

AX2600S Series

Stack Operation Guide

(Operation & Maintenance)

Edition 1

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ALAXALA Networks Corporation

Preface

The purpose of this document is to help deepen your understanding of how to use the ALAXALA AX series stack functionality from operation and maintenance perspective. Please use this document as a technical supplement to product manuals when operating or maintaining a switch using the stack functionality.

Related documents

- AX2600S Series product manuals
(<https://www.alaxala.com/en/techinfo/manual/#AX2600S>)

Notes on using this document

The information in this document is based on the basic operations verified under the environment specified by ALAXALA Networks Corporation and does not guarantee the operation of functionality, performance, or reliability under all environment requirements. Please use this document as a supplement to product manuals. Unless otherwise stated, the OS software version as of the creation of this document is as follows:

AX2630S Ver. 2.4

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1. Operation of Stacks

1.1 Stack operation commands

The following table shows the stack operation commands. These operation commands are necessary to operate stacks.

Command	Description
<code>show switch [detail]</code>	Displays information on a stack member switch or the status summary of such a switch. To display detailed information, add the option <detail>. This command is valid for a member switch running in a stack.
<code>set switch</code>	Changes the number of a stack member switch. This command is used to change a switch mode from standalone to stack, or vice versa. To apply this mode change, restart the switch. If a switch is restarted without specifying <i>stack enable</i> by configuration command, its number changes to 1.
<code>session</code>	Connects to the member switch you specified when configuring a stack. You can edit configurations or exert operation commands by logging into the master switch from the backup switch.
<code>cp <file 1> switch <switch no.> <file 2></code> Copying a file from your switch to the specified switch <code>cp switch <switch no.> <file 1> <file 2></code> Copying a file from the specified switch to your switch	Copies a file from internal flash memory to the member switch of a specified switch number, or from the member switch of a specified switch number to the internal flash memory of your member switch. This command is used to copy a software image file or fault dump file.
<code>remote command</code>	In a stack configuration, this command executes an operation command from the master switch to the specified member switch. You can also use this command to execute an operation command for each member switch.
<code>dump stack</code>	Outputs detailed event trace information and control table information collected by stack management program to a file. This command is used to collect dumps (e.g., fault dumps). The storage directory and the name of the output dump file are as follows: Storage directory: /usr/var/stack/ Output file name: stack_dump.gz

1.2 Operation commands

The table below shows the major operation commands used in a stack.

Type	Command	Target	Remarks
Show	<code>show version</code>	All member switches (batch operation)	
	<code>show system</code>		
	<code>show interfaces</code>		Possible to specify a physical port as an option.
	<code>show port</code>		Possible to specify a physical port as an option.
Operation	<code>reload switch <switch no.></code>	A specified member switch	
	<code>ppupdate switch <switch no.></code>	A specified member switch	Not possible to execute this command from the backup switch.
	<code>activate / inactivate</code>	A specified physical port	
	<code>clear logging switch <switch no.></code>	A specified member switch	
	<code>clear counters</code>	All member switches	
Maintenance	<code>backup switch <switch no.></code>	A specified member switch	Not possible to execute this command from the backup switch.
	<code>restore switch <switch no.></code>	A specified member switch	Not possible to execute this command from the backup switch.
	<code>show tech-support switch <switch no.></code>	A specified member switch	
	<code>dump stack</code>	All member switches	
File operation	<code>cp</code>	A specified member switch	
	<code>mv /rm , ls / dir</code>	A local switch	

Basically, you must execute these commands from a master switch. If a member switch is not specified, commands are executed only on a local switch.

1.3 Notes on stack configuration

In a stack, all member switches operate using the same configuration. When configuring a stack, you can edit or display a running configuration only on the master switch (not on the backup switch).

When editing or displaying a configuration from the backup switch, connect to the master switch by the `session` command.

Running configuration	Master switch	Backup switch
Edit	Possible	Will be possible by using the "session" command.
Display	Possible	

1.4 Checking switch statuses and switch numbers

As shown below, there are two ways for checking switch statuses and switch numbers.

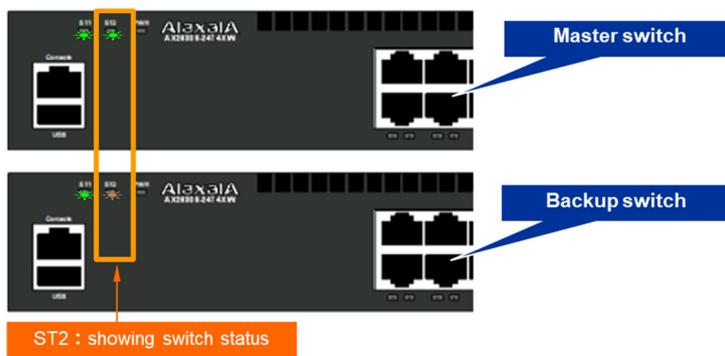
◆ Check on display panels

You can check the switch status by LED on the front panel. Note that the AX2600S Series switches do not have a switch number on their display panels.

[LED status] lit in green: running as a master, lit in orange: a backup

You can check the status of a stack member switch by LED (ST2). When the LED is lit in green, the switch is running as a master switch. When LED is lit in orange, the switch is running as a backup switch. For a standalone switch, LED is in power-off state.

LED name	Switch status	LED status
ST2	Initial state (standalone)	Powered off
	Master	Lit in green
	Backup	Lit in orange



ST2 shows both the status of MC operation mode and the status of a stack member switch.

When MC is installed, ST2 shows the MC status instead of the switch status. For details, see the **Hardware Installation Guide**.

◆ Check via a console

To check the status/number of a master switch via a console, you need to log into the switch. The login procedure is shown below. To log in from a remote operation terminal using telnet, log into the master switch.

(1) Connect to the console and log into the switch.

Connect a cable to the console and log into the member switch.

(2) From the command prompt, check the switch status (master/backup).

When you are logged into the member switch, the command prompt appears. From the command prompt, you can check the member switch status (master/backup).

1. Log in. You will see the command prompt.

If the switch you logged into is the master: Only the host name is displayed.
`hostname>`

If the switch you logged into is the backup: The host name and switch number "02" are displayed together with the identifier "B".
`hostname-02B>`

(3) Use the stack operation command to check the switch number.

