Recovering ONIE on a Delta switch from bootable USB

NOTE: Please follow the steps carefully because you are going to erase and overwrite boot sector on your switch

Pre-install connectivity

1.Connect the console port of the switch to a PC. Most switches come with a RJ45 console port. Use a RJ45-to-serial cable or an RJ45-to- USB cable to connect to a PC.

2. Use a terminal application; such as “Tera Term” to terminal connect. Configure the console port. Use these settings for the console port:

- 115200 baud
- No flow control
- 1 stop bit
- No parity bits
- 8 data bits

3- Connect MGMT port of the switch to the same segment as terminal station

Introduction

An Open Network Install Environment (ONIE) recovery image is used for:

1. Installing ONIE on a blank machine
2. Recover a damaged ONIE system
3. Upgrade ONIE on a system

To do this you need:

1. An iso image

2. Blank or formatable USB
3. Console access to the switch that is being recovered (as instructed in "pre-install connectivity section")

Restoring ONIE on a system

You can use the ONIE .iso image to create a bootable USB memory stick and restore the system or update ONIE on a system

Create a bootable USB with .iso file

On a MAC workstation

Note: in our example USB is mapped to /dev/disk2. Our ISO image is called `20150901-onie-recovery-x86_64-ag8032-r0.iso`

Plug in the USB

- Open a terminal session
- Do 'diskutil –l' or 'mont' command and find the mount point for USB drive that you just plugged in
- Unmounts the USB mount point

  sudo umount /dev/disk2

- Now do the disk creation with:

```
sudo dd if=20150901-onie-recovery-x86_64-ag8032-r0.iso
of=/dev/rdisk2 bs=1m
```

On a UNIX workstation:

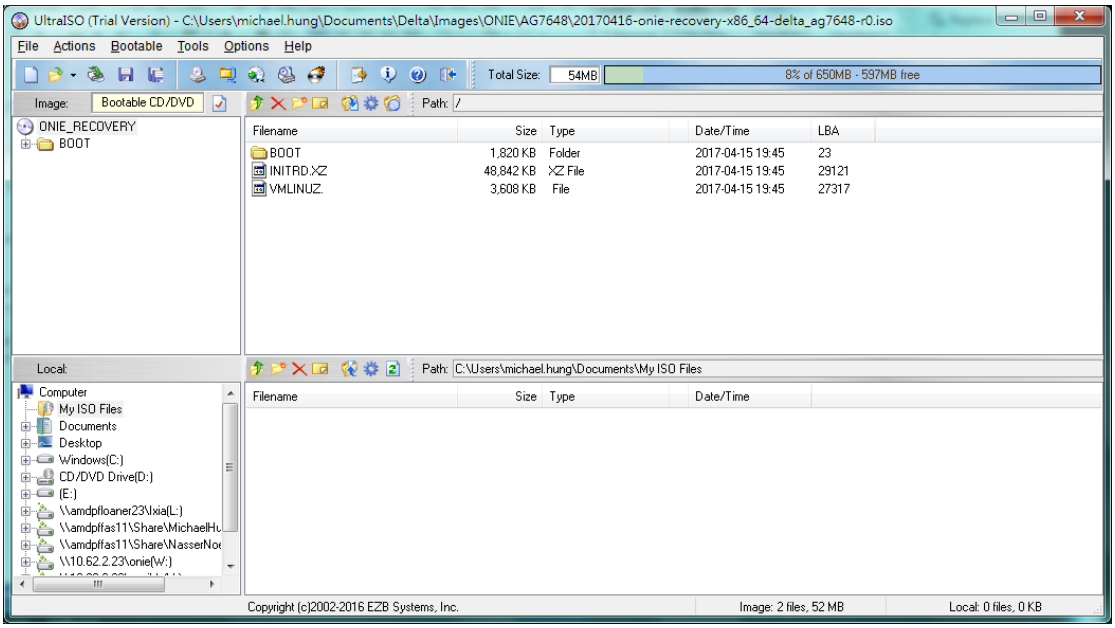
Use ``dd`` to copy the .iso image to a USB stick similar to above instruction on Mac:

