Verify Flow Sensor NetFlow Templates and Information Elements

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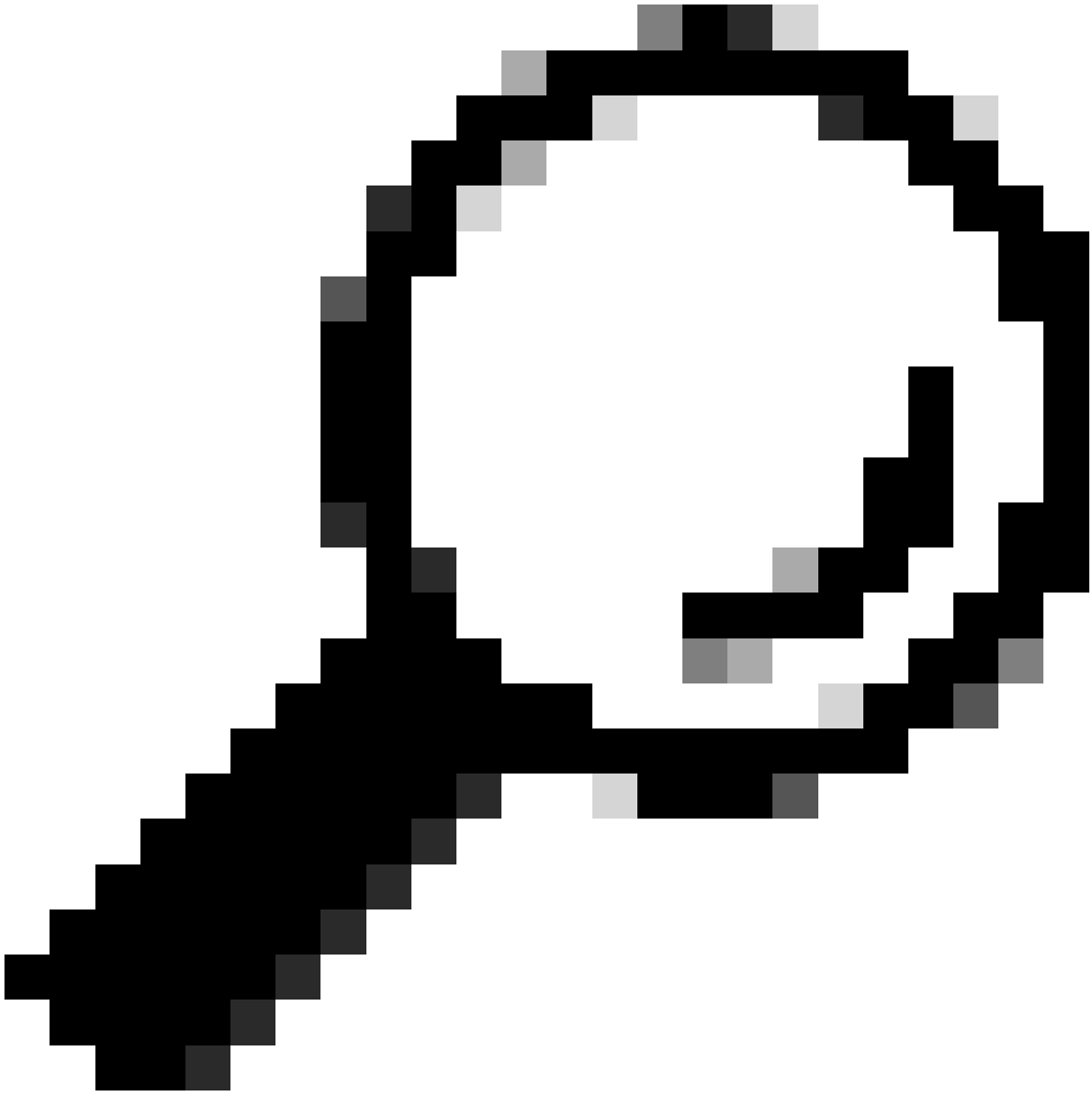
Introduction

This document describes the NetFlow templates used by the SNA Flow Sensor, this includes information regarding Enterprise-specific elements.

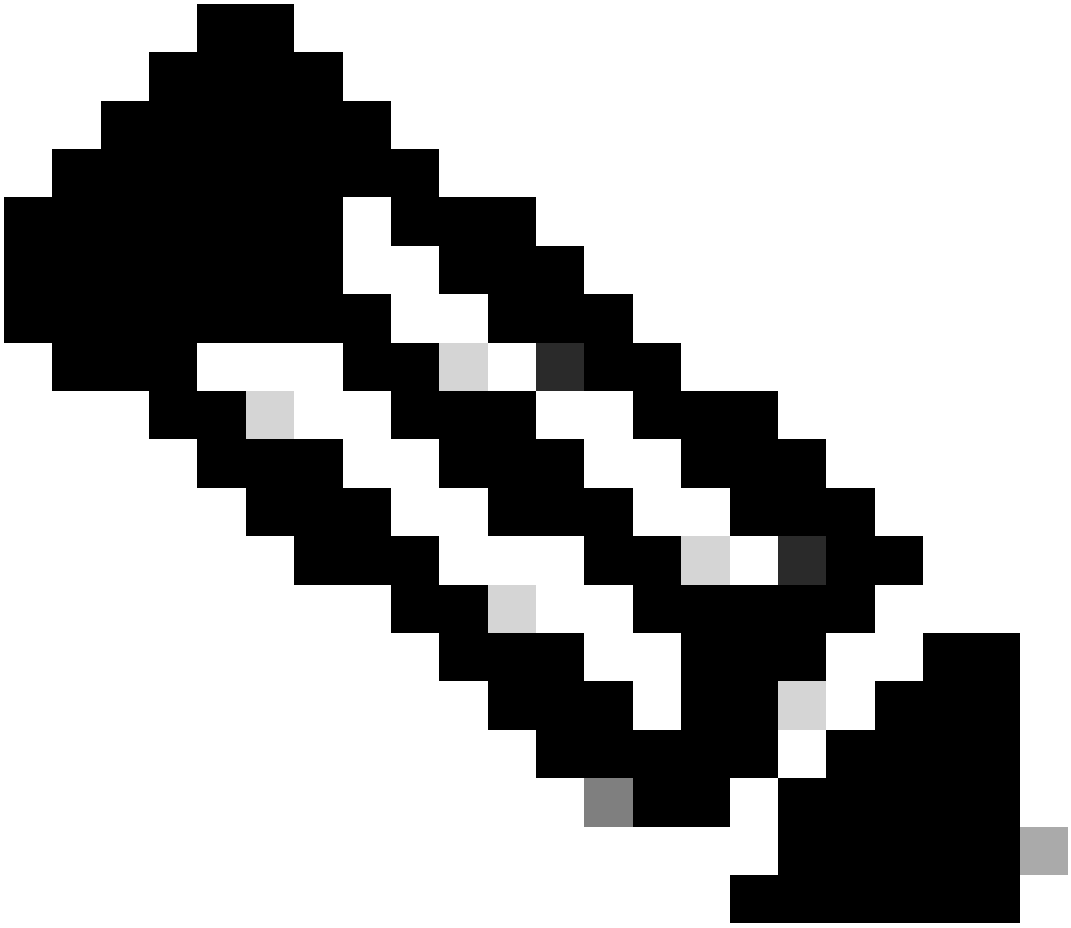
Prerequisites

The NetFlow element IDs used here are standard NetFlow protocol, however the template information and which elements included in each template are subject to change at any time.

Template IDs



Tip: As of SNA version 7.3 the Flow Sensor appears to only send template IDs 335-352 by default, which are the IPFIX templates. All IPFIX templates are sent together every 60 seconds, regardless of the type of traffic seen by the monitoring port of the Flow Sensor (for example IPv4 vs IPv6).



Note: The templates with an asterisk (*) beside them contain the basic NetFlow v9/IPFIX fields found on the IANA list for standard flow creation and analysis.

```
IPV4_FIRST_FLOW_TEMPLATE_ID                317*
IPV4_FIRST_FLOW_DEEP_TEMPLATE_ID          318*
IPV4_FLOW_TEMPLATE_ID                      319*
IPV4_EVENT_TEMPLATE_ID                      320
IPV6_FIRST_FLOW_TEMPLATE_ID                321*
IPV6_FIRST_FLOW_DEEP_TEMPLATE_ID          322*
IPV6_FLOW_TEMPLATE_ID                      323*
IPV6_EVENT_TEMPLATE_ID                      324
IPV4_SRC_EMAIL_COUNTS_TEMPLATE_ID          325
IPV4_FIRST_FLOW_RTM_TEMPLATE_ID            326*
IPV4_FIRST_FLOW_DEEP_RTM_TEMPLATE_ID      327*
IPV4_FLOW_RTM_TEMPLATE_ID                  328*
IPV6_FIRST_FLOW_RTM_TEMPLATE_ID            329*
IPV6_FIRST_FLOW_DEEP_RTM_TEMPLATE_ID      330*
IPV6_FLOW_RTM_TEMPLATE_ID                  331*
IPV4_DST_EMAIL_COUNTS_TEMPLATE_ID          332
IPV6_SRC_EMAIL_COUNTS_TEMPLATE_ID          333
IPV6_DST_EMAIL_COUNTS_TEMPLATE_ID          334
```

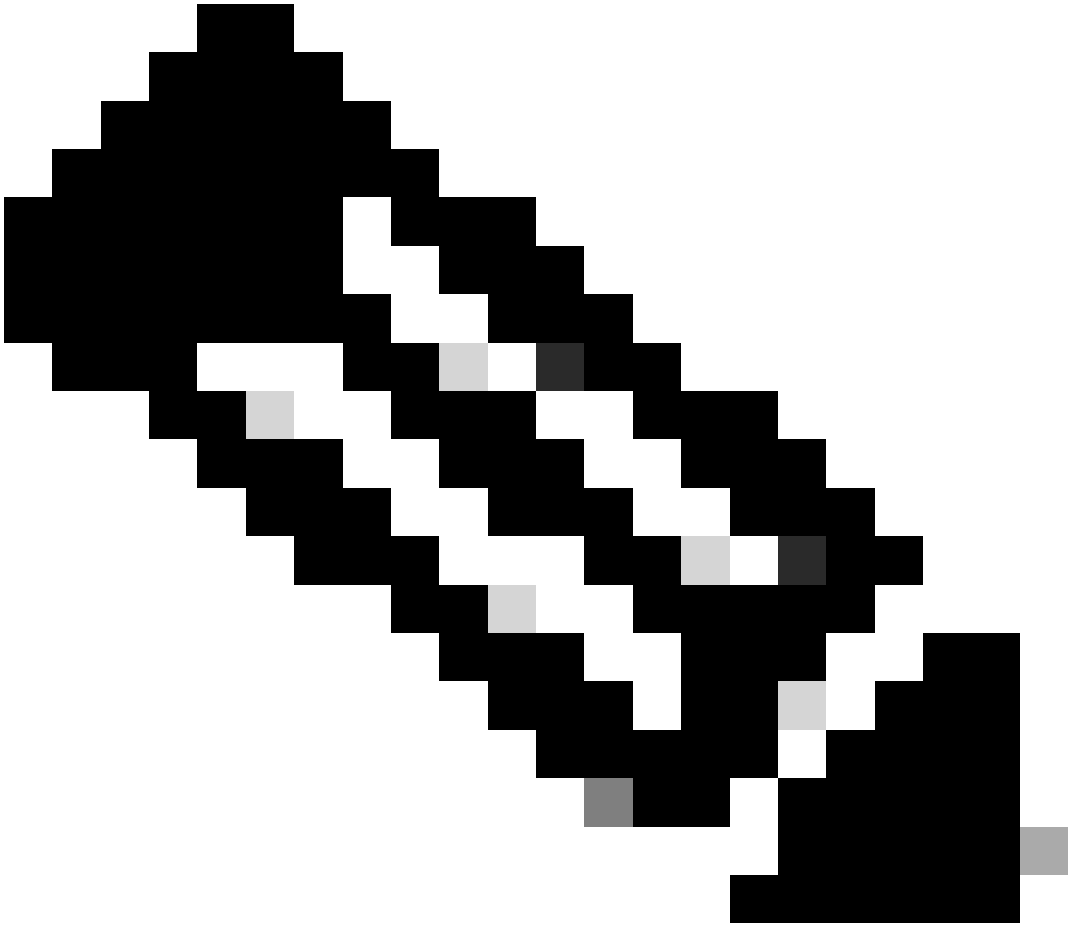
IPV4_FIRST_FLOW_IPFIX_TEMPLATE_ID	335*
IPV4_FIRST_FLOW_DEEP_IPFIX_TEMPLATE_ID	336*
IPV4_FLOW_IPFIX_TEMPLATE_ID	337*
IPV4_EVENT_IPFIX_TEMPLATE_ID	338
IPV6_FIRST_FLOW_IPFIX_TEMPLATE_ID	339*
IPV6_FIRST_FLOW_DEEP_IPFIX_TEMPLATE_ID	340*
IPV6_FLOW_IPFIX_TEMPLATE_ID	341*
IPV6_EVENT_IPFIX_TEMPLATE_ID	342
IPV4_SRC_EMAIL_COUNTS_IPFIX_TEMPLATE_ID	343
IPV4_FIRST_FLOW_RTM_IPFIX_TEMPLATE_ID	344*
IPV4_FIRST_FLOW_DEEP_RTM_IPFIX_TEMPLATE_ID	345*
IPV4_FLOW_RTM_IPFIX_TEMPLATE_ID	346*
IPV6_FIRST_FLOW_RTM_IPFIX_TEMPLATE_ID	347*
IPV6_FIRST_FLOW_DEEP_RTM_IPFIX_TEMPLATE_ID	348*
IPV6_FLOW_RTM_IPFIX_TEMPLATE_ID	349*
IPV4_DST_EMAIL_COUNTS_IPFIX_TEMPLATE_ID	350
IPV6_SRC_EMAIL_COUNTS_IPFIX_TEMPLATE_ID	351
IPV6_DST_EMAIL_COUNTS_IPFIX_TEMPLATE_ID	352
IPV4_ETTA_IDP_TEMPLATE_ID	353
IPV4_ETTA_IDP_IPFIX_TEMPLATE_ID	354
IPV4_ETTA_SPLT_TEMPLATE_ID	355
IPV4_ETTA_SPLT_IPFIX_TEMPLATE_ID	356
IPV4_ETTA_BD_TEMPLATE_ID	357
IPV4_ETTA_BD_IPFIX_TEMPLATE_ID	358
IPV4_ETTA_TLS_TEMPLATE_ID	359
IPV4_ETTA_TLS_IPFIX_TEMPLATE_ID	360
IPV4_ETTA_SALT_TEMPLATE_ID	361
IPV4_ETTA_SALT_IPFIX_TEMPLATE_ID	362
IPV6_ETTA_IDP_TEMPLATE_ID	363
IPV6_ETTA_IDP_IPFIX_TEMPLATE_ID	364
IPV6_ETTA_SPLT_TEMPLATE_ID	365
IPV6_ETTA_SPLT_IPFIX_TEMPLATE_ID	366
IPV6_ETTA_BD_TEMPLATE_ID	367
IPV6_ETTA_BD_IPFIX_TEMPLATE_ID	368
IPV6_ETTA_TLS_TEMPLATE_ID	369
IPV6_ETTA_TLS_IPFIX_TEMPLATE_ID	370
IPV6_ETTA_SALT_TEMPLATE_ID	371
IPV6_ETTA_SALT_IPFIX_TEMPLATE_ID	372

