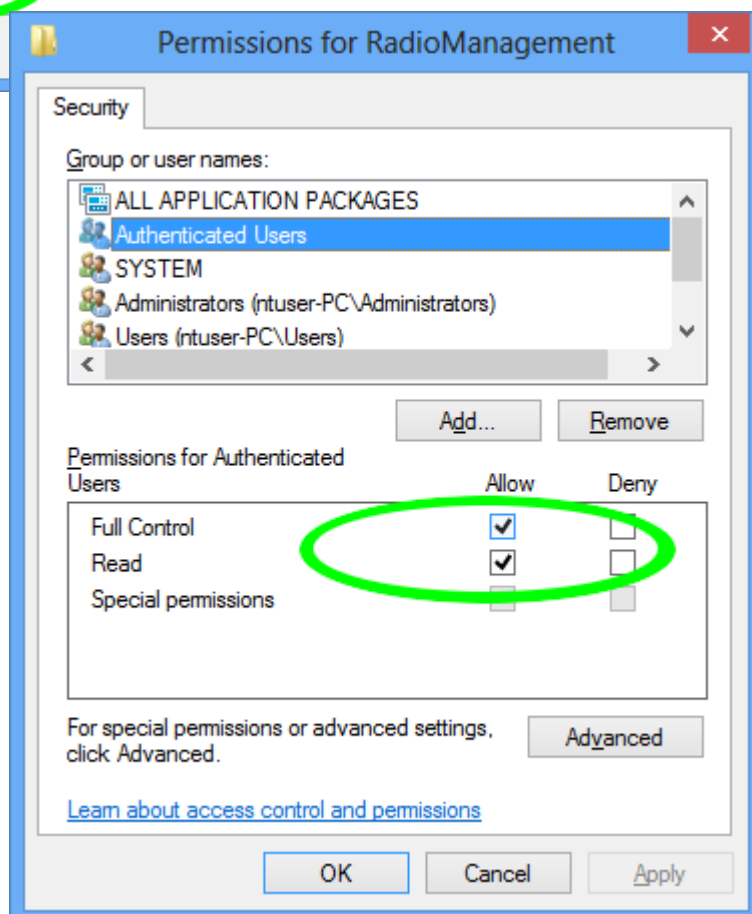
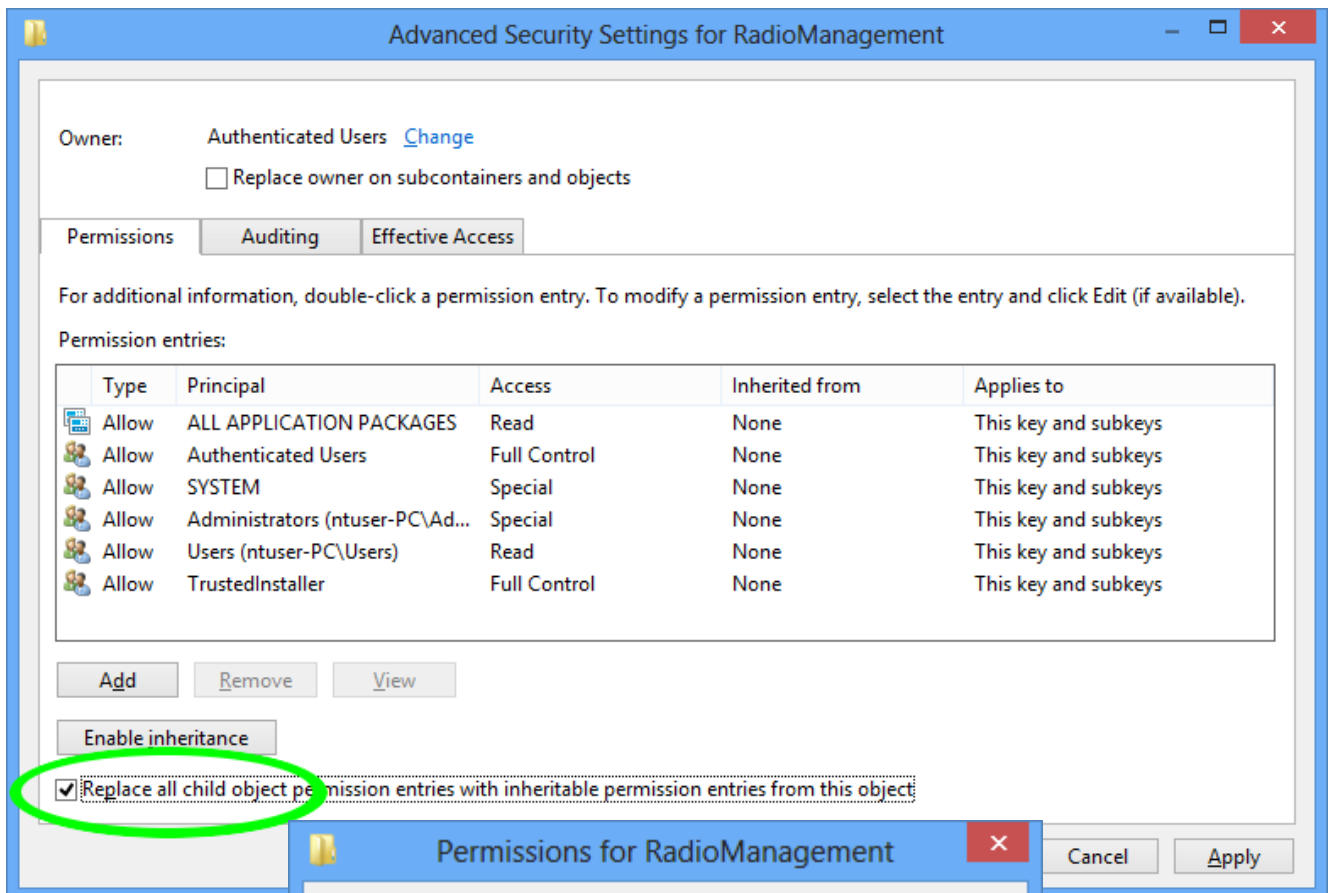


