

# How to Search for a Specific OID on FXOS Platforms

## Contents

[Introduction](#)

[Prerequisites](#)

[Requirements](#)

[Components Used](#)

[Procedure](#)

[Generating the OID](#)

## Introduction

This document describes the steps needed to look for the proper Simple Network Management Protocol (SNMP) Object Identifiers (OIDs) for a Firepower eXtensible Operative System (FXOS) platform such as 2100, 4100 and 9300 models.

## Prerequisites

### Requirements

Cisco recommends that you have knowledge of these topics:

- Cisco Firepower FXOS
- SNMP protocol

### Components Used

The information in this document is based on these hardware/software versions:

- Firepower 2100, 4100 and 9300
- FXOS Version 2.1, 2.2 and 2.3

## Procedure

Step 1. Go to the following link to identify the device component you want to monitor.

[https://www.cisco.com/c/en/us/td/docs/security/firepower/fxos/mib/b\\_FXOS\\_4100\\_9300\\_MIBRef/about\\_cisco\\_fxos\\_mib\\_files.html#reference\\_mlw\\_x31\\_g1b](https://www.cisco.com/c/en/us/td/docs/security/firepower/fxos/mib/b_FXOS_4100_9300_MIBRef/about_cisco_fxos_mib_files.html#reference_mlw_x31_g1b)

Step 2. Identify the Management Information Base (MIB) name from the desired part.

Statistics Type	MIB that Gathers the Statistic
Ethernet	<b>CISCO-FIREPOWER-ETHER-MIB</b> .1.3.6.1.4.1.9.9.826.1.21 is the parent OID where the key statistics reside.

Step 3. Download the MIB file from [software.cisco.com](https://software.cisco.com) for the FXOS installed version.

### File Information

Recovery image (kickstart) for 2.3.1.145

`fxos-k9-kickstart.5.0.3.N2.4.31.157.SPA`

Recovery image (manager) for FX-OS 2.3.1.145

`fxos-k9-manager.4.3.1.157.SPA`

Recovery image (system) for FX-OS 2.3.1.145

`fxos-k9-system.5.0.3.N2.4.31.157.SPA`

FX-OS image for Firepower

`fxos-k9.2.3.1.145.SPA`

MIBS zip for Firepower FX-OS image

`fxos-mibs-fp9k-fp4k.2.3.1.145.zip`

Step 4. Uncompress the MIBs zip file and open the folder with the MIBS uncompressed.

Step 5. Look for the MIBs file. In this example, "CISCO-FIREPOWER-ETHER-MIB" is the searched MIB.

Step 6. Open that file with a text editor.

Once the file is open, search for the specific table.

- cfprEtherPauseStatsTable**—Packet pause stats
- cfprEtherLossStatsTable**—Packet loss stats
- cfprEtherErrStatsTable**—Packet error stats
- cfprEtherTxStatsTable**—Packet transmission stats
- cfprEtherRxStatsTable**—Packet reception stats

Step 7. Look for the desired table on the MIB file to get the final OID.

## Generating the OID

Step 1. The MIB number is the parent identifier for the statistic type to be polled.

Statistics Type	MIB that Gathers the Statistic
Ethernet	CISCO-FIREPOWER-ETHER-MIB <b>.1.3.6.1.4.1.9.9.826.1.21</b> is the parent OID where the key statistics reside.

Step 2. On the MIB file opened, search for the same table on Procedure Step 6 Section and write down the first 2 numbers:

```

cfprEtherPauseStatsTable OBJECT-TYPE <-----
Table we are looking
SYNTAX          SEQUENCE OF CfprEtherPauseStatsEntry
MAX-ACCESS      not-accessible
STATUS          current
DESCRIPTION
    "Cisco Firepower ether:PauseStats managed object table"
 ::= { cfprEtherObjects 14 } <-----
First number to be added

```

```

cfprEtherPauseStatsEntry OBJECT-TYPE
SYNTAX          CfprEtherPauseStatsEntry
MAX-ACCESS      not-accessible
STATUS          current
DESCRIPTION
    "Entry for the cfprEtherPauseStatsTable table."
INDEX { cfprEtherPauseStatsInstanceId }
 ::= { cfprEtherPauseStatsTable 1 } <-----
Second number to be added

```

Those 2 numbers follow the parent OID extracted in Step 1.

Step 3. The following list shows the last number to complete the OID.

```

cfprEtherPauseStatsTable OBJECT-TYPE <-----
Table we are looking
SYNTAX          SEQUENCE OF CfprEtherPauseStatsEntry
MAX-ACCESS      not-accessible
STATUS          current
DESCRIPTION
    "Cisco Firepower ether:PauseStats managed object table"
 ::= { cfprEtherObjects 14 } <-----
First number to be added

```

```

cfprEtherPauseStatsEntry OBJECT-TYPE
SYNTAX          CfprEtherPauseStatsEntry
MAX-ACCESS      not-accessible
STATUS          current
DESCRIPTION
    "Entry for the cfprEtherPauseStatsTable table."
INDEX { cfprEtherPauseStatsInstanceId }
 ::= { cfprEtherPauseStatsTable 1 } <-----
Second number to be added

```

**Step 4. Look for the value want to monitor. e.g. "cfprEtherPauseStatsResetsDeltaAvg"**

```

cfprEtherPauseStatsResetsDeltaAvg OBJECT-TYPE
SYNTAX          Unsigned64
MAX-ACCESS      read-only
STATUS          current
DESCRIPTION
    "Cisco Firepower ether:PauseStats:resetsDeltaAvg
    managed object property"
 ::= { cfprEtherPauseStatsEntry 12 } <-----
Last number to be added

```

**Step 5. Put together all the numbers starting with the parent MIB.**

```

cfprEtherPauseStatsResetsDeltaAvg OBJECT-TYPE
SYNTAX          Unsigned64
MAX-ACCESS      read-only
STATUS          current
DESCRIPTION
    "Cisco Firepower ether:PauseStats:resetsDeltaAvg
    managed object property"
 ::= { cfprEtherPauseStatsEntry 12 } <-----
Last number to be added

```

**[6] Verify with an SNMP walk to gather the final OID**

```

cfprEtherPauseStatsResetsDeltaAvg OBJECT-TYPE
SYNTAX          Unsigned64
MAX-ACCESS      read-only
STATUS          current
DESCRIPTION
    "Cisco Firepower ether:PauseStats:resetsDeltaAvg
    managed object property"
 ::= { cfprEtherPauseStatsEntry 12 } <-----
Last number to be added

```

Notice that the output displays 1 OID for each part selected in the table. In this example, there is 1 OID for each interface as the table selected, displays all the device interfaces statistics.