Standard NetFlow Elements

NF_F_IN_BYTES	1
NF_F_IN_PKTS	2
NF_F_PROTOCOL	4
NF_F_SRC_TOS	5
NF_F_TCP_FLAGS	6
NF_F_L4_SRC_PORT	7
NF_F_SRC_ADDR_IPV4	8
NF_F_SRC_INTF_ID	10
NF_F_L4_DST_PORT	11
NF_F_DST_ADDR_IPV4	12
NF_F_DST_INTF_ID	14
NF_F_LAST_SWITCHED	21
NF_F_FIRST_SWITCHED	22
NF_F_SRC_ADDR_IPV6	27
NF_F_DST_ADDR_IPV6	28
NF_F_MIN_TTL	52

```
NF_F_IN_SRC_MAC                                 56
NF_F_OUT_DST_MAC                               57
NF_F_SRC_VLAN                                   58
NF_F_MPLS_LABEL_1                               70
NF_F_SYSTEM_INIT_TIME_MILLISECONDS              160
NF_F_TCP_SYN_TOTAL_COUNT                       218
NF_F_TCP_FIN_TOTAL_COUNT                       219
NF_F_TCP_RST_TOTAL_COUNT                       220
NF_F_TCP_ACK_TOTAL_COUNT                       222
NF_F_IP_SECTION_HEADER                          313
NF_F_IP_SECTION_PAYLOAD                         314
```

Enterprise-Specific Elements

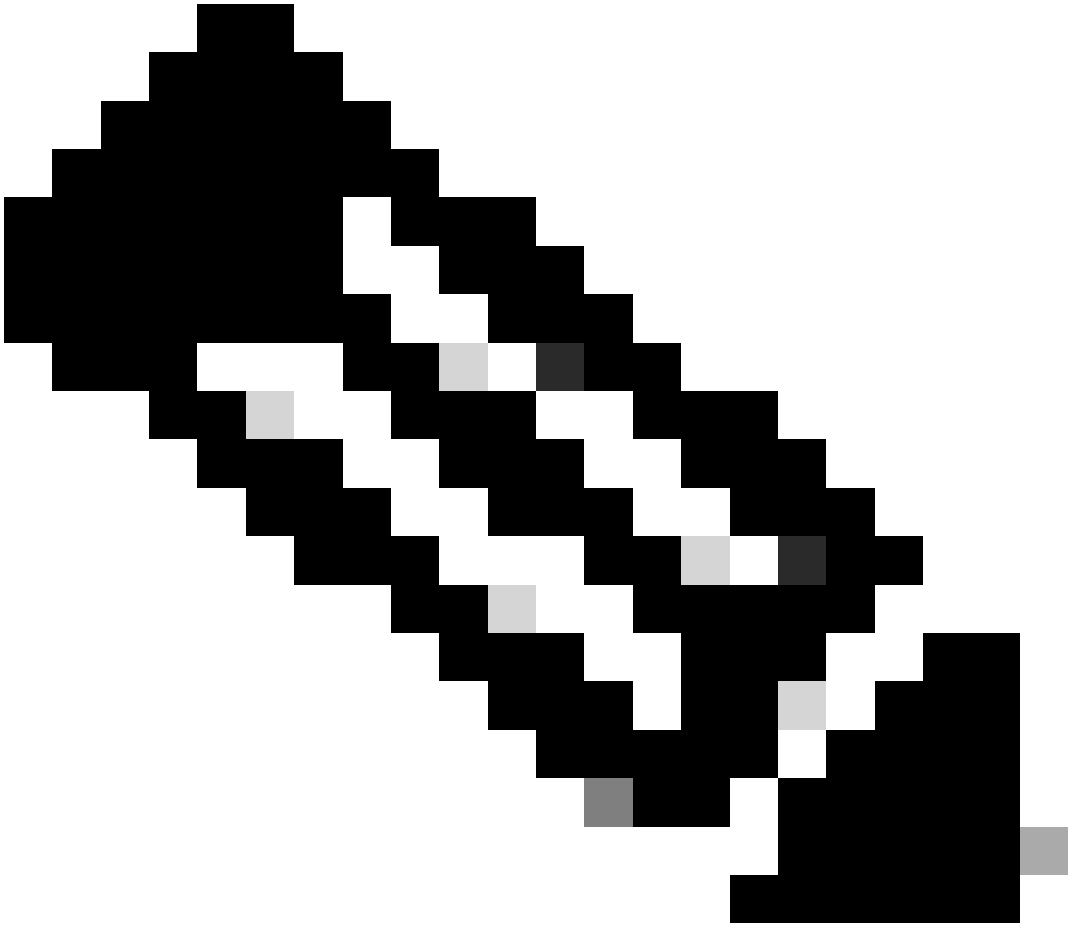


Note: The Flow Sensor uses Lancope Information Element Identifier Definitions: Private Enterprise Number (PEN) - 8712

More information about supported Information Elements for each software release can be seen in the Information Element guides in the Technical Reference List

NF_F_FLOWSENSOR_INITIATOR 29794
NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT 29795
NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT 29796
NF_F_FLOWSENSOR_RTT 29797
NF_F_FLOWSENSOR_SVR_RESP 29798
NF_F_FLOWSENSOR_RETRANSMITS 29799
NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT 29800
NF_F_FLOWSENSOR_TCP_FRAG_TOTAL_COUNT 29801
NF_F_FLOWSENSOR_SRC_EMAIL_IN 29802
NF_F_FLOWSENSOR_SRC_EMAIL_OUT 29803
NF_F_FLOWSENSOR_SRC_EMAIL_IN_MESS 29804
NF_F_FLOWSENSOR_SRC_EMAIL_OUT_MESS 29805
NF_F_FLOWSENSOR_SRC_EMAIL_IN_TRYS 29806
NF_F_FLOWSENSOR_SRC_EMAIL_OUT_TRYS 29807
NF_F_FLOWSENSOR_DST_EMAIL_IN 29808
NF_F_FLOWSENSOR_DST_EMAIL_OUT 29809
NF_F_FLOWSENSOR_DST_EMAIL_IN_MESS 29810
NF_F_FLOWSENSOR_DST_EMAIL_OUT_MESS 29811
NF_F_FLOWSENSOR_DST_EMAIL_IN_TRYS 29812
NF_F_FLOWSENSOR_DST_EMAIL_OUT_TRYS 29813
NF_F_FLOWSENSOR_TRACES 29814
NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL 29817
NF_F_FLOWSENSOR_EMB_ICMP_TYPE 29818
NF_F_FLOWSENSOR_EMB_ICMP_CODE 29819
NF_F_FLOWSENSOR_APPLICATION_ID 29820
NF_F_FLOWSENSOR_BAD_FLAG_XMAS 29821
NF_F_FLOWSENSOR_BAD_FLAG_SYN_FIN 29822
NF_F_FLOWSENSOR_BAD_FLAG_BAD_RST 29823
NF_F_FLOWSENSOR_BAD_FLAG_NO_ACK 29824
NF_F_FLOWSENSOR_BAD_FLAG_URG 29825
NF_F_FLOWSENSOR_BAD_FLAG_NOFLAG 29826
NF_F_FLOWSENSOR_BAD_TCP_PROBE 29827
NF_F_FLOWSENSOR_SHORT_FRAG_ATTACK 29828
NF_F_FLOWSENSOR_FRAG_PKT_TOO_SHORT 29829
NF_F_FLOWSENSOR_FRAG_PKT_TOO_LONG 29830
NF_F_FLOWSENSOR_FRAG_DIFFERENT_SIZES 29831
NF_F_FLOWSENSOR_APPLICATION_DETAILS 29832

Template Formats



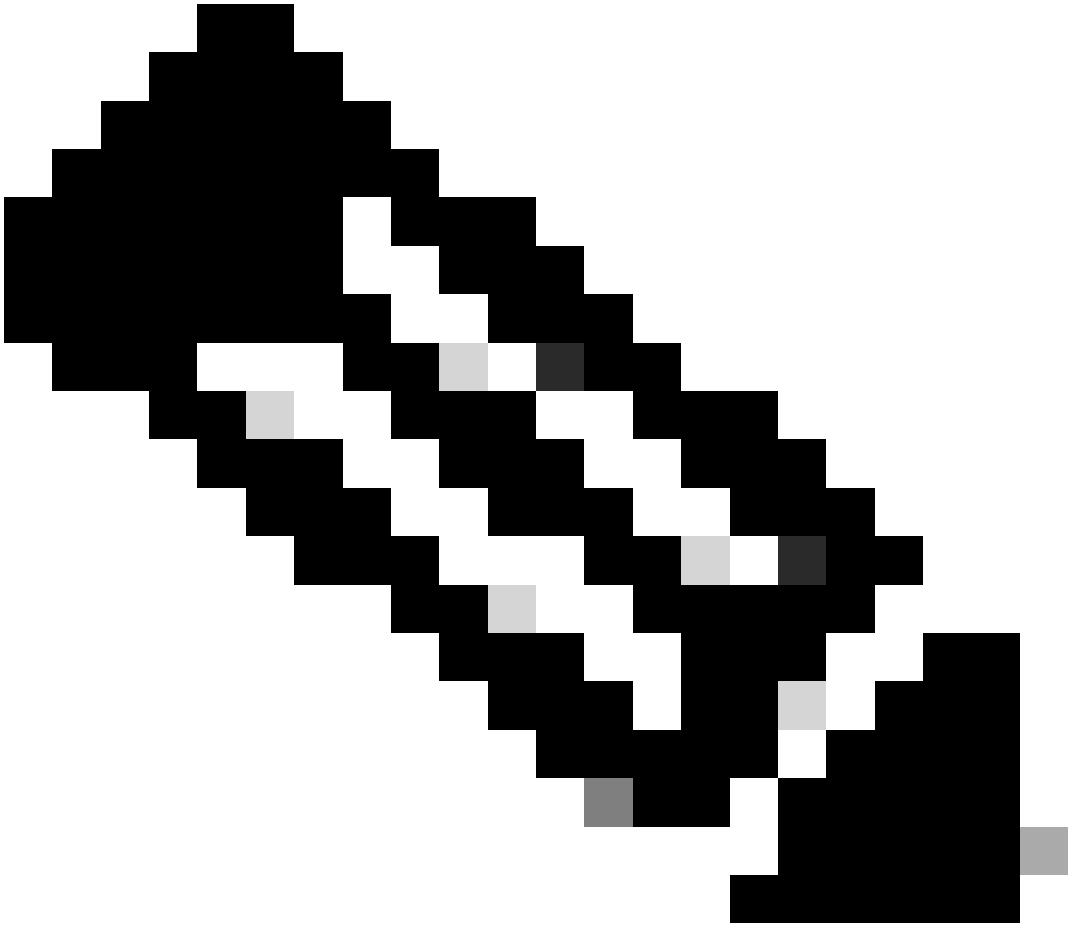
Note: Each template includes the Template Name and field count, followed by the individual NetFlow/IPFIX fields and the size of each field (in bytes).

Note that Enterprise-specific IPFIX elements are OR-ed with 0x8000 to turn on the high bit, so the collector knows that the Private Enterprise Number (PEN) field is present.

