S17, S17 Pro, T17 Server Installation Guide

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1. Overview

The S17, S17 Pro, T17 servers are Bitmain's newest versions in the 17 server series. Power supply APW9 is part of S17, S17 Pro, T17 servers. All S17, S17 Pro, T17 servers are tested and configured prior to shipping to ensure easy set up. Here takes pictures of S17 server as examples:

Front View

Back View

Placement

Caution:

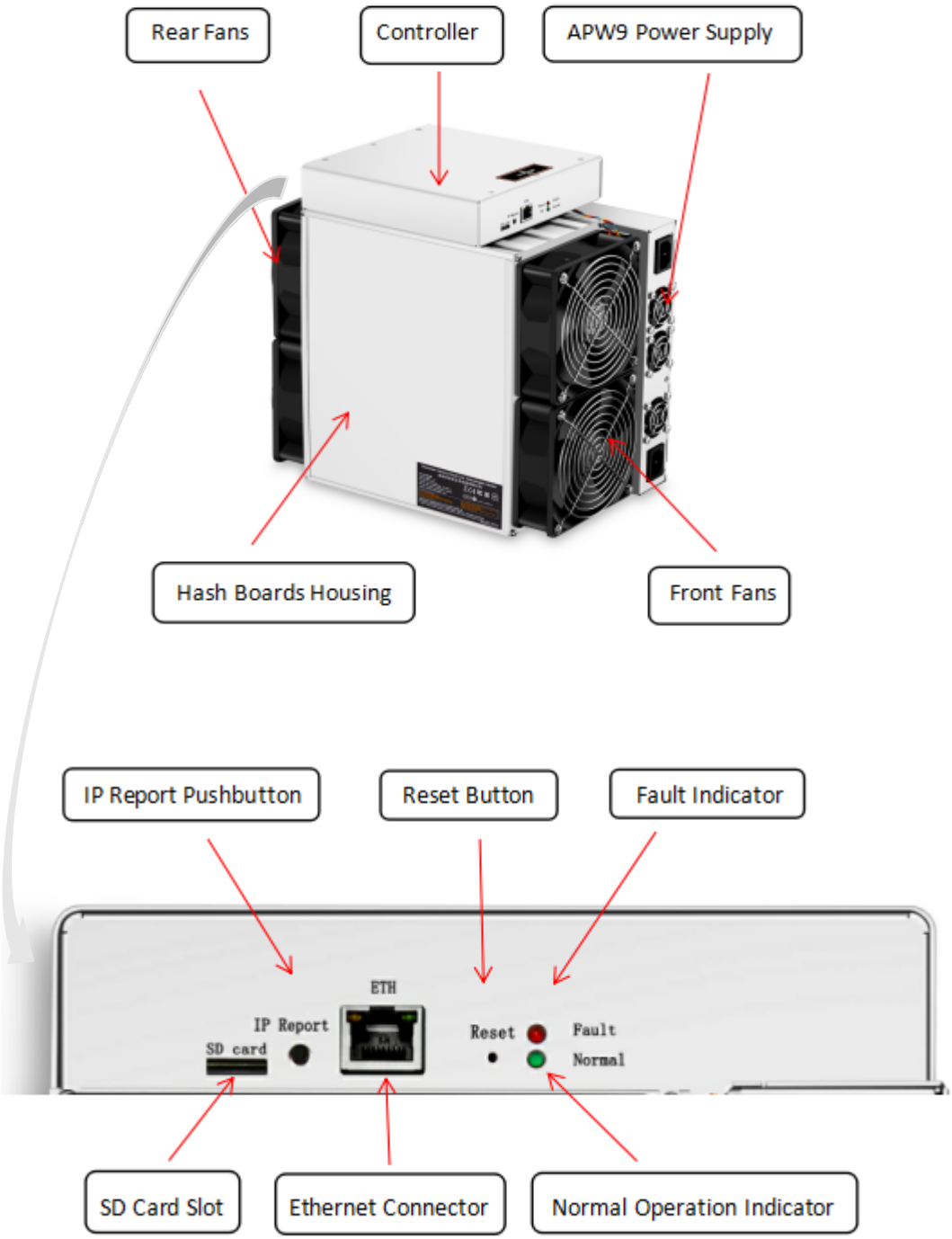
1.The equipment must be connected to an earthed mains socket-outlet. The socket-outlet shall be installed near the equipment and shall be easily accessible.

2.The equipment has two power inputs, only by connecting those two power supply sockets simultaneously can the equipment run. When the equipment is powered off, be sure to power off all power inputs.

3.Please refer to the layout above to place your goods in usage in case of any damage.

1.1 S17, S17 Pro, T17 Server Components

The main components and controller front panel of S17, S17 Pro, T17 servers are shown in the following figure (here takes pictures of S17 server as examples):



APW9 Power Supply:

Note:

1.Power supply APW9 is part of S17, S17 Pro, T17 servers. For detailed parameters, please refer to the specifications below.

2.Additional two power cords are needed.

1.2 Specifications

Model No.: 240-Aa
Version: S17-53T

Product Glance	Value	
	Low Power	Normal
Crypto Algorithm/Coins	SHA256/BTC/BCH	
Hashrate, **TH/s**	35~50.00	53.00
Reference power on wall, **Watt**	1470~2100	2385
Reference power efficiency on wall @**25°C**, **J/TH**	42.00	45.00

Detailed Characteristics		Value		
		Min	Typ	Max
Hashrate & Power				
Hashrate, **TH/s**	Low Power		35~50.00	+3% (1-1)
	Normal		53.00	55.95
Power efficiency on wall @**25°C**, **J/TH**	Low Power	42.00		46.20
	Normal	45.00		49.50
Power efficiency on wall @**40°C**, **J/TH**	Low Power	43.81		48.19
	Normal	46.47		51.11
Power on wall, **Watt** (1-2)	Low Power	1470~2100		2482
	Normal	2385		2860
Power supply AC input voltage, **Volt** (1-3)		200	220	240
Power supply AC input current, **Amp**(1-4)	Low Power		6.68~9.55	12.41
	Normal		10.84	14.30
Power supply Input AC Frequency Range, **Hz**		47	50	63
Hardware Configuration				
Quantity of hash chips	144			
Quantity of hash boards	3			
Networking connection mode	RJ45 Ethernet 10/100M			

Server Size (Length*Width*Height, w/o package),**mm**[2-1]	**298.2*178.0*296.6**			
Net weight, **kg** [2-2]	**9.50**			
Noise, **dBA** @25°**C** [2-3]				**82**
Environmental Requirements				
Operation temperature,**°C**		**0**	**25**	**40**
Storage temperature,**°C**		**-20**	**25**	**70**
Operation humidity, **RH**(no condensation)		**10%**		**90%**

Notes:

(1-1) In Low Power Mode, Max Hashrate is about **Typ Hashrate *103%**

(1-2) Min condition: 25°C, min J/TH, typical Hashrate

Max condition: 40°C, max J/TH, max Hashrate

(1-3) Caution: Wrong input voltage may probably cause server damaged

(1-4) Typ condition: min reference power, typical AC input voltage

Max condition: max reference power, min AC input voltage

(2-1) Including PSU size

(2-2) Including PSU weight

(2-3) Max condition: Fan is under max RPM(rotation per minute).