Use the stack operation command **show switch** to check the switch number.

1. Use the stack operation command to check the switch number.

```
# show switch
Date 2023/08/23 10:50:12 JST
Stack status : Enable
System MAC Address : 0012.e203.aba0
Switch No : 1

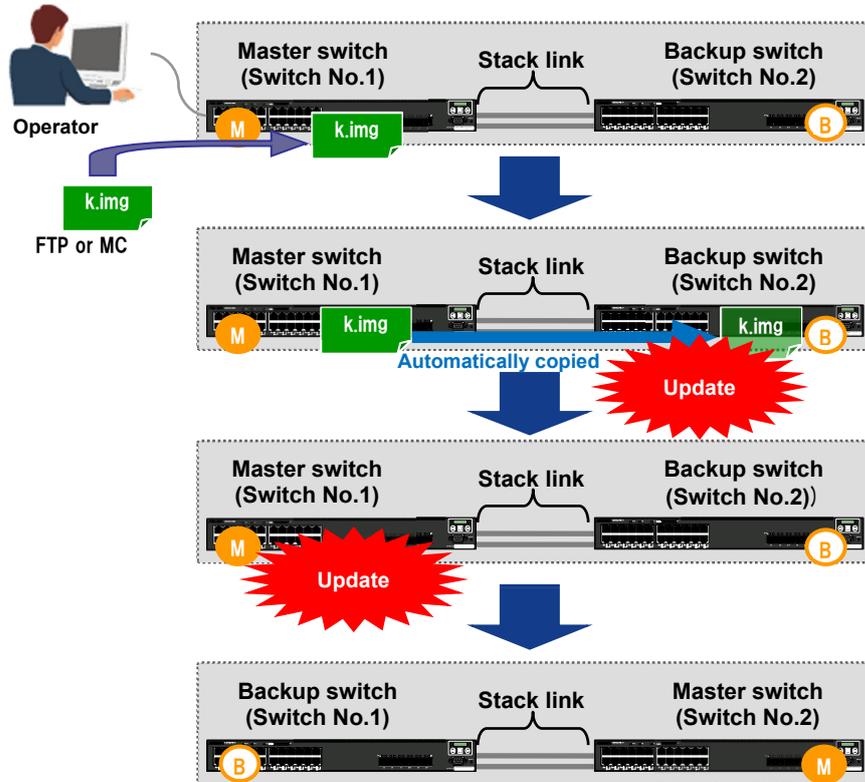
No Switch status      Model          Machine ID     Priority  Ver
1 Master              2630-24t4xw   0012.e203.aba0 10       1
2 Backup              2630-24t4xw   0012.e203.ab20 20       1
```

1.5 Software update procedures

To update software in a stack configuration, you need to transfer an update file to each member switch and update the software on it.

The recommended procedure for software update is as follows.

◆ Recommended update procedure



(1) Prepare an update file in the master switch, and then transfer it to the backup switch.

Use FTP or MC to transfer the software update file to the master switch.

(2) Update the backup switch.

Execute the update command by specifying the switch number of the backup switch from the master switch. The backup switch will be updated after the update file specified is automatically copied to the "/usr/var/update" directory in the backup switch.

1. Update the backup switch. After the update confirmation message appears, enter y and then press the Enter key.

```
# ppupdate switch 2 /usr/var/update/k.img

File transmission start. Please wait.
Switch 2 (Backup)
-----

Software update start

Broadcast message from operator@AX26STK (somewhere) (Fri Aug 25 14:32:27 2023):

*****
** UPDATE IS STARTED.                **
*****

Current version is 2.3.A
New version is 2.4
Automatic reboot process will be run after installation process.
Do you wish to continue? (y/n) y
```

2. Update will be executed. After the update is successfully completed, the following message will appear. The backup switch will automatically restart.

```
Update done.

Broadcast message from operator@AX26STK (somewhere) (Fri Aug 25 14:52:24 2023):

*****
** UPDATE IS FINISHED SUCCESSFULLY.  **
*****

Connection to switch2 closed by remote host.
```

3. Use the operation command to confirm that a two-switch stack is established.

```
# show switch
Date 2023/08/25 15:00:50 JST
Stack status : Enable      Switch No : 1
System MAC Address : 0012.e203.ab20
No  Switch status      Model          Machine ID     Priority  Ver
 1  Master              2630-24t4xw   0012.e203.ab20 10       1
 2  Backup              2630-24t4xw   0012.e203.aba0 20       1
```

(3) Update the master switch.

Use the commands shown below.

1. Update the master switch. After the update confirmation message appears, enter `y` and then press the Enter key.

```
# ppupdate /usr/var/update/k.img

Software update start

Broadcast message from operator@AX26STK (somewhere) (Fri Aug 25 15:04:28 2023):

*****
** UPDATE IS STARTED.                **
*****

Current version is 2.3.A
New version is 2.4
Automatic reboot process will be run after installation process.
Do you wish to continue? (y/n) y
```

2. Update will be executed. After the update is successfully completed, the following message will appear. The master switch will automatically restart (the backup switch will be the master switch).

```
Update done.

Broadcast message from operator@AX26STK (somewhere) (Fri Aug 25 15:08:15 2023):

*****
** UPDATE IS FINISHED SUCCESSFULLY.  **
*****
```

(4) Confirm the software version.

Use the operation command to confirm that the software version is updated.
The software update operation ends here.

