

# 1 Tech-Support Commands

Command	Function
<a href="#">debug support</a>	Enter the debug support mode.
<a href="#">execute diagnose-cmd</a>	Run the diagnose command.
<a href="#">tech-support package</a>	Collect the detailed fault information of the device.
<a href="#">@@@f</a>	Collect the detailed fault information of the device by using the hotkey.

## 1.1 debug support

### Function

Run the **debug support** command to enter the debug support mode.

### Syntax

```
debug support
```

### Parameter Description

N/A

### Command Modes

Privileged EXEC mode

### Default Level

15

### Usage Guidelines

This command is used to enter the debug support mode. You can run the Tech-Support commands only in debug support mode.

### Examples

The following example enters the debug support mode.

```
Hostname> enable
Hostname# debug support
%Warning: Enter debug support mode, all commands in this mode are used to
diagnose system hardware and software.
          Misuse of these commands will affect system performance. Therefore, use
these commands under the guidance of Orion Networks engineers.
Hostname (support) #
```

### Notifications

N/A

### Common Errors

N/A

### Platform Description

N/A

### Related Commands

N/A

## 1.2 execute diagnose-cmd

### Function

Run the **execute diagnose-cmd** command to run the diagnose command.

### Syntax

```
execute diagnose-cmd { [ device device-id ] [ slot all | slot slot-id ] } [ chip chip-id ] shell-command | help }
```

### Parameter Description

**device** *device-id*: Indicates the ID of a device.

**slot all**: Indicates that the diagnose command is executed on all cards.

**slot** *slot-id*: Indicates that the diagnose command is executed on the specified board. **m**\* indicates the management engine, **fe**\* indicates the switch fabric module, and 1~\* indicates the service interface board. \* indicates a positive integer number.

**chip** *chip-id*: ID of a chip. The value range is from 0 to 7.

*shell-command*: String of the shell command to be executed. For details about the command string, see [Table 1-1](#).

**help**: Displays a list of executable *shell commands*.

### Command Modes

Debug support mode

### Default Level

15

### Usage Guidelines

Table 1-1 Description of shell Command Strings

Command	Description
<b>at</b>	<b>at</b> diagnose command. Whether the <b>at</b> diagnose command is supported depends on the actual product.
<b>copy</b>	Copies files.
<b>delete</b>	Deletes files.
<b>df</b>	Displays the disk space usage.
<b>dir</b>	Displays the file list of the directory.
<b>dmesg</b>	Displays the core logs.
<b>du</b>	Displays the space usage of the file system.
<b>echo</b>	Saves data to a target file.
<b>fdisk</b>	Displays the partitioning information of a device.

Command	Description
<b>hexdump</b>	Displays the file information in hexadecimal format.
<b>kill</b>	Sends a signal to a specified process.
<b>md5sum</b>	Calculates and checks the MD5 message digest.
<b>mkdir</b>	Creates a directory.
<b>more</b>	Displays the file information.
<b>mount</b>	Displays the mounted file system.
<b>process</b>	Stops, starts, or restarts a process or a kernel module with the startup script.
<b>ps</b>	Displays information of the current process.
<b>redis-cli</b>	Database diagnose command
<b>rmdir</b>	Deletes an empty directory.
<b>sdk</b>	<p>sdk diagnose command</p> <ul style="list-style-type: none"> <li>● If the chip field is entered, only the sdk command can be executed.</li> <li>● If the chip field is not entered, the sdk command is executed and the chip value is 0 by default.</li> </ul>
<b>sh</b>	Runs the module diagnose shell command.
<b>stat</b>	Displays the file or file system status.
<b>sync</b>	Updates the file system cache.
<b>tftp-tipc</b>	Transfers files through TFTP TIPC between different devices or cards.
<b>tipc-config</b>	Displays the TIPC neighbor node information.
<b>top</b>	Displays the process information.
<b>touch</b>	Creates an empty file or changes the timestamp of a file.
<b>zlog</b>	Displays the zlog file information. For details about the zlog command format, see <a href="#">Table 1-2</a> .

**Table 1-2zlog Command Format**

Command	Description
<code>module-name process-name { <b>debug</b>   <b>error</b>   <b>fatal</b>   <b>info</b>   <b>notice</b>   <b>warn</b> }</code>	<p>Displays different levels of log files of a process on a module. Parameter description:</p> <ul style="list-style-type: none"> <li>● <i>module-name</i>: Name of a module</li> <li>● <i>process-name</i>: Name of a process</li> <li>● <b>debug</b>: Debug level</li> <li>● <b>error</b>: Error level</li> <li>● <b>fatal</b>: Fatal level</li> <li>● <b>info</b>: Information level</li> <li>● <b>notice</b>: Notification level</li> <li>● <b>warn</b>: Warning level</li> </ul>

**Examples**

The following example displays the device configuration file.

```
Hostname> enable
Hostname# debug support
Hostname(support)#execute diagnose-cmd more /data/config.text
```

**Notifications**

When the diagnosed slot ID is not configured, the following notification will be displayed:

```
% Execute command fail, because tipc connect fail!
```

When the diagnosed chip is not configured, the following notification will be displayed:

```
RG_AT command execute begin.
Chip id is invalid in this device, Please check the chip id!
RG_AT command execute end.
```

When the diagnosed device is not configured, the following notification will be displayed:

```
% Execute command fail, because tipc connect fail!
```

**Common Errors**

N/A

**Platform Description**

N/A

**Related Commands**

- [debug support](#)

## 1.3 tech-support package

### Function

Run the **tech-support package** command to collect the detailed fault information of the device.

