

Storage Server

SB16S

User Manual



Notes

There may be several technically incorrect places or printing errors in this manual. The updates will be added into the new version of this manual. The contents of this manual are subject to change without notice.

This manual is suitable for 16/24-disk storage servers. All the pictures used in this manual are based on the 16-disk storage server. Please refer to the real servers as the pictures may be different from the real servers.

The storage server is mainly used with Speco Blue VMS. This manual only introduces its system setup. Please refer to the storage server chapter in the Speco Blue VMS user manual for detailed use.

Contents

1	Installation	1
1.1	Interfaces and Indicators.....	1
1.2	Rear Panel Instruction	1
1.3	HDD Installation	2
2	Default System Configuration	2
3	Web Client Configuration.....	3
3.1	Login	3
3.2	Disk RAID	3
3.3	Network Configuration.....	4
3.4	Server Port Configuration.....	5
3.5	Change Password	6
3.6	Basic Information	6
3.7	Date & Time	6
3.8	Upgrade	7
3.9	Device Reboot & Shutdown.....	7
3.10	Restore Factory Settings.....	7
3.11	HTTPS Configuration	7
3.12	Debug Mode.....	8
3.13	Operation Log	8
4	Q&A.....	8
Appendix	Device Installation.....	9

1 Installation

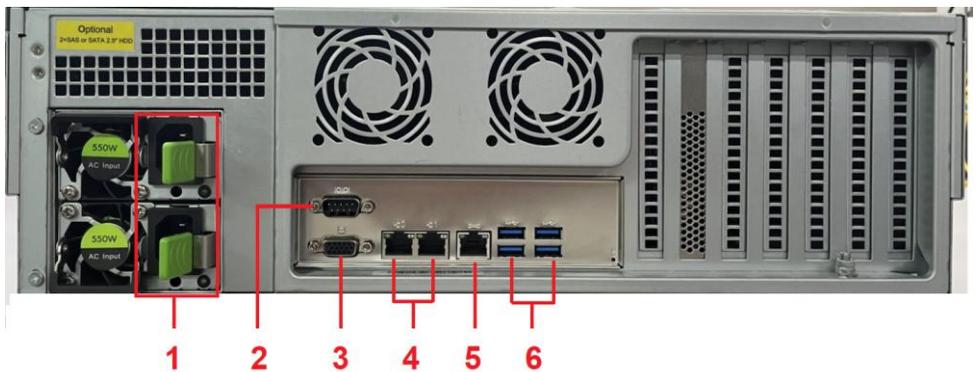
1.1 Interfaces and Indicators

The icons below are for reference only. Please refer to the interfaces and indicators of the real server.

Icon	Description	Icon	Description
	Power Key		System disk running indicator; flashing green light indicators the disk works normally.
	Reset		Error Alarm indicator (including system/fan/power error alarm)
	USB interface		Network connection indicator. Green light indicators the network connection is normal.

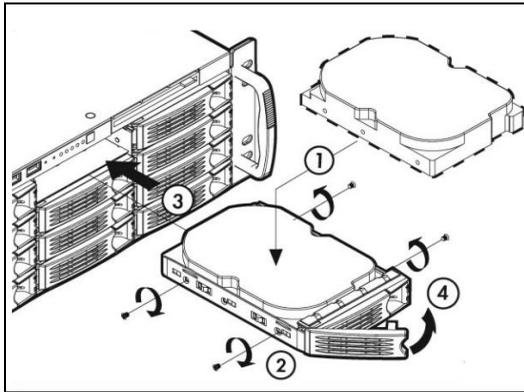
1.2 Rear Panel Instruction

The following picture of rear panel is for reference only.



No.	Description	No.	Description
1	Redundant Power Connector	4	RJ45 interface
2	RS232 interface	5	Management interface
3	VGA interface	6	USB3.1 interface

1.3 HDD Installation



- ① Press the blue button, hold the pull rod to pull out the HDD case and then install the HDD into the case.
- ② Fix the HDD by tightening the screws on both side of the case.
- ③ Push the case with the HDD into the slot.
- ④ Fasten the pull rod.

2 Default System Configuration

The default network configurations of the server are as follows:

IP Address: 192.168.0.10

Http Port: [8000](http://192.168.0.10:8000)

To avoid IP conflict you should configure one at a time as these storage servers have the same default network configuration.

The default web management page: <http://192.168.0.10:8000>.

The default username is [admin](#) and the default password is [1234](#).