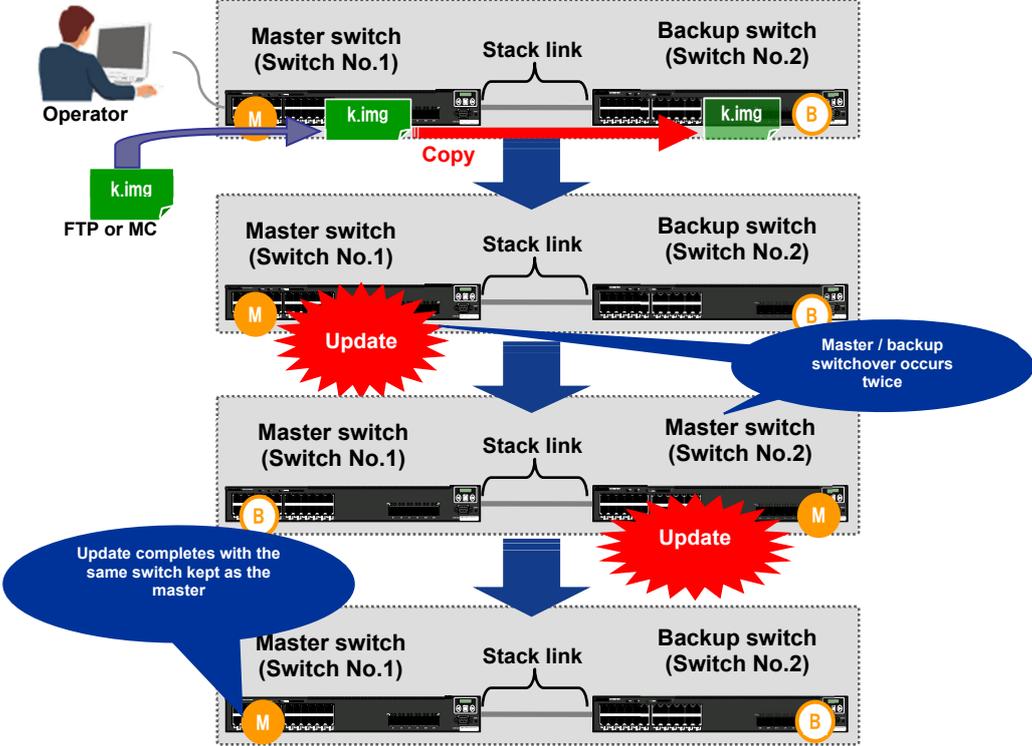
1. Confirm that the software version is updated.

```
# show version
Switch 2 (Master)
-----
Date 2023/08/25 15:31:05 JST
Model: AX2630S-24T4XW
S/W: OS-L2N Ver. 2.4
H/W: Main board
    AX-2630-24T4XW-B [PA026324T4XWS0000LAY007]
Power slot 1 notconnect
Power slot 2 PS-I (AC)

Switch 1 (Backup)
-----
Date 2023/08/25 15:31:05 JST
Model: AX2630S-24T4XW
S/W: OS-L2N Ver. 2.4
H/W: Main board
    AX-2630-24T4XW-B [PA026324T4XWS0000LAY005]
Power slot 1 notconnect
Power slot 2 PS-I (AC)
```

◆ If you do not want to change the location of the master switch

If you do not want to change the location of the master switch even after completing an update, update the master switch first. In this case, switchover between the master and the backup will occur twice. The procedure is shown below.

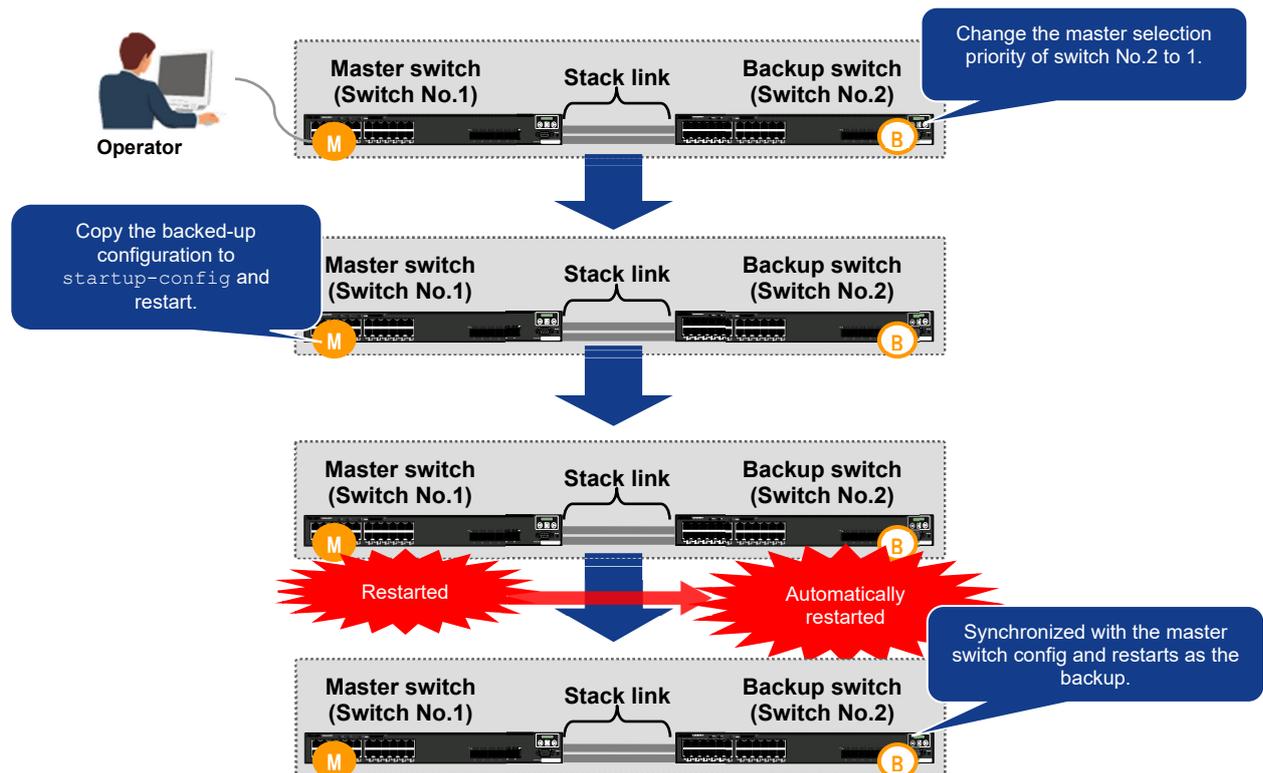


1.6 Restoring a backed-up configuration online

This section describes how to restore a backed-up configuration online. Since this procedure requires the restart of all member switches, a temporary communication interruption occurs. The backed-up configuration must meet the following prerequisites.

◆ Prerequisites

- No stack port has been changed.
- No switch number has been changed.
- No stack member model has been changed.



(1) Change the master selection priority of the backup switch.

Prepare the backup config file in the master switch, and temporarily change the master selection priority of the backup switch to 1 by configuration setting.

