



Firmware Update Procedure

RN171/RN131 v4.81

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1. Firmware update on RN171/RN131

1.1. F/w update using FTP

Firmware update from v4.7x (or lesser versions) to v4.81 involves two step upgrade process. The two-step f/w update process is mandatory/ unavoidable in order to switch to v4.8x, since the number of image files in the MIF got increased due to major architectural changes to address memory limitation issues.

NOTE: - The FTP update process is purely network dependent. Make sure to have a good FTP server with healthy network connectivity.

The following are the 2-steps to upgrade from RN171 v4.75 or lower to v4.8x

Step1: Firmware update to v4.75i intermediate image file

<ftp://rn.microchip.com/public/wifly7-475-r1955i.img>

Commands:

- factory R
- set wlan join 1
- set wlan ssid xxxx
- set wlan passphrase xxxx
- set ftp user xxxx
- set ftp passphrase xxxx
- save
- join
- Wait till the module associates and gets ip address*
- ftp update wifly7-475-r1955i.img
- Wait till FTP update finishes with "FTP OK." message*
- reboot



```
<4.75> ftp u wifly7-475-r1952i.img
<4.75> FTP connecting to 198.175.253.161

FTP file=29:.....
UPDATE OK

FTP OK.

<4.75> reboot
```

Step2: Clean f/w update to v4.8x official release

<ftp://rn.microchip.com/public/wifly7-481.mif>

Commands:

```
➤ set wlan join 1
➤ set wlan ssid xxxx
➤ set wlan passphrase xxxx
➤ set ftp user xxxx
➤ set ftp passphrase xxxx
➤ save
➤ join
```

Above commands may not be required as we saved configuration with auto join enabled in step1

```
➤ ftp cupdate wifly7-481.mif
```

Wait till update finishes with "UPDATE OK" message and reboots with 4.81 build



```
<4.75> ftp cu wifly7-481.mif
del 5 web_app-EZX-112
del 8 wps_app-EZX-131
del 10 eap_app-EZX-105
del 12 web_config.html
del 25 link.html
del 26 logo.png
del 28 config
<4.75> FTP connecting to 198.175.253.161

FTP file=5:.....
FTP file=6:.....
FTP file=7:.....
FTP file=8:.....
FTP file=9:.....
FTP file=10:...
FTP file=11:.....
FTP file=12:...
FTP file=13:...
FTP file=14:...
FTP file=15:.....
FTP file=16:...
FTP file=17:.....
UPDATE OK
*Reboot*wifly-EZX Ver: 4.81 Build: r1980, Jul 11 2016 16:50:27 on RN1723
MAC Addr=00:06:66:72:52:42
*READY*
```

Make sure all image files of v4.8x are updated (ls command) as shown below.



```
*READY*
CMD
ls

FL#   SIZ   FLAGS
  2  88264  3 wifly-EZX-475-r1777
  5  74408  3 wifly-EZX-481-r1980
  6  47394  3 wps_app-EZX-131
  7  67278  3 eap_app-EZX-105
  8  75468  3 web_app-EZX-112
  9  87816  3 ap_wifly-EZX-481-r1980
 10   3996  3 get_lib-EZX-481-r1980
 11   5312  3 set_lib-EZX-481-r1980
 12   3060  3 scan_lib-EZX-481-r1980
 13   2682  3 show_lib-EZX-481-r1980
 14   1100  3 ping_lib-EZX-481-r1980
 15  51053  0 web_config.html
 16   512   0 link.html
 17   7268  0 logo.png
 18   1064 10 config
 29  88424  3 wifly-EZX-475-r1952i

95 Free, Boot=5, Backup=29
<4.81>
```

1.2. F/w update using XMODEM

Firmware update from v4.7x (or lesser versions) to v4.81 involves two step upgrade process. The reason being same as mentioned in FTP update process.

