WRT1900AC Corrupt Bootloader Recovery

This wouldn't have been possible without the help of Stefan Roel from the authors of u-Boot: http://www.denx.de

Source: https://github.com/nitroshift/wrt1900ac/wiki

Prerequisites

- PC running Linux with 32-bit libraries installed
- USB – TTL Cable
- https://github.com/nitroshift/wrt1900ac/
  - kwboot.tar
  - u-boot-nand.kwb and u-boot-uart.kwb
    - *One is for booting from **UART**; the other for transferring to router and writing to **NAND***

How To

1. Terminal root access:
   - *sudo –i*

2. Install *kwboot*
   - cd /home/kwboot/
     - Unzip the archive, then: tar –xvf kwboot.tar
     - Actual compilation of kwboot: gcc kwboot.c
   - Save u-boot-nand.kwb and u-boot-uart.kwb in /home/kwboot/

3. Set *kwboot* as executable:
   - Chmod 777 kwboot

4. Connect USB-TTL to router and PC (don't power on router), and issue the following command
   - dmesg | grep USB
     - Make note of the number after /dev/ttyUSB (it's usually 0), then:
   - chmod 666 /dev/ttyUSB0

5. Getting the router to boot from the UART image:
   - ./kwboot –a –t /dev/ttyUSB0 –b u-boot-uart.kwb **and** *Power On Router*
     - Note arguments used above:
       - **-a** = *use Armada XP timings*
       - **-t** = *open a terminal in the same window after transfer completes*
       - **-b** = *file that is to be booted from*

6. After the transfer finishes, you should be at the Marvell>> prompt
   - **If you are not:**
     - *Power Off Router - Disconnect USB-TTL Cable from PC - Go Back to **Step 3***
   - **If you are:**
     - Set up TFTP server on PC *(such as Ubuntu's tftpd package)*
       - Put u-boot-nand.kwb in it's tftpboot folder

WRT1900AC Corrupt Bootloader Recovery

This wouldn't have been possible without the help of Stefan Roel from the authors of u-Boot: http://www.denx.de

Source: https://github.com/nitroshift/wrt1900ac/wiki

7. Set PC IP Address: 192.168.1.2 and issue the following commands at the Marvell>> prompt:
   I. setenv ipaddr 192.168.1.1
   II. setenv serverip 192.168.1.2
   III. tftp 2000000 u-boot-nand.kwb
   IV. nand erase 0 e0000
   V. nand write 2000000 0 e0000

8. If the above commands complete successfully, reboot router via:
   - reset
     - You should see the router booting and stopping at the Marvell>> prompt

9. Download the firmware image for WRT1900ac and save it to tftpboot
   - At the Marvell>> prompt issue the following commands:
     - tftp 192.168.1.2
     - get *<firmware image name>*

10. **IMPORTANT**
    - After transfer completes successfully, **DO NOT** issue
      - run flash_pri_image **or** run flash_alt_image
        - *Either will **brick** the router again sending you back to Step 3*
    - ***Instead:***
      - linksysnandboot
        - If it fails, issue: run_linksysaltnandboot

11. Allow the router to boot fully
    - Verify it's up and running correctly via the web management interface
    - Finally, *Power Off Router - Disconnect USB-TTL Cable - Power Back On*