Orion A10EP/A28EP configuration guide

1 Overview
1.1 PoE

PoE (Power over Ethernet) means remote power supply over Ethernet port, using twisted pair
cable to transmit both data and power.

Advantages:

- Reliable power supply: centralized supplying, providing backup, uniform management and high security;
- Easy connection: no more power cable, one twisted pair cable is enough;
- Standard: complied with IEEE802.3af, global unified power interface;
- Wide and bright future: available for IP telephone, wireless AP, portable device recharger, imprinter, digital camera, data collection system, etc.

PoE system modules:

- PSE (Power-Sourcing Equipment): it is made up of power and PSE module for PD checking, PD power acquiring, remote powering, power monitoring and power switch;
- PD: the remote device receiving power from PSE. Standard PD complies with IEEE802.3af while non-standard one does not. IP telephone, AP with wire, digital camera are the usual PD devices.Orion supports only standard PD devices.
- PI (Power Interface): PSE/PD cable interface, which is PJ-45 interface.

2. PoE configuration

This part contains:

- Default config;
- Configuration guide
- PoE function total config;

2.1 Default configuration

Function	Default value
PoE function of power-sourcing port	enabled
Maximum power provide by one power-sourcing port	15.4w
Non-standard PD capability checking	disabled
Switch power supply mode	auto
Switch power supply priority	low
Switch over-heat protection	Enabled
Switch power supply global trap	Enabled
Switch total PSE power threshold	80%

percentage	

2.2 Configuration guide

Orion PSE devices do not support free line power supply, but just signal line power supply.

2.3 Configure PoE

2.3.1 Enable port power supply function

Step	Command	Description
1	config	Enter global configuration mode
2	interface port *port_num*	Inter physical interface mode
3	poe {enable|disable}	Enable/disable PoE
4	show poe port-list {1-MAX_PORT_STR} [detail]	Check PoE configuration

2.3.2 Configure max power by port

Step	Command	Description
1	config	Enter global configuration mode
2	interface port *port_num*	Enter physical interface mode
3	poe max-power *max-power*	Configuration max power by port Unit is mw
4	show poe port-list {1-MAX_PORT_STR} [detail]	Check PoE configuration

2.3.3 Configure switch non-standard PD capability checking funtion

Step	Command	Description
1	config	Enter global configuration mode
2	poe legacy (enable|disable)	Under enable status, non-standard PD could be powered. Disable: non-standard PD will not be recognized or powered in this state
3	show poe pse [detail]	Check PoE config

2.3.4 Configure switch management mode

Step	Command	Description
1	config	Enter global configuration mode
2	poe power-management (auto|manual)	Auto: in this mode, PSE will offer power to ports with priority ‘critical’, then to the ones with priority ‘high’, then ‘low’ one. For the ports with

		same priority, ports with smaller port number will be powered first; Manual: in manual mode, the device who access PSE earlier will get higher priority.
3	show poe pse [detail]	Check PoE config

2.3.5 Configure PoE port priority

Step	Command	Description
1	config	Enter global configuration mode
2	interface port *port_num*	Enter physical interface mode
3	poe priority {critical|high|low}	Configure PoE port priority
4	show poe port-list {1-MAX_PORT_STR} [detail]	Check PoE setting

2.3.6 Configure over-heat protection function

Step	Command	Description
1	config	Enter global configuration mode
2	poe temperature-protection {enable|disable}	Enable/disable over-heat function
3	show poe pse [detail]	Check PoE configuration

2.3.7 Configure trap

Step	Command	Description
1	config	Enter global configuration mode
2	poe pse trap {enable|disable}	Enable trap sending function
3	show poe pse [detail]	Check PoE config

2.3.8 Configure PSE power supply usage threshold percentage

Step	Command	Description
1	config	Enter global configuration mode
2	poe pse powe-thredshold	Configure PSE power supply usage threshold percentage
3	show poe pse [detail]	Check PoE config

3 Monitoring and maintance

Command	Description
show poe port-list {1-MAX_PORT_STR} [detail]	Show power-sourcing status of a designated port
show poe pse [detail]	Show PSE global configuration and

running status