An example with NetFlow v9 and Enterprise-specific IPFIX elements is included.

```
TEMPLATE_NAME, ## <-- Field Count (Total number of NF_F fields in the template)
    FIELD_NAME_V9, # <-- Field size (in bytes)
    ENTERPRISE_FIELD_NAME_IPFIX | 0x8000, # <-- Field size (in bytes)
    0000, 8712 <-- Private Enterprise Number (PEN)
```

IPv4 First Flow - Template 317

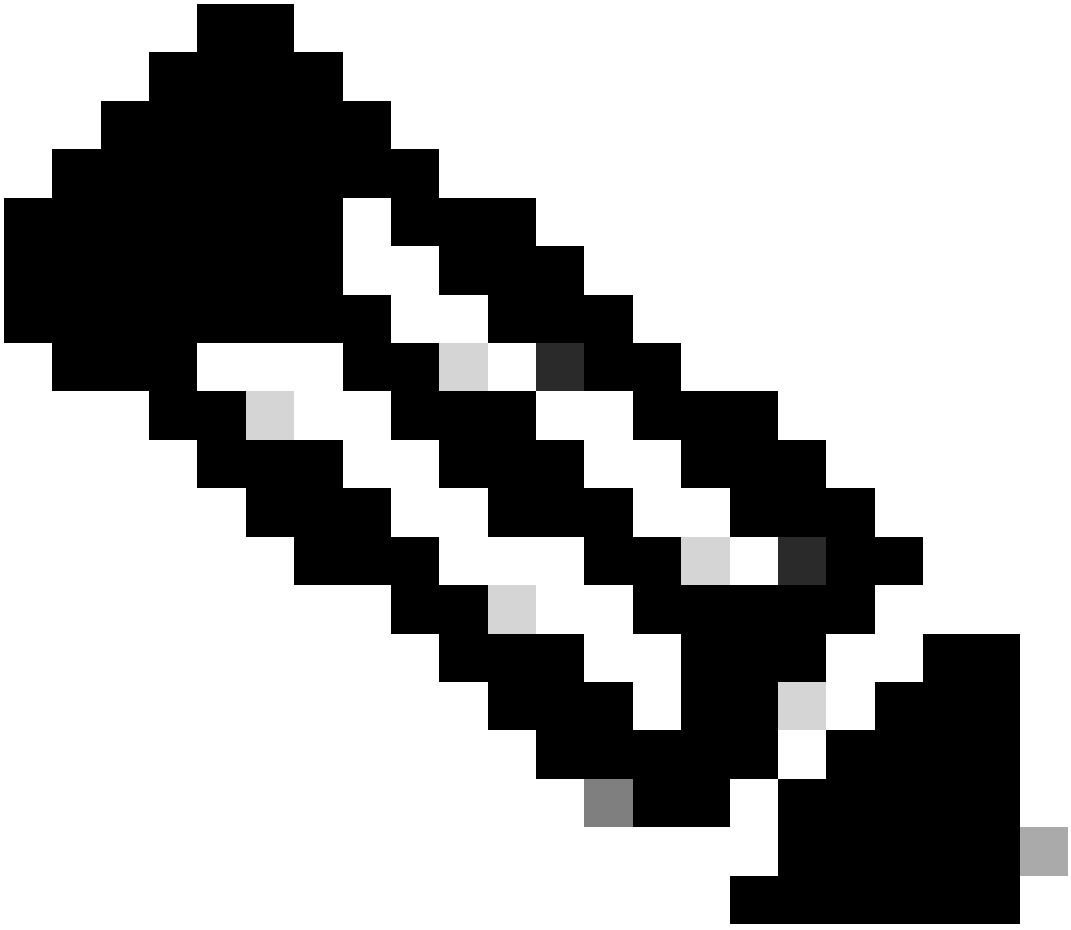


Note: This template is used for the initial v9 export of IPv4 flow information from a flow slot in the Flow Sensor engine.

```
IPV4_FIRST_FLOW_TEMPLATE_ID, 31
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SRC_ADDR_IPV4, 4
    NF_F_DST_ADDR_IPV4, 4
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_SRC_MAC, 6
    NF_F_OUT_DST_MAC, 6
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_SRC_VLAN, 2
    NF_F_MPLS_LABEL_1, 3
    NF_F_MIN_TTL, 1
```

```
NF_F_SRC_TOS, 1
NF_F_FLOWSENSOR_INITIATOR, 1
NF_F_TCP_SYN_TOTAL_COUNT, 2
NF_F_TCP_ACK_TOTAL_COUNT, 2
NF_F_TCP_FIN_TOTAL_COUNT, 2
NF_F_TCP_RST_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TRACES, 2
NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL, 1
NF_F_FLOWSENSOR_EMB_ICMP_TYPE, 1
NF_F_FLOWSENSOR_EMB_ICMP_CODE, 1
NF_F_FLOWSENSOR_APPLICATION_ID, 4
```

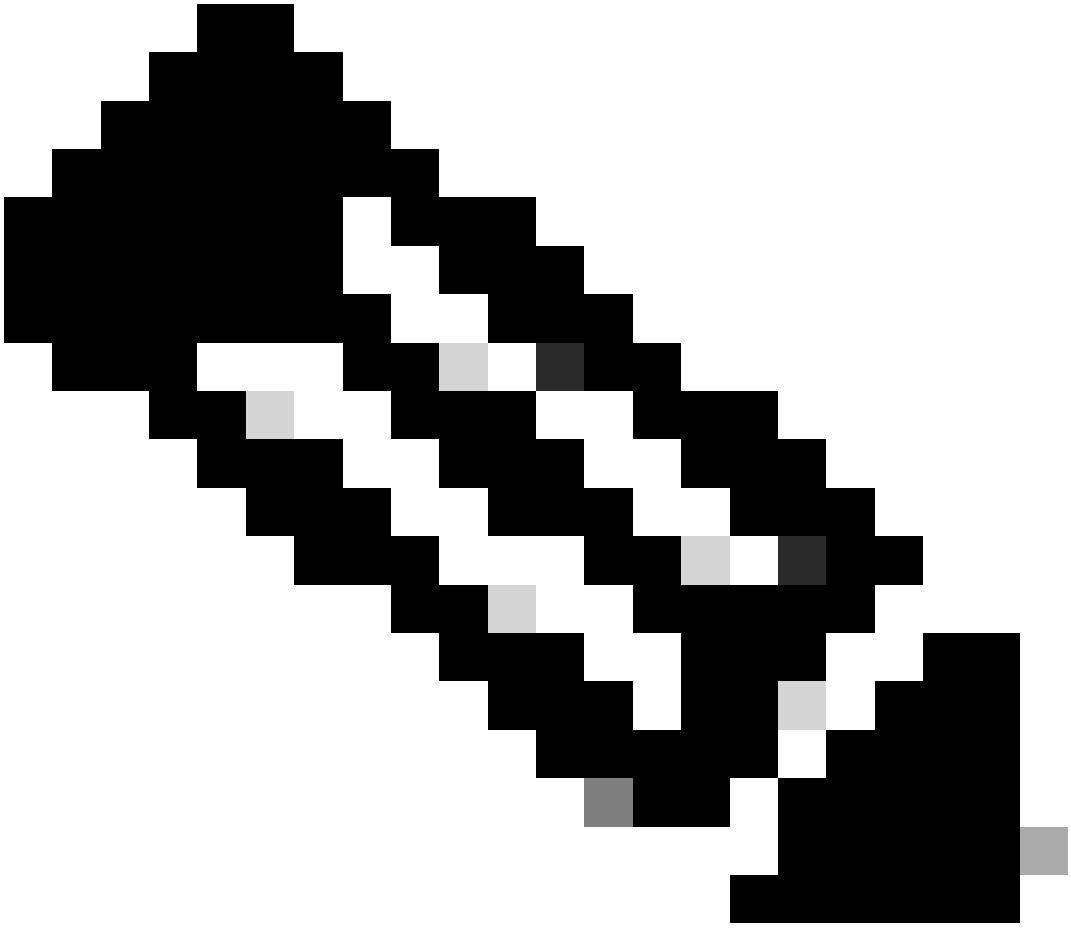
IPv4 First Flow Deep - Template 318



Note: This template is used for the initial v9 export of IPv4 flow information from a flow slot in the Flow Sensor engine when the Export Packet Payload check box is selected.

```
IPV4_FIRST_FLOW_DEEP_TEMPLATE_ID, 33
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SRC_ADDR_IPV4, 4
    NF_F_DST_ADDR_IPV4, 4
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_SRC_MAC, 6
    NF_F_OUT_DST_MAC, 6
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_SRC_VLAN, 2
    NF_F_MPLS_LABEL_1, 3
    NF_F_MIN_TTL, 1
    NF_F_SRC_TOS, 1
    NF_F_IP_SECTION_HEADER, 64
    NF_F_IP_SECTION_PAYLOAD, 26
    NF_F_FLOWSENSOR_INITIATOR, 1
    NF_F_TCP_SYN_TOTAL_COUNT, 2
    NF_F_TCP_ACK_TOTAL_COUNT, 2
    NF_F_TCP_FIN_TOTAL_COUNT, 2
    NF_F_TCP_RST_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TRACES, 2
    NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL, 1
    NF_F_FLOWSENSOR_EMB_ICMP_TYPE, 1
    NF_F_FLOWSENSOR_EMB_ICMP_CODE, 1
    NF_F_FLOWSENSOR_APPLICATION_ID, 4
```

IPv4 Flow - Template 319

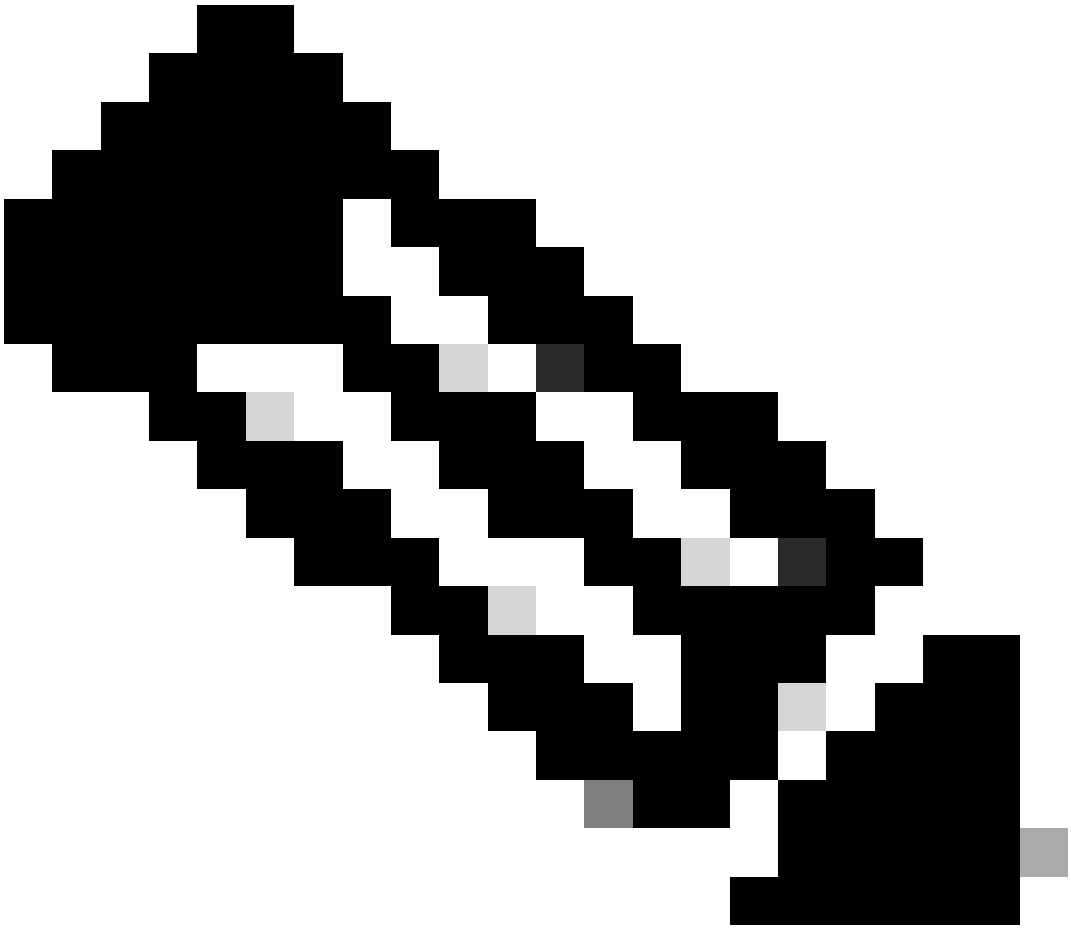


Note: This template is used for follow-on v9 exports of IPv4 flow information from a flow slot in the Flow Sensor engine.

```
IPV4_FLOW_TEMPLATE_ID, 25
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SRC_ADDR_IPV4, 4
    NF_F_DST_ADDR_IPV4, 4
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_MIN_TTL, 1
    NF_F_TCP_SYN_TOTAL_COUNT, 2
    NF_F_TCP_ACK_TOTAL_COUNT, 2
    NF_F_TCP_FIN_TOTAL_COUNT, 2
    NF_F_TCP_RST_TOTAL_COUNT, 2
```

```
    NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TRACES, 2
    NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL, 1
    NF_F_FLOWSENSOR_EMB_ICMP_TYPE, 1
    NF_F_FLOWSENSOR_EMB_ICMP_CODE, 1
    NF_F_FLOWSENSOR_APPLICATION_ID, 4
```

