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Factory Reset

Switch

Connect

1. Connect to the device via serial console¹⁾:

```
$ cu -l </dev/ttyUSB0> -s <9600>
```

2. If there is garbage output:

20*0tXw000 !000"000000HA00000000HH0

1. Reconnect to the device via serial console with these baud rates, until output is readable:

- **9600**
- **4800**
- **1200**
- **2400**
- **19200**
- **38400**
- **57600**
- **115200**
- 2. Physically restart device.
- 3. During boot phase, hold MODE button until switch: prompt appears.
- 4. Change device baud rate:

```
switch% set BAUD 9600
```

- 5. Reconnect to the device via serial console with baud rate 9600.
- 6. Restart device to leave ROMMON mode:

switch% reset

Erase Configuration

1. Access privileged mode:

> enable

- 2. If privileged mode is password protected:
 - 1. Physically restart device.
 - 2. During boot phase, hold MODE button until switch: prompt appears.
 - 3. Delete configuration file and continue booting device::

```
switch% flash_init
switch% delete flash:config.text
Are you sure you want to delete "flash:config.text" (y/n)?> y
switch% boot
```

3. Delete device configuration:

```
# erase nvram:
# delete vlan.dat
```

- 4. Verify, that there is no configuration present anymore:
 - 1. Show all file systems:

```
# show file systems
File Systems:
     Size(b)
                                            Prefixes
                 Free(b)
                              Type Flags
    15998976
                 3329536
                             flash
                                             flash: flash1:
                                        rw
      524288
                  523212
                             nvram
                                        rw
                                             nvram:
. . .
```

2. Show NVRAM memory (3rd row should contain 0):

```
# dir nvram:
Directory of nvram:/
510 -rw- 0 no date startup-config
511 ---- 0 no date private-config
```

3. Show FLASH memory (vlan.dat should not be present):

```
# dir flash:
```

5. Restart device to apply any unsaved changes:

```
# reload
```

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Router

Connect

1. Connect to the device via serial console:

```
$ cu -l </dev/ttyUSB0> -s <9600>
```

2. If there is garbage output:

- 1. Reconnect to the device via serial console with these baud rates, until output is readable:
 - **9600**
 - **4800**
 - **1200**
 - **2400**
 - **19200**
 - **38400**
 - **57600**
 - **115200**
- 2. Physically restart device.
- 3. During boot phase, press Break (type ~# if using cu command) or try Ctrl +C.
- 4. Change device baud rate:

```
rommon> confreq
          Configuration Summary
   (Virtual Configuration Register: 0x21)
enabled are:
break/abort has effect
console baud: 19200
boot: the boot helper image
do you wish to change the configuration? y/n [n]> y
enable "diagnostic mode"? y/n [n]>
enable "use net in IP bcast address"? y/n [n]> n
       "load rom after netboot fails"? y/n [n]> n
enable
       "use all zero broadcast"? y/n [n]>
enable
disable "break/abort has effect"? y/n [n]>
enable
       "ignore system config info"? y/n [n]>
```

```
change console baud rate? y/n [n]> y
0=9600, 1=4800, 2=1200, 3=2400, 4=19200, 5=38400, 6=57600,
7=115200
enter rate [4]> 0
change the boot characteristics? y/n [n]> n

Configuration Summary
(Virtual Configuration Register: 0x1)
enabled are:
break/abort has effect
console baud: 9600
boot: the boot helper image

do you wish to change the configuration? y/n [n]> n

You must reset or power cycle for new config to take effect
```

5. Restart device to apply changes:

```
rommon> reset
```

Erase Configuration

- 1. Access privileged mode:
 - > enable
- 2. If privileged mode is password protected:
 - 1. Physically restart device.
 - 2. During boot phase, press Break (type ~# if using cu command) or try Ctrl+C.
 - 3. Set configuration register³⁾ to use NVRAM configuration (0x2142) and restart device to apply changes:

```
rommon> confreg 0x2142 rommon> reset
```

3. Delete device configuration:

```
# erase nvram:
# delete vlan.dat
```

- 4. Verify, that there is no configuration present anymore:
 - 1. Show all file systems:

```
# show file systems
```

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```
File Systems:
       Size(b)
                    Free(b)
                                                Prefixes
                                  Type
                                         Flags
        262136
                     254916
                                 nvram
                                            rw
                                                 nvram:
     255537152
                  111308800
                              usbflash
                                                 usbflash0: flash:
                                            rw
```

2. Show NVRAM memory (3rd row should contain 0):

```
# dir nvram:
Directory of nvram:/

254 -rw- 0 no date startup-config
255 ---- 0 no date private-config
256 -rw- 0 no date underlying-config
...
```

3. Show FLASH memory (vlan.dat should not be present):

```
# dir flash:
```

5. Check if correct configuration register (0x2102) is used:

```
# show version | i register
Configuration register is 0x2102
```

- 6. If there is different configuration register:
 - 1. Restart device:

```
# reload
```

- 2. During boot phase, press $\overline{\text{Break}}$ (type \sim # if using cu command) or try $\overline{\text{Ctrl}}$ + $\overline{\text{C}}$.
- 3. Set configuration register to use NVRAM (configuration) and restart device to apply changes:

```
rommon> confreg 0x2102 rommon> reset
```

7. Restart device to apply any unsaved changes:

```
# reload
```

1)

Linux serial devices:

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https://unix.stackexchange.com/questions/307390/what-is-the-difference-between-ttys0-ttyusb0-and-ttyama0-in-linux

2)

Pause/Break key alternatives: https://en.wikipedia.org/wiki/Break_key#Keyboards_without_Break_key.

Cisco router configuration register values:

https://www.cisco.com/c/en/us/support/docs/routers/10000-series-routers/50421-config-register-use.ht ml#anc6.

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http://localhost/ - Wiki

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