

ONIE Installation Guide

Version Number: V1.0

ONIE

The doc describes how to install ONIE image and used the delta_ag9032v1 as the example.

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Revision History

Date	Version	Author	Comment
2017/06/14	1.0	Hans	Initial copy 1. How to install ONIE

1. Install ONIE by USB Storage

Prepare

1. Prepare a USB STORAGE.
2. Burn the ISO file ([onie-recovery-x86_64-delta_delta_ag9032v1-r0.iso](#)) to USB STORAGE, to build a bootable USB STORAGE. Used the below Linux command for building a bootable USB STORAGE.

```
dd if= onie-recovery-x86_64-delta_ag9032v1-r0.iso of=/dev/sdx bs=10M( sdx is your device node)
```

3. Connect PC to DUT device with a console cable, console setting is 115200,8n1
4. Power on device, and get into BIOS boot menu. (By hitting **ESC** key).
5. Select “Boot” ➔ “Boot Option #1” ➔ “UEFI: USB Flash Drive 0.00”

Run the following Upgrade step by step

1. Select item "ONIE: Embed ONIE", then enter.
2. Wait for finish, device will auto reboot.

EXAMPLE

Version 2.17.1245. Copyright (C) 2016 American Megatrends, Inc.
BIOS Date: 07/29/2016 15:19:05 Ver: 0ACBZ033 Minor_Ver:AG9032V1_V1.02
Press or <ESC> to enter setup.

GNU GRUB version 2.02~beta2+e4a1fe391

ONIE: Rescue
*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.

ONIE: Embedding ONIE ...

```
Platform : x86_64-delta_ag9032v1-r0
Version  : 2016.01.14-V1.0
Build Date: 2016-06-06T14:07+0800
Info: Mounting kernel filesystems... done.
```

```
sed: /proc/mtd: No such file or directory
Info: Mounting ONIE-BOOT on /mnt/onie-boot ...
/etc/rcS.d/S10networking.sh: line 186: arithmetic syntax error
Info: eth0: Checking link... scsi 6:0:0:0: Direct-Access Generic Flash Disk 8.07 PQ: 0 ANSI: 2
sd 6:0:0:0: Attached scsi generic sg1 type 0
sd 6:0:0:0: [sdb] 8270848 512-byte logical blocks: (4.23 GB/3.94 GiB)
sd 6:0:0:0: [sdb] Write Protect is off
sd 6:0:0:0: [sdb] No Caching mode page present
sd 6:0:0:0: [sdb] Assuming drive cache: write through
sd 6:0:0:0: [sdb] No Caching mode page present
sd 6:0:0:0: [sdb] Assuming drive cache: write through
sd 6:0:0:0: [sdb] No Caching mode page present
sd 6:0:0:0: [sdb] Assuming drive cache: write through
sd 6:0:0:0: [sdb] Attached SCSI removable disk
down.
ONIE: eth0: link down. Skipping configuration.
ONIE: Failed to configure eth0 interface
Starting: dropbear ssh daemon... done.
Starting: telnetd... done.
discover: ONIE embed mode detected. Running updater.
Starting: discover... done.
```

Please press Enter to activate this console. Info: eth0: Checking link...
 To check the install status inspect /var/log/onie.log.
 Try this: tail -f /var/log/onie.log

```
** ONIE Update Mode Enabled **
ONIE-RECOVERY:/ # down.
ONIE: eth0: link down. Skipping configuration.
ONIE: Failed to configure eth0 interface
ONIE: Starting ONIE Service Discovery
Info: Found static url: file:///lib/onie/onie-updater
ONIE: Executing installer: file:///lib/onie/onie-updater
Verifying image checksum ... OK.
Preparing image archive ... OK.
ONIE: Version      : 2016.01.14-V1.0
ONIE: Architecture : x86_64
ONIE: Machine      : delta_ag9032v1
ONIE: Machine Rev  : 0
ONIE: Config Version: 1
Installing ONIE on: /dev/sda Rebooting...
discover: ONIE embed mode detected.
Stopping: discover...start-stop-daemon: warning: killing process 735: No such process
done.
Stopping: dropbear ssh daemon... done.
Stopping: telnetd... done.
Stopping: syslogd... done.
Info: Unmounting kernel filesystems
The system is going down NOW!
Sent SIGTERM to all processes
Sent SIGKILL tosd 4:0:0:0: [sda] Synchronizing SCSI cache
Disabling non-boot CPUs ...
Restarting system.
.....
** Installer Mode Enabled **
ONIE:/ #
```

2. Update ONIE by USB Storage

Prepare

1. Prepare a USB STORAGE.
2. Put the updated file(onie-updater-x86_64-delta_ag9032v1-r0) to USB STORAGE.
3. Connect PC to DUT device with a console cable, console setting is 115200,8n1
4. Power on device, and get into ONIE menu.