1. Prepare the backup config file in the master switch.

2. Change the master selection priority of the backup switch (switch No. 2) to 1 and save the new setting.

```
(config)# switch 2 priority 1
(config)# save
```

(2) Copy the backed-up config to the startup config.

Copy the backed-up config to the startup config file. Apply this operation only to the master switch.

1. Copy the backup config file to the startup config file.

```
# copy backup-config.cnf startup-config
Configuration file copy to startup-config? (y/n) y
```

(3) Restart the master switch.

Use the operation command to restart the master switch. After the master switch restarts, the backup switch with switch No. 2 will start automatically.

1. Restart the master switch. The backup switch will restart automatically.

```
# reload no-dump-image -f
```

(4) Check the stack status and running configuration.

The member switch with switch No. 2 is synchronized with the master switch configuration and restarts as a backup switch. After the two member switches fully restart, check the status of the stack and its running configuration.

1. Check the status of the stack and its running configuration.

```
# show switch

# show running-config
```

2. Stack Maintenance

This chapter describes maintenance work, such as a hardware replacement, which is necessary if a member switch fails or if another problem occurs in a stack configuration.

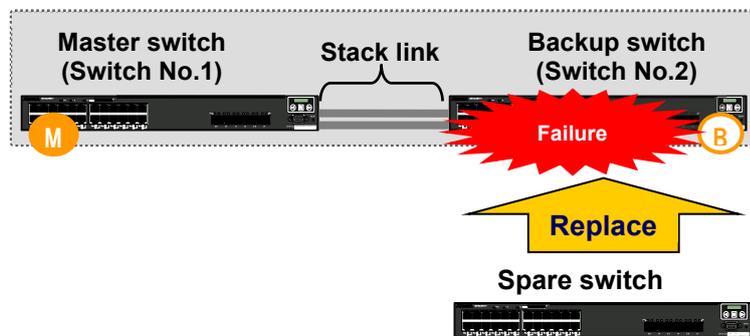
2.1 Backup and restore overview

The AX series has a backup and restore functionality. The backup functionality backs up the settings (including configurations), software, and license information of a running switch. The restore functionality restores the backed-up device information to the switch.

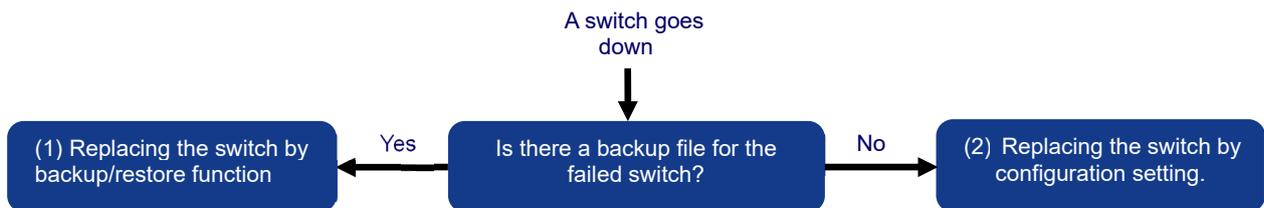
In a stack configuration, the backup and restore functionality makes maintenance work easier by eliminating the necessity of software version matching and configuration settings when you replace a switch due to a hardware fault or other problem.

Therefore, when using a stack, you are recommended to save a backup file beforehand by using the backup functionality.

2.2 Replacing a switch



When you replace a stack member switch due to a hardware fault, follow the procedure below. Select an appropriate replacement method according to the workflow. The following description assumes replacing a backup switch. When you replace a master switch due to a port fault or other problem, stop the master switch, and perform a master-to-backup switchover beforehand.



(1) Replacing the switch by backup/restore function

On each member switch, use the MC for backup/restoration. This method is recommended because it makes maintenance work easier. Command-free maintenance functionality is also available.

For details, see [2.3 Backup and Restore Using MC](#).

(2) Replacing the switch by configuration setting

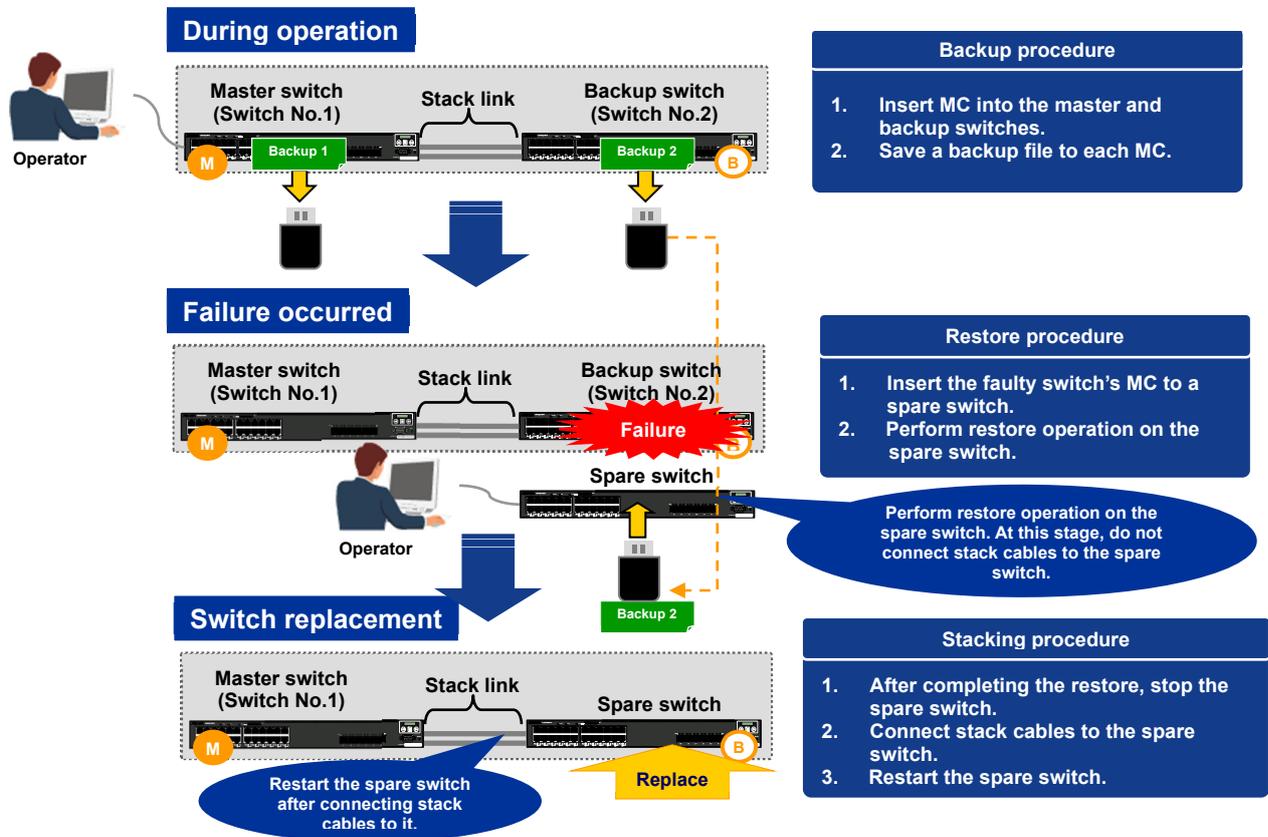
If there is no backup file, it is necessary to match the software version between the spare switch and the other member switches and to configure stack-related settings.