Step1: Firmware update to engineering build image file of v4.75

<ftp://rn.microchip.com/public/wifly7-475-r1955i.img>

Commands:

➤ set uart baud 115200

➤ save

➤ reboot

Change terminal baud rate to 115200

➤ xmodem update wifly7-475-r1955i.img

Send file using XMODEM(1K) and wait till update finishes with "XMOD OK." message

➤ save (optional)



This saves the current baud rate for the new image, i.e. no need to change terminal baud rate to RN default 9600 after reboot

➤ reboot

If "save" command not given before reboot, need to change terminal baud rate to RN default 9600.

Screen shot:

```
XMODEM update
wifly-EZX Ver: 4.75 Build: r1777, Jan 11 2016 17:35:59 on RN1723
MAC Addr=00:06:66:72:52:42
*READY*
CMD
set u b 115200
AOK
<4.75> save
Storing in config
<4.75> reboot
*Reboot* 6CMD

<4.75> xmodem u wifly7-475-r1952i.img
xmodem ready...
<4.75>
UPDATE OK

XMOD OK.

<4.75> ls

FL#    SIZ    FLAGS
  2   88264    3 wifly-EZX-475-r1777
  5   74936    3 web_app-EZX-112
  8   47386    3 wps_app-EZX-131
 10   67278    3 eap_app-EZX-105
 12   51053    0 web_config.html
 25    512    0 link.html
 26   7268    0 logo.png
 28   1060   10 config
 29  88424    3 wifly-EZX-475-r1952i

142 Free, Boot=29, Backup=2
<4.75> reboot
*Reboot*wifly-EZX Ver: 4.75 Build: r1952i, Jul 15 2016 16:49:51 on RN1723
MAC Addr=00:06:66:72:52:42
*READY*
CMD
```



Step2: Firmware clean update to v4.81 official release

<ftp://rn.microchip.com/public/wifly7-481.mif>

Commands:

➤ `set uart baud 115200`

➤ `save`

➤ `reboot`

Change terminal baud rate to 115200

➤ `xmodem cupdate wifly7-481.mif`

Send file using XMODEM (1K) and wait till update finishes with "UPDATE OK." Message and reboots.

Change terminal baud rate to RN default 9600

Screen shot:

```
XMODEM update
CMD
<4.75> set u b 115200
AOK
<4.75> save
Storing in config
<4.75> reboot
*Reboot*ZY♦♦CMD
<4.75> xmodem cu wifly7-481.mif
del 5 config
xmodem ready...
<4.75>
UPDATE OK
*Reboot*CMD
<4.81> ls
FL#    SIZ    FLAGS
  2  88264  3 wifly-EZX-475-r1777
  5  74408  3 wifly-EZX-481-r1980
  6  47394  3 wps_app-EZX-131
  7  67278  3 eap_app-EZX-105
  8  75468  3 web_app-EZX-112
  9  87816  3 ap_wifly-EZX-481-r1980
 10   3996  3 get_lib-EZX-481-r1980
 11   5312  3 set_lib-EZX-481-r1980
 12   3060  3 scan_lib-EZX-481-r1980
 13   2682  3 show_lib-EZX-481-r1980
 14   1100  3 ping_lib-EZX-481-r1980
 15  51053  0 web_config.html
 16    512  0 link.html
 17   7268  0 logo.png
 18   1064 10 config
 29  88424  3 wifly-EZX-475-r1952i
83 Free, Boot=5, Backup=29
<4.81>
```

1.3.F/w update from v4.80 to v4.81

The f/w update from v4.80 to v4.81 is straightforward and is one step process. Please refer **Step2** of FTP/XMODEM update for commands and update process.



2. File locations:

Intermediate builds:

RN171: <ftp://rn.microchip.com/public/wifly7-475-r1955i.img>

RN131: <ftp://rn.microchip.com/public/wifly3-475-r1955i.img>

Official builds:

RN171: <ftp://rn.microchip.com/public/wifly7-481.mif>

RN131: <ftp://rn.microchip.com/public/wifly3-481.mif>