5. On "Owner : " "Change" <= click on Change

6. Set user to Authenticated users and click ok

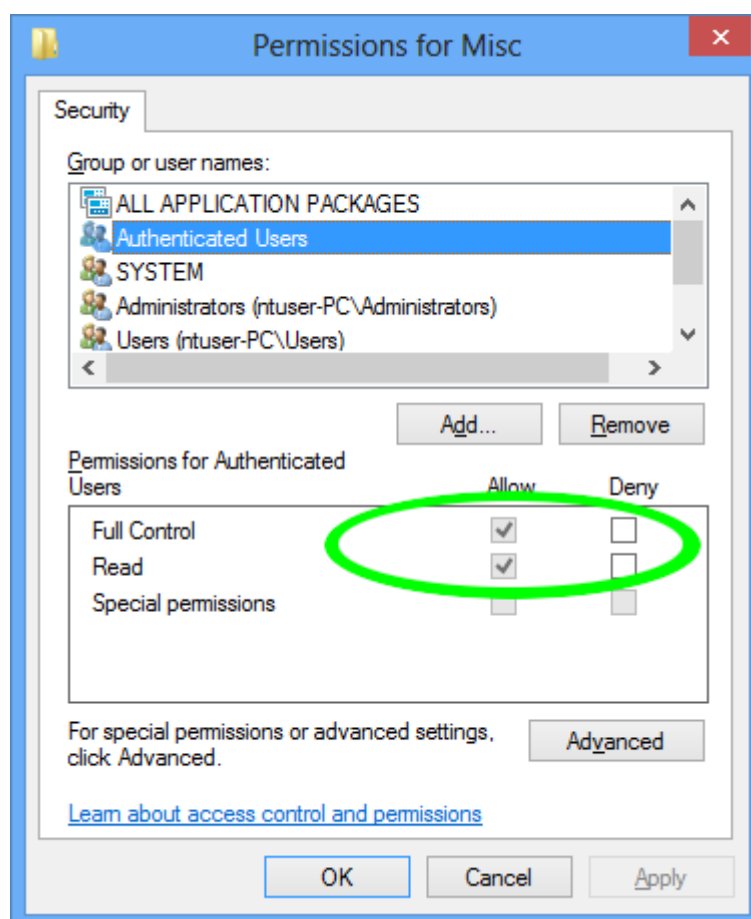


7. Then check the radio box "Replace all child objects permission ..." and on Apply => and Ok.



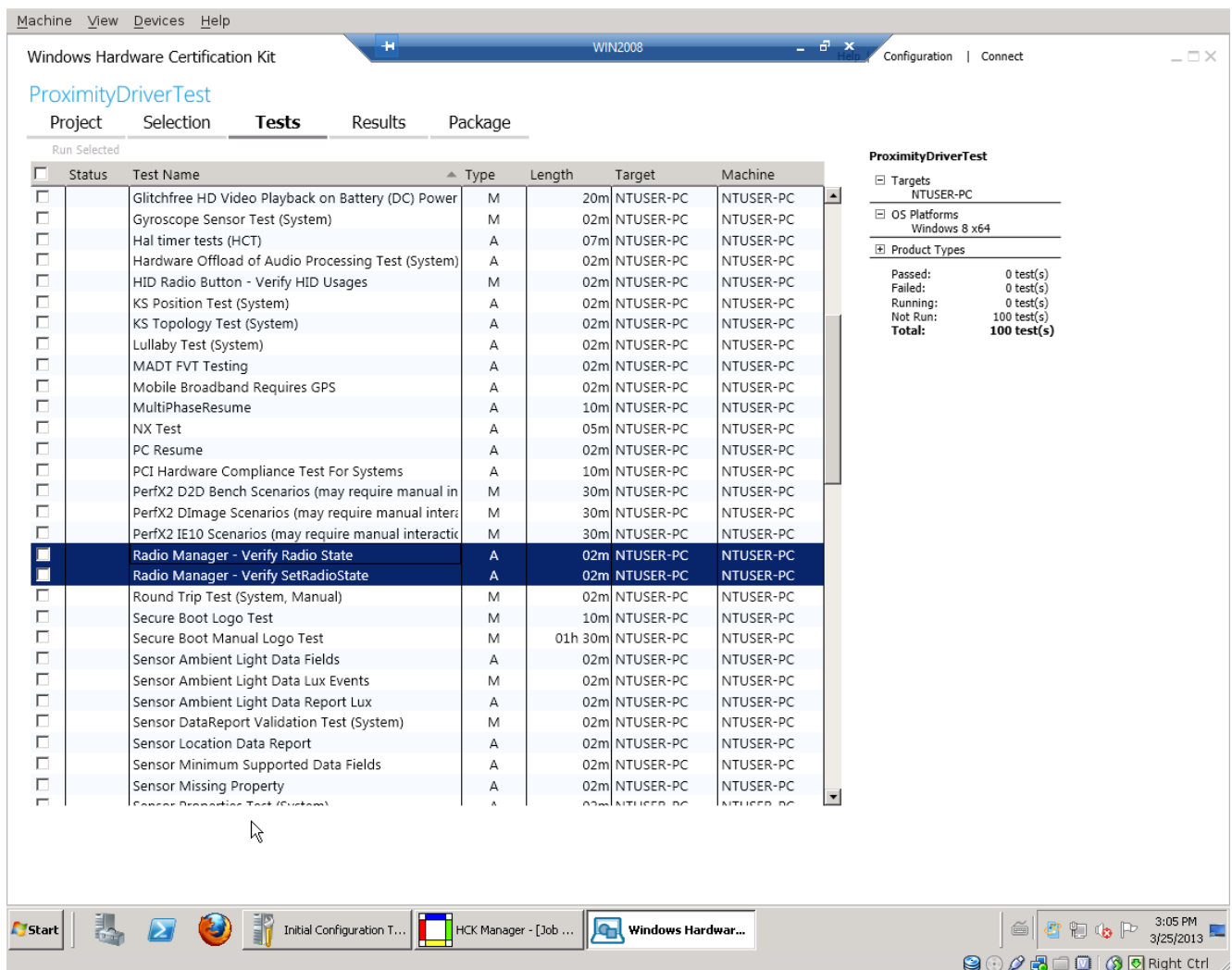
8. The window will close and then click on Authenticated users and change permissions to Full Control

9. Apply and close the windows
10. Check that subfolder Misc has full control for Authenticate users.



11. If subfolder Misc has not full control for Authenticate users
 - Download PSEXEC from <http://technet.microsoft.com/en-us/sysinternals/bb897553.aspx>
 - Launch it as follow : PSEXEC -i -s -d CMD
12. Launch Regedit again from the prompt opened by PSEXEC, and restart procedure from 2.