### Syntax

```
tech-support package [ component-name | basic ]
```

### Parameter Description

*component-name*: Specified component whose fault information is to be collected.

**basic**: Collects the basic fault information of the device.

### Command Modes

Debug support mode

### Default Level

14

### Usage Guidelines

- This command is used to collect the detailed real-time fault information of each service component and dump file registered with the TECH-SUPPORT framework, and save them in a fault information compressed package. The compressed package name indicates the VSD for which the fault information is collected.
- The fault information compressed package is stored in the descending order of USB flash drive, **Flash:/**, and **Tmp:/**. Before running this command, you are advised to insert the USB flash drive to avoid information loss. You can use the TFTP function to transfer the compressed packages of the final fault information to a PC.
- To prevent excessive consumption of space on the storage media after the fault information is collected for multiple times, a maximum of three compressed packages of fault information can be stored on the same storage medium.
- The compressed packages of fault information are stored as follows:
  - USB flash drive

If a USB flash drive is inserted into the device, the compressed packages are stored in the root directory of the USB flash drive. You can run the **dir usb0:** command to view these compressed packages.
  - Flash directory

If no USB flash drive is inserted into the device, the compressed packages are preferentially stored in the Flash directory. You can run the **dir flash:** command to view these compressed packages.
  - **Tmp** directory (memory)

If no USB flash drive is inserted into the device and the Flash has insufficient space, the compressed packages are stored in the **Tmp** directory. You can run the **dir tmp:** command to view these compressed packages.

## Examples

The following example collects the detailed fault information of the device.

```
Hostname> enable
Hostname# debug support
Hostname(support)# tech-support package
```

## Notifications

- When the fault information of VSD 0 is successfully collected and packaged, the following notifications will be displayed, depending on the type of the storage medium:

If the fault information compressed package is stored on the USB flash drive of VSD 0, run the **dir usb0:** command to view the package.

```
Tech-support package success, the package file is
/mnt/usb0/tech_vsd0_20140825164828.tar.gz.
```

If the fault information compressed package is stored in the Flash directory on VSD 0, run the **dir flash:** command to view the package.

```
Tech-support package success, the package file is
/data/tech_vsd0_20140825164828.tar.gz.
```

If the fault information compressed package is stored in the **Tmp** directory on VSD 0, run the **dir tmp:** command to view the package.

```
Tech-support package success, the package file is
/tmp/tech_vsd0_20140825164828.tar.gz.
```

- When the fault information of VSD 1 is successfully collected and packaged, the following notifications will be displayed, depending on the type of the storage medium:

If the fault information compressed package is stored on the USB flash drive of VSD 1, run the **dir usb0:** command to view the package.

```
Tech-support package success, the package file is
/mnt/usb0/tech_vsd1_20140825164829.tar.gz.
```

If the fault information compressed package is stored in the Flash directory on VSD 1, run the **dir flash:** command to view the package.

```
Tech-support package success, the package file
is/data/var/run/vsd/1/tech_vsd1_20140825175652.tar.gz.
```

If the fault information compressed package is stored in the **Tmp** directory on VSD 1, run the **dir tmp:** command to view the package.

```
Tech-support package success, the package file is
/tmp/vsd/1/tech_vsd1_20140825164828.tar.gz.
```

- When the fault information is successfully collected but fails to be packaged, the following notification will be displayed:

```
Tech-support package failed, the dump file is in dir: /data/tech_vsd0.
```

## Common Errors

If the storage medium has insufficient space, information fails to be collected in the Tech-Support operation.

## Platform Description

N/A

## Related Commands

- [debug support](#)

## 1.4 @@@@f

### Function

Run the @@@@f command to collect the detailed fault information of the device by using the hotkey.

### Syntax

@@@@f

### Parameter Description

N/A

### Command Modes

All modes except the user EXEC mode

### Default Level

N/A

### Usage Guidelines

This command is used to collect the detailed fault information of the device by using the hotkey. The @@@@f hotkey operation is often performed when the console crashes. The fault information is packaged in a way similar to the **tech-support package** command. The fault information is stored in the descending order of USB flash drive, **Flash:/**, and **Tmp:/**. Before running this command, you are advised to insert the USB flash drive to avoid information loss.

This command takes effect only when the device is connected to the console port, and is invalid for remote connections, for example, Telnet or SSH connection.

### Examples

The following example collects the detailed fault information of a management board by using the hotkey.

You only need to press "@@@@f" on the console to trigger the information collection.

### Notifications

When the fault information is successfully collected but fails to be packaged, the following notification will be displayed:

```
Tech-support package failed, the dump file is in directory: /data/tech_vsd0.
```

### Common Errors

If the storage medium has insufficient space, information fails to be collected in the Tech-Support operation.



**Platform Description**

N/A

**Related Commands**

N/A