Do the following step by step

1. Wait to see the GRUB menu
2. Select " ONIE: Update ONIE", and press enter key.
3. Wait for the prompt show up.

EXAMPLE

```
.....
Version 2.17.1245. Copyright (C) 2016 American Megatrends, Inc.
BIOS Date: 07/29/2016 15:19:05 Ver: 0ACBZ033 Minor_Ver:AG9032V1_V1.02
Press <DEL> or <ESC> to enter setup.
```

```
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.

GRUB loading.

Welcome _____ to _____ GRUB!

Version : 2016.01.14-V1.0

Build Date: 2016-06-06T14:07+0800

Error: Write failed

....

Building script

Info: Mounting kernel filesystems... done.

sed: /proc/mtd: No such file or directory

Info: Mounting ONIE-BOOT on /mnt/onie-boot ...

[5.574671] scsi 6:0:0:0: Direct-Access SanDisk Cruzer Blade 1.00 PQ: 0

ANSI: 6

[5.585442] sd 6:0:0:0: Attached scsi generic sg1 type 0

[5.591877] sd 6:0:0:0: [sdb] 15630336 512-byte logical blocks: (8.00 GB/7.45 GiB)

[5.601526] sd 6:0:0:0: [sdb] Write Protect is off

```
[ 5.607664] sd 6:0:0:0: [sdb] Write cache: disabled, read cache: enabled, doesn't support
DPO or FUA
[ 5.628885] sd 6:0:0:0: [sdb] Attached SCSI removable disk
/etc/rcS.d/S10networking.sh: line 222: arithmetic syntax error
Failure: Unable to configure MAC address for eth0
/etc/rcS.d/S10networking.sh: line 222: arithmetic syntax error
Failure: Unable to configure MAC address for eth1
Info: eth0: Checking link... down.
ONIE: eth0: link down. Skipping configuration.
Info: eth1: Checking link... down.
ONIE: eth1: link down. Skipping configuration.
ONIE: Failed to configure eth0 interface
ONIE: Failed to configure eth1 interface
insmod: can't insert '/lib/onie/dca.ko': File exists
insmod: can't insert '/lib/onie/igb.ko': File exists
Building script ....
Starting: dropbear ssh daemon... done.
Starting: telnetd... done.
discover: ONIE update mode detected. Running updater.
Starting: discover... done.
```

```
Please press Enter to activate this console. Info: eth0: Checking link... down.
ONIE: eth0: link down. Skipping configuration.
Info: eth1: Checking link... down.
ONIE: eth1: link down. Skipping configuration.
ONIE: Failed to configure eth0 interface
ONIE: Failed to configure eth1 interface
ONIE: Starting ONIE Service Discovery
ONIE: Executing installer: file:///dev/sdb/onie-updater-x86_64-delta_ag9032v1-r0
Verifying image checksum ... OK.
Preparing image archive ... OK.
ONIE: Version : 2016.01.14-V1.0
ONIE: Architecture : x86_64
ONIE: Machine : delta_ag9032v1
ONIE: Machine Rev : 0
ONIE: Config Version: 1
Installing ONIE on: /dev/sda
Rebooting...
insmod: can't insert '/lib/onie/dca.ko': File exists
insmod: can't insert '/lib/onie/igb.ko': File exists
Building script ....
discover: ONIE update mode detected.
Stopping: discover...start-stop-daemon: warning: killing process 981: No such process
done.
Stopping: dropbear ssh daemon... done.
Stopping: telnetd... done.
Stopping: syslogd... done.
Info: Unmounting kernel filesystems
The system is going down NOW!
Sent SIGTERM to all processes
Sent SIGKILL to all processes
Requesting system reboot
[ 77.586714] sd 4:0:0:0: [sda] Synchronizing SCSI cache
[ 78.913570] Disabling non-boot CPUs ...
[ 79.020294] Restarting system.
[ 79.023732] machine restart
```