Model No.: 240-Aa
Version: S17-56T

Product Glance	Value	
	Low Power	Normal
Crypto Algorithm/Coins	SHA256/BTC/BCH	
Hashrate, **TH/s**	35.00~50.00	56.00
Reference power on wall, **Watt**	1470~2100	2520
Reference power efficiency on wall @**25°C**, **J/TH**	42.00	45.00

Detailed Characteristics		Value		
		Min	Typ	Max
Hashrate & Power				
Hashrate, **TH/s**	Low Power		35~50.00	+3% (1-1)
	Normal		56.00	58.95
Power efficiency on wall @**25°C**, **J/TH**	Low Power	42.00		46.20
	Normal	45.00		49.50
Power efficiency on wall @**40°C**, **J/TH**	Low Power	43.98		48.38
	Normal	47.42		52.17
Power on wall, **Watt** (1-2)	Low Power	1470 ~2100		2492
	Normal	2520		3075
Power supply AC input voltage, **Volt** (1-3)		200	220	240
Power supply AC input current, **Amp**(1-4)	Low Power		6.68~9.55	12.46
	Normal		11.45	15.38
Power supply Input AC Frequency Range, **Hz**		47	50	63
Hardware Configuration				
Quantity of hash chips	144			
Quantity of hash boards	3			
Networking connection mode	RJ45 Ethernet 10/100M			
Server Size (Length*Width*Height, w/o package),**mm**(2-1)	298.2*178.0*296.6			
Net weight, **kg** (2-2)	9.50			

Noise, **dBA** @25°**C** [2-3]				**82**
Environmental Requirements				
Operation temperature,°**C**		**0**	**25**	**40**
Storage temperature,°**C**		**-20**	**25**	**70**
Operation humidity, **RH**(no condensation)		**10%**		**90%**

Notes:

(1-1) In Low Power Mode, Max Hashrate is about **Typ Hashrate *103%**

(1-2) Min condition: 25°C, min J/TH, typical Hashrate

Max condition: 40°C, max J/TH, max Hashrate

(1-3) Caution: Wrong input voltage may probably cause server damaged

(1-4) Typ condition: min reference power, typical AC input voltage

Max condition: max reference power, min AC input voltage

(2-1) Including PSU size

(2-2) Including PSU weight

(2-3) Max condition: Fan is under max RPM(rotation per minute).

Model No.: 240-Aa
Version: S17 Pro-50T

Product Glance	Value		
	Low Power	Normal	Turbo
Crypto Algorithm/Coins	SHA256/BTC/BCH		
Hashrate, **TH/s**	36~48.00	50.00	50~62.00
Reference power on wall, **Watt**	1296~1728	1975	2250~2790
Reference power efficiency on wall @**25°C**, **J/TH**	36.00	39.50	45.00

Detailed Characteristics		Value		
		Min	Typ	Max
Hashrate & Power				
Hashrate, **TH/s**	Low Power		36~48.00	+3% (1-1)
	Normal		50.00	52.95
	Turbo		50~62.00	+3% (1-2)
Power efficiency on wall @**25°C**, **J/TH**	Low Power	36.00		39.60
	Normal	39.50		43.45
	Turbo	45.00		49.50
Power efficiency on wall @**40°C**, **J/TH**	Low Power	38.30		42.12
	Normal	41.50		45.64
	Turbo	47.25		51.98
Power on wall, **Watt** (1-3)	Low Power	1296~1728		2082
	Normal	1975		2417
	Turbo	2250~2790		3319
Power supply AC input voltage, **Volt** (1-4)		200	220	240
Power supply AC input current, **Amp**(1-5)	Low Power		5.89~7.85	10.41
	Normal		8.98	12.08
	Turbo		10.23~12.68	16.60
Power supply Input AC Frequency Range, **Hz**		47	50	63
Hardware Configuration				

Quantity of hash chips	**144**			
Quantity of hash boards	**3**			
Networking connection mode	**RJ45 Ethernet 10/100M**			
Server Size (Length*Width*Height, w/o package),**mm**(2-1)	**298.2*178.0*296.6**			
Net weight, **kg** (2-2)	**9.50**			
Noise, **dBA** @25°**C** (2-3)				**82**
Environmental Requirements				
Operation temperature,°**C**		**0**	**25**	**40**
Storage temperature,°**C**		**-20**	**25**	**70**
Operation humidity, **RH**(no condensation)		**10%**		**90%**

Notes:

(1-1) In Low Power Mode, Max Hashrate is about **Typ Hashrate *103%**

(1-2) In Turbo Mode, Max Hashrate is about **Typ Hashrate *103%**

(1-3) Min condition: 25°C, min J/TH, typical Hashrate

Max condition: 40°C, max J/TH, max Hashrate

(1-4) Caution: Wrong input voltage may probably cause server damaged

(1-5) Typ condition: min reference power, typical AC input voltage

Max condition: max reference power, min AC input voltage

(2-1) Including PSU size

(2-2) Including PSU weight

(2-3) Max condition: Fan is under max RPM(rotation per minute).

