



深圳开源通信有限公司

OpenVox-Best Cost Effective Asterisk Cards

OpenVox Flash Update Utility

Date:13/01/2011

Version: 0.01

Here taking D430P for an example to introduce how to use opvx-update. Note: This tool also applies to G400P, A2410P, D230 and D130.

1. Downloading opvx-update.

```
#cd /usr/src
#wget http://downloads.openvox.cn/pub/firmwares/opvx-update-xxx.tar.gz
#tar -zxvf opvx-update-xxx.tar.gz
```

2. Running

1) Check the card information:

```
#lspci -vvx
-----
01:02.0 Class ff00: Digium, Inc. Unknown device 1420 (rev 01)
      Subsystem: Unknown device 0005:0000
      Control: I/O+ Mem+ BusMaster+ SpecCycle- MemWINV+ VGASnoop- ParErr-
Stepping- SERR- FastB2B-
      Status: Cap- 66MHz- UDF- FastB2B- ParErr- DEVSEL=slow >TAbort-
<TAbort- <MAbort- >SERR- <PERR-
      Latency: 64, Cache Line Size: 16 bytes
      Interrupt: pin A routed to IRQ 11
      Region 0: Memory at dedf0000 (32-bit, non-prefetchable) [size=32K]
00: 61 d1 20 14 17 00 00 04 01 00 00 ff 04 40 80 00
10: 00 00 df de 00 00 00 00 00 00 00 00 00 00 00 00
20: 00 00 00 00 00 00 00 00 00 00 00 00 05 00 00 00
30: 00 00 00 00 00 00 00 00 00 00 00 00 0b 01 00 00
-----
```

User can change pin A to B, C or D. "0b 01" is corresponding to "pin A routed to IRQ 11". The congruent relationship is below:

- 01:pin A
- 02:pin B
- 03:pin C
- 04:pin D

2) Now start the script and change pin A to pin C.

```
#cd /usr/src/opvx-update-xxx
#./epcs
-----
#####
#                               OpenVox EPCS Flash Update Utility                               #
#                               v1.1.0                                                         #
#                               OpenVox Communication Co.,Ltd                                   #
#                               Copyright (c) 2009-2010 OpenVox. All Rights Reserved.           #
#####
```

Note: Do not turn power OFF while the update process is continuing.
When the update is completed, the system will reboot.

1. OpenVox G400P Flash Update Utility
 2. OpenVox A2410P Flash Update Utility
 3. OpenVox D430 Flash Update Utility
 4. OpenVox D230 Flash Update Utility
 5. OpenVox D130 Flash Update Utility
- [1-5] :3

Select a card type that will be updated. Here select "OpenVox D430 Flash Update Utility".

- 3) Select a card which will be updated. Option 1 means only updating the chosen one. Option 2 means updating all D430 cards. Here select option 1.

-
1. Update the OpenVox D430 card (0000:01:02.0 d161:1420 pin A IRQ 11)
 2. Update all OpenVox D430 cards
- [1-2] :1

-
- 4) Choose if updating interrupt pin or not. If you choose no, it will update firmware only.

Do you want to change the interrupt pin (y/n)? y

-
- 5) Input a pin number.

Please input the pin number ([A|B|C|D]): C

-
- 6) Input the firmware filename. The file should download from <http://downloads.openvox.cn/pub/firmwares/opvx-fw-d430.tar.gz> and unzip it under /usr/src.

Please input the filename for update: /usr/src/d430.bin

- 7) Press ENTER key to reboot your system after updating successfully.

```
-----  
Please input the filename for update: /usr/src/d430.bin  
Erasing epcs flash...  
Erasing epcs flash done  
Writing epcs flash...  
Writing epcs flash successfully
```

```
Press ENTER key to reboot your system.  
-----
```

- 8) Check the updated information.

```
#lspci -vvx
```

```
-----  
01:02.0 Class ff00: Digium, Inc. Unknown device 1420 (rev 01)  
Subsystem: Unknown device 0005:0000  
Control: I/O+ Mem+ BusMaster+ SpecCycle- MemWINV+ VGASnoop- ParErr-  
Stepping- SERR- FastB2B-  
Status: Cap- 66MHz- UDF- FastB2B- ParErr- DEVSEL=slow >TAbort-  
<TAbort- <MAbort- >SERR- <PERR-  
Latency: 64, Cache Line Size: 16 bytes  
Interrupt: pin C routed to IRQ 10  
Region 0: Memory at dedf0000 (32-bit, non-prefetchable) [size=32K]  
00: 61 d1 20 14 17 00 00 04 01 00 00 ff 04 40 80 00  
10: 00 00 df de 00 00 00 00 00 00 00 00 00 00 00 00  
20: 00 00 00 00 00 00 00 00 00 00 00 00 05 00 00 00  
30: 00 00 00 00 00 00 00 00 00 00 00 00 0a 03 00 00  
-----
```

User can see interrupt pin has been changed from pin A to pin C. And IRQ also has been changed from 11 to 10.