For details, see [2.4 Configuration Settings for Replacement](#).

2.3 Backup and Restore Using MC

2.3.1 Procedure using operation commands

This section describes how to back up and restore switch information using operation commands on an operation management terminal.



◆ Backup procedure

In a stack configuration, when you perform the backup operation using operation commands, do this from the master switch.

(1) Insert MC into the master and backup switches.

Insert MC into the master switch and the backup switch.

(2) Save a backup file to the master switch's MC.

Use the operation command `backup` to save a backup file to the master switch's MC.

1. Log into the master switch and use `backup` to save a backup image file to the master switch's MC.

```
# backup mc sw1_backup.dat
```

2. After the backup completes, confirm that the backup file is in the MC.

```
# ls mc-dir
```

(3) Save a backup file to the backup switch's MC.

Use the operation command `backup` to save a backup file to the backup switch's MC.

1. Log into the master switch and use `backup switch` to save a backup file to the backup switch's MC.

```
# backup switch 2 mc sw2_backup.dat
```

2. After the backup completes, confirm that the backup file is in the MC.

```
# remote command 2 ls mc-dir
```

◆ Restore procedure**(1) Save a backup file of the target switch number to MC.**

Save a backup file of the switch you want to replace to MC.

(2) Insert the above MC to a spare switch and perform restore operation.

When the spare switch is up and running, insert the MC and perform restore operation by using the operation command (see the below example). The command will restore operation information including software and config information, and the switch will restart automatically.

1. Perform restore operation using a backup file of the target switch number by specifying MC in the operation command.

```
# restore mc sw2_backup.dat
Restore information from MC (sw2_backup.dat).
Copy file from MC...
Restore software.
*****
Warning: After restore software, it is rebooted automatically.
*****

Software update start

Broadcast message from operator@ (somewhere) (Tue Aug 29 07:55:50 2023):

*****
** UPDATE IS STARTED.                **
*****

Current version is 2.4
New version is 2.4

100% |*****| 88399 KiB   1.99 MiB/s
00:00 ETA

Update done.

Broadcast message from operator@ (somewhere) (Tue Aug 29 07:56:34 2023):

*****
** UPDATE IS FINISHED SUCCESSFULLY.   **
*****
```

(3) Stop the spare switch, establish stack links, and restart the switch.

After the restart completes, stop the spare switch by powering it off. The purpose of this stop is to prevent switchover between the master switch and the backup switch.

1. After the restart completes, stop the spare switch.

```
# reload stop -f no-dump-image
```

2. Establish stack links and restart the spare switch.

3. Confirm that the member switch No. 2 is running as the backup switch in a two-switch stack configuration.

```
# show switch
```

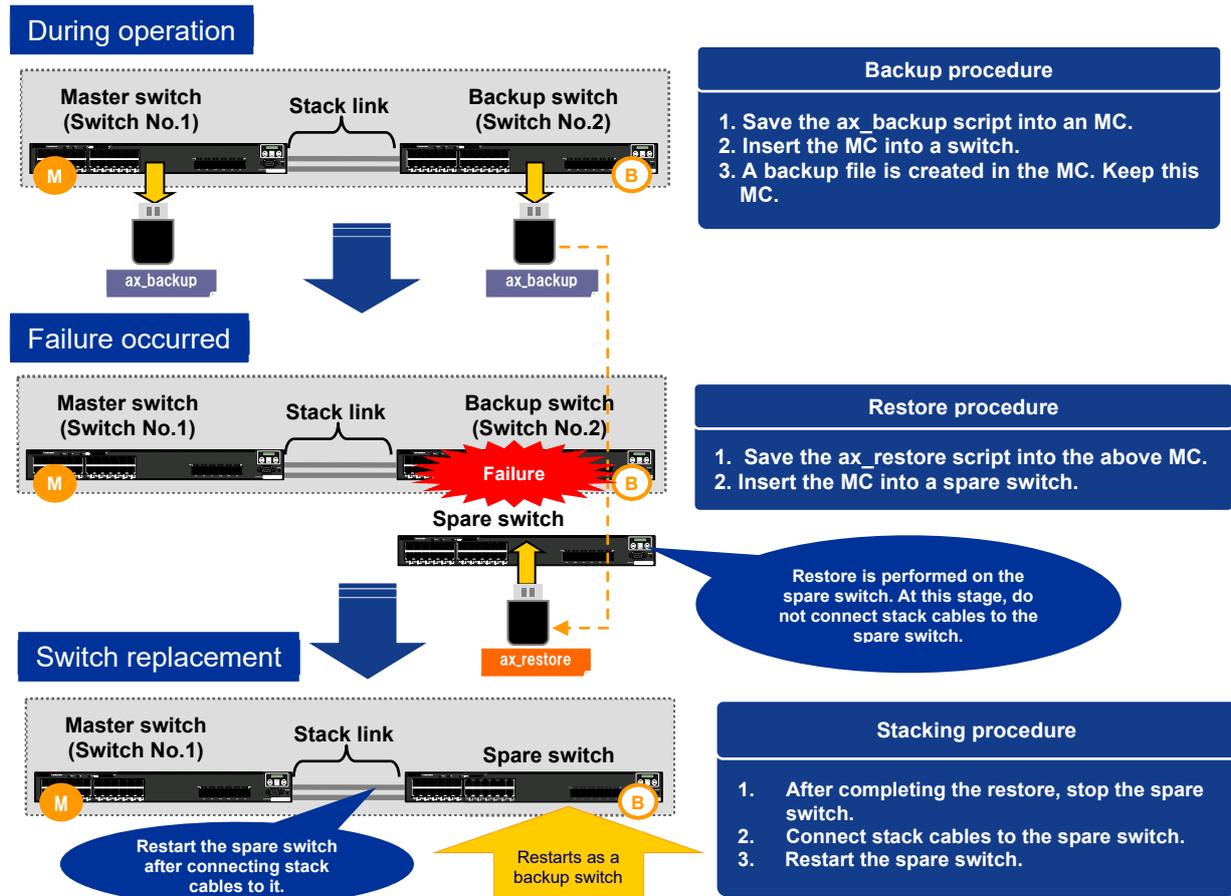
2.3.2 Using command-free maintenance functionality