Model No.: 240-Aa
Version: S17 Pro-53T

Product Glance	Value		
	Low Power	Normal	Turbo
Crypto Algorithm/Coins	SHA256/BTC/BCH		
Hashrate, **TH/s**	36~48.00	53.00	53~62.00
Reference power on wall, **Watt**	1296~1728	2094	2385~2790
Reference power efficiency on wall @**25°C**, **J/TH**	36.00	39.50	45.00

Detailed Characteristics		Value		
		Min	Typ	Max
Hashrate & Power				
Hashrate, **TH/s**	Low Power		36~48.00	+3% (1-1)
	Normal		53.00	55.95
	Turbo		53~62.00	+3% (1-2)
Power efficiency on wall @**25°C**, **J/TH**	Low Power	36.00		39.60
	Normal	39.50		43.45
	Turbo	45.00		49.50
Power efficiency on wall @**40°C**, **J/TH**	Low Power	38.22		42.05
	Normal	41.73		45.90
	Turbo	47.99		52.79
Power on wall, **Watt** (1-3)	Low Power	1296~1728		2079
	Normal	2094		2568
	Turbo	2385~2790		3371
Power supply AC input voltage, **Volt** (1-4)		200	220	240
Power supply AC input current, **Amp**(1-5)	Low Power		5.89~7.85	10.40
	Normal		9.52	12.84
	Turbo		10.84~12.68	16.86
Power supply Input AC Frequency Range, **Hz**		47	50	63

Hardware Configuration				
Quantity of hash chips	**144**			
Quantity of hash boards	**3**			
Networking connection mode	**RJ45 Ethernet 10/100M**			
Server Size (Length*Width*Height, w/o package),**mm**(2-1)	**298.2*178.0*296.6**			
Net weight, **kg** (2-2)	**9.50**			
Noise, **dBA** @25°**C** (2-3)				**82**
Environmental Requirements				
Operation temperature,°**C**		**0**	**25**	**40**
Storage temperature,°**C**		**-20**	**25**	**70**
Operation humidity, **RH**(no condensation)		**10%**		**90%**

Notes:

(1-1) In Low Power Mode, Max Hashrate is about **Typ Hashrate *103%**

(1-2) In Turbo Mode, Max Hashrate is about **Typ Hashrate *103%**

(1-3) Min condition: 25°C, min J/TH, typical Hashrate

Max condition: 40°C, max J/TH, max Hashrate

(1-4) Caution: Wrong input voltage may probably cause server damaged

(1-5) Typ condition: min reference power, typical AC input voltage

Max condition: max reference power, min AC input voltage

(2-1) Including PSU size

(2-2) Including PSU weight

(2-3) Max condition: Fan is under max RPM(rotation per minute).

Model No.: 240-Aa
Version: T17-40T

Product Glance	Value
Crypto Algorithm/Coins	**SHA256/BTC/BCH**
Hashrate, **TH/s**	**40.00**
Reference power on wall, **Watt**	**2200**
Reference power efficiency on wall @**25°C**, **J/TH**	**55.00**

Detailed Characteristics	Value		
	Min	**Typ**	**Max**
Hashrate & Power			
Hashrate, **TH/s**		**40.00**	**40.45**
Power efficiency on wall @**25°C**, **J/TH**	**55.00**		**58.85**
Power efficiency on wall @**40°C**, **J/TH**	**58.26**		**62.34**
Power on wall, **Watt** (1-1)	**2200**		**2522**
Power supply AC input voltage, **Volt** (1-2)	**200**	**220**	**240**
Power supply AC input current, **Amp**(1-3)		**10.00**	**12.61**
Power supply Input AC Frequency Range, **Hz**	**47**	**50**	**63**
Hardware Configuration			
Quantity of hash chips	**90**		
Quantity of hash boards	**3**		
Networking connection mode	**RJ45 Ethernet 10/100M**		
Server Size (Length*Width*Height, w/o package),**mm**(2-1)	**298.2*178.0*296.6**		
Net weight, **kg** (2-2)	**9.73**		
Noise, **dBA** @25°**C** (2-3)			**82**
Environment Requirements			
Operation temperature,°**C**	**0**	**25**	**40**
Storage temperature,°**C**	**-20**	**25**	**70**
Operation humidity, **RH**(no condensation)	**10%**		**90%**

Notes:

(1-1) Min condition: 25°C, min J/TH, typical Hashrate

Max condition: 40°C, max J/TH, max Hashrate

(1-2) Caution: Wrong input voltage may probably cause server damaged

(1-3) Typ condition: min reference power, typical AC input voltage

Max condition: max reference power, min AC input voltage

(2-1) Including PSU size

(2-2) Including PSU weight

(2-3) Max condition: Fan is under max RPM(rotation per minute).

2. Setting Up the Server

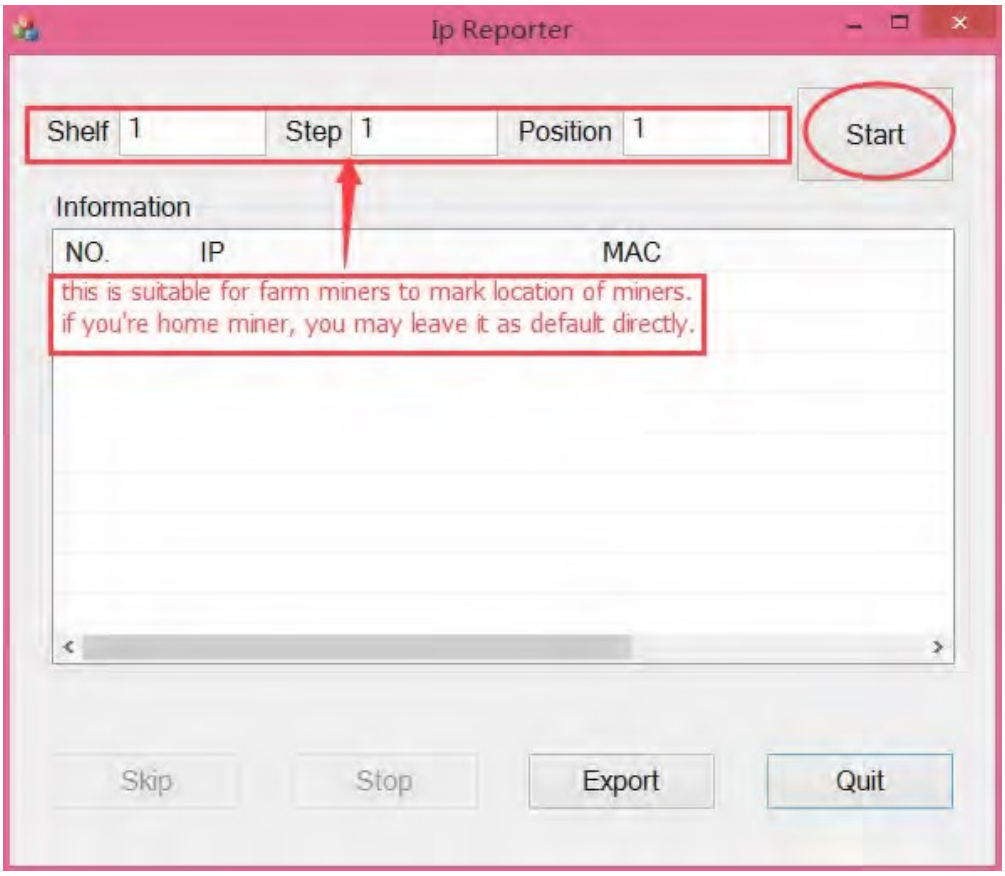
To set up the server:

The file IPReporter.zip is supported by Microsoft Windows only.