Once it's done, start WHCK tests as follow :



Machine View Devices Help

Windows Hardware Certification Kit WIN2008 Configuration | Connect

ProximityDriverTest

Project Selection **Tests** Results Package

Run Selected

Status	Test Name	Type	Length	Target	Machine
<input type="checkbox"/>	Glitchfree HD Video Playback on Battery (DC) Power	M	20m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Gyroscope Sensor Test (System)	M	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Hal timer tests (HCT)	A	07m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Hardware Offload of Audio Processing Test (System)	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	HID Radio Button - Verify HID Usages	M	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	KS Position Test (System)	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	KS Topology Test (System)	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Lullaby Test (System)	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	MADT FVT Testing	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Mobile Broadband Requires GPS	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	MultiPhaseResume	A	10m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	NX Test	A	05m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	PC Resume	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	PCI Hardware Compliance Test For Systems	A	10m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	PerfX2 D2D Bench Scenarios (may require manual in	M	30m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	PerfX2 DImage Scenarios (may require manual intera	M	30m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	PerfX2 IE10 Scenarios (may require manual interacti	M	30m	NTUSER-PC	NTUSER-PC
<input checked="" type="checkbox"/>	Radio Manager - Verify Radio State	A	02m	NTUSER-PC	NTUSER-PC
<input checked="" type="checkbox"/>	Radio Manager - Verify SetRadioState	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Round Trip Test (System, Manual)	M	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Secure Boot Logo Test	M	10m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Secure Boot Manual Logo Test	M	01h 30m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Sensor Ambient Light Data Fields	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Sensor Ambient Light Data Lux Events	M	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Sensor Ambient Light Data Report Lux	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Sensor DataReport Validation Test (System)	M	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Sensor Location Data Report	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Sensor Minimum Supported Data Fields	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Sensor Missing Property	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Sensor Properties Test (System)	A	02m	NTUSER-PC	NTUSER-PC

ProximityDriverTest

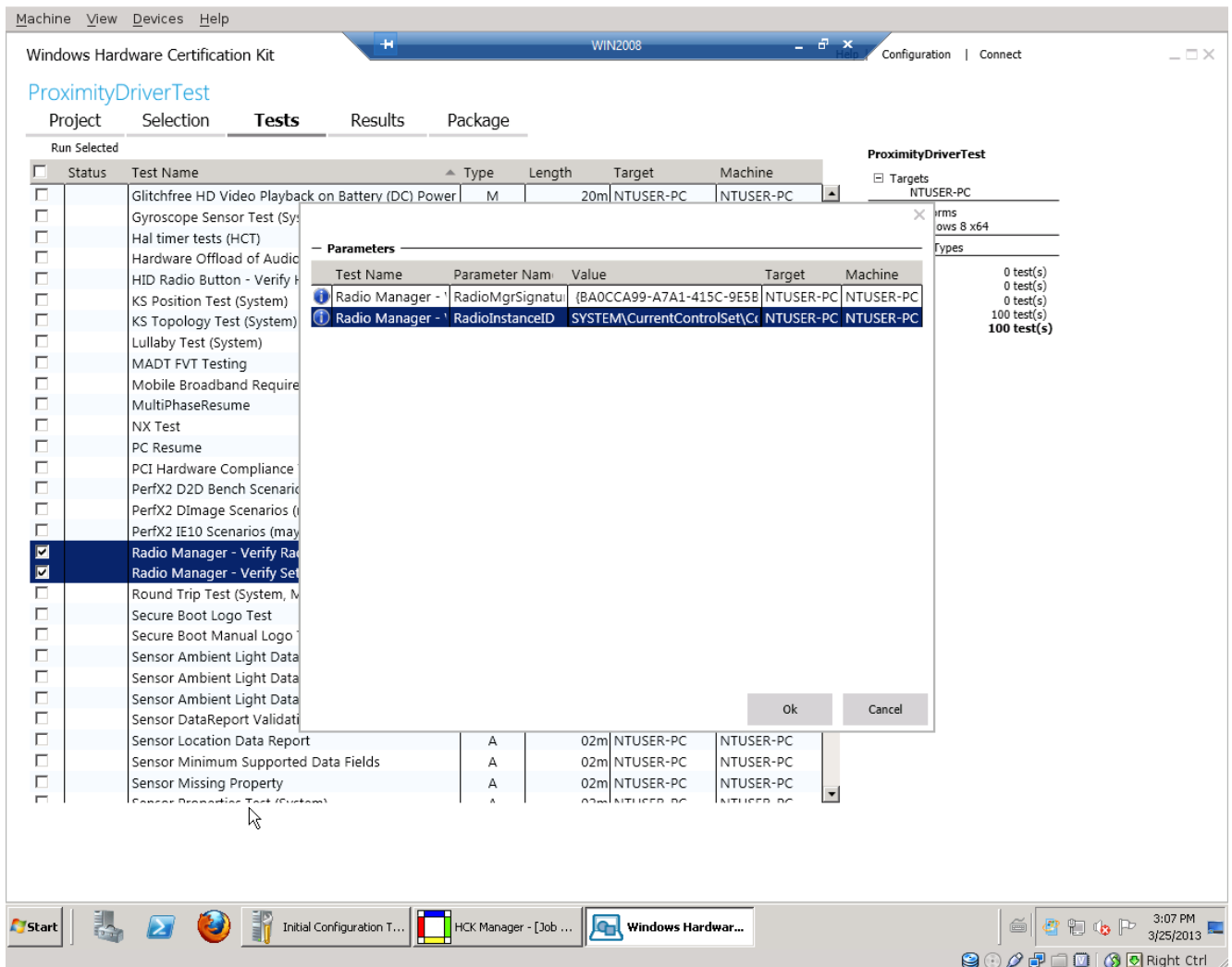
- Targets
 - NTUSER-PC
- OS Platforms
 - Windows 8 x64
- Product Types
 - Passed: 0 test(s)
 - Failed: 0 test(s)
 - Running: 0 test(s)
 - Not Run: 100 test(s)
 - Total: 100 test(s)**