IPv4 Event - Template 320

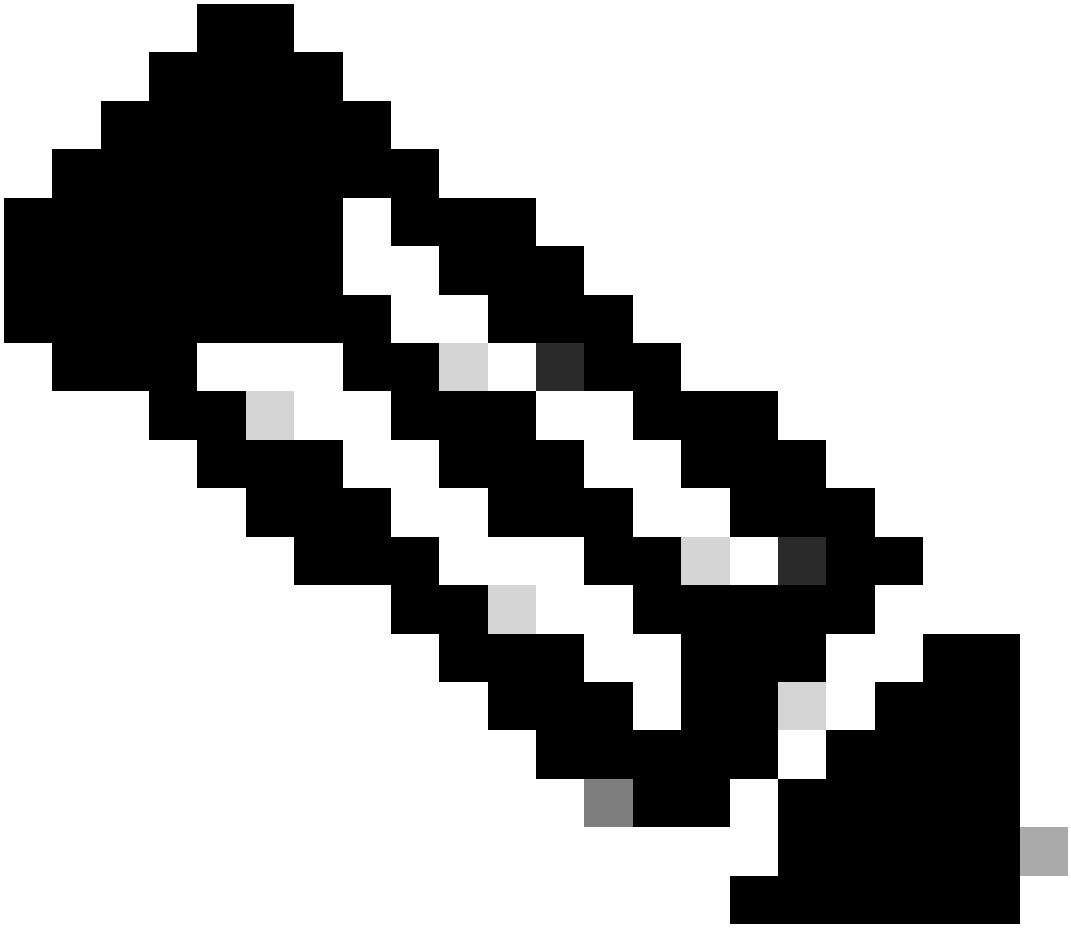


Note: This template is used for v9 exports of IPv4 bad fragment and flag combination counts detected by the Flow Sensor engine.

```
IPV4_EVENT_TEMPLATE_ID, 18
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SRC_ADDR_IPV4, 4
    NF_F_DST_ADDR_IPV4, 4
```

```
NF_F_L4_SRC_PORT, 2
NF_F_L4_DST_PORT, 2
NF_F_PROTOCOL, 1
NF_F_FLOWSENSOR_BAD_FLAG_XMAS, 2
NF_F_FLOWSENSOR_BAD_FLAG_SYN_FIN, 2
NF_F_FLOWSENSOR_BAD_FLAG_BAD_RST, 2
NF_F_FLOWSENSOR_BAD_FLAG_NO_ACK, 2
NF_F_FLOWSENSOR_BAD_FLAG_URG, 2
NF_F_FLOWSENSOR_BAD_FLAG_NOFLAG, 2
NF_F_FLOWSENSOR_BAD_TCP_PROBE, 2
NF_F_FLOWSENSOR_SHORT_FRAG_ATTACK, 2
NF_F_FLOWSENSOR_FRAG_PKT_TOO_SHORT, 2
NF_F_FLOWSENSOR_FRAG_PKT_TOO_LONG, 2
NF_F_FLOWSENSOR_FRAG_DIFFERENT_SIZES, 2
```

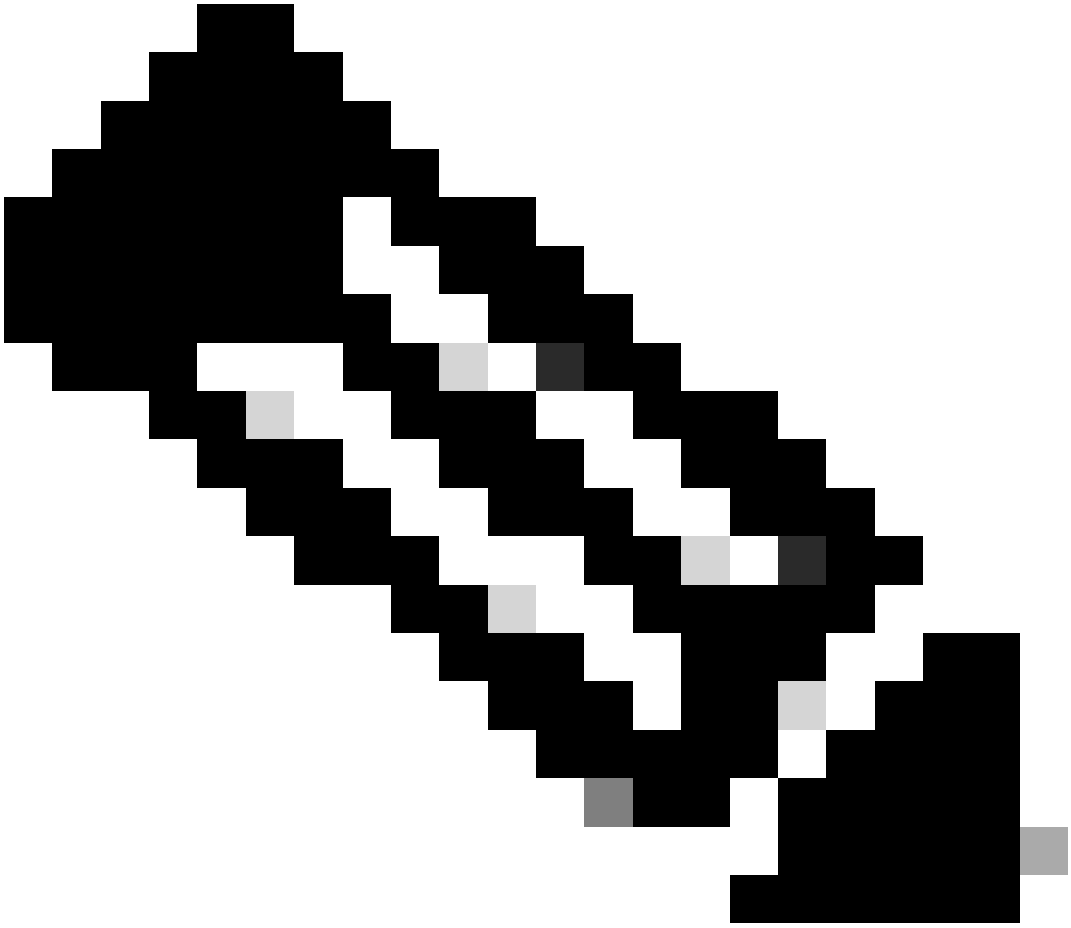
IPv6 First Flow - Template 321



Note: This template is used for the initial v9 export of IPv6 flow information from a flow slot in the Flow Sensor engine.

```
IPV6_FIRST_FLOW_TEMPLATE_ID, 31
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SRC_ADDR_IPV6, 16
    NF_F_DST_ADDR_IPV6, 16
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_SRC_MAC, 6
    NF_F_OUT_DST_MAC, 6
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_SRC_VLAN, 2
    NF_F_MPLS_LABEL_1, 3
    NF_F_MIN_TTL, 1
    NF_F_SRC_TOS, 1
    NF_F_FLOWSENSOR_INITIATOR, 1
    NF_F_TCP_SYN_TOTAL_COUNT, 2
    NF_F_TCP_ACK_TOTAL_COUNT, 2
    NF_F_TCP_FIN_TOTAL_COUNT, 2
    NF_F_TCP_RST_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TRACES, 2
    NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL, 1
    NF_F_FLOWSENSOR_EMB_ICMP_TYPE, 1
    NF_F_FLOWSENSOR_EMB_ICMP_CODE, 1
    NF_F_FLOWSENSOR_APPLICATION_ID, 4
```

IPv6 First Flow Deep - Template 322

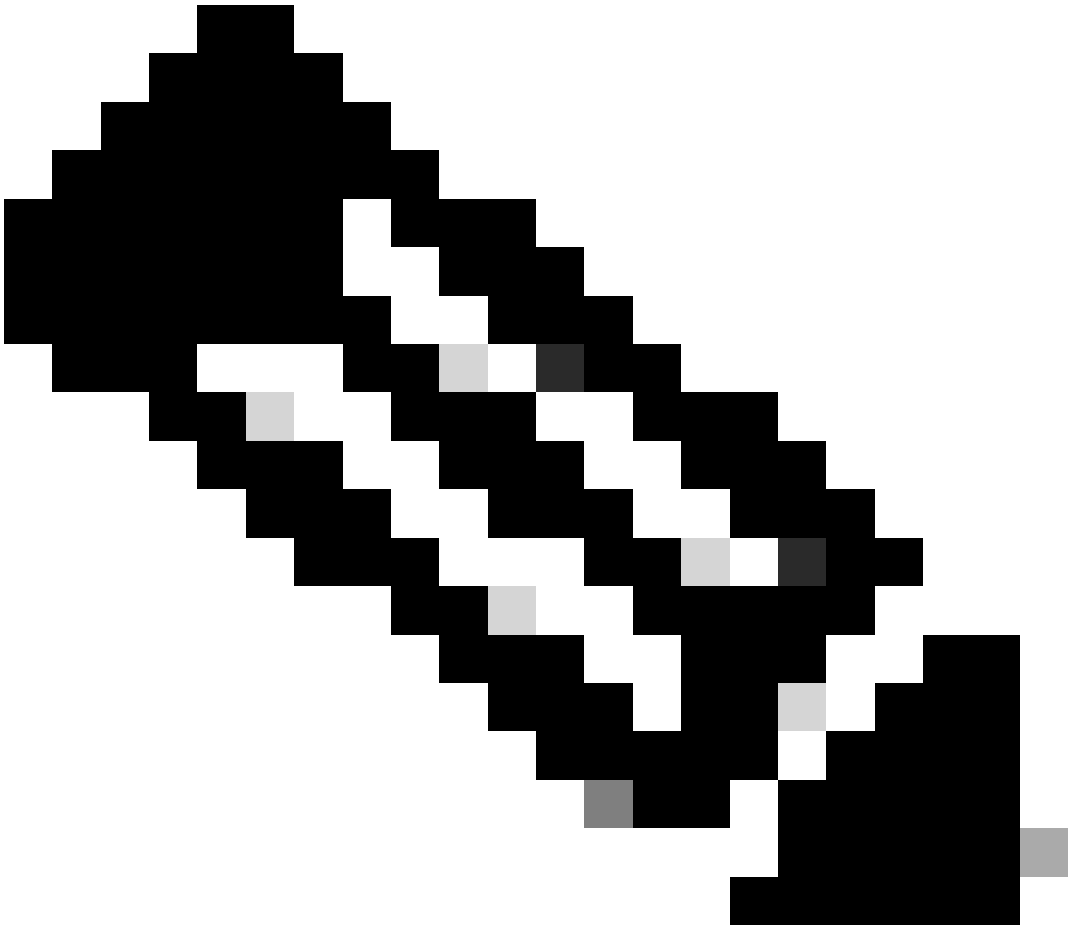


Note: This template is used for the initial v9 export of IPv6 flow information from a flow slot in the Flow Sensor engine when the Export Packet Payload check box is selected.

```
IPV6_FIRST_FLOW_DEEP_TEMPLATE_ID, 33
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SRC_ADDR_IPV6, 16
    NF_F_DST_ADDR_IPV6, 16
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_SRC_MAC, 6
    NF_F_OUT_DST_MAC, 6
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_SRC_VLAN, 2
    NF_F_MPLS_LABEL_1, 3
    NF_F_MIN_TTL, 1
```

```
NF_F_SRC_TOS, 1
NF_F_IP_SECTION_HEADER, 64
NF_F_IP_SECTION_PAYLOAD, 26
NF_F_FLOWSENSOR_INITIATOR, 1
NF_F_TCP_SYN_TOTAL_COUNT, 2
NF_F_TCP_ACK_TOTAL_COUNT, 2
NF_F_TCP_FIN_TOTAL_COUNT, 2
NF_F_TCP_RST_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TRACES, 2
NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL, 1
NF_F_FLOWSENSOR_EMB_ICMP_TYPE, 1
NF_F_FLOWSENSOR_EMB_ICMP_CODE, 1
NF_F_FLOWSENSOR_APPLICATION_ID, 4
```

