SESAME BY ITRENEW

WEDGE STARTER GUIDE
100-32x / 100S-32x

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Purpose

Wedge switches are *whitebox switches*, also called *bare metal switches*. That means they come without any switch software image.
By default ONIE (Open Network Install Environment http://onie.org/) is installed, it is used to install switching OS like Cumulus or SONiC.
We describe in the documentation, for example, how to install a switching OS like Cumulus.

Package content

1 switch
1 rack mounting kit
Power supply:

- 1 AC power supply in OpenRack v1
- 1 DC power supply in OpenRack v2
- 2 AC power supply with C14/C15 powercords ii standalone package

OCP specifications

WEDGE 100:
http://files.opencompute.org/oc/public.php?service=files&t=b5754ed14c295a362b6511fd9615fd55

WEDGE 100S
https://www.opencompute.org/documents/facebook-wedge-100s-32x100g

Connect to OpenBMC

Log in the OpenBMC console

You can use 2 different way, each of them must be tested:

- Serial connection with a serial adaptor
- SSH through your network with DHCP server

> OpenBMC default credentials : `root / 0penBmc`

Log in via Serial

You need a USB to RJ45 cable or a couple RJ45 to RS232 and a RS232 to USB adaptor.
Then you need a terminal software like *screen* (Linux or MacOS) or *putty* (Windows).
Connect the RJ45 plug into the **Console** port in the front.

Log in via SSH

Connect the RJ45 plug into the **MGMT** port in the front.
Once you have figured out the IP address assigned to OpenBMC you can SSH into it as root.

> OpenBMC is configured in DHCP by default.

Check Micro-Server Power State

In the OpenBMC console, use the script *wedge_power.sh* to see micro-server's power state.

```
root@bmc:~# wedge_power.sh status
Microserver power is on
```

> When OpenBMC starts, it turns on the micro-server at the end of its boot sequence. So, the micro-server should be powered on.

Connect to Micro-Server through Serial-Over-Lan

From the OpenBMC console you can connect to serial port of the micro-server running the script *sol.sh*

```
root@bmc:~# sol.sh
```

You will be available to see the CPU board booting and access to the Micro-Server environment.

> To quit the Serial-Over-Lan redirection type `ctrl+x`

Install a switching OS

Connect to Micro-Server through Serial-Over-Lan

From the OpenBMC console you can connect to serial port of the micro-server running the script *sol.sh*

```
root@bmc:~# sol.sh
```

> You may have to reboot the micro-server to have ONIE boot interface with:
> `wedge_power.sh reset`

Cumulus Linux Installation

Starting from now, the micro-server will boot on ONIE from its internal drive.

```
                         GNU GRUB  version 2.02~beta3

*****************************************************************************
**ONIE: Install OS                                                          *
* ONIE: Rescue                                                              *
* ONIE: Uninstall OS                                                        *
* ONIE: Update ONIE                                                         *
* ONIE: Embed ONIE                                                          *
*                                                                           *
*****************************************************************************

      Use the * and * 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.
```

Choose ***ONIE: Install OS***. After ONIE kernel boot, ONIE will try to fetch an operating system over the network. Press *Enter* to see ONIE prompt and stop this process using the command *onie- stop*.

```
ONIE:/ # onie-stop
```

> More informations on Cumulus Linux website https://docs.cumulusnetworks.com/
> Cumulus Linux support only 3.X version for WEDGE

HTTP installation

Install Cumulus Linux from an image over HTTP

```
ONIE:/ # onie-nos-install http://IP@server/cumulus-linux-3.X.X-bcm-amd64.bin
```

USB installation

Install Cumulus Linux from an USB key

```
ONIE:/ # onie-nos-install /mnt/usb/cumulus-linux-3.X.X-bcm-amd64.bin
```

To mount an USB key you can type: `mount /dev/sdb1 /mnt/usb`

ONIE will install the necessary files for the installation and reboot automatically.

```
                         GNU GRUB  version 2.02~beta3

*****************************************************************************
**CUMULUS-INSTALL                                                           *
* CUMULUS-INSTALL [Interactive]                                             *
* ONIE                                                                      *
*                                                                           *
*****************************************************************************

      Use the * and * 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.
```

Select **CUMULUS INSTALL**

Let the install process

After reboot, the default boot entry will be **CUMULUS**.

```
                         GNU GRUB  version 2.02~beta3

*****************************************************************************
**CUMULUS                                                                   *
* ONIE                                                                      *
*                                                                           *
*****************************************************************************

      Use the * and * 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.
```

Cumulus default credentials : `cumulus/CumulusLinux!`

Cumulus is installed, you have to configure it according to your needs.

More informations on Cumulus Linux website https://docs.cumulusnetworks.com/
Cumulus Linux support only 3.X version for WEDGE

Remove Cumulus Linux

Reboot the switch and select **ONIE**

```
                         GNU GRUB  version 2.02-cl3u2

*****************************************************************************
* Cumulus Linux GNU/Linux                                                   *
* Advanced options for Cumulus Linux GNU/Linux                              *
* Load a read-only snapshot                                                 *
**ONIE                                                                      *
*                                                                           *
*****************************************************************************
```

Then select **ONIE-UNINSTALL**

```
                            GNU GRUB  version 2.02

*****************************************************************************
* ONIE: Install OS                                                          *
* ONIE: Rescue                                                              *
**ONIE: Uninstall OS                                                        *
* ONIE: Update ONIE                                                         *
* ONIE: Embed ONIE                                                          *
*                                                                           *
*****************************************************************************
```

When the uninstall process is done (It may take 15 minutes), the switch reboot automatically.