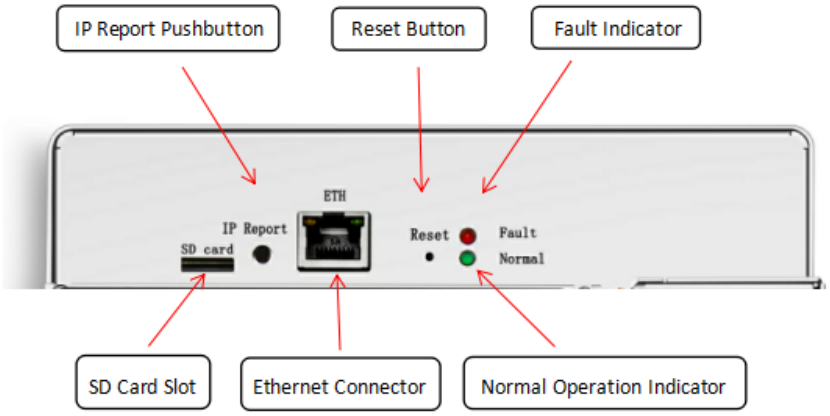
1. Go to the following site:
https://shop.bitmain.com/support.htm?pid=00720160906053730999PVD2K0vz0693
2. Download the following file: IPReporter.zip.
3. Extract the file.

The default DHCP network protocol distributes IP addresses automatically.

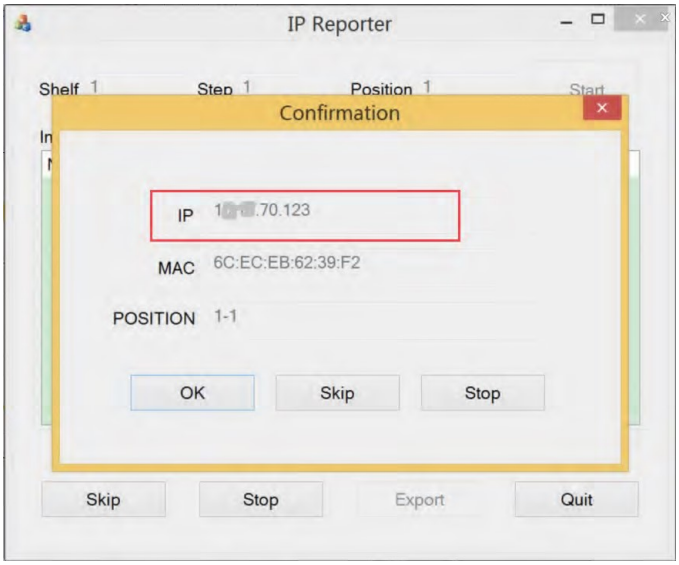
4. Right-click **IPReporter.exe** and run it as Administrator.
5. Select one of the following options:
   - Shelf, Step, Position – suitable for farm servers to mark the location of the servers.
   - Default – suitable for home servers.
6. Click **Start**.



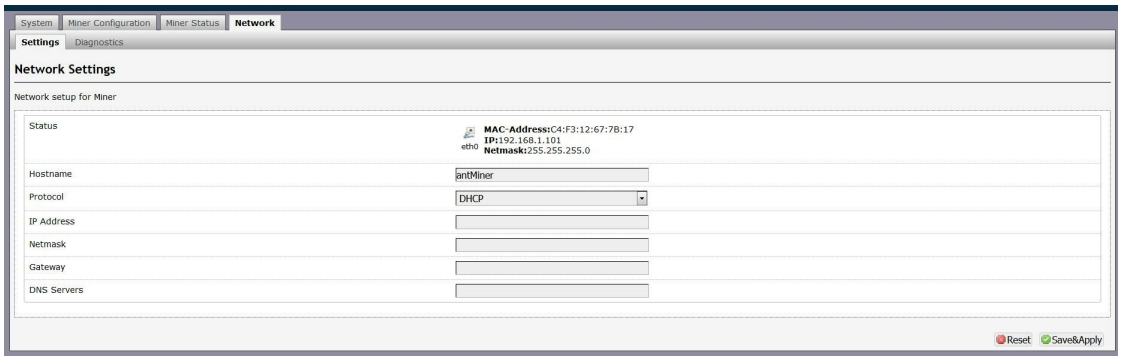
7. On the controller board, click the IP Report button. Hold it down until it beeps (about 5 seconds).



The IP address will be displayed in a window on your computer screen.



8. In your web browser, enter the IP address provided.
9. Proceed to login using root for both the username and password.
10. In the Network section, you can assign a DHCP IP address (optional).
11. Click **Save & Apply**.