dd if=<machine>.iso of=/dev/sdX bs=10M

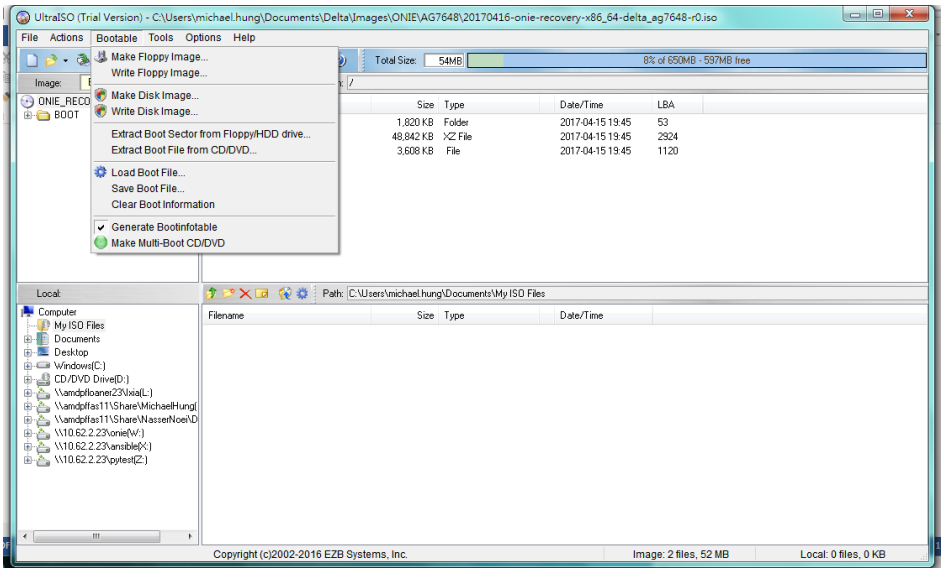
On a windows desktop:

Use UltraIso software to format the flash as raw bootable flash and point it to the .iso file that you have received

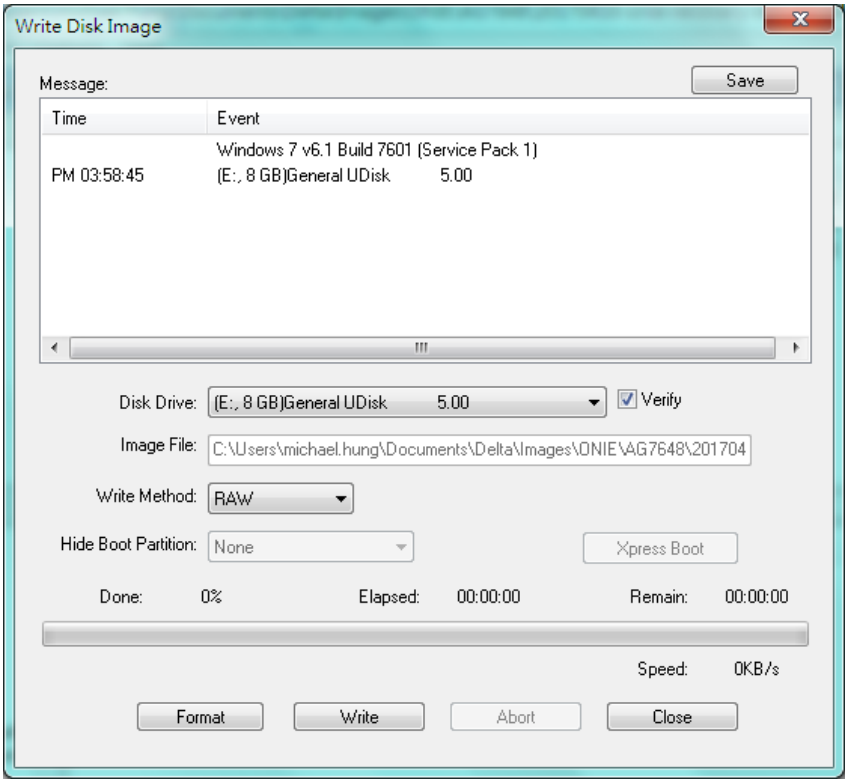
In UltraISO Go to file open and Open the ONIE .iso file



Check the option “Generate Bootinfotable” and click “Write Disk Image”.



