

## Recovering Flash IOS

The syntax checking on the copy command is such that you may get someone deleting their IOS from flash. If this happens, here is how to recover.

1. Disconnect backbone connection from E0 and instead, connect cross-over cable from PC to E0.
2. Ensure TFTP server is running on workstation and note IP address.
3. Boot into ROM monitor mode and enter the following commands (note that letter case is important here: variables use upper-case and commands use lower-case):

```
IP_ADDRESS=<IP address of router e0 or fa0/0>
IP_SUBNET_MASK=255.255.255.0
DEFAULT_GATEWAY=<anything>
TFTP_SERVER=<workstation IP address>
TFTP_FILE=<directory/filename in TFTPBoot>
tftpdnld
```

4. Your trace should look something like the following (captured on a 2600):

```
rommon 1 > IP_ADDRESS=172.16.100.108
rommon 2 > IP_SUBNET_MASK=255.255.255.0
rommon 3 > DEFAULT_GATEWAY=172.16.100.100
rommon 4 > TFTP_SERVER=172.16.100.254
rommon 5 > TFTP_FILE=IOS/c2600-d-mz_120-4_t.bin
rommon 6 > tftpdnld
```

```
IP_ADDRESS: 172.16.100.108
IP_SUBNET_MASK: 255.255.255.0
DEFAULT_GATEWAY: 172.16.100.100
TFTP_SERVER: 172.16.100.254
TFTP_FILE: IOS/c2600-d-mz_120-4_t.bin
```

Invoke this command for disaster recovery only.

WARNING: all existing data in all partitions on flash will be lost!

Do you wish to continue? y/n: [n]: **y**

...

Receiving IOS/c2600-d-mz\_120-4\_t.bin from  
172.16.100.254 !!!!!!!!!!!!!!!!!!!!! (etc.)

File reception completed.

Copying file IOS/c2600-d-mz\_120-4\_t.bin to flash.

Erasing flash at 0x60000000

... (etc.)

.....

program flash location 0x60000000

... (etc.)

5. Check flash, change the setting of config-register to boot from flash and read in NVRAM and re-boot. (If you don't know the enable password, then leave the config register as it is while you re-boot, reset the password, change the config. register setting and re-boot a second time.) Your trace should look like the following:

```
rommon 7 > dir flash:
```

```
File size      Checksum  File name
4293840 bytes (0x4184d0) 0x2529  IOS/c2600-d-mz_120-4_t.bin
```

```
rommon 8 > confreg 0x2102
```

```
rommon 9 > dev
```

```
Devices in device table:
```

```
id name
flash: flash
```

```
rommon 10 > boot
```

```
program load complete, entry point: 0x80008000, size: 0x4183b4
```

```
Self decompressing the image : ##### (etc.)
```

#### Restricted Rights Legend

```
.....
```

```
Cisco Internetwork Operating System Software
IOS (tm) C2600 Software (C2600-D-M), Version 12.2(13), RELEASE
SOFTWARE (fc1)
Copyright (c) 1986-2002 by cisco Systems, Inc.
Compiled Wed 28-Apr-2002 16:34 by kpma
Image text-base: 0x80008088, data-base: 0x807D7AC0
```

```
cisco 2621 (MPC860) processor (revision 0x200) with 56320K/9216K
bytes of memory.
```

```
Processor board ID JAD05060D2T (3587317838)
```

```
M860 processor: part number 0, mask 49
```

```
Bridging software.
```

```
X.25 software, Version 3.0.0.
```

```
2 FastEthernet/IEEE 802.3 interface(s)
```

```
2 Serial network interface(s)
```

```
32K bytes of non-volatile configuration memory.
```

```
16384K bytes of processor board System flash (Read/Write)
```

```
.....
```

```
(etc.)
```

```
.....
```