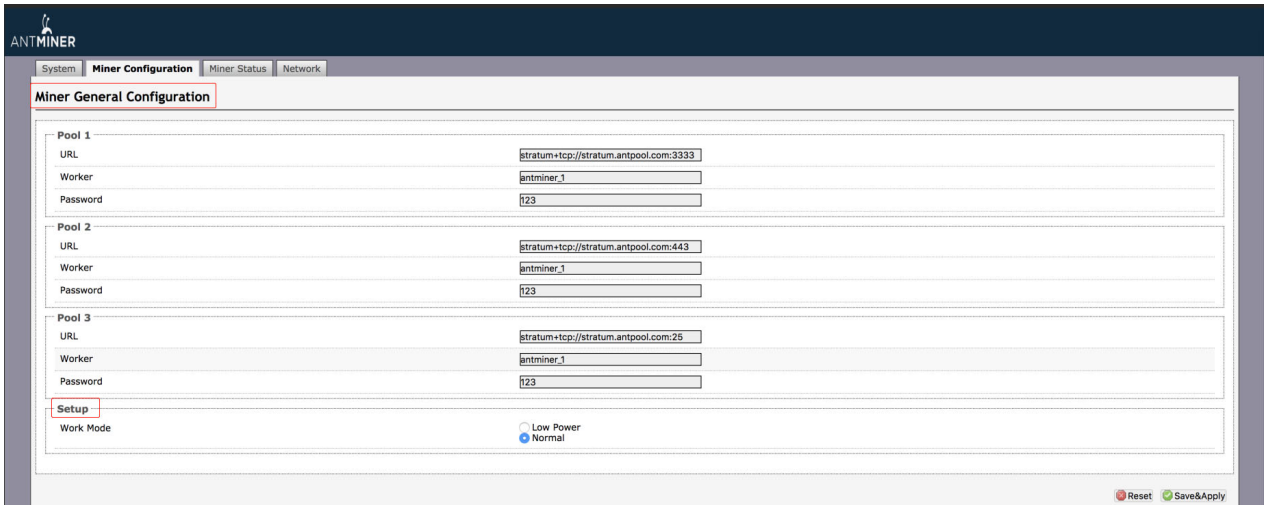
3. Configuring the Server

Setting Up the Pool

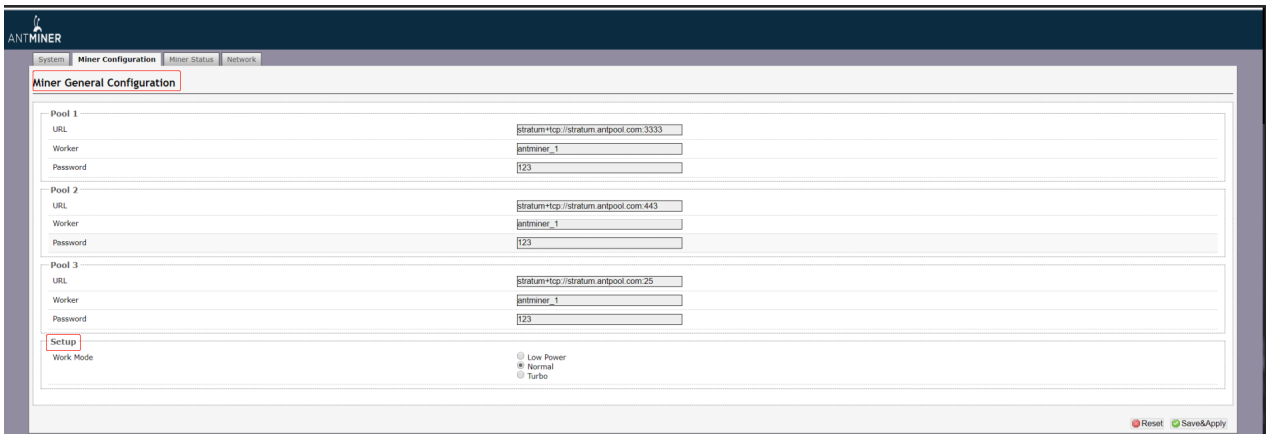
To configure the server:

1. click **General Settings**.

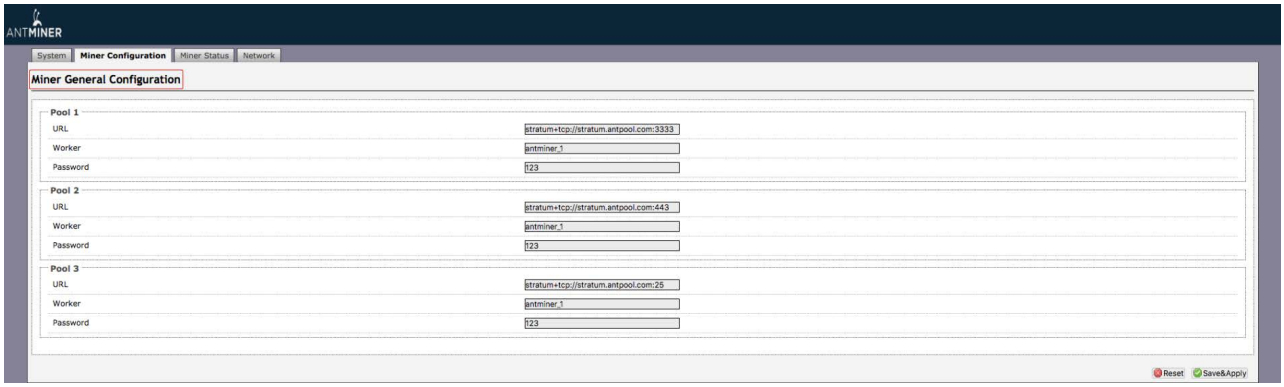
S17 Server:



S17 Pro Server:



T17 Server:



Note: There are three modes of Hashrate which u may adjust for S17 Pro server: Low Power mode, Normal Mode and Turbo mode (High Performance Mode); two modes for S17 server: Low Power mode and Normal mode. Power consumption varies with different mode. Please refer to the specifications above for more details.

2. Set the options according to the following table:

Option	Description
Pool URL	Enter the URL of your desired pool. The S17, S17 Pro, T17 servers can be set up with three mining pools, with decreasing priority from the first pool (pool 1) to the third pool (pool 3). The pools with low priority will only be used if all higher priority pools are offline.
Worker	Your worker ID on the selected pool.
Password	The password for your selected worker.

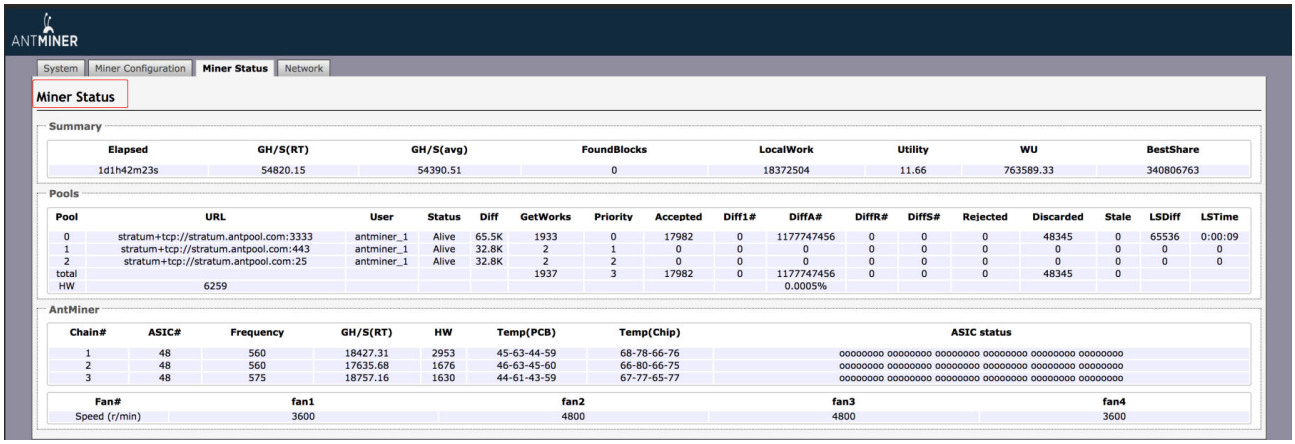
3. Click Save & Apply to save and restart the server.