The command-free maintenance functionality allows you to perform maintenance simply by inserting an MC containing a maintenance script file# into the switch without using an operation terminal.

This command-free functionality can also be used in a stack configuration to back up and restore switch information. This section describes the two procedures for using the command-free maintenance functionality; that is, (1) using both a backup script and a restore script, and (2) using a script that performs backup and restore alternately.

#: For information about how to use script files for the command-free maintenance functionality, contact your distributor.

(1) Using both a backup script and a restore script



◆ Backup procedure

(1) Save a backup script into MC.

Save the backup script ax_backup into the /ax_mente directory of the MC. Do not place any other scripts in the /ax_mente directory.

(2) Insert MC into each member switch and create a backup file in each MC.

Insert MC into each member switch. In a stack, each member switch has its own unique number. Therefore, you need to create a backup file on each member switch. After the ST2 status lamp of the switch's LED turns off, remove the MC from the slot. A backup image file is saved in the / directory of the MC as an MMMM_yyyymmdd_backup_n.dat (in which, MMMM: host name, yyyy: year, mm: month, dd: day, and n: serial number within the MC).

The backup image files created in the member switches all have the same file name. It is

recommended that you attach a tab to each MC so that you can find a backup image file of the target switch more easily.

◆ Restore procedure

(1) Save a restore script into MC.

Save the restore script `ax_restore` into the `/ax_mente` directory of the MC. Do not place any other scripts in the `/ax_mente` directory.

(2) Change the name of a backup image file.

Change the name of the backup image file saved in MC from `MMMM_yyyymmdd_backup_n.dat` to `ax_backup.dat`.

(3) Insert MC into a spare switch and perform restore operation.

When the spare switch is turned on and is up and running, insert the MC and perform restore operation. After the ST2 status lamp of the switch's LED turns off, remove the MC from the slot. The spare switch restarts automatically to complete the restore.

1. Before connecting a cable to the spare switch, insert MC into its slot.
2. After the ST2 lamp of LED turns off, remove the MC from the slot.
3. The spare switch automatically restarts in 30 to 60 seconds to complete the restore.

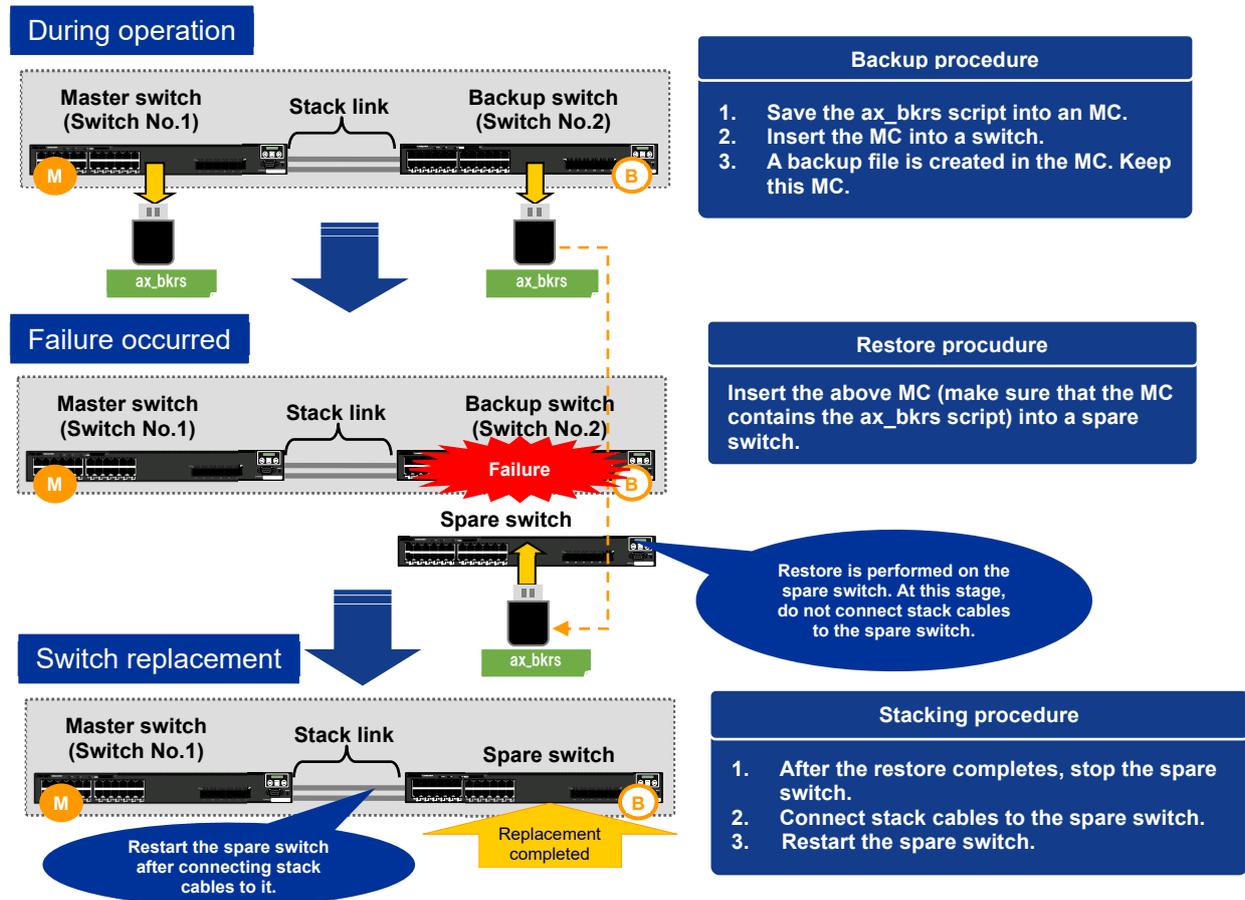
(4) Stop the spare switch, establish stack links, and restart the switch.