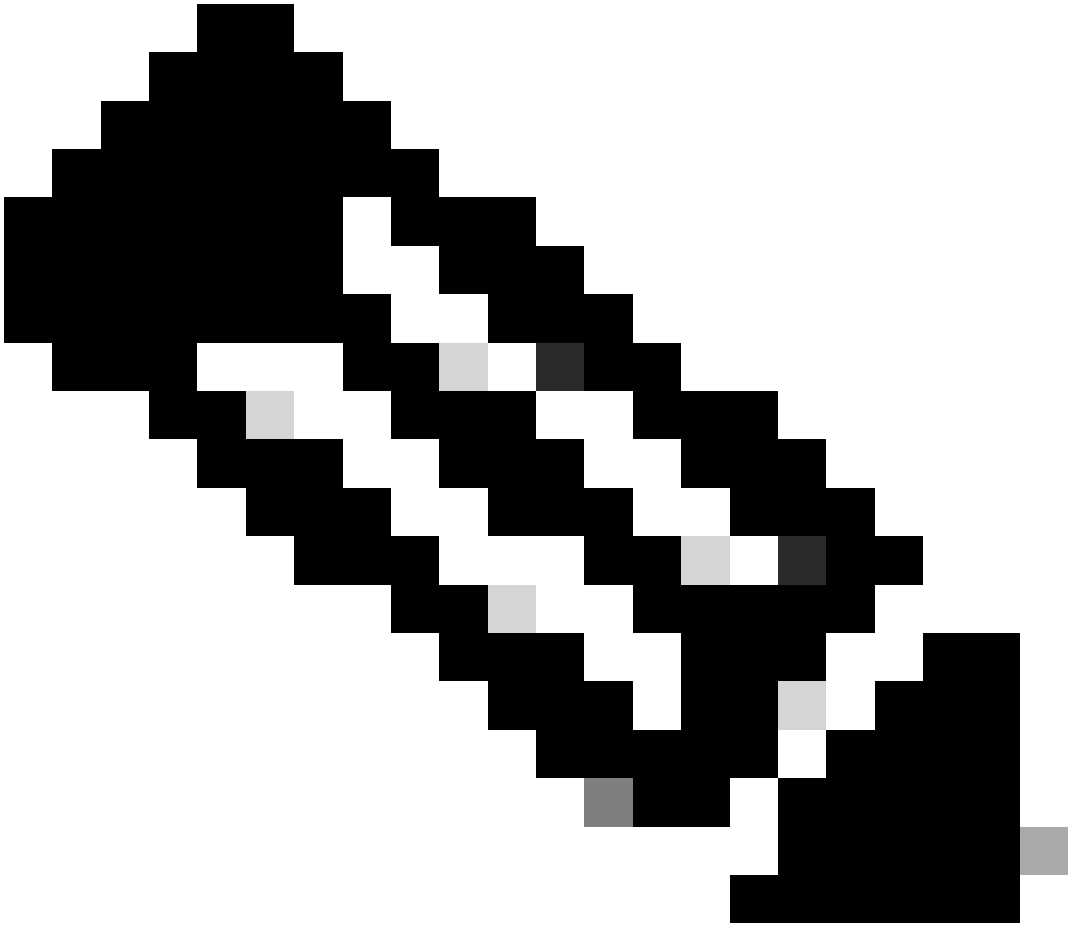
IPv6 Flow - Template 323



Note: This template is used for follow-on v9 exports of IPv6 flow information from a flow slot in the Flow Sensor engine.

```
IPV6_FLOW_TEMPLATE_ID, 25
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SRC_ADDR_IPV6, 16
    NF_F_DST_ADDR_IPV6, 16
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_MIN_TTL, 1
    NF_F_TCP_SYN_TOTAL_COUNT, 2
    NF_F_TCP_ACK_TOTAL_COUNT, 2
    NF_F_TCP_FIN_TOTAL_COUNT, 2
    NF_F_TCP_RST_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TRACES, 2
    NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL, 1
    NF_F_FLOWSENSOR_EMB_ICMP_TYPE, 1
    NF_F_FLOWSENSOR_EMB_ICMP_CODE, 1
    NF_F_FLOWSENSOR_APPLICATION_ID, 4
```

IPv6 Event - Template 324

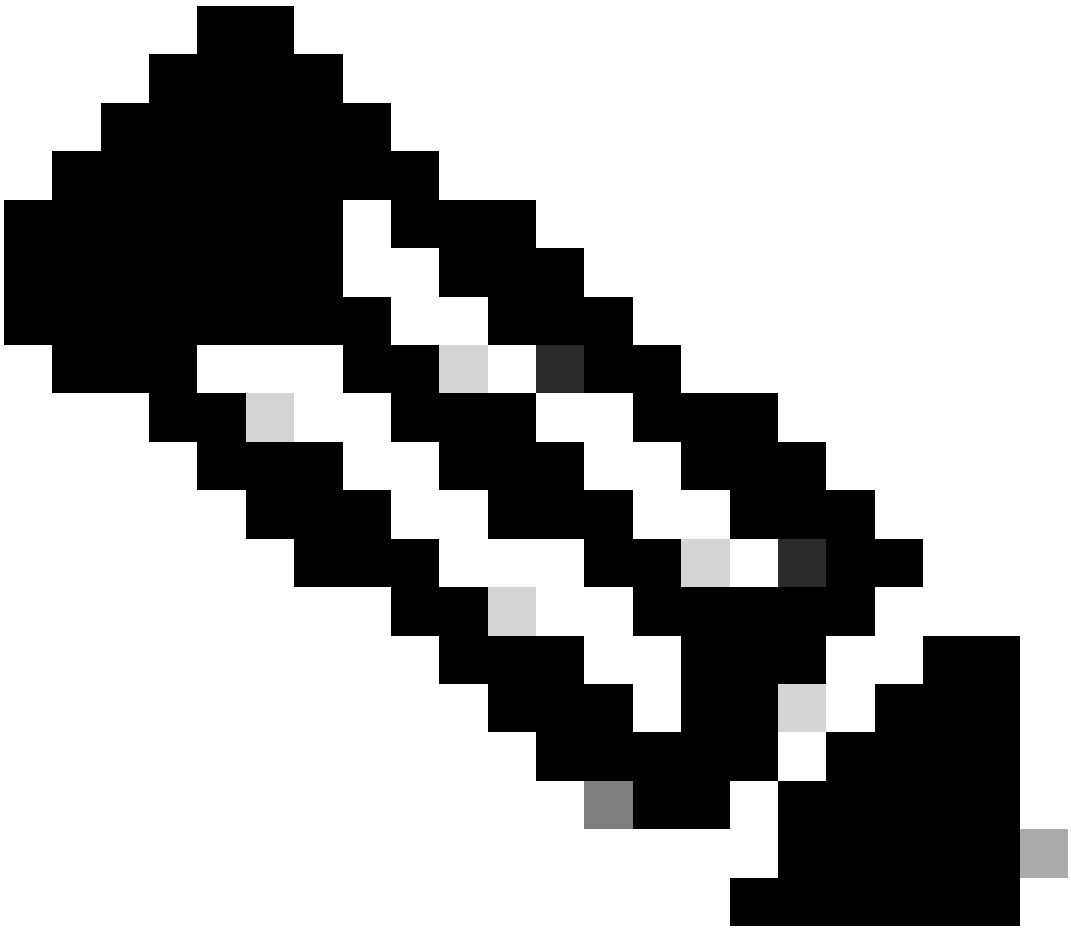


Note: This template is used for v9 exports of IPv6 bad fragment and flag combination counts detected by the Flow Sensor engine.

```
IPV6_EVENT_TEMPLATE_ID, 18
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SRC_ADDR_IPV6, 16
    NF_F_DST_ADDR_IPV6, 16
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_PROTOCOL, 1
    NF_F_FLOWSENSOR_BAD_FLAG_XMAS, 2
    NF_F_FLOWSENSOR_BAD_FLAG_SYN_FIN, 2
    NF_F_FLOWSENSOR_BAD_FLAG_BAD_RST, 2
    NF_F_FLOWSENSOR_BAD_FLAG_NO_ACK, 2
    NF_F_FLOWSENSOR_BAD_FLAG_URG, 2
    NF_F_FLOWSENSOR_BAD_FLAG_NOFLAG, 2
    NF_F_FLOWSENSOR_BAD_TCP_PROBE, 2
    NF_F_FLOWSENSOR_SHORT_FRAG_ATTACK, 2
    NF_F_FLOWSENSOR_FRAG_PKT_TOO_SHORT, 2
    NF_F_FLOWSENSOR_FRAG_PKT_TOO_LONG, 2
```

```
    NF_F_FLOWSENSOR_FRAG_DIFFERENT_SIZES, 2
```

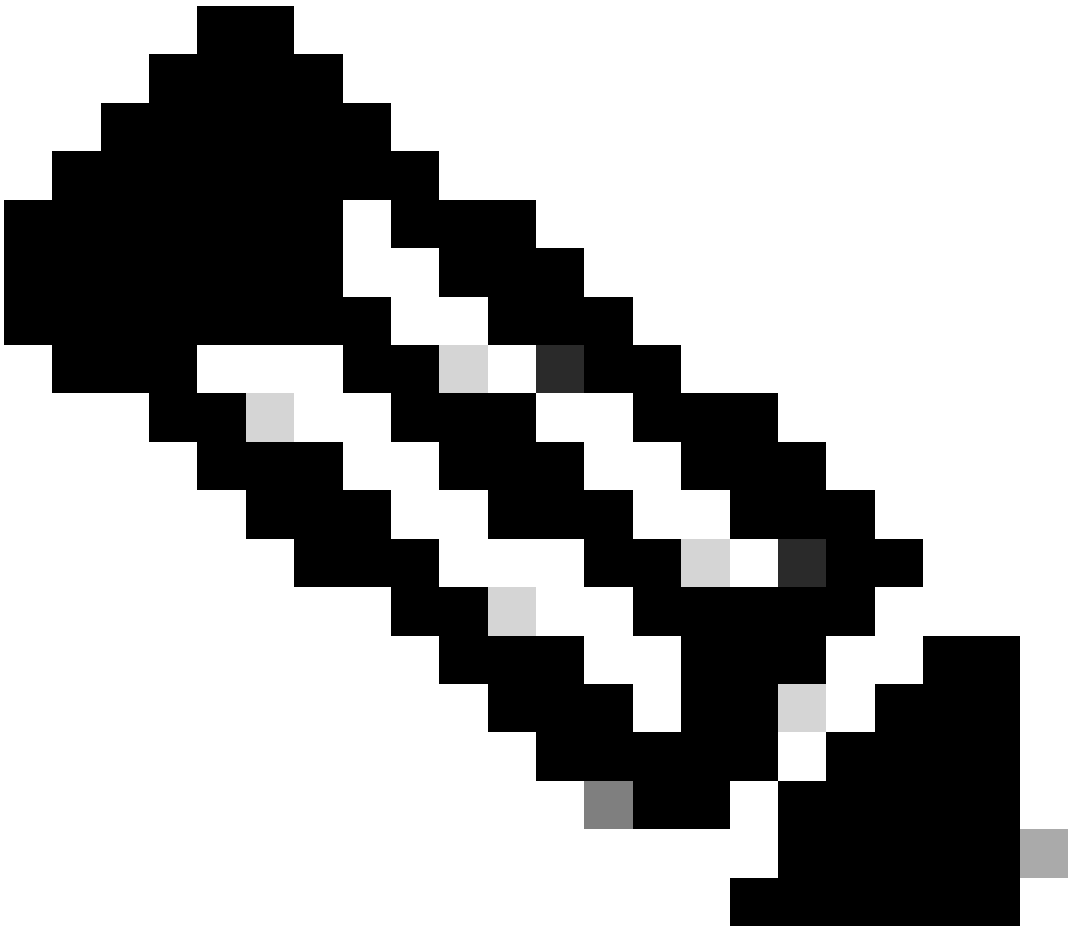
IPv4 Source Email Counts - Template 325



Note: This template is used for v9 exports of IPv4 email counts information sourced from the source IP address as detected by the Flow Sensor engine.

```
IPV4_SRC_EMAIL_COUNTS_TEMPLATE_ID, 8
    NF_F_SRC_ADDR_IPV4, 4
    NF_F_DST_ADDR_IPV4, 4
    NF_F_FLOWSENSOR_SRC_EMAIL_IN, 4
    NF_F_FLOWSENSOR_SRC_EMAIL_OUT, 4
    NF_F_FLOWSENSOR_SRC_EMAIL_IN_MESS, 4
    NF_F_FLOWSENSOR_SRC_EMAIL_OUT_MESS, 4
    NF_F_FLOWSENSOR_SRC_EMAIL_IN_TRYS, 4
    NF_F_FLOWSENSOR_SRC_EMAIL_OUT_TRYS, 4
```

IPv4 First Flow Response Time Monitoring (RTM) - Template 326

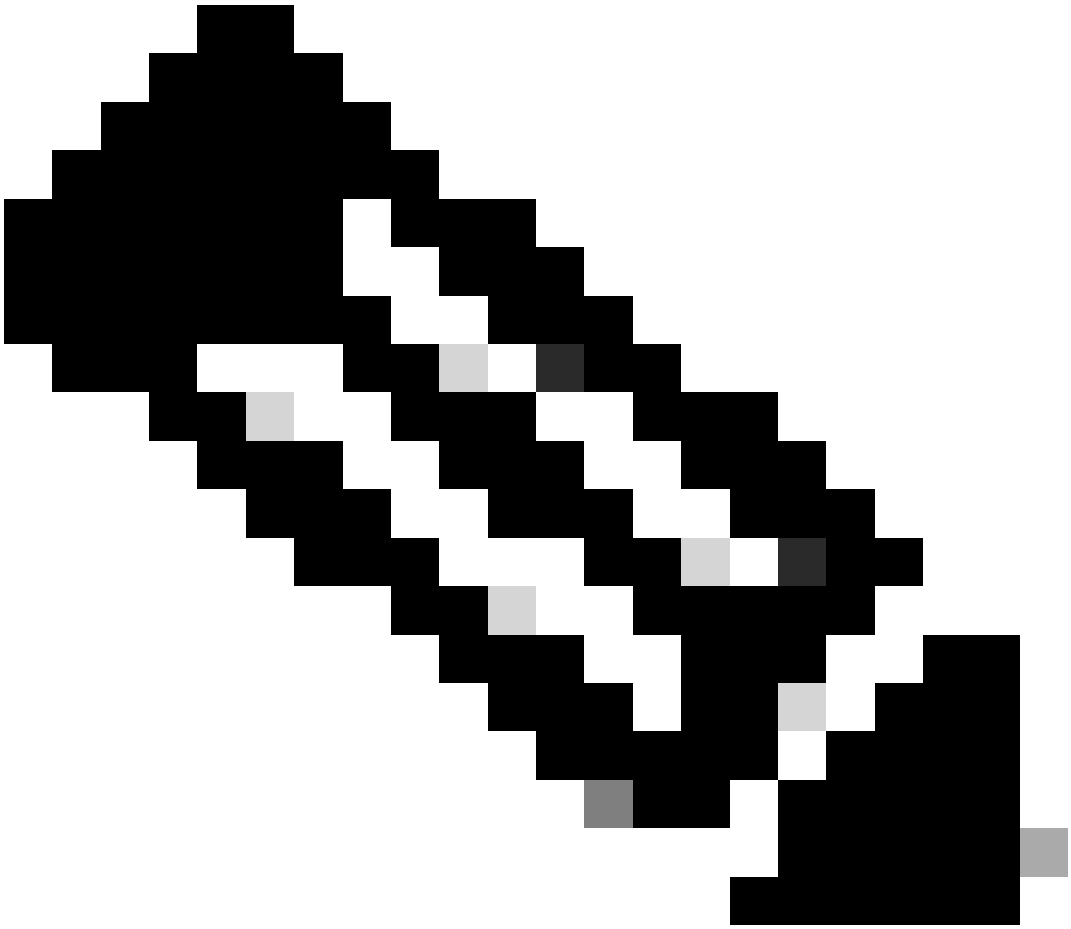


Note: This template is used for the initial v9 export of IPv4 flow information from a flow slot in the Flow Sensor engine when RTM data has been computed.

```
IPV4_FIRST_FLOW_RTM_TEMPLATE_ID, 34
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SRC_ADDR_IPV4, 4
    NF_F_DST_ADDR_IPV4, 4
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_SRC_MAC, 6
    NF_F_OUT_DST_MAC, 6
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_SRC_VLAN, 2
```

```
NF_F_MPLS_LABEL_1, 3
NF_F_MIN_TTL, 1
NF_F_SRC_TOS, 1
NF_F_FLOWSENSOR_INITIATOR, 1
NF_F_TCP_SYN_TOTAL_COUNT, 2
NF_F_TCP_ACK_TOTAL_COUNT, 2
NF_F_TCP_FIN_TOTAL_COUNT, 2
NF_F_TCP_RST_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TRACES, 2
NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL, 1
NF_F_FLOWSENSOR_EMB_ICMP_TYPE, 1
NF_F_FLOWSENSOR_EMB_ICMP_CODE, 1
NF_F_FLOWSENSOR_RTT, 4
NF_F_FLOWSENSOR_SVR_RESP, 4
NF_F_FLOWSENSOR_RETRANSMITS, 2
NF_F_FLOWSENSOR_APPLICATION_ID, 4
```