4. Monitoring Your server

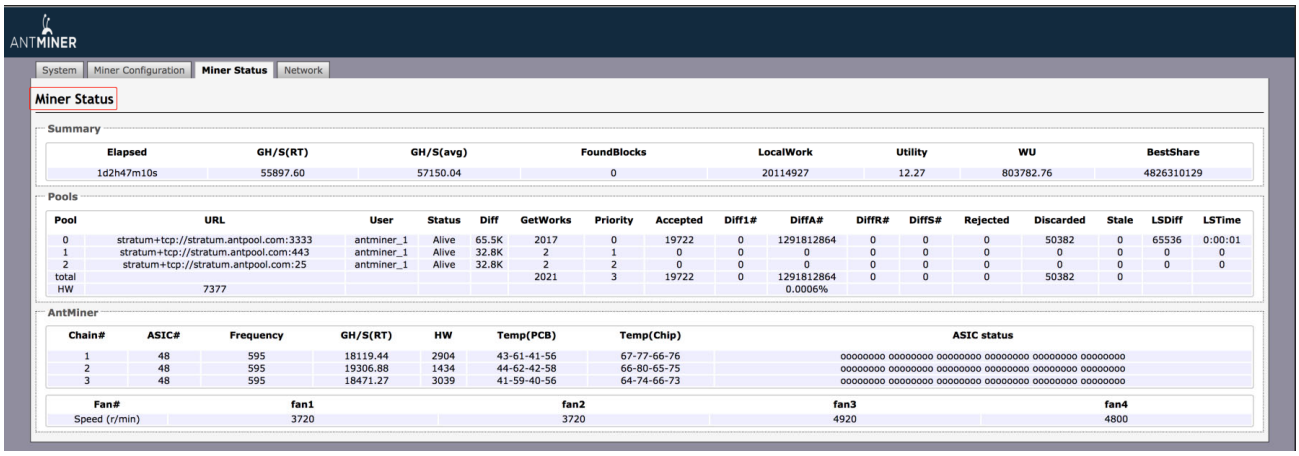
To check the operating status of your server:

1. Click the status marked below.

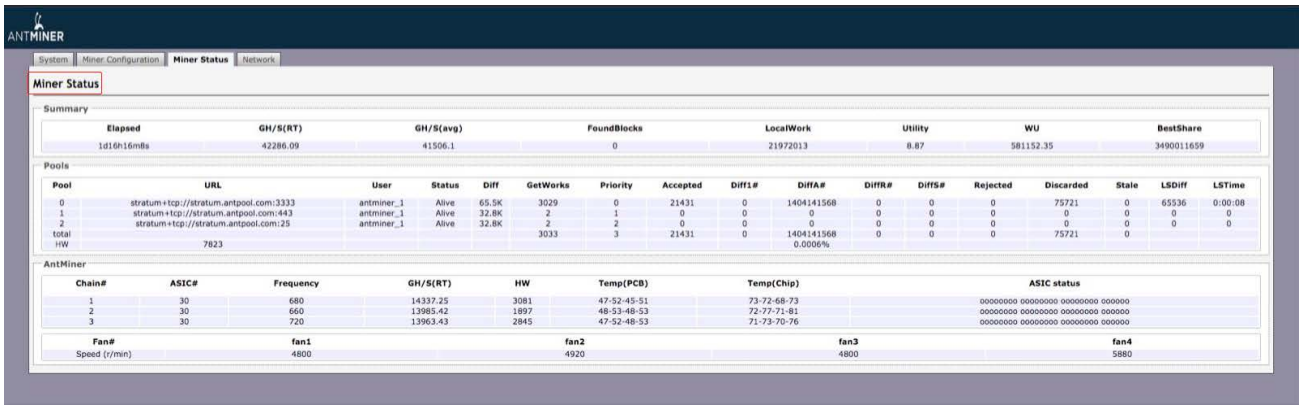
Here is an example of S17-53T server running under Normal mode:



Here is an example of S17 Pro- 53T server running under Turbo mode:



Here is an example of T17-40T server:



Note: The S17, S17 Pro, T17 servers are with automatic frequency. Firmware will stop running when the Temp (PCB) reaches to 75℃ or Temp(chips) reaches to 100℃， there will be an error message “Fatal Error: Temperature is too high!” shown in the bottom of kernel log page.

2. Monitor your server according to the descriptions in the following table:

Option	Description
ASIC#	Number of chips detected in the chain.
Frequency	ASIC frequency setting.
GH/S(RT)	Hash rate of each hash board (GH/s).
Temp(PCB)	Temperature of each hash board (°C). (Applied only to server with fixed frequency).
Temp(Chip)	Temperature of the chips on each hash board (°C).
ASIC status	One of the following statuses will appear: ● **O** - indicates OK ● **X** - indicates error ● **-** - indicates dead

