



**eSpace IAD**  
**V300R001C04**  
**Processing IAD Alarms**

**Issue**        **03**  
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## About This Document

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The alarm information is a part of the device running history record. Through the alarm records, you can analyze the possible faults in the running process.

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# 1 Processing Alarms

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## About This Chapter

The alarm information is a part of the device running history record. Through the alarm records, you can analyze the possible faults in the running process.

### 1.1 Description of Alarm Attributes

This section describes the ID, level, type, and classification of alarms.

### 1.2 Solutions to General Alarms

When an IAD fault occurs, an alarm message is displayed in the command line.

### 1.3 Alarm Management Commands

The alarm management commands include the commands for querying history alarms and alarm records, setting the alarm output switch, and setting Real-time Transport Control Protocol (RTCP) alarm threshold.

## 1.1 Description of Alarm Attributes

This section describes the ID, level, type, and classification of alarms.

Alarm attributes include the following types:

- ID  
Each type of alarm is a unique alarm ID composed of four bytes, such as, 0x\*\*\*\*\*. When using the alarm ID parameters, you can enter the alarm ID in the form of 0x\*\*\*\*\*, or you can enter the alarm ID in decimal form. The value range of the alarm ID is from 38 to 1507589.
- Level  
The alarms are classified into the following four levels according to the critical level in descending order:
  - Critical: indicates global alarms that seriously affect the running of the devices. For example, the fault of the electric circuit. You need to rectify critical faults immediately.

- Major: indicates board or physical circuit alarms that occur partially. For example, the fault of the physical circuit. If you do not rectify major faults timely, the service cannot run normally.
  - Minor: indicates general fault or event alarms that describes the working status of each board or physical circuit. For example, an error code related to the physical circuit is displayed.
  - Warning: indicates changes and events that do not affect the system performance and services but subscribers need to know. For example, the prompt indicating that a device is recovered.
- type  
The alarms are classified into event, fault and recovery alarm.
  - Classification  
The alarms are classified into communication, equipment, service quality, environment, operational and physical alarm.

Use the interface recovery alarm as an example. The following information is displayed in the command line:

```
TERMINAL(config)#display alarm history alarmid 0x0b020001
Command:
    display alarm history alarmid 0x0b020001

    ALARM 184 RECOVERY MAJOR 0x0b020001 COMMUNICATION 2005-01-02 00:04:01
/*RECOVERY indicates that the alarm type is Restore, the alarm level is MAJOR, and the
alarm class is COMMUNICATION*/
ALARM NAME   : SIP user interface restored /*Alarm Name*/
PARAMETERS  : user-index: 2 restored connection with server
DESCRIPTION  : SIP user interface restored
CAUSE       : SIP user restored connection with server
ADVICE      : nothing to do /*Alarm Clearing Suggestion*/
--- END
```

## 1.2 Solutions to General Alarms

When an IAD fault occurs, an alarm message is displayed in the command line.



When rebooting IAD, do not turn off the power or the previously stored alarm records will be lost.

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For common alarms, [Table 1-1](#) provides the solutions.

**Table 1-1** Detailed Alarm Description

Alarm Name	Alarm Level	Alarm Cause	Alarm Clearing Suggestion
Network Quality Bad	Major	Bandwidth Reduced	<ol style="list-style-type: none"> <li>1. Check whether the network port is connected properly, that is, whether the indicator is green. If the connection is faulty, check whether the network cable is correctly connected to the port. If the network port is connected properly, go to Step 2. If the device port is faulty, go to Step 3.</li> <li>2. Check whether packets are discarded and delay jitter occurs on the network by pinging the gateway and server. If the network is normal, go to Step 4. If the network is faulty, check the network environment.</li> <li>3. Repair the device port or replace the device. Step 4 Contact after-sales service engineers.</li> </ol>
CPU occupy exceeds the threshold	Major	System Resources Overload	<ol style="list-style-type: none"> <li>1. Check whether the system is running at full capacity. If yes, go to Step 2. If no, go to Step 3.</li> <li>2. Reduce the system load, for example, limit the number of online users.</li> <li>3. Contact after-sales service engineers.</li> </ol>
SIP user fault in registration	Major	Communications Receive Failure	<ol style="list-style-type: none"> <li>1. Ping the SoftSwitch server to check whether the network is normal. 1. If yes, go to Step 2. If no, correctly build the network environment.</li> <li>2. Check whether the SoftSwitch server is correctly configured, for example, whether the SIP user is deleted. If yes, go to step 3. If no, correctly configure the SoftSwitch server.</li> <li>3. Check whether the SoftSwitch server is running normally. If yes, go to Step 4. If no, locate the fault and contact the SoftSwitch server provider to rectify the fault.</li> <li>4. Contact after-sales service engineers.</li> </ol>
MGCP user fault in registration	Major	Communications Receive Failure	<ol style="list-style-type: none"> <li>1. Ping the SoftSwitch server to check whether the network is normal. 1. If yes, go to Step 2. If no, correctly build the network environment.</li> <li>2. Check whether the SoftSwitch server is correctly configured, for example, whether the MG configuration is correct. If yes, go to Step 3. If no, correctly configure the SoftSwitch server.</li> <li>3. Log in to the device and run the display mgcp attribute command to check whether the MGCP configuration of the device is correct. If yes, go to Step 4. If no, correctly configure the device according to related documents.</li> <li>4. Check whether the SoftSwitch server is running properly. If yes, go to Step 5. If no, locate the fault and contact the SoftSwitch server provider to rectify the fault.</li> </ol>