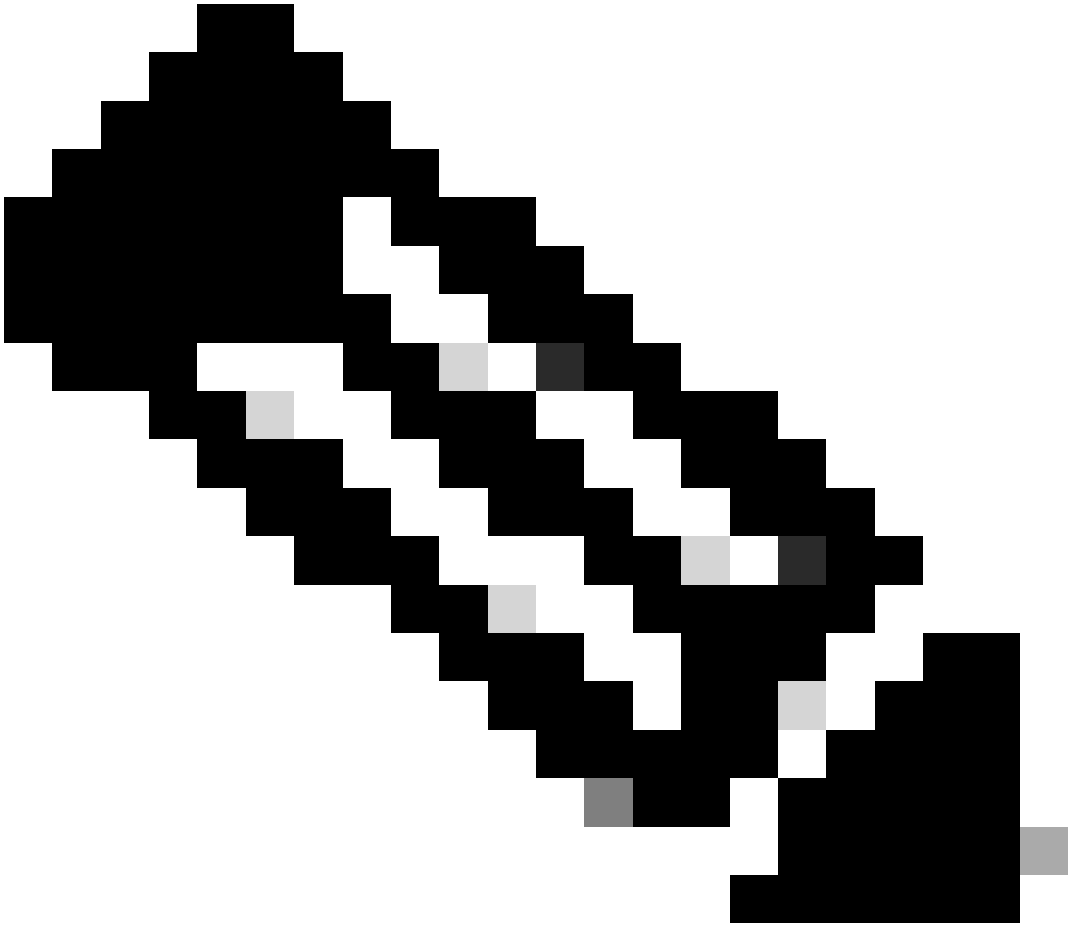
IPv4 First Flow Deep Response Time Monitoring - Template 327



Note: This template is used for the initial v9 export of IPv4 flow information from a flow slot in the Flow Sensor engine when the Export Packet Payload check box is selected and RTM data has been computed.

```
IPV4_FIRST_FLOW_DEEP_RTM_TEMPLATE_ID, 36
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SRC_ADDR_IPV4, 4
    NF_F_DST_ADDR_IPV4, 4
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_SRC_MAC, 6
    NF_F_OUT_DST_MAC, 6
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_SRC_VLAN, 2
    NF_F_MPLS_LABEL_1, 3
    NF_F_MIN_TTL, 1
    NF_F_SRC_TOS, 1
    NF_F_IP_SECTION_HEADER, 64
    NF_F_IP_SECTION_PAYLOAD, 26
    NF_F_FLOWSENSOR_INITIATOR, 1
    NF_F_TCP_SYN_TOTAL_COUNT, 2
    NF_F_TCP_ACK_TOTAL_COUNT, 2
    NF_F_TCP_FIN_TOTAL_COUNT, 2
    NF_F_TCP_RST_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TRACES, 2
    NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL, 1
    NF_F_FLOWSENSOR_EMB_ICMP_TYPE, 1
    NF_F_FLOWSENSOR_EMB_ICMP_CODE, 1
    NF_F_FLOWSENSOR_RTT, 4
    NF_F_FLOWSENSOR_SVR_RESP, 4
    NF_F_FLOWSENSOR_RETRANSMITS, 2
    NF_F_FLOWSENSOR_APPLICATION_ID, 4
```

IPv4 Flow Response Time Monitoring - Template 328

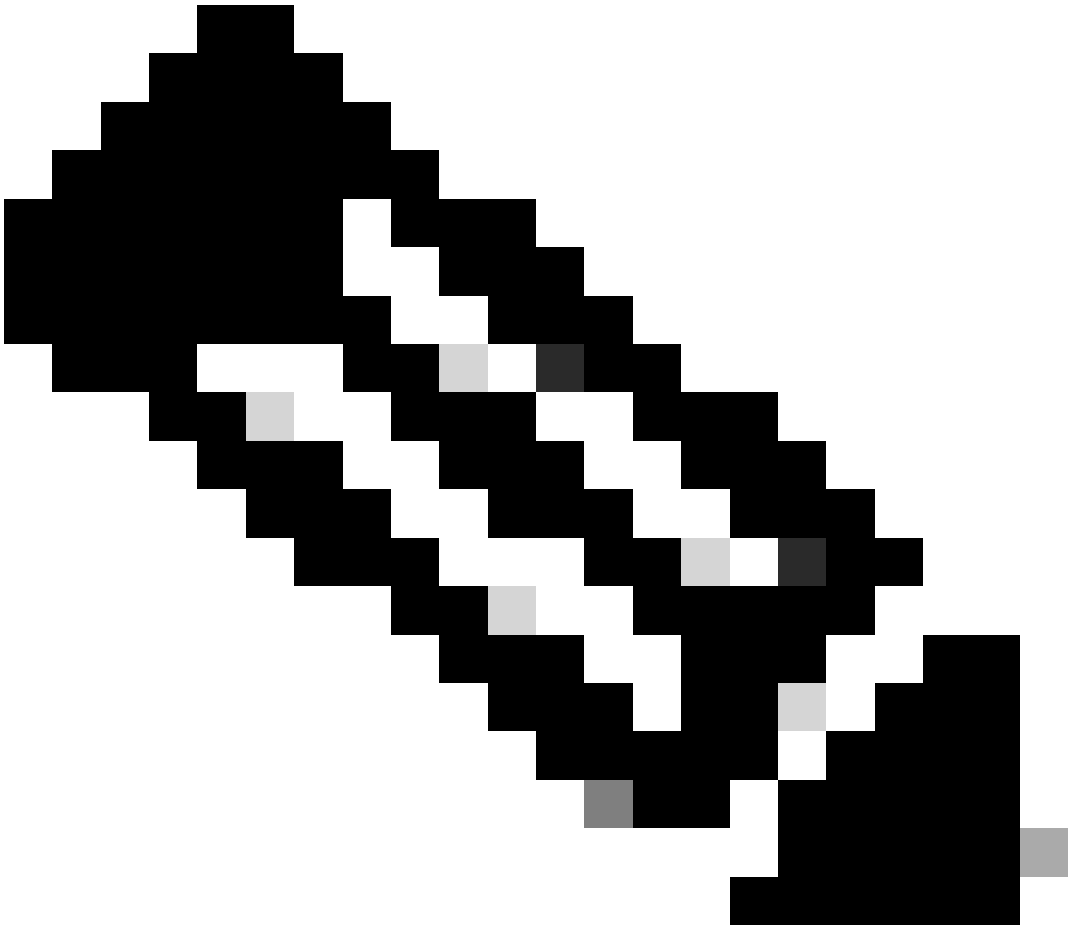


Note: This template is used for follow-on v9 exports of IPv4 flow information from a flow slot in the Flow Sensor engine when RTM data has been computed.

```
IPV4_FLOW_RTM_TEMPLATE_ID, 28
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SRC_ADDR_IPV4, 4
    NF_F_DST_ADDR_IPV4, 4
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_MIN_TTL, 1
    NF_F_TCP_SYN_TOTAL_COUNT, 2
    NF_F_TCP_ACK_TOTAL_COUNT, 2
    NF_F_TCP_FIN_TOTAL_COUNT, 2
    NF_F_TCP_RST_TOTAL_COUNT, 2
```

```
    NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TRACES, 2
    NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL, 1
    NF_F_FLOWSENSOR_EMB_ICMP_TYPE, 1
    NF_F_FLOWSENSOR_EMB_ICMP_CODE, 1
    NF_F_FLOWSENSOR_RTT, 4
    NF_F_FLOWSENSOR_SVR_RESP, 4
    NF_F_FLOWSENSOR_RETRANSMITS, 2
    NF_F_FLOWSENSOR_APPLICATION_ID, 4
```

IPv6 First Flow Response Time Monitoring - Template 329

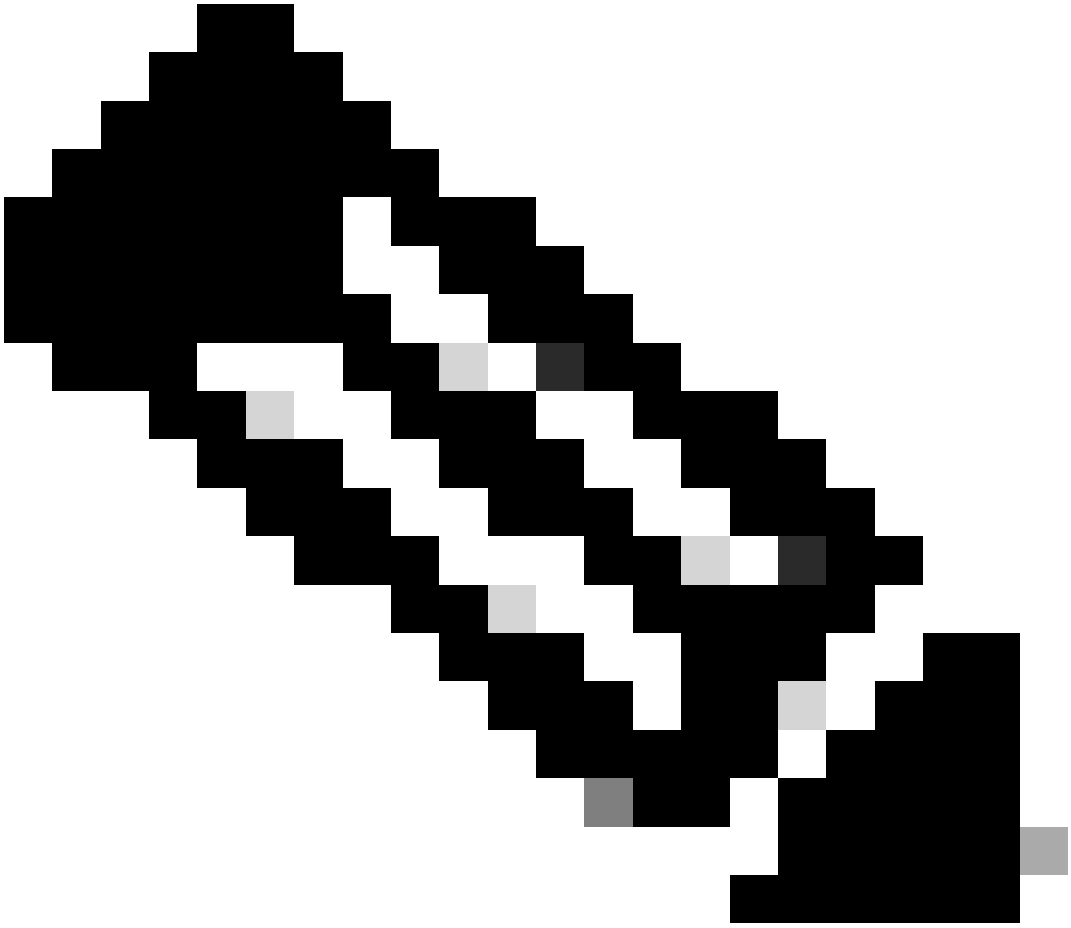


Note: This template is used for the initial v9 export of IPv6 flow information from a flow slot in the Flow Sensor engine when RTM data has been computed.

```
IPV6_FIRST_FLOW_RTM_TEMPLATE_ID, 34
    NF_F_FIRST_SWITCHED, 4
```

```
NF_F_LAST_SWITCHED, 4
NF_F_SRC_ADDR_IPV6, 16
NF_F_DST_ADDR_IPV6, 16
NF_F_L4_SRC_PORT, 2
NF_F_L4_DST_PORT, 2
NF_F_IN_SRC_MAC, 6
NF_F_OUT_DST_MAC, 6
NF_F_IN_BYTES, 4
NF_F_IN_PKTS, 4
NF_F_SRC_INTF_ID, 2
NF_F_DST_INTF_ID, 2
NF_F_PROTOCOL, 1
NF_F_TCP_FLAGS, 1
NF_F_SRC_VLAN, 2
NF_F_MPLS_LABEL_1, 3
NF_F_MIN_TTL, 1
NF_F_SRC_TOS, 1
NF_F_FLOWSENSOR_INITIATOR, 1
NF_F_TCP_SYN_TOTAL_COUNT, 2
NF_F_TCP_ACK_TOTAL_COUNT, 2
NF_F_TCP_FIN_TOTAL_COUNT, 2
NF_F_TCP_RST_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TRACES, 2
NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL, 1
NF_F_FLOWSENSOR_EMB_ICMP_TYPE, 1
NF_F_FLOWSENSOR_EMB_ICMP_CODE, 1
NF_F_FLOWSENSOR_RTT, 4
NF_F_FLOWSENSOR_SVR_RESP, 4
NF_F_FLOWSENSOR_RETRANSMITS, 2
NF_F_FLOWSENSOR_APPLICATION_ID, 4
```