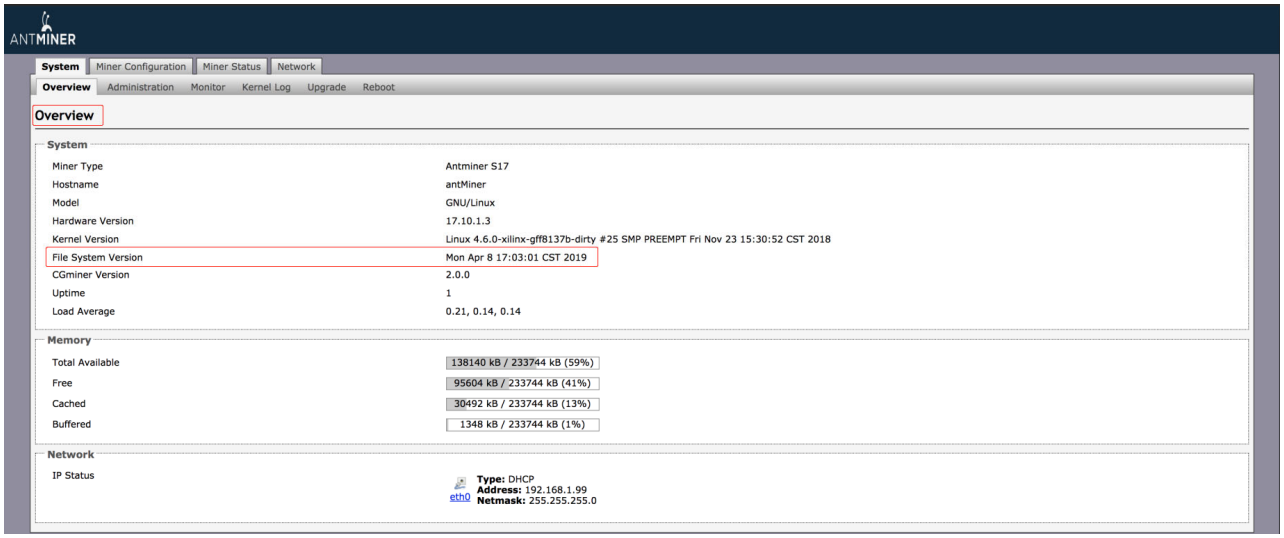
5. Administering Your Server

5.1 Checking Your Firmware Version

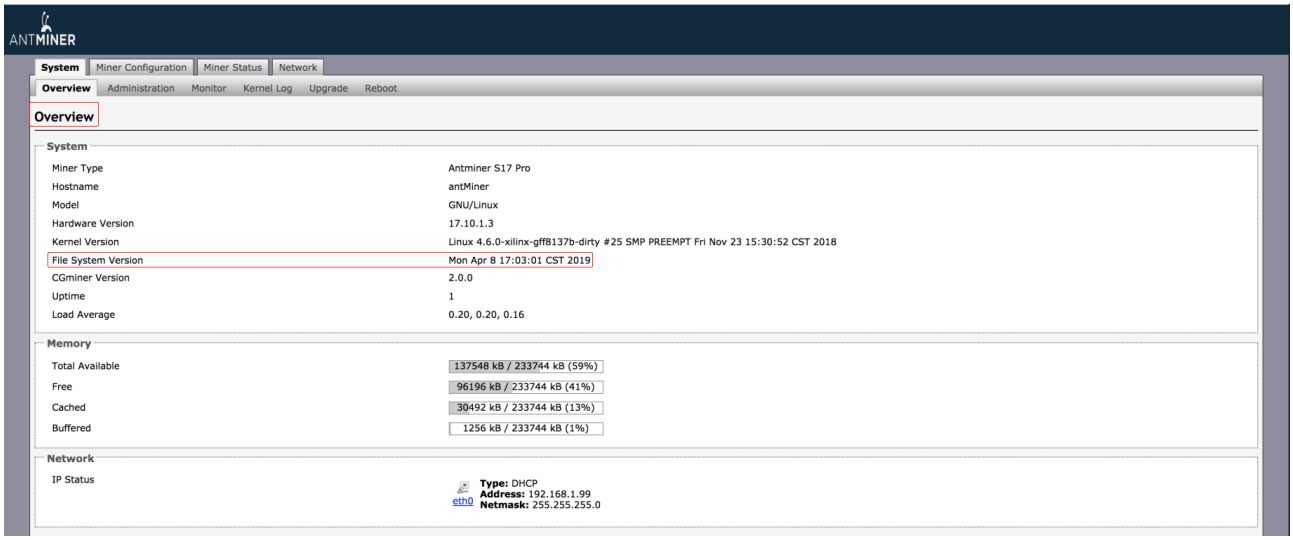
To check your firmware version:

1. In **System**, click the **Overview** tab.
2. **File System Version** displays the date of the firmware your server uses. In the examples below, the servers are respectively using firmware version 20190408 and 20190426.

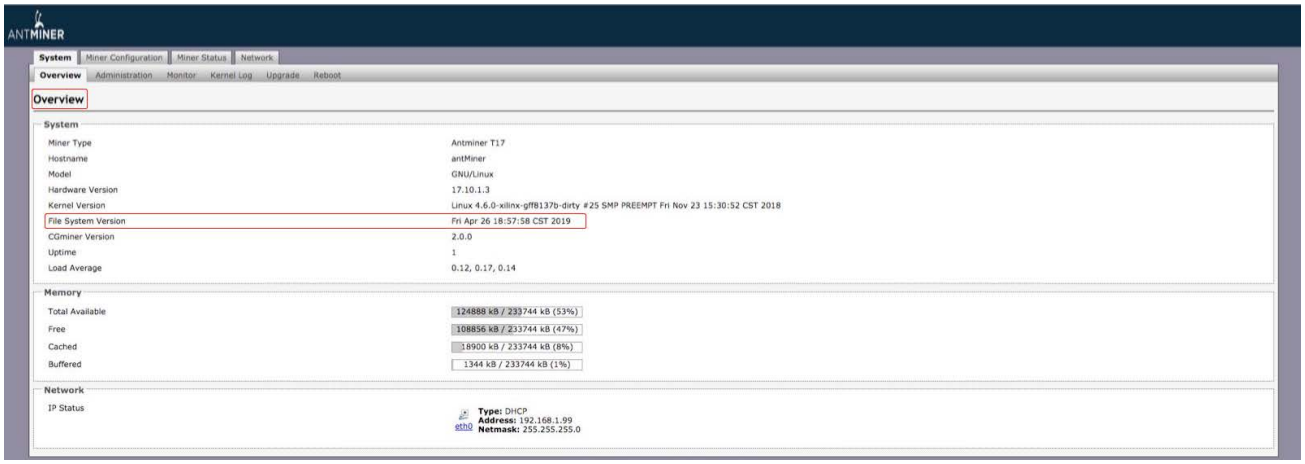
S17 Server:



S17 Pro Server:



T17 Server:

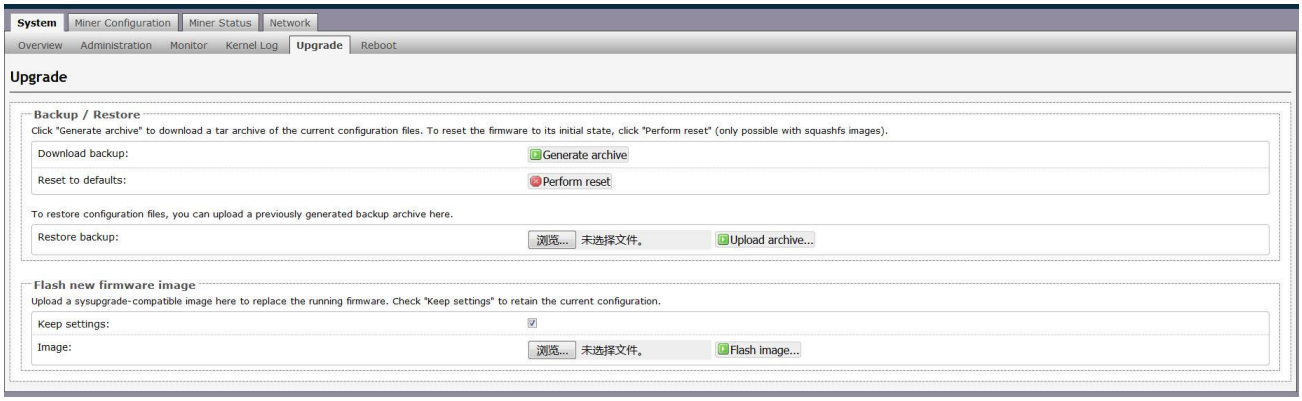


5.2 Upgrading Your System

Make sure that the S17, S17 Pro, T17 servers remain powered during the upgrade process. If power fails before the upgrade is completed, you will need to return it to Bitmain for repair.