After the restart completes, stop the spare switch by powering it off. The purpose of this stop is to prevent switchover between the master switch and the backup switch.

1. After the restart completes, stop the spare switch by powering it off. This prevents switchover between the master and backup switches.
2. Establish stack links between the member and spare switches.
3. Turn the spare switch on to recover the stack configuration.

(2) Using a backup / restore script

The script `ax_bkrs` performs backup and restore. When there is no backup image file, the script performs backup operation. On the other hand, when there is a backup image file, the script performs restore operation.



◆ Backup procedure

(1) Save a backup / restore script into MC.

Save the backup / restore script `ax_bkrs` into the `/ax_mente` directory of the MC. Do not place any other scripts in the `/ax_mente` directory.

(2) Insert MC into each member switch and create a backup file.

Insert MC into each member switch. In a stack, each member switch has its own unique number. Therefore, you need to create a backup file on each member switch.

After the ST2 status lamp of the switch's LED turns off, remove the MC from the slot. A backup image file is saved in the `/` directory of the MC as a `backup.dat`.

The backup image files created in the member switches all have the same file name. It is recommended that you attach a tab to each MC so that you can find a backup image file of the target switch more easily.

◆ Restore procedure

(1) Confirm that a backup image file is saved in MC

Confirm that the backup image file `ax_backup.dat` is saved in the `/` directory of the MC you used for backup procedure.

(2) Insert MC into a spare switch and perform restore operation.

When the spare switch is turned on and is up and running, insert the MC and perform restore operation. After the ST2 status lamp of the switch's LED turns off, remove the MC from the slot. The spare switch restarts automatically to complete the restore.

1. Before connecting a cable to the spare switch, insert MC into its slot.
2. After the ST2 lamp of LED turns off, remove the MC from the slot.
3. The spare switch automatically restarts in 30 to 60 seconds to complete the restore.

(3) Stop the spare switch, establish stack links, and restart the switch.

After the restart completes, stop the spare switch by powering it off. The purpose of this stop is to prevent switchover between the master switch and the backup switch.

1. After the restart completes, stop the spare switch by powering it off. This prevents switchover between the master and backup switches.
2. Establish stack links between the member and spare switches.
3. Turn the spare switch on to recover the stack configuration.

2.4 Configuration Settings for Replacement

If no switch information is backed up with the backup functionality beforehand, you need to manually match the software version and license information of the spare switch with those of the other member switch and configure stack-related settings.

(1) Check the option license and software of switches.

To add a spare switch to a stack configuration, the spare switch must have the same software version and license information as those of the other member switch. Otherwise, you need to manually match them.

(2) Update the software and license information of the spare switch.

Update the software / license information of the spare switch if it differs from that of the running member switch.

1. Update the software of the spare switch to match it with the software version of the other member switch.

```
# ppupdate /usr/var/update/k.img
```

2. Match the license information of the spare switch with that of the other member switch.

```
# set license key-code 0123-4567-89ab-cdef-0123-4567-89ab-cdef
```

(3) Set the spare switch in single-switch stack mode.

For the spare switch, set a switch number, disable Zero Touch Provisioning (#), and set `stack enable`. After that, restart the spare switch so that it will enter the single-switch stack mode.

Zero Touch Provisioning and the stack functionality cannot be used together. Therefore, you need to disable Zero Touch Provisioning in a stack.

1. Use the operation command to set the switch number. In this example, switch number 2 is specified.

```
# set switch 2
```

2. Use the configuration command to disable Zero Touch Provisioning.

```
(config)# no system zero-touch-provisioning
```

3. Use the configuration command to set `stack enable`.
In response to the message confirming the configuration change, enter `y`.

```
(config)# stack enable
After this command execute, please save configuration editing now in startup-
config, and please reboot a device.
Do you wish to continue ? (y/n): y
```

4. Save the configuration and return to administrator mode.

```
(config)# save
(config)# exit
```

5. Restart the spare switch. After restarting, the spare switch runs as switch No. 2.

```
# reload no-dump-image -f
```

(4) Configure the settings needed for a stack.

Specify stack ports and set the master selection priority to prevent master/backup role switchover.

1. Specify the Ethernet stack ports of the spare switch.

```
(config)# interface range tengigabitethernet 2/0/29-30
(config-if-range)# switchport mode stack
(config-if-range)# exit
```

2. Set the master selection priority to 1 to prevent master/backup role switchover.

```
(config)# switch 2 priority 1
```

3. Save the configuration and return to administrator mode.

```
(config)# save
(config)# exit
```

(5) Connect the stack ports to form a two-switch stack.

Connect the stack ports of the spare switch and those of the running member switch to form a two-switch stack.

1. Connect the stack ports of the spare switch and those of the running member switch.

2. As the spare switch is set to the master selection priority 1, it automatically restarts as a backup switch. After that, the spare switch will automatically reboot itself to sync with the configuration of the master switch.

3. Make sure that the switches are running in a two-stack configuration.

```
# show switch detail
```

2.5 Collecting information on faults

This section describes how to collect information on faults in a stack configuration.

◆ Collecting dump information on faults

(1) Check whether there are dump files.

If there are dump files of the member switches, collect them from the specified directories of the master and backup switches.

```

1. Check whether there are dump files.

# show dumpfile
Switch 1 (Master)
-----
Date 2023/08/23 10:56:57 JST
[/dump0]:
  File Name      rmdump
  Date           2023/02/14 06:10:31
  Version        2.3.A
  Serial No      PA026324T4XWS0000LAY001
  Factor         User operation

  [/usr/var/hardware]:
  No dump file.

Switch 2 (Backup)
-----
Date 2023/08/23 10:56:56 JST
[/dump]:
  File Name      osdump
  Date           2023/02/16 20:25:22
  Version        2.3.A
  Serial No      PA026324T4XWS0000LAY005
  Factor         User operation

  File Name      rmdump
  Date           2023/02/16 20:24:54
  Version        2.3.A
  Serial No      PA026324T4XWS0000LAY005
  Factor         User operation

[/usr/var/hardware]:
No dump file.

