

# Boot Diagnosis Report

There is a report to diagnose whether all hardwares are good during switch power on.

Diagnosis content are as below:

## 1. Version

- (1) Show system version
- (2) Show ONIE version
- (3) Show CPLD version

## 2. Hardware information

- (1) Manage port mac address
- (2) System mac address
- (3) Board serial number
- (4) Board product name

## 3. PSU

- (1) PSU present
- (2) PSU power good
- (3) PSU serial number (verizon no sn)

## 4. FAN

- (1) FAN fault bit
- (2) Fan speed less than 15% error (1200rpm)

## 5. Temperature

- (1) CPU temperature
- (2) Switch chip temperature
- (3) Board temperature

Warning when environmental temperature more than 60 C!

## 6. Detect optical module

- (1) Detect plugged in
- (2) Show vendor name
- (3) Show vendor sn
- (4) Show optical type (verizon no)

## 7. RTC

- (1) Read time form RTC
- (2) Show read time

## 8. Disk space

- (1) Show all disk size
- (2) Show PicOS free disk space
- (3) Warning when free space Less than 10%

## 9. Memory size

- (1) Total memory size
- (2) Free memory size

## 10. CPU utilization

## 11. POE module

### (1) PoE status

## Location of report file

```
admin@XorPlus> start shell sh
admin@XorPlus$vi /var/log/report_diag.log
***** PicOS Diagnosis Start *****
Date: Thu Dec 22 18:00:29 UTC 2016
Version:
  Copyright (C) 2009-2016 Pica8, Inc.
  =====
  Hardware Model       : as4610_30t
  Linux System Version/Revision : 2.0.6/904f28d
  Linux System Released Date   : 12/22/2016
  L2/L3 Version/Revision      : 2.0.6/904f28d
  L2/L3 Released Date         : 12/22/2016
  OVS/OF Version/Revision     : 2.0.6/904f28d
  OVS/OF Released Date        : 12/22/2016
  ONIE version               : master-201508292125.2.5.4-dirty
  CPLD version                : CPLD version V0.2
Hardware information:
  MAC address               : 00:90:4C:06:A5:72
  Serial number              : SN1234567
  Product name               : 4610-30T-O-AC-F
PSU:
  PSU 1 status              : present but power off
  PSU 2 status              : present and power on
System FAN:
  There is no FAN in box
Temperature:
  CPU temperature           : 45 C / 113 F
  Switch chip temperature   : 45 C / 113 F
  Board temperature         : 45 C / 113 F
Optical modules:
  Port 1 Module type: SFP; Vendor name: OEM; Serial number: A85351050279
  Port 2 Module type: SFP; Vendor name: FINISAR; Serial number: P117EWY
  Port 3 Module type: SFP; Vendor name: OEM; Serial number: A85351050293
  Port 4 Module type: SFP; Vendor name: AVAGO; Serial number: AD0834A00LU
  Port 5 no module
  Port 6 no module
RTC:
  RTC test ok
  Time      : Thu Dec 22 18:00:30 2016  -0.435949 seconds
Disk space:
  /dev/sda      : 7676 MB
  /dev/sda1     : 1500 MB
  /dev/sda2     : 600 MB
  /dev/sda3     : 1500 MB (Rootfs)
  Free size of rootfs partition is 577 MB.
Memory size:
  Total memory   : 765008 KB
  Free memory    : 536476 KB
CPU utilization: 8.90%
POE module:      OK
***** PicOS Diagnosis End *****
```

## Diagnosis command

This command can be used after switch power on. The content of report will append the report\_diag.log file for every time diagnosis.

```
admin@XorPlus$sudo su
root@XorPlus$system-diag
***** PicOS Diagnosis Start *****
Date: Thu Dec 29 16:43:14 UTC 2016
Version:
    Copyright (C) 2009-2016 Pica8, Inc.
    =====
    Hardware Model      : as4610_30p
    Linux System Version/Revision : 2.7.2S1D/dc2173f
    Linux System Released Date   : 12/28/2016
    L2/L3 Version/Revision      : 2.7.2S1D/dc2173f
    L2/L3 Released Date         : 12/28/2016
    OVS/OF Version/Revision     : 2.7.2S1D/dc2173f
    OVS/OF Released Date        : 12/28/2016
    ONIE version                : master-201508292125.2.5.4-dirty
    CPLD version                 : CPLD version V0.2
Hardware information:
    MAC address                : 70:72:CF:FD:8F:20
    Serial number               : AF10029779
    Product name                : 4610-30P-O-AC-F
PSU:
    PSU 1 status                : present but power off
    PSU 2 status                : present and power on
System FAN:
    Fan 1 fault
Temperature:
    CPU temperature             : 35 C / 95 F
    Switch chip temperature     : 35 C / 95 F
    Board temperature           : 35 C / 95 F
Optical modules:
    Port 1 no module
    Port 2 no module
    Port 3 no module
    Port 4 no module
    Port 5 no module
    Port 6 no module
RTC:
    RTC is OK
    Time                        : Thu Dec 29 16:43:16 2016 -0.470233 seconds
Disk space:
    /dev/sda                    : 7676 MB
    /dev/sda1                   : 256 MB
    /dev/sda2                   : 1500 MB      (Rootfs)
    /dev/sda3                   : 600 MB
    Free size of rootfs partition is 930 MB.
Memory size:
    Total memory                : 2057300 KB
    Free memory                 : 1826960 KB
CPU utilization: 13.83%
POE module:                    OK
***** PicOS Diagnosis End *****
```