The disks installed in one storage server used for RAID should be of the same brand, capacity, rotate speed and buffer. The production batch should also try to be the same.

3 Web Client Configuration

3.1 Login

The storage server is configured through web browser. It is recommended to use IE9 or above, Firefox 51 or lower or Google Chrome44 or lower or Opera35 or lower (Here we take IE browser for example).

Make sure the IP address of the computer is in the same local area network with the storage server before accessing the storage server, or you will have to modify the IP address of the computer. For instance, change the computer's IP address to 192.168.0.100 and the gateway to 192.168.0.1.

Enter `http://192.168.0.100:8000` in the IE address bar and then press enter to go to the login interface as shown below.



The screenshot displays a login interface. On the left, there is a stylized globe icon with a computer monitor, a video camera, and a gear icon connected to it. On the right, there is a login form with two input fields: "Please enter username." and "Please enter password." Below these fields is a blue "Login" button.

Enter the username [admin](#) and password [1234](#) and then click “Login” button to go to the main interface.

3.2 Disk RAID

Click “Disk Config” tab to go to Disk Configuration interface. Please click “Create” button to create a disk RAID if you use the storage server for the first time.

Storage Server User Manual

Name	Type	Use Spare Disk	Edit Hot	composed disks	Total size	Raid	Residual size	Progress
1	RAID Type 5	Yes		disk1,disk2,disk3,disk4	27945GB	RAID5	16740GB	

ID	Type	Size	State	RAID	Residual Size	Progress
1				3	5589GB	
2				4	465GB	
5		5589GB		7	5589GB	
6		5589GB		8	465GB	
9		5589GB		11	5589GB	
10		5589GB		12	465GB	
13				15	5589GB	
14				16		
17				19	5589GB	
18				20		
21				23	5589GB	
22				24	465GB	

Disk State

- Run normally
- Configuration problems
- Expanding
- Initialising

Array State

- No configuration
- Normal configuration
- Rebuilding
- Hot spare
- Emergency
- Running problems

Tips: It is recommended to create Raid5 and check hotspare disk for data security.

You can expand the created disk array by clicking . The expansion time depends on the disk size and quantities. Generally, it takes from a dozen of hours to a couple of days.

Click “Delete” button to pop up a confirmation dialog box. The created RAID will be deleted if you click “Yes” button. Please be careful to delete the RAID because the record data stored in the RAID will not be recovered once you delete the RAID.

3.3 Network Configuration

Click “Network Config” tab to go to the interface as shown below. The IP address, subnet mask and gateway of the storage server can be set in the interface.

You will get a virtual IP address if the IP group is enabled. As to the access of the virtual IP address, the operation system of the storage server will judge and transfer the access to eth0 or eth1 automatically.

For instance, if you disconnect the network cable of eth1 when testing “ping 192.168.0.10 -t”, you will probably get a “Request Timeout” tip if you ping 192.168.0.10; and then you can probably ping it successfully after a few seconds.

Storage Server User Manual

Network Config	
IP Group	<input checked="" type="checkbox"/> Open
IPV4	<input type="checkbox"/> Open
IP Address	<input type="text" value="192.168.52.218"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>
Gateway	<input type="text" value="192.168.52.1"/>
Type	<input type="text" value="Adaptive Load Balancing"/>
eth0(Online)	<input checked="" type="checkbox"/> Static IP
MAC Address	<input type="text" value="58:53:C0:34:04:64"/>
eth1(Offline)	<input type="checkbox"/> Static IP
MAC Address	<input type="text" value="58:53:C0:34:04:65"/>
Primary DNS	<input type="text" value="192.168.0.5"/>
Secondary DNS	<input type="text" value="8.8.8.8"/>
<input type="button" value="Commit"/> <input type="button" value="Reset"/>	

3.4 Server Port Configuration

Click “Port Config” tab to go to the interface as shown below.

Port Config	
Transfer Server	
Port	<input type="text" value="6006"/> <input checked="" type="checkbox"/> Open
Auto Report Port	<input type="text" value="2009"/>
Storage Server	
Port	<input type="text" value="6009"/> <input checked="" type="checkbox"/> Open
<input type="button" value="Apply"/>	

Media Transfer Server port: the default number is 6006.