Start Initial Configuration T... HCK Manager - [Job ... Windows Hardwar... 3:05 PM 3/25/2013 Right Ctrl

You should enter this informations :

RadioMgrSignature = {BA0CCA99-A7A1-415C-9E5B-25C0A99DDBC3}

RadiInstanceID = SYSTEMCurrentControlSet\Control\RadioManagement\Misc\NfcRadioManager\NfcRadio1



Then start the tests. After a while the test should succeed :

Machine View Devices Help

Windows Hardware Certification Kit WIN2008 Configuration | Connect

ProximityDriverTest

Project Selection **Tests** Results Package

Run Selected

Status	Test Name	Type	Length	Target	Machine
<input type="checkbox"/>	Firmware Post Time test	M	22m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Firmware Update test	A	10m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Glitchfree HD Video Playback on AC (Manual on mc	M	20m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Glitchfree HD Video Playback on Battery (DC) Power	M	20m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Gyroscope Sensor Test (System)	M	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Hal timer tests (HCT)	A	07m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Hardware Offload of Audio Processing Test (System)	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	HID Radio Button - Verify HID Usages	M	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	KS Position Test (System)	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	KS Topology Test (System)	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Lullaby Test (System)	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	MADT FVT Testing	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Mobile Broadband Requires GPS	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	MultiPhaseResume	A	10m	NTUSER-PC	NTUSER-PC
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<input checked="" type="checkbox"/>	Radio Manager - Verify Radio State	A	02m	NTUSER-PC	NTUSER-PC
<input checked="" type="checkbox"/>	Radio Manager - Verify SetRadioState	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Round Trip Test (System, Manual)	M	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Secure Boot Logo Test	M	10m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Secure Boot Manual Logo Test	M	01h 30m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Sensor Ambient Light Data Fields	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Sensor Ambient Light Data Lux Events	M	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Sensor Ambient Light Data Report Lux	A	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Sensor DataReport Validation Test (System)	M	02m	NTUSER-PC	NTUSER-PC
<input type="checkbox"/>	Sensor Location Data Report	A	02m	NTUSER-PC	NTUSER-PC

ProximityDriverTest

- Targets
 - NTUSER-PC
- OS Platforms
 - Windows 8 x64
- Product Types
 - Passed: 2 test(s)
 - Failed: 0 test(s)
 - Running: 0 test(s)
 - Not Run: 98 test(s)
 - Total: 100 test(s)**

Start Initial Configuration T... HCK Manager - [Job ... Windows Hardwar...

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