IPv6 First Flow Deep Response Time Monitoring - Template 330

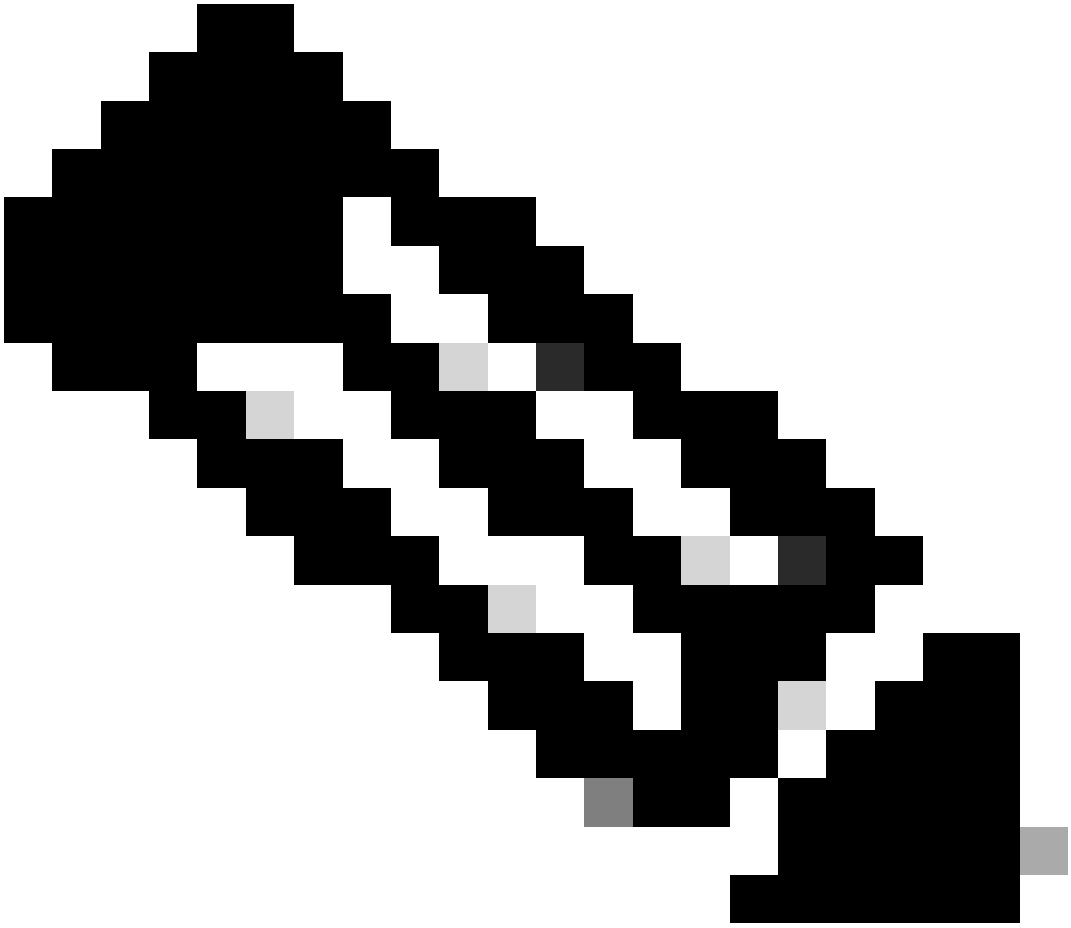


Note: This template is used for the initial v9 export of IPv6 flow information from a flow slot in the Flow Sensor engine when the Export Packet Payload check box is selected and RTM data has been computed.

```
IPV6_FIRST_FLOW_DEEP_RTM_TEMPLATE_ID, 36
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SRC_ADDR_IPV6, 16
    NF_F_DST_ADDR_IPV6, 16
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_SRC_MAC, 6
    NF_F_OUT_DST_MAC, 6
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_SRC_VLAN, 2
    NF_F_MPLS_LABEL_1, 3
```

```
NF_F_MIN_TTL, 1
NF_F_SRC_TOS, 1
NF_F_IP_SECTION_HEADER, 64
NF_F_IP_SECTION_PAYLOAD, 26
NF_F_FLOWSENSOR_INITIATOR, 1
NF_F_TCP_SYN_TOTAL_COUNT, 2
NF_F_TCP_ACK_TOTAL_COUNT, 2
NF_F_TCP_FIN_TOTAL_COUNT, 2
NF_F_TCP_RST_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TRACES, 2
NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL, 1
NF_F_FLOWSENSOR_EMB_ICMP_TYPE, 1
NF_F_FLOWSENSOR_EMB_ICMP_CODE, 1
NF_F_FLOWSENSOR_RTT, 4
NF_F_FLOWSENSOR_SVR_RESP, 4
NF_F_FLOWSENSOR_RETRANSMITS, 2
NF_F_FLOWSENSOR_APPLICATION_ID, 4
```

IPv6 Flow Response Time Monitoring - Template 331

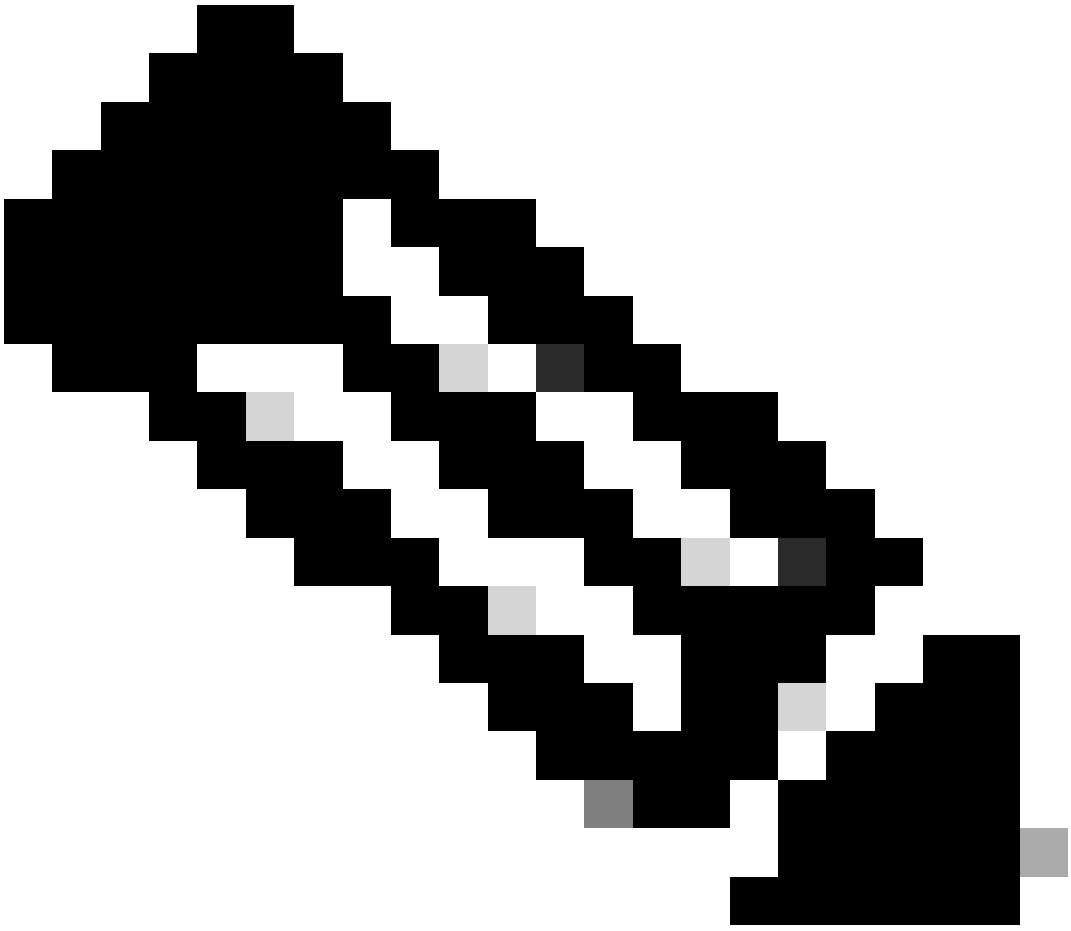


Note: This template is used for follow-on v9 exports of IPv6 flow information from a flow slot in the Flow Sensor engine when RTM data has been computed.

```
IPV6_FLOW_RTM_TEMPLATE_ID, 28
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SRC_ADDR_IPV6, 16
    NF_F_DST_ADDR_IPV6, 16
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_MIN_TTL, 1
    NF_F_TCP_SYN_TOTAL_COUNT, 2
    NF_F_TCP_ACK_TOTAL_COUNT, 2
    NF_F_TCP_FIN_TOTAL_COUNT, 2
    NF_F_TCP_RST_TOTAL_COUNT, 2
```

```
    NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT, 2
    NF_F_FLOWSENSOR_TRACES, 2
    NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL, 1
    NF_F_FLOWSENSOR_EMB_ICMP_TYPE, 1
    NF_F_FLOWSENSOR_EMB_ICMP_CODE, 1
    NF_F_FLOWSENSOR_RTT, 4
    NF_F_FLOWSENSOR_SVR_RESP, 4
    NF_F_FLOWSENSOR_RETRANSMITS, 2
    NF_F_FLOWSENSOR_APPLICATION_ID, 4
```

IPv4 Destination Email Counts - Template 332

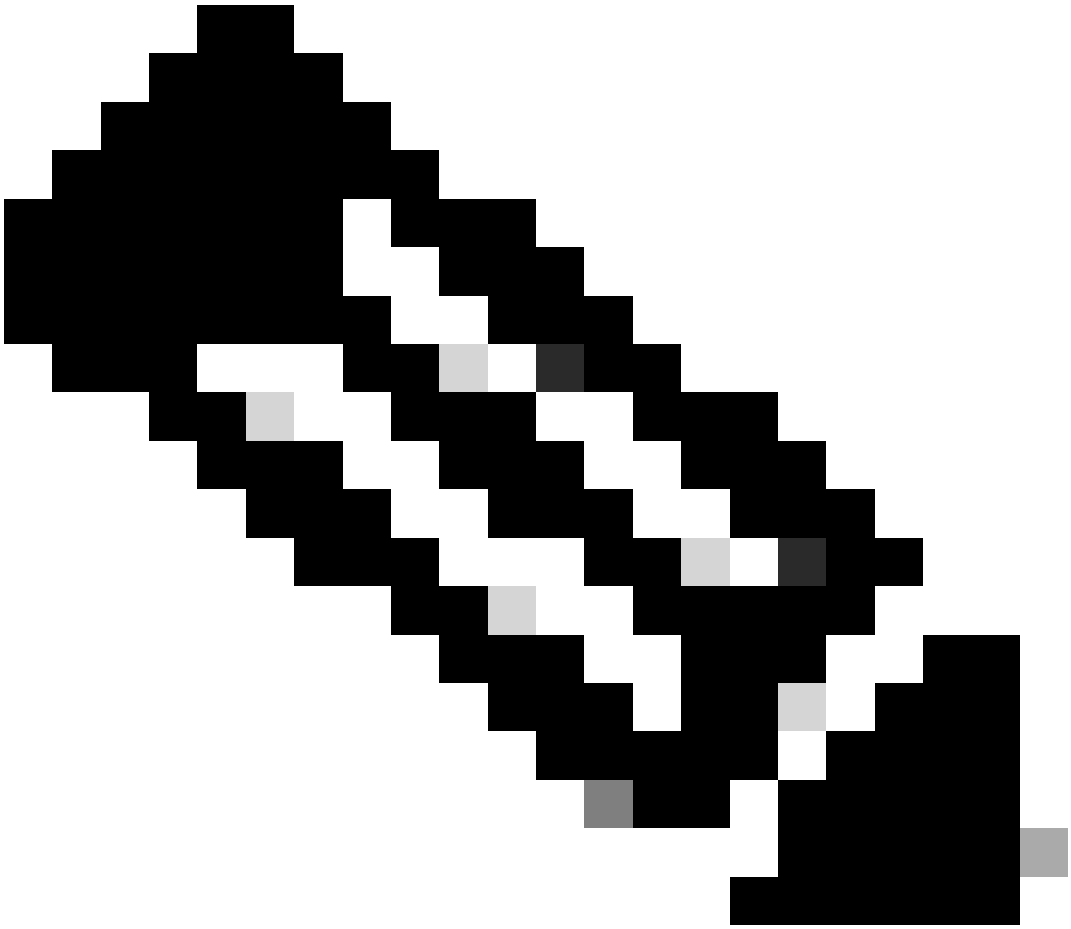


Note: This template is used for v9 exports of IPv4 email counts information received by the destination IP address as detected by the Flow Sensor engine.

```
IPV4_DST_EMAIL_COUNTS_TEMPLATE_ID, 8
    NF_F_SRC_ADDR_IPV4, 4
```

```
    NF_F_DST_ADDR_IPV4, 4
    NF_F_FLOWSENSOR_DST_EMAIL_IN, 4
    NF_F_FLOWSENSOR_DST_EMAIL_OUT, 4
    NF_F_FLOWSENSOR_DST_EMAIL_IN_MESS, 4
    NF_F_FLOWSENSOR_DST_EMAIL_OUT_MESS, 4
    NF_F_FLOWSENSOR_DST_EMAIL_IN_TRYS, 4
    NF_F_FLOWSENSOR_DST_EMAIL_OUT_TRYS, 4
```

