

AF1G40AC / AF1G52AC / AF10G72AC / AF40G24AC

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

This command is only required for the AF1G52AC and AF1G40AC. If 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-recorder)# 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
```