

AF1G40AC

This document describes the IPFix configuration options supported by the Advanced Features units. IPFix must be implemented using CLI commands.

Connect to the Advanced Features unit:

A connection to the unit may be established using two options:

- a) Directly connected to the Console Interface - COM Port using Putty/Serial connection.
- b) Connected via the IP Management Interface using Putty/SSH connection.

Login to the Advanced Features unit, (admin/gtadmin1).

Enable IPFix

When IPFix is enabled, 128 flows are reserved for IPFix.

```
Switch> enable
Switch# configure terminal
Switch(config)# ipfix enable
```

Create the Recorder

```
Switch> enable
Switch# configure terminal
Switch(config)# ipfix recorder name      (up to 32 characters)
Switch(Config-ipfix-name)# description  (up to 64 characters)
```

IPv4

```
Switch(Config-ipfix-name)# match ipv4 destination address mask 1-32      (default 32)
Switch(Config-ipfix-name)# match ipv4 source address mask 1-32      (default 32)
Switch(Config-ipfix-name)# match ipv4 dscp
Switch(Config-ipfix-name)# match ipv4 enc
Switch(Config-ipfix-name)# match ipv4 ttl
```

IPv6

```
Switch(Config-ipfix-name)# match ipv6 destination address mask 1-128      (default 128)
Switch(Config-ipfix-name)# match ipv6 source address mask 1-128      (default 128)
Switch(Config-ipfix-name)# match ipv6 flowlabel
Switch(Config-ipfix-name)# match ipv6 dscp
```

MAC

```
Switch(Config-ipfix-name)# match mac source address
Switch(Config-ipfix-name)# match mac destination address
```

Transport

```
Switch(Config-ipfix-name)# match transport source-port
Switch(Config-ipfix-name)# match transport destination-port
Switch(Config-ipfix-name)# match transport type
Switch(Config-ipfix-name)# match transport opcode
```

VLAN

```
Switch(Config-ipfix-name)# match vlan inner
```

COS

```
Switch(Config-ipfix-name)# match cos inner
```

Interface

```
Switch(Config-ipfix-name)# match interface input
Switch(Config-ipfix-name)# match interface output
```

VxLAN VNI

```
Switch(Config-ipfix-name)# match vxlan-vni
```

I2GRE Key

```
Switch(Config-ipfix-name)# match nvgre-key
```

Transport TCP Flags

```
Switch(Config-ipfix-reorder)# match transport tcp flags value
```

Packet Drop / Non Drop

```
Switch(Config-ipfix-name)# match packet drop
Switch(Config-ipfix-name)# match packet non-drop
```

Counter

```
Switch(Config-ipfix-name)# collect counter bytes
Switch(Config-ipfix-name)# collect counter packets
```

Flow

```
Switch(Config-ipfix-name)# collect flow destination
Switch(Config-ipfix-name)# collect flow drop
Switch(Config-ipfix-name)# collect flow fragmentation
```

TTL

```
Switch(Config-ipfix-name)# collect ttl maximum
Switch(Config-ipfix-name)# collect ttl minimum
Switch(Config-ipfix-name)# collect ttl changed
```

Timestamp

```
Switch(Config-ipfix-name)# collect timestamp first
Switch(Config-ipfix-name)# collect timestamp last
```

Create the Exporter

```
Switch> enable
Switch# configure terminal
Switch(config)# ipfix exporter name      (up to 32 characters)
Switch(Config-ipfix-name)# description  (up to 64 characters)
```

Destination

Switch(Config-ipfix-name)# destination mgmt-if ipv4 x.x.x.x (collector address)

DSCP

Switch(Config-ipfix-name)# dscp value 0-63 (default 63)

Domain ID

Switch(Config-ipfix-name)# domain-id 1-65535 (no default)

Template Data Timeout

Switch(Config-ipfix-name)# template data timeout 1-86400 (default 600)

Flow Data Timeout

Switch(Config-ipfix-name)# flow data timeout 1-86400 (default 600)

Transport Protocol

Switch(Config-ipfix-name)# transport protocol udp 2000-65535 (default 2055)

TTL

Switch(Config-ipfix-name)# ttl 1-255 (default 255)

Event Flow

Switch(Config-ipfix-name)# event flow start

Switch(Config-ipfix-exporter)# event flow tcp-end

Flow Data Flush Threshold Length

Switch(Config-ipfix-name)# flow data flush threshold length 1000-60000 (default 1416)

Flow Data Flush Threshold Timer

Switch(Config-ipfix-name)# flow data flush threshold timer 100-60000 (default 500)

Flow Data Flush Threshold Count

Switch(Config-ipfix-name)# flow data flush threshold count 1-100 (default 10)

Create the Sampler

Switch> enable

Switch# configure terminal

Switch(config)# ipfix sampler name (up to 32 characters)

Switch(Config-ipfix-name)# description (up to 64 characters)

1 Out Of

Switch(Config-ipfix-name)# 1 out of 2-8191 (no default)

Mode

Switch(Config-ipfix-sampler)# mode determinate

Switch(Config-ipfix-sampler)# mode random

Mode Flow

Switch(Config-ipfix-sampler)# mode flow (default all)

Switch(Config-ipfix-sampler)# mode flow new

Create the Monitor

Switch> enable

Switch# configure terminal

```
Switch(config)# ipfix monitor name      (up to 32 characters)
Switch(Config-ipfix-name)# description (up to 64 characters)
```

Assign Recorder

```
Switch(Config-ipfix-name)# recorder name
```

Assign Exporter

```
Switch(Config-ipfix-name)# exporter name
```

Assign IPFix Monitor

```
Switch(config)# interface eth-0-1
Switch(config-if)# ipfix monitor input monitorname sampler samplername
```

IPFix Global Options

```
Switch(config)# ipfix global
```

Flow Aging

```
Switch(config-ipfix-global)# flow aging 15-65535      (default 1800)
```

Flow Export

```
Switch(config-ipfix-global)# flow export 0-1000      (default 5)
```

IPFix Show Commands

Show IPFix Global

```
Switch> enable
Switch# show ipfix global
```

Show IPFix Recorder

```
Switch> enable
Switch# show ipfix recorder name
```

Show IPFix Exporter

```
Switch> enable
Switch# show ipfix exporter name
```

Show IPFix Cache

```
Switch> enable
Switch# show ipfix cache observe-point interface eth-0-1 input
```

Show IPFix Monitor

```
Switch> enable
Switch# show ipfix monitor name
```

Show IPFix Sampler

```
Switch> enable
Switch# show ipfix sampler name
```

IPFix Clear Commands

Clear IPFix Cache Monitor

```
Switch> enable
Switch# clear ipfix cache monitor name
```

Clear IPFix Cache Observe-point Interface

Switch> enable

Switch# clear ipfix cache observe-point interface eth-0-1 input