

DHCPv4, DHCPv4 Option82 Parsing Failure Cross Threshold

Operating Instructions



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1 Introduction

This instruction concerns alarm handling.

1.1 Alarm Description

The alarm is issued when the counter *ipworksDhcpv4ParsingOption82Fail* exceeds the threshold (defined by attribute *thresholdHigh*) in a given time interval (defined by attribute *granularityPeriod*)

The possible alarm causes and the corresponding fault reasons, fault locations, and impacts are described in Page 1.

Table 1 Alarm Causes

Alarm Cause	Description	Fault Reason	Fault Location	Impact	Solution
DHCP server requests unknown Option82.	The number of unknown DHCP Option82 requests exceeds the predefined threshold.	DHCP Option82 cannot be parsed by predefined format rules.	DHCP client	CLF update is failed.	See Section 2.1 Checking the unknown "Option82" in DHCP logging files on page 5
Configuration error.		DHCP Option82 is not configured.	DHCPv4 server		See Section 2.2 Checking CLF-NAC F Interface Configuration on page 5

Note: An alarm can appear as a result of the maintenance activity.

The alarm attributes are listed and explained in Page 1.

Table 2 Alarm Attributes

Attribute Name	Attribute Value
Major Type	193
Minor Type	872454



Attribute Name	Attribute Value
Managed Object Class	IpworksDhcpv4
Source	ManagedElement=<Node Name>,SystemFunctions=1,Pm=1,PmJob=<PM Job name, default job is DHCPv4DefaultPmThresholdJob>,MeasurementReader=<Default is ParsingOption82FailMr>:<hostname>
Specific Problem	DHCPv4, DHCPv4 Option82 Parsing Failure Cross Threshold
Event Type	qualityOfServiceAlarm(11)
Probable Cause	x733ThresholdCrossed(351)
Additional Text	The alarm is raised when the fail number of option82 parsing during the specified interval exceeds the predefined threshold.;uuid:<Product_UUID> ⁽¹⁾
Perceived Severity	Warning

(1) <Product_UUID> is the universally unique identifier (UUID) of machine that generates the alarm. The value can be fetched from `/sys/devices/virtual/dmi/id/product_uuid` on the PL node.

1.2 Prerequisites

This section provides information on the documents, tools, and conditions that apply to the procedure.

1.2.1 Documents

Before starting this procedure, ensure that you have read the following documents:

- *System Safety Information*
- *Personal Health and Safety Information*
- *Fault Management*

1.2.2 Tools

No tools are required.



1.2.3

Conditions

No conditions.





2 Procedure

This section describes the procedure to clear this alarm.

2.1 Checking the unknown "Option82" in DHCP logging files

Do the following:

1. Using the following command to get the information of unknown DHCP Option82.

```
# cd /cluster/storage/no-backup/ipworks/logs/<PL  
hostname>  
  
# grep -r -v "DHCP Option 82" ipworks_dhcpv4.log* |  
grep -E "not be parsed| not configured"
```

Note: Logging level should be set to LOG_LEVEL_ERROR or higher before checking this alarm. Refer to *IpworksLogLevel* for DHCP.

2. If these unknown "Option82" should be parsed, configure them according to Section 2.2 Checking CLF-NACF Interface Configuration on page 5. Otherwise limit the request from these DHCP clients.
3. This alarm is automatically cleared when the number of incorrect DHCP Option82 requests falls below the predefined threshold in the given time interval (defined by the related MO *PmJob*, the default value is 60s).
4. Confirm that the alarm has ceased. If the alarm remains, consult the next level of maintenance support. Further actions are outside the scope of this instruction.

2.2 Checking CLF-NACF Interface Configuration

Do the following:

1. Configure the option82 format for DHCPv4 server.

For more information about how to define a option82 format, refer to *Configure DHCP*.

2. This alarm is automatically cleared when the number of unknown DHCP Option82 request falls below the predefined threshold in the given time interval (defined by the related MO *PmJob*, the default value is 60s).



3. Confirm that the alarm has ceased. If the alarm remains, consult the next level of maintenance support. Further actions are outside the scope of this instruction.