

DHCPv4, Exhausted Lease Pool

Operating Instructions



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1 Introduction

This instruction concerns alarm handling.

1.1 Alarm Description

This alarm is issued when no suitable lease is found in the lease pool of DHCPv4 server or vendor ID is not allowed.

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
No lease in the lease pool of DHCPv4 server.	There is no more lease in the lease pool for DHCP client.	Lease exhausted.	DHCPv4 server	Certain DHCP client cannot get IP address.	See Section 2.1 Adding More Leases on page 3
Vendor ID is not allowed.	The vendor ID in DHCP request is not allowed or configured for the lease pool.	Configuration error.	DHCPv4 server		See Section 2.2 Changing Lease Pool Configuration on page 4

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	872455
Managed Object Class	IpworksDhcpv4



Attribute Name	Attribute Value
Source	ManagedElement=<Node Name>,SystemFunctions=1,Fm=1,FmAlarmModel=ipworksDHCPv4,FmAlarmType=ipworksDhcpv4ExhaustedLeasePool,HostName=<PL hostname>
Specific Problem	DHCPv4, Exhausted Lease Pool
Event Type	processingErrorAlarm(10)
Probable Cause	x733UnderlyingResourceUnavailable(356)
Additional Text	This alarm is raised when no suitable lease is found in DHCPv4 Server's Lease Pool or Vendor Id is not allowed, check it.;uuid:<Product_UUID> ⁽¹⁾
Perceived Severity	Critical

(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 Adding More Leases

Do the following:

1. Add more leases for DHCPv4 server. For example:

```
# ipwcli

#IPWorks> modify pool pool0 -set addressrange=10.170.15
.101-140
```

2. Update DHCPv4 server.

```
# IPWorks> update dhcpv4server
```

3. Restart DHCPv4 server. For example:

```
# ipw-ctr restart dhcp <PL hostname>
```

4. Clear the alarm manually. For example:

- a. Check “specificProblem” in alarm list, and get the alarm id:

```
# ipw-alarm --cmd list

FmAlarm=167
activeSeverity=CRITICAL <read-only>
additionalText="This alarm is raised when no suitable l
eventType=PROCESSINGERRORALARM <read-only>
fmAlarmId="167"
lastEventTime="2017-12-11T10:08:57.280+01:00" <read-onl
majorType=193 <read-only>
minorType=872455 <read-only>
originalAdditionalText="This alarm is raised when no su
originalEventTime="2017-12-11T10:08:57.280+01:00" <read
originalSeverity=CRITICAL <read-only>
probableCause=356 <read-only>
sequenceNumber=343 <read-only>
source="ManagedElement=ipworks_cba,SystemFunctions=1,Fm
specificProblem="DHCPv4, Exhausted Lease Pool" <read-on
additionalInfo[@1] <read-only>
    name="" <read-only>
    value="73599686-825A-438E-B8FE-3F095A881027" <read-o
```



- b. Clear the alarm by alarm id:

```
# ipw-alarm --cmd clear -id <Alarm ID>.
```

Note: Get the usage of command "ipw-alarm" by entering the command without any arguments.

5. If the alarm remains, consult the next level of maintenance support. Further actions are outside the scope of this instruction.

2.2 Changing Lease Pool Configuration

Do the following:

1. Change the configuration of Lease Pool for DHCPv4 server. For example:

```
#ipwcli
```

```
#IPWorks> modify pool pool0 -set AllowedClient=all;DeniedClient=unknown
```

2. Update DHCPv4 server.

```
#IPWorks> update dhcpv4server
```

3. Restart DHCPv4 server. For example:

```
# ipw-ctr restart dhcp <PL hostname>
```

4. Clear the alarm manually. For example:

- a. Check "specificProblem" in alarm list, and get the alarm id:

```
# ipw-alarm --cmd list
```

- b. Clear the alarm by alarm id:

```
# ipw-alarm --cmd clear -id <Alarm ID>.
```

Note: Get the usage of command "ipw-alarm" by entering the command without any arguments.

5. 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.