Make sure to select correct “Disk Drive” to write to in the next screen and Choose write method “RAW” then Click “Write”.



Enable booting from USB in the BIOS on the switch:

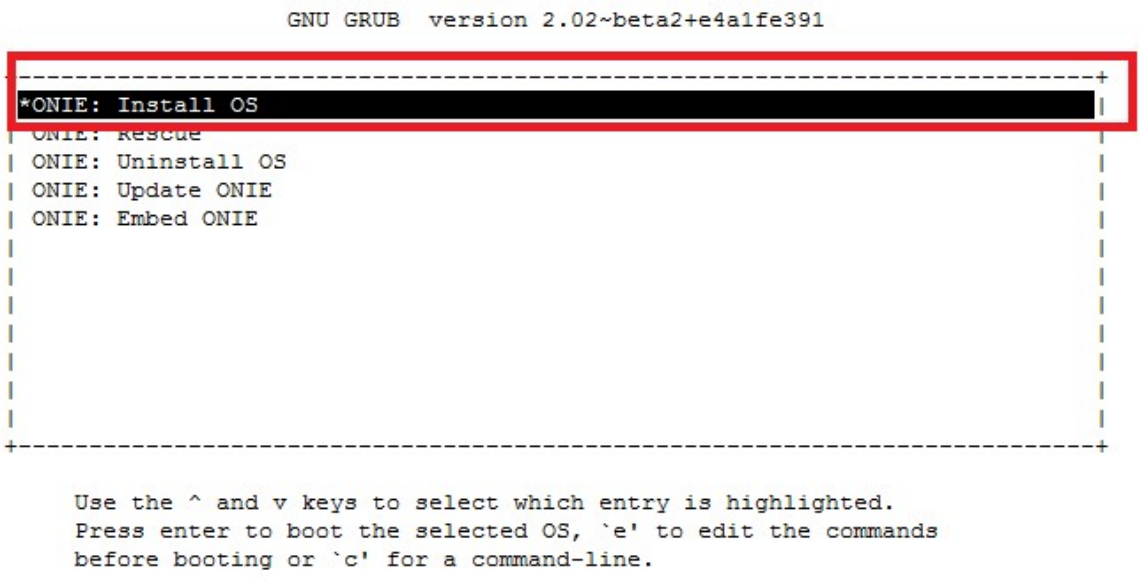
Make sure your switch is enabled to boot from USB. This is often the default on Delta Product switches, but in case it is not you have to get in BIOS settings to enable USB boot or boot priority to have USB as top options

Reload the switch, and on the console watch for it to power up. When prompted, press “Esc” to go into BIOS setting. Change the BIOS setting to boot from USB

Save and exist the BIOS. This will reload the switch. Make sure to insert the bootable USB created above into the USB drive of the switch

Boot and recover ONIE

1. Insert the bootable USB stick that you created in steps above
2. Reload the switch after it boots from USB you should get a menu from the ISO file that includes “ONIE Recover”
3. Select “ONIE recovery”
4. Allow it to boot and extract the image
5. System will reboot once recovery is complete
6. Once switch is rebooted you should get an ONIE menu similar to below:


GNU GRUB version 2.02~beta2+e4a1fe391
*ONIE: Install OS
ONIE: Rescue
ONIE: Uninstall OS
ONIE: Update ONIE
ONIE: Embed ONIE
Use the ^ and v keys to select which entry is highlighted.
Press enter to boot the selected OS, `e' to edit the commands
before booting or `c' for a command-line.