```

(2) Copy dump files to the master switch.

If there are dump files in the backup switch, copy them to the master switch. Change the names of the copied dump files by adding the master switch's switch number to each of them.

1. Copy the dump file of the master switch (switch No.1) and rename the file.

```
# cp /dump0/rmdump sw1_rmdump
```

2. Copy the dump file of the backup switch (switch No.2) to the master switch and rename the file.

```
# cp switch 2 /dump0/rmdump sw2_rmdump
```

(3) Copy the collected dump files to MC or transfer them to your FTP server

Copy the collected dump files to MC or transfer them to your FTP server.

◆ Collecting `show tech-support` information

(1) Execute the `show tech-support` command for each member switch.

Collect `show tech-support` information of the master and backup switches by using the remote command specified with `all` (collected by batch processing).

1. Redirect `show tech-support` information of all member switches by remote command with `all`.

```
# remote command all show tech-support > stack_show-tech.txt
```

Note: The `show tech-support` information is saved under the current directory of the master switch.

(2) Copy the collected information to MC or transfer it to your FTP server.

Copy the collected `show tech-support` information to MC or transfer it to your FTP server.

2.6 Reverting to Standalone Mode

This section describes how to revert a stack member switch to standalone mode. Follow the procedure below if you want to convert a stack member switch into a standalone switch.

(1) Remove cables from the target member switch.

To prevent a loop, remove all cables (including stack cables) from the target member switch.

(2) Delete the startup configuration and restart.

Delete the startup configuration by operation command and then restart the target switch (the switch will start up in standalone mode).

1. Use the `erase startup-config` command to delete the startup configuration.

```
# erase startup-config
Do you wish to erase startup-config? (y/n): y
```

2. Restart the target switch.

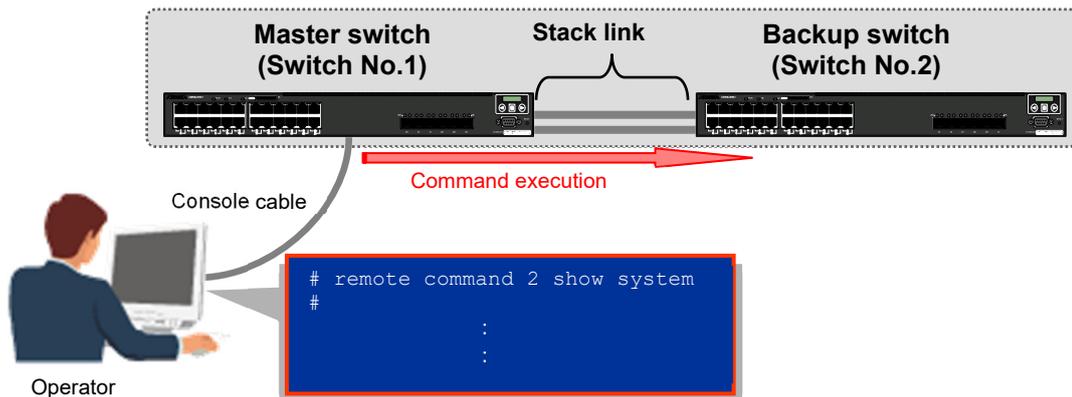
```
# reload no-dump-image -f
```

3. Remote Command

3.1 What's remote command?

The remote command is unique to a stack. In a stack, the remote command is used to execute operations from the master switch to the specified member switch.

For example, you can perform file operation by using a file operation command (e.g., `ls`, `dir`, `mv`, `rm`) with the remote command. See section 3.3 for a list of commands that can be used with the remote command.



3.2 How to use the remote command

An example of using the remote command is shown below. Following the remote command, specify (1) a specific member switch or (2) all member switches, and then enter a relevant command from a list of commands shown in section 3.3 after. Note that the remote command can be executed only from the master switch.

1. Specify `switch no.` or `all`. Then, enter a relevant command (available command types: show command, operation command, maintenance command, file operation command).

```
# remote command [<switch no.> | all] <command>
```

2. Example of obtaining the system information of Switch 2

```
# remote command 2 show system
Switch 2 (Backup)
-----
Date 2023/08/23 11:08:28 JST
System: AX2630S-24T4XW, OS-L2N Ver.2.3.A
Node : Name=AX26STK
      Contact=
      Locate=
      Elapsed time : 39days 20:48:05
      Chassis MAC address : 0012.e203.ab20
      MC Configuration mode : disabled
      Zero-touch-provisioning status : disabled(no configuration)
      Power redundancy-mode(redundancy-check) : disabled
      Power redundancy-mode(combined) : disabled
      PS1 : notconnect
      PS2 : active
      :
```

3.3 Commands supporting the remote command

Below is a list of commands that can be used with the remote command (`remote command`).

Command type	Command name
show command	show system
	show version
	show license
	show interfaces
	show port
	show switch
	show environment
	Show channel-group statistics
	show access-filter
	show qos-flow
	show qos queueing
	show cpu
	show processes
	show sessions (who)
	show power
	show mc
	show flash
	show memory
	show dumpfile
show netstat	
show logging	
show logging console	
Operation command	ppupdate
	activate
	inactivate
	format mc
	set license
	set exec-timeout
	set terminal help
	set terminal pager
	set logging console
	clear logging
	clear counters
	clear access-filter
	clear qos-flow
	clear qos queueing
	clear control-counter
	erase license
	erase dumpfile
	restart link-aggregation
	restart vlan
	restart spanning-tree
	restart ntp
	restart gsrp
	restart efmoam
restart loop-detection	
killuser	
Maintenance command	show tech-support
	backup
	restore
	dump stack
	dump protocols link-aggregation
dump protocols vlan	

	dump protocols spanning-tree
	dump protocols gsrp
	dump protocols efmoam
	dump protocols loop-detection
	hexdump
File operation command	ls
	dir
	cat
	cp
	mkdir
	mv
	rm
	rmdir
	delete
	undelete
	squeeze
	diff
	grep
	tail
	df
du	



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