

Radius AAA, Server Allocated IPv6 Prefix Exceeded Pool Threshold

IPWorks

OPERATING INSTRUCTIONS

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Radius AAA, Server Allocated IPv6 Prefix Exceeded Pool Threshold



1 Introduction

This instruction concerns alarm handling.

1.1 Alarm Description

This alarm is raised when the percentage of allocated IPv6 prefix of a pool exceeds the configured pool threshold (`threshold4UsedIpInPool`).

This alarm is raised from one of PL nodes, this is because pools are shared among all PL nodes.

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



Table 1 Alarm Causes

Alarm Cause	Description	Fault Reason	Fault Location	Impact	Solution
Inappropriate AAA configuration.	The value of pool threshold is too low.	The attribute threshold4UsedIpInPool in the MO IPAllocationService are configured inappropriately (for example, 10).	AAA Server	If most of pools exceed threshold, AAA server will not provide IP Allocation service.	See Section 2.1 on page 4
Allocated IPv6 prefixes exceed pool threshold.	The percentage of allocated IPv6 prefixes of a pool exceeds the configured pool threshold.	The planning number of IPv6 prefixes for a pool is less than the actual requirement. This issue typically occurs when excessive users related to a specific pool are online.	AAA Server		See Section 2.2 on page 4

The alarm attributes are listed and explained in Table 2.

Table 2 Alarm Attributes

Attribute Name	Attribute Value
Major Type	193
Minor Type	868358
Managed Object Class	IpworksRadiusAAA



Attribute Name	Attribute Value
Source	ManagedElement=<Node Name>, SystemFunctions=1,Fm=1,FmAlarmModel=ipworksRadiusAAA, FmAlarmType=ipworksRadiusAAAAAll oclPv6PrefixExceedThreshold
Specific Problem	Radius AAA, Server Allocated IPv6 Prefix Exceeded Pool Threshold
Event Type	qualityOfServiceAlarm(11)
Probable Cause	x733ThresholdCrossed(351)
Additional Text	The percentage of allocated ipv6 prefix of %s exceeds the configured pool threshold.;uuid:<Product_UUID> ⁽¹⁾
Perceived Severity	Minor

(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 the following document has been read:

- *Fault Management*
- *Configure Radius AAA*
- *IPWorks AAA Parameter Description*
- *Managed Object Model (MOM)*

1.2.2 Tools

Not available.

1.2.3 Conditions

Not applicable.



1.3 Related Information

Trademark information, typographic conventions, and definition and explanation of abbreviations and terminology can be found in the following documents:

- *Trademark Information*
- *Typographic Conventions*
- *Glossary of Terms and Acronyms*

2 Procedure

This section describes the procedure to follow to clear this alarm.

2.1 Updating Pool Threshold

1. Log on to the ECLI interface.

```
# ssh <username>@<OAM IP Address> -t -s cli
```

2. Configure the pool threshold.

```
>dn ManagedElement=<Node Name>,IpworksFunction=1,IPWorksAAARoot=1,⇒  
IPWorksRadiusAAARoot=1,RadiusAAAService=1,IPAllocationService=1  
(IPAllocationService=1)> configure  
(config-IPAllocationService=1)> threshold4UsedIpInPool=<pool threshold>  
(config-IPAllocationService=1)> commit  
(IPAllocationService=1)> exit
```

Note: Update the value of *<pool threshold>* to satisfy the actual requirement.

3. Restart Radius Backend to make the change takes effect.

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

2.2 Adjusting IP Allocation Plan

Wait until the users in the pool to become offline, then the allocated IPv6 prefixes in the pool will be released and the alarm will be cleaned automatically.



If the alarm raises frequently, suggest creating new AAA IP pool for new AAA users or migrate offline users to other pools, refer to the section *Configuring IP Allocation* in *Configure Radius AAA*.