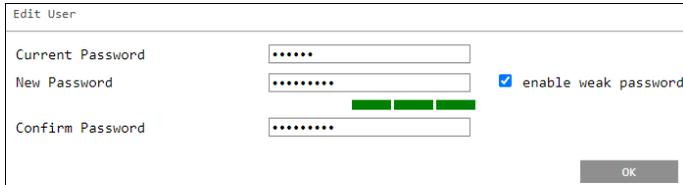
Auto Report Port: the default number is 2009.

Storage server port: the default number is 6009.

The above-mentioned ports can be modified and enabled as needed.

3.5 Change Password

For safety consideration, it's strongly recommended to modify the default administrator's username and password if you access the storage server for the first time. Click "User Config" tab to go to the interface as shown below. You can modify the username and use a strong or weak password as needed. It is recommended to set a strong password for your account security.



The screenshot shows a web interface titled "Edit User". It contains three password input fields: "Current Password", "New Password", and "Confirm Password". Each field is filled with a series of dots. To the right of the "New Password" field, there is a checked checkbox labeled "enable weak password". At the bottom right of the form, there is a grey "OK" button.

3.6 Basic Information

Click "System Maintenance" → "Device Basic Information" to view the basic information of the storage server (like product mode, firmware version, software version, etc).

3.7 Date & Time

It is recommended to set date and time first if you set the storage server for the first time. Click "Date and Time" tab to go to the interface as shown below.



The screenshot shows a configuration window titled "Date And Time". It has four rows of settings, each with a label and a value field:

- Time Zone:** GMT (Dubin, LIS, London, f) with a dropdown arrow.
- System Time:** 2020-06-16 17:29:52 with a clock icon.
- Synchronous Mode:** Manual with a dropdown arrow.
- Timing Server:** time.windows.com with a dropdown arrow.

An "Apply" button is located at the bottom right of the window.

Select the time zone according to the region. For example, if you are in London, select GMT. Synchronous Mode: auto or manual can be selected. Please set the system time manually or automatically.

3.8 Upgrade

You can upgrade the storage server when there is a new software version. Get the upgrade software from you dealer; click System Maintenance →Device Upgrade to go to the interface as shown blow. Click “Browse” button to select the upgrade file and then click “Upgrade” button to start upgrading.

Please select upgrade file:

Delete the database when upgrading, please check carefully Please check carefully to delete Intelligent Server data when upgrading

Note:The upgrade will take about a few minutes and the service will be restarted automatically after completing the upgrade. Please make sure the power on during the upgrading.

3.9 Device Reboot & Shutdown

Click System Maintenance →Device Reboot to go to the device reboot interface. Click “Device Reboot” to reboot the device.

Click System Maintenance →Shutdown to go to the Shutdown interface. Click “Shutdown” to shut down the device.

Click System Maintenance →Auto Reset. In this interface, you can enable auto reset function. Set the interval days and time. Then the system will automatically restart according to the set time and interval days.

3.10 Restore Factory Settings

Click System Maintenance→Restore factory settings. In this interface, you can restore network configuration, delete database/intelligent database or restore all settings to the factory default settings as needed.

3.11 HTTPS Configuration

Click System Maintenance→Restore factory settings. In this interface, you can upload HTTPS certificate or create a self-signed certificate.

Create a certificate: Enter the country (only two letters available), host name (the server’s IP address/domain), term of validity, password, state, region and so on. Finally, click “Commit”.

3.12 Debug Mode

Go to System Maintenance→Debug mode interface. You can enable core file as needed. Please insert a USB flash drive and then format it. Then check “Core File Open Switch” and apply it. After that the core file will store on the USB flash drive.

3.13 Operation Log

In the operation log interface, you can check different types of operation logs in the pre-defined time period, such as network config, port config, user config, event, etc.

4 Q&A

Q1. When the storage server is being started it shows “A discovery error has occurred, please power cycle the system and all the enclosures attached to this system”.

A1. It indicates that the RAID card could not finish searching in 120 seconds. The system’s SAS cable may be wrong connected. Please check the cable connection and repair the problems. Then restart the system later.

Q2. It takes a very long time to rebuild the RAID.

A2. RAID rebuilding time depends on RAID size and the rebuilding process may take more than ten hours. Recording and playback will not be affected when rebuilding.

Q3. How to replace the abnormal disks in the RAID?

A4. The corresponding disk status indicator will turn red in the disk RAID interface if the disk in the RAID is abnormal. Uninstall the abnormal disk in the storage server case and then refresh the interface; install a new disk after the disk indicator disappears. The RAID will rebuild automatically later.

Appendix Device Installation