Alarm Name	Alarm Level	Alarm Cause	Alarm Clearing Suggestion
			5. Contact after-sales service engineers.
SIP user interface failed	Major	Communications Receive Failure	<ol style="list-style-type: none"> <li>1. Check the user registration status. If registration fails, go to Step 2.</li> <li>2. Check whether the device configuration such as the user ID, user name, and password is correct. If yes, go to Step 3. If no, correctly configure the device according to related documents.</li> <li>3. Check whether the SoftSwitch server configuration is correct, whether the user is deleted, and whether the number exists. If yes, correctly configure the SoftSwitch server. If no, go to step 4.</li> <li>4. Check whether the device user port is normal. If the device user port is faulty, repair it. Otherwise, go to Step 5.</li> <li>5. Contact after-sales service engineers.</li> </ol>
MGCP user interface failed	Major	Communications Receive Failure	<ol style="list-style-type: none"> <li>1. Check the device registration status. If the device registration status is faulty, go to Step 2.</li> <li>2. Log in to the device and run the display mgcp attribute command to check whether the configuration is correct. If yes, go to step 3. If no, correctly configure the device.</li> <li>3. Check whether the SoftSwitch server is correctly configured. If yes, go to Step 4. If no, correctly configure the SoftSwitch server.</li> <li>4. Check whether the device user port is normal. If yes, go to Step 5. If no, repair it.</li> <li>5. Contact after-sales service engineers.</li> </ol>
Temperature too high	Major	High Temperature	<ol style="list-style-type: none"> <li>1. Check whether the ambient temperature is normal, for example, the temperature of the air conditioner and its running status. If yes, go to Step 2. If no, adjust the environment temperature.</li> <li>2. Check whether objects affecting heat dissipation are stacked near the equipment. If yes, remove the objects. If no, go to Step 3.</li> <li>3. Check the running status of the fan. If the fan is not running properly, repair or replace the fan. Otherwise, go to Step 4.</li> <li>4. Contact after-sales service engineers.</li> </ol>
Port locked indication	Warning	Unavailable	<ol style="list-style-type: none"> <li>1. Check whether the user has hung up. If the phone is hook-off, hang up the phone. Otherwise, go to Step 2.</li> <li>2. Check whether the distribution wire on the distribution frame is short-circuited. If yes, correctly connect the distribution wire. Otherwise, go to step 3.</li> <li>3. Contact after-sales service engineers.</li> </ol>
Call resource	Major	System Resource	<ol style="list-style-type: none"> <li>1. Check whether the number of concurrent calls exceeds the upper limit. If yes, go to Step 3. If no, go</li> </ol>

Alarm Name	Alarm Level	Alarm Cause	Alarm Clearing Suggestion
exhaust	r	es Overload	<ol style="list-style-type: none"> <li>to Step 2.</li> <li>Check whether the system is running properly, for example, whether the CPU usage is too high. If the system is running properly, go to Step 4. If the system is not running properly, rectify the fault.</li> <li>Initiate a call again. If the fault persists, go to Step 4.</li> <li>Restart the device. If the fault persists, go to Step 5.</li> <li>Contact after-sales service engineers.</li> </ol>
Hardware fault	Major	Line Card Problem	<ol style="list-style-type: none"> <li>Check whether the port is connected normally, that is, whether the indicator is green. If the indicator is faulty, go to Step 2. If the indicator is normal, go to Step 4.</li> <li>Remove and reinstall the device port. If the fault persists, go to Step 3.</li> <li>Replace the board. Step 4 Contact after-sales service engineers.</li> </ol>
The Fan Fault (only for IAD132E(T) and IAD1224)	Major	Cooling Fan Failure	<ol style="list-style-type: none"> <li>Repair or replace the fan.</li> <li>Contact after-sales service engineers.</li> </ol>
Voltage abnormal	Major	Rectifier High Voltage	<ol style="list-style-type: none"> <li>Check whether the voltage is stable. If yes, go to Step 2. If no, solve the problem.</li> <li>Check whether the device power is normal. If yes, go to Step 4. If no, go to Step 3.</li> <li>Replace the power supply.</li> <li>Contact after-sales service engineers.</li> </ol>
ASI board -70V power fault (IAD132E(T))	Major	Power Supply Failure	<ol style="list-style-type: none"> <li>Replace the power board. If the power board is normal, go to Step 2.</li> <li>Contact after-sales service engineers.</li> </ol>
ASI board -48V power fault (only for IAD132E(T) and IAD1224)	Major	Power Supply Failure	<ol style="list-style-type: none"> <li>Replace the power board. If the power board is normal, go to Step 2.</li> <li>Contact after-sales service engineers.</li> </ol>

## 1.3 Alarm Management Commands

The alarm management commands include the commands for querying history alarms and alarm records, setting the alarm output switch, and setting Real-time Transport Control Protocol (RTCP) alarm threshold.

The alarm management commands are shown as in [Table 1-2](#).

**Table 1-2** Alarm Management Commands

Operation	Command
Query the historical alarm information based on the alarm category, ID, level, or type	<b>display alarm history</b>
Query the alarm historical based on the generation time of the alarm	<b>display alarm history alarmtime</b>
Query the historical alarm names based on the alarm category, ID, level, or type	<b>display alarm list</b>
Query the historical alarm information based on the alarm serial number	<b>display alarm history alarmsn</b>
Enabling the alarm output switch	<b>alarm output all</b>
Disabling the alarm output switch	<b>undo alarm output all</b>
Setting the RTCP alarm threshold	<b>rtcp</b>
Viewing the RTCP alarm threshold	<b>display rtcp</b>