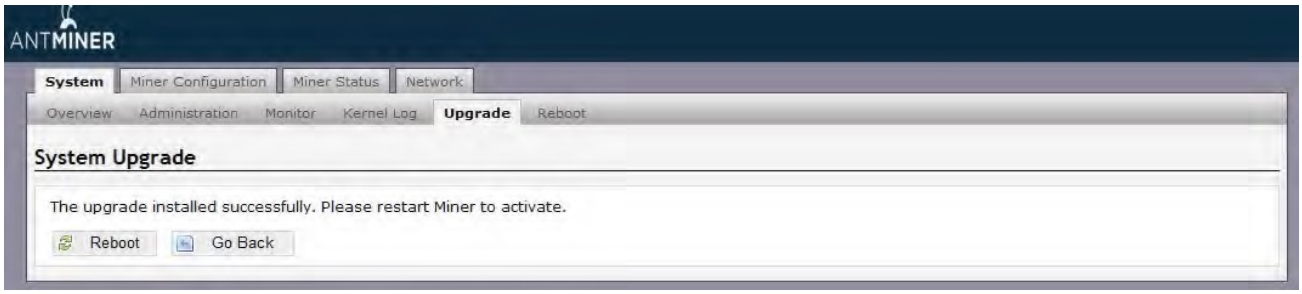
To upgrade the server's firmware:

1. In System, click **Upgrade**.



2. For **Keep Settings**:
   - Select the check box to keep your current settings (default).
   - Clear the check box to reset the server to default settings.
3. Click the 选择文件 **(Browse)** button and navigate to the upgrade file. Select the upgrade file, then click **Flash image**. A message appears notifying you if the S17, S17 Pro, T17 firmwares can be upgraded and if yes, will then proceed to flash the image.

4. When the upgrade is completed, the following message appears:



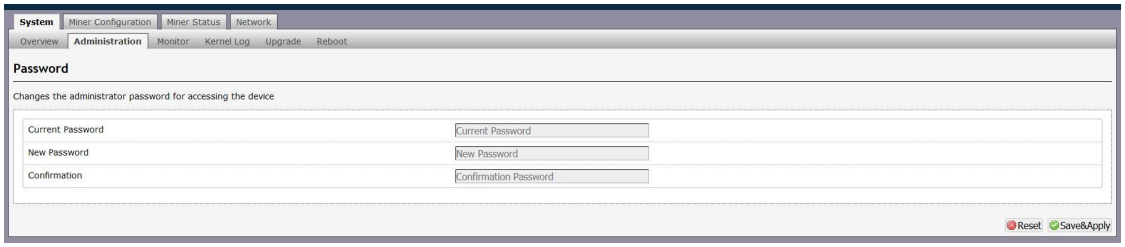
5. Click one of the following options:

   - **Reboot** - to restart the server with the new firmware.
   - **Go Back** - to continue mining with the current firmware. The server will load the new firmware next time when it is restarted.

5.3 Modifying Your Password

To change your login password:

1. In **System**, click the **Administration** tab.
2. Set your new password, then click **Save & Apply**.



5.4 Restoring Initial Settings

To restore your initial settings

1. Turn on the server and let it run for 5 minutes.
2. On the controller front panel, press and hold the **Reset** button for 10 seconds.

> Resetting your server will reboot it and restore its default settings. The red LED will automatically flash once every 15 seconds if the reset is operated successfully.

Environmental Requirements

Please run your server in accordance with the following requirements

1. Basic Environmental Requirements:

1.1. Climatic Conditions:

Description	**Requirement**
Operating Temperature	0-40℃
Operating Humidity	10-90%RH (non-condensing)
Storage Temperature	-20-70℃
Storage Humidity	5-95%RH （non-condensing）
Altitude	<2000m

1.2. Site Requirements of the Server Running Room:

Please keep the server running room away from industrial pollution sources:

For heavy pollution sources such as smelters and coal mines, the distance should be more than 5km.

For moderate pollution sources such as chemical industries, rubber and electroplating industries, the distance should be more than 3.7km.

For light pollution sources such as food factories and leather processing factories, the distance should be more than 2km.

If unavoidable, the site should be chosen in the perennial upwind direction of the pollution source.

Please do not set your location within 3.7km from the seaside or the salt lake. If unavoidable, it should be built as airtight as possible, equipped with air conditioning for cooling.

1.3. Electromagnetic Environmental Conditions:

Please keep your site away from transformers, high-voltage cables, transmission lines and high-current equipment, for example, there should be no high-power AC transformers (>10KA) within 20 meters, and no high-voltage power lines within 50 meters.

Please keep your site away from high-power radio transmitters, for example, there should be no high-power radio transmitters (>1500W) within 100 meters.

2. Other Environmental Requirements：

The server running room shall be free of explosive, conductive,magnetically conductive and corrosive dust. The requirements of mechanical active substances are shown below:

2.1 Requirements of Mechanical Active Substances

Mechanical Active Substance	Requirement
Sand	<= 30mg/m^3
Dust (suspended)	<= 0.2mg/m^3
Dust (deposited)	<=1.5mg/m^2h

2.2 Requirements of Corrosive Gas

Corrosive Gas	Unit	Concentration
H_2S	ppb	< 3
SO_2	ppb	< 10
Cl_2	ppb	< 1
NO_2	ppb	< 50
HF	ppb	< 1
NH_3	ppb	< 500
O_3	ppb	< 2
Note: ppb (part per billion) refers to the unit of concentration, 1ppb stands for the volume ratio of part per billion.		

Regulations:

FCC Notice (FOR FCC CERTIFIED MODELS):

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

EU WEEE: Disposal of Waste Equipment by Users in Private Household in the European Union

This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handling it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where your purchased the product.

台湾 ROHS:

設備名稱：S17,S17 Pro, T17 服務器，型號：240-Aa

單元	有害物質					
	鉛 (Pb)	汞 （Hg）	鎘 （Cd）	六價鉻 (Cr+6)	多溴聯苯 （PBB）	多溴二苯醚 （PBDE）
外殼	○	○	○	○	○	○
電路板組件	—	○	○	○	○	○
其他線材	—	○	○	○	○	○

備考 1.〝超出 0.1 wt %〞及〝超出 0.01 wt %〞係指限用物質之百分比含量超出百分比含量基準值。
備考 2.〝○〞係指該項限用物質之百分比含量未超出百分比含量基準值。
備考 3.〝－〞係指該項限用物質為排除項目