

PiBox - Bug #153

Add proper support for collection of wifi adapters

07 Feb 2013 11:11 - Hammel

Status:	Closed	Start date:	07 Feb 2013																				
Priority:	Immediate	Due date:																					
Assignee:	Hammel	% Done:	100%																				
Category:	00 - Basic Build Issues	Estimated time:	0.00 hour																				
Target version:	0.5.0 - Beta 1																						
Severity:	Critical																						
Description																							
The set of wifi adapters I have do not work right out of the box. I need to validate I have the following for each:																							
1. Kernel driver loadable module																							
2. Firmware																							
3. USB configuration for mdev																							
The collection of adapters are:																							
<table><thead><tr><th>Adapter/Maker</th><th>Chip</th><th>Driver</th><th>Firmware</th></tr></thead><tbody><tr><td>*TP-Link TL-WN727N</td><td>Ralink RT5370</td><td></td><td></td></tr><tr><td>TP-Link WN821N</td><td></td><td></td><td></td></tr><tr><td>Rosewill RNX-1</td><td>RealTek RTL8187</td><td></td><td></td></tr><tr><td>ENUWI-G2</td><td>RealTek RTL8187B</td><td></td><td></td></tr></tbody></table>				Adapter/Maker	Chip	Driver	Firmware	*TP-Link TL-WN727N	Ralink RT5370			TP-Link WN821N				Rosewill RNX-1	RealTek RTL8187			ENUWI-G2	RealTek RTL8187B		
Adapter/Maker	Chip	Driver	Firmware																				
*TP-Link TL-WN727N	Ralink RT5370																						
TP-Link WN821N																							
Rosewill RNX-1	RealTek RTL8187																						
ENUWI-G2	RealTek RTL8187B																						
The TP-Link TL-WN727N is currently the one in use in testing.																							

History

#1 - 08 Feb 2013 14:20 - Hammel

- % Done changed from 0 to 30

Adapter/Maker	Chip	Vendor:Prod	Driver	FW Src	Firmware
*TP-Link TL-WN727N	Ralink RT5370		148f:5370	rt2800usb	Kernel
TP-Link WN821Nv3	(AR9171)		0cf3:1002	ar9170	Kernel (ar9271.fw/ htc_9271.fw - ar7010.fw/ar7010_1_1.fw/htc_7010.fw)
Rosewill RNX-1	RealTek RTL8187		(148f:2870)	(rt2800uxb)	kernel
Edimax ENUWI-G2	RealTek RTL8187B		(0ace:1211)	(zd1211rw)	

Items in parenthesis still need to be verified.

USB Device list: <http://linuxwireless.org/en/users/Devices/USB>

Alternate Firmware locations

- HTC: http://wireless.kernel.org/download/htc_fw/
- rt2800 web site: <http://rt2x00.serialmonkey.com/wiki/index.php/Hardware>
- ZD1211: http://sourceforge.net/project/showfiles.php?group_id=129083

Alternate Driver locations

- Ralink: http://www.mediatek.com/en/07_downloads/01_windows.php?sn=501
- Realtek:

<http://www.realtek.com.tw/Downloads/downloadsView.aspx?Langid=1&PNid=13&PFid=5&Level=5&Conn=4&DownTypeID=3&>

8;GetDown=false

- Atheros: <http://wireless.kernel.org/en/users/Drivers/Atheros>

RT5370 driver is available from Ralink site, but not specifically supported by rt2800usb. May need to do the following:

- echo 148F 5370 > /sys/bus/usb/drivers/rt2800usb/new_id
- load driver
- This implies mod to usbhandler.sh to handle custom scripting for specific devices

TP-Link WN821Nv3 can use the carl9170 driver instead. Legacy driver is ar9180

These updates are yet to be integrated into the build.

#2 - 09 Feb 2013 14:23 - Hammel

Adapter/Maker	Chip	Vendor:Prod	Driver	Firmwae	FW Source
*TP-Link TL-WN727N V3	Ralink RT5370	148f:5370	rt2800usb	N/A	N/A
TP-Link WN821Nv2	Atheros AR9170	0cf3:1002	carl9170	carl9170-1.fw	linuxwireless.org
Rosewill RNX-1	RealTek RTL8187	0bda:8187	rtl8187	N/A	N/A
Edimax ENUWI-G2	RealTek RTL8187B	0bda:8189	rtl8187	N/A	N/A

USB Device list: <http://linuxwireless.org/en/users/Devices/USB>

Alternate Firmware locations

- HTC: http://wireless.kernel.org/download/htc_fw/
- rt2800 web site: <http://rt2x00.serialmonkey.com/wiki/index.php/Hardware>
- http://sourceforge.net/project/showfiles.php?group_id=129083

Alternate Driver locations

- Ralink: http://www.mediatek.com/en/07_downloads/01_windows.php?sn=501
- Realtek:

<http://www.realtek.com.tw/Downloads/downloadsView.aspx?Langid=1&PNid=13&PFid=5&Level=5&Conn=4&DownTypeID=3&GetDown=false>

8;GetDown=false

- Atheros (ARxxxx): <http://wireless.kernel.org/en/users/Drivers/Atheros>

RT5370 driver is available from Ralink site, but not specifically supported by rt2800usb.

May need to do the following:

- load driver
- echo 148F 5370 > /sys/bus/usb/drivers/rt2800usb/new_id
- This implies mod to usbhandler.sh to handle custom scripting for specific devices
- No firmware is required for this device

This information is up to date as of today (2013-02-09).

#3 - 09 Feb 2013 14:40 - Hammel

- Status changed from In Progress to Closed

- % Done changed from 30 to 100

Updated comments in src/buildroot/skeleton/etc/usbhandler.conf to reflect current configuration of available wireless adapters.

The configuration for usbhandler.conf was correct. I just didn't have all the adapters properly configured for the local wireless network.