IPv6 Source Email Counts - Template 333

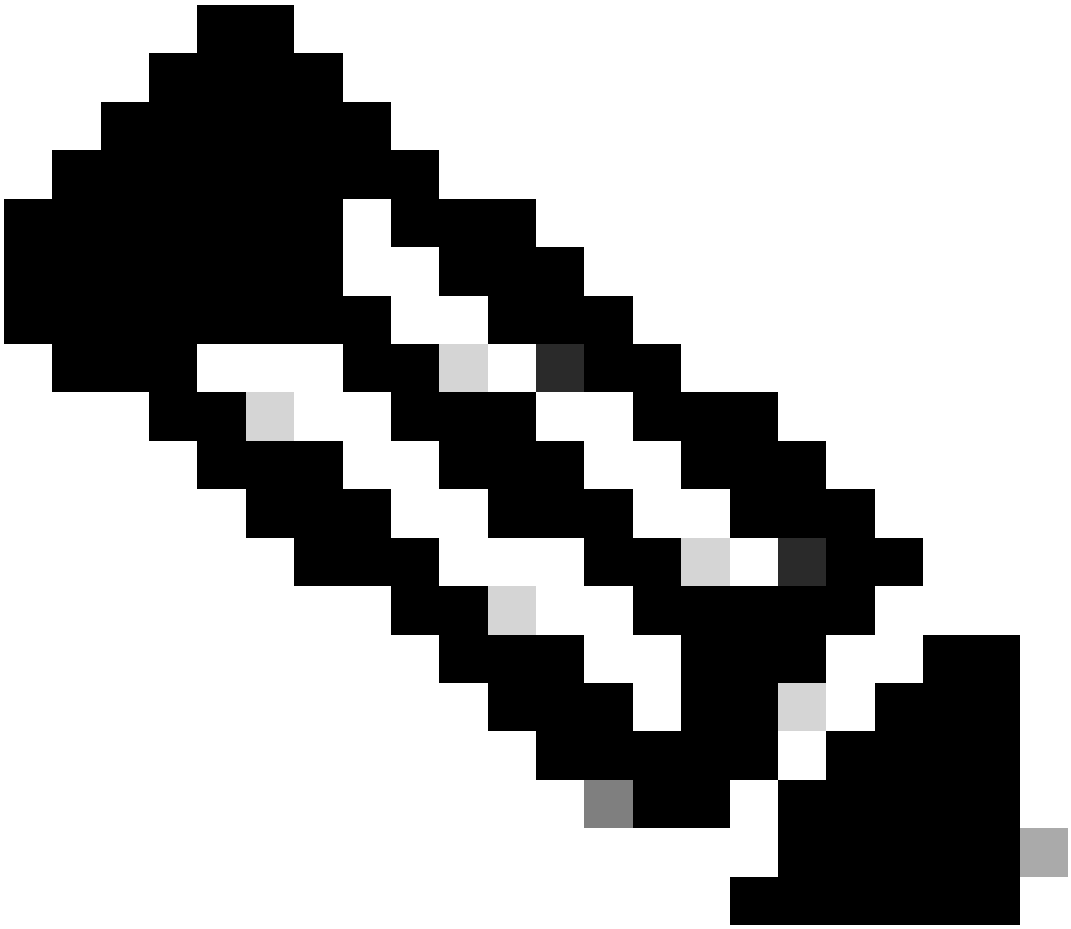


Note: This template is used for v9 exports of IPv6 email counts information sourced from the source IP address as detected by the Flow Sensor engine.

```
IPV6_SRC_EMAIL_COUNTS_TEMPLATE_ID, 8
    NF_F_SRC_ADDR_IPV6, 16
    NF_F_DST_ADDR_IPV6, 16
    NF_F_FLOWSENSOR_SRC_EMAIL_IN, 4
    NF_F_FLOWSENSOR_SRC_EMAIL_OUT, 4
    NF_F_FLOWSENSOR_SRC_EMAIL_IN_MESS, 4
```

```
    NF_F_FLOWSENSOR_SRC_EMAIL_OUT_MESS, 4
    NF_F_FLOWSENSOR_SRC_EMAIL_IN_TRYS, 4
    NF_F_FLOWSENSOR_SRC_EMAIL_OUT_TRYS, 4
```

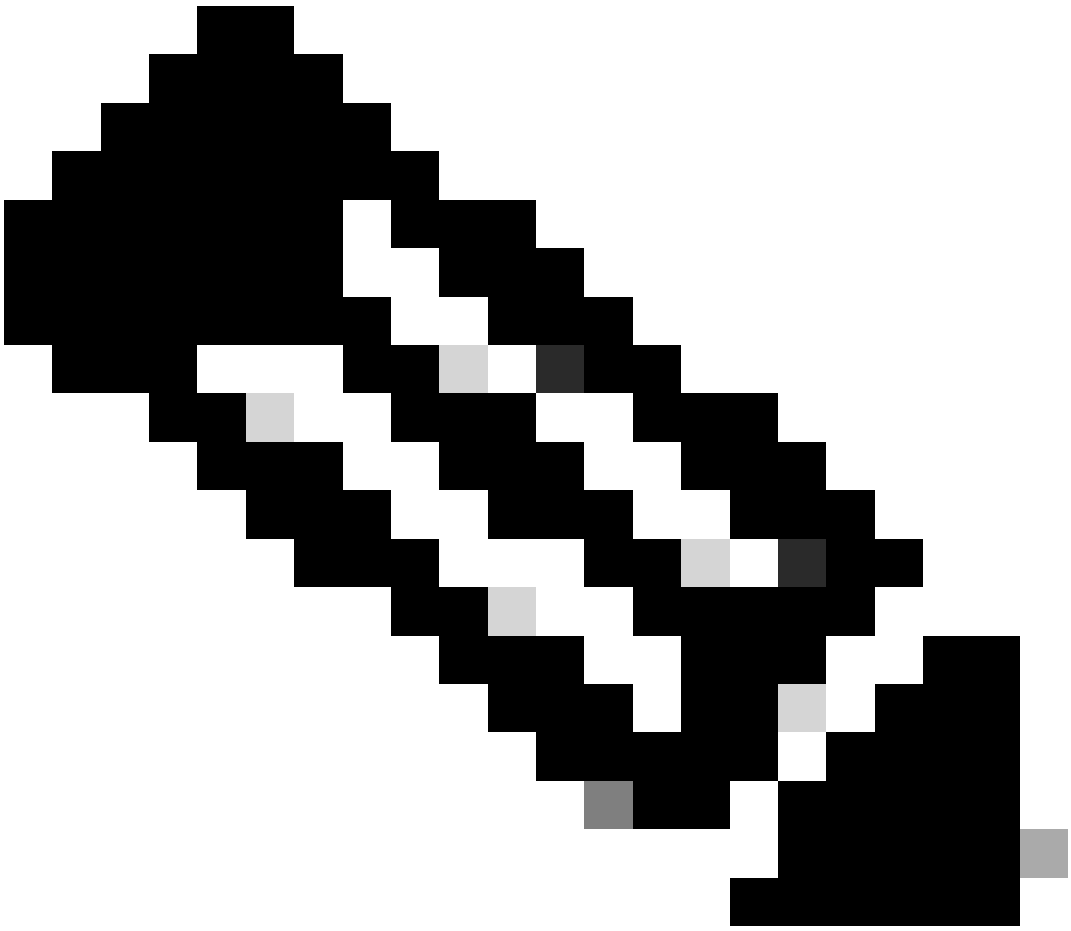
IPv6 Destination Email Counts - Template 334



Note: This template is used for v9 exports of IPv6 email counts information received by the destination IP address as detected by the Flow Sensor engine.

```
IPV6_DST_EMAIL_COUNTS_TEMPLATE_ID, 8
    NF_F_SRC_ADDR_IPV6, 16
    NF_F_DST_ADDR_IPV6, 16
    NF_F_FLOWSENSOR_DST_EMAIL_IN, 4
    NF_F_FLOWSENSOR_DST_EMAIL_OUT, 4
    NF_F_FLOWSENSOR_DST_EMAIL_IN_MESS, 4
    NF_F_FLOWSENSOR_DST_EMAIL_OUT_MESS, 4
    NF_F_FLOWSENSOR_DST_EMAIL_IN_TRYS, 4
    NF_F_FLOWSENSOR_DST_EMAIL_OUT_TRYS, 4
```

IPv4 First Flow IPFIX Template 335

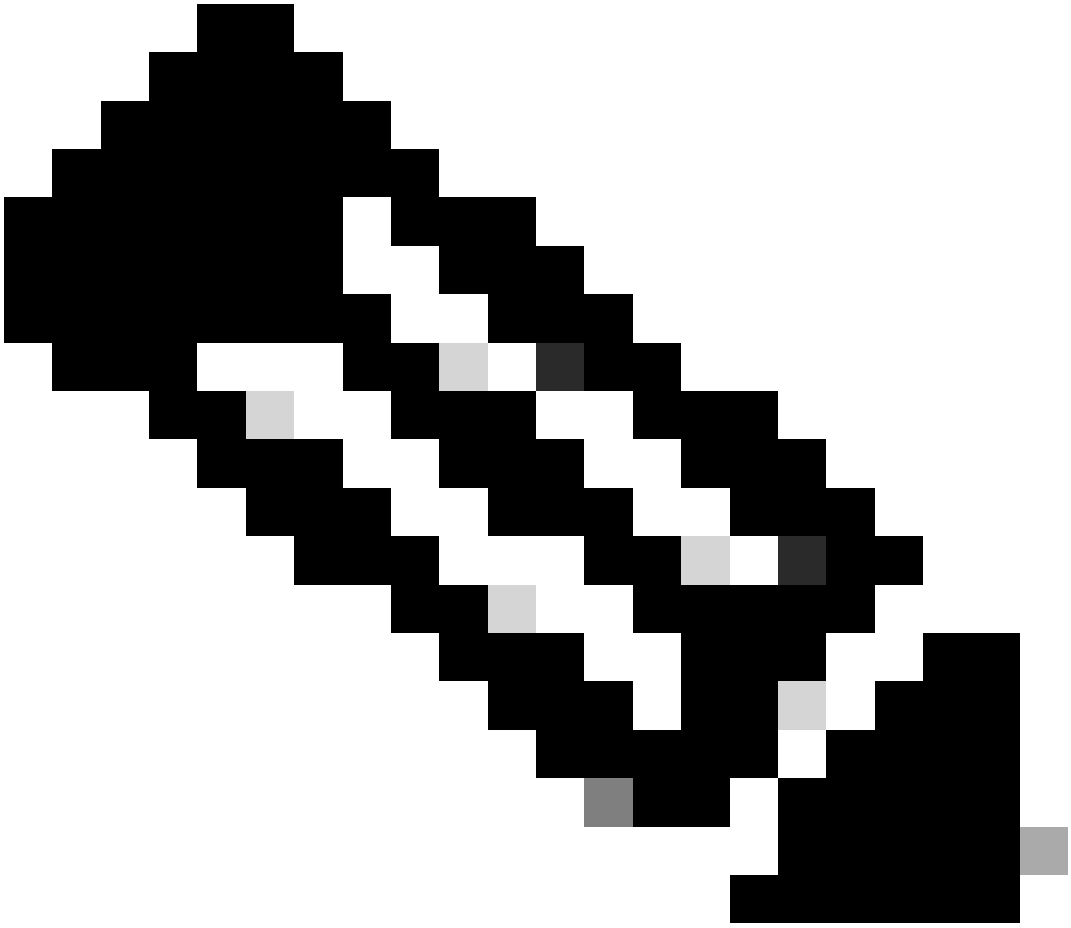


Note: This template is used for the initial IPFIX export of IPv4 flow information from a flow slot in the Flow Sensor engine.

```
IPV4_FIRST_FLOW_IPFIX_TEMPLATE_ID, 33
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SYSTEM_INIT_TIME_MILLISECONDS, 8
    NF_F_SRC_ADDR_IPV4, 4
    NF_F_DST_ADDR_IPV4, 4
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_SRC_MAC, 6
    NF_F_OUT_DST_MAC, 6
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
```

```
NF_F_SRC_VLAN, 2
NF_F_MPLS_LABEL_1, 3
NF_F_MIN_TTL, 1
NF_F_SRC_TOS, 1
NF_F_FLOWSENSOR_INITIATOR | 0x8000, 1
0000, 8712
NF_F_TCP_SYN_TOTAL_COUNT, 2
NF_F_TCP_ACK_TOTAL_COUNT, 2
NF_F_TCP_FIN_TOTAL_COUNT, 2
NF_F_TCP_RST_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TRACES | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_TYPE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_CODE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_ID | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_DETAILS | 0x8000, 65535
0000, 8712
```

IPv4 First Flow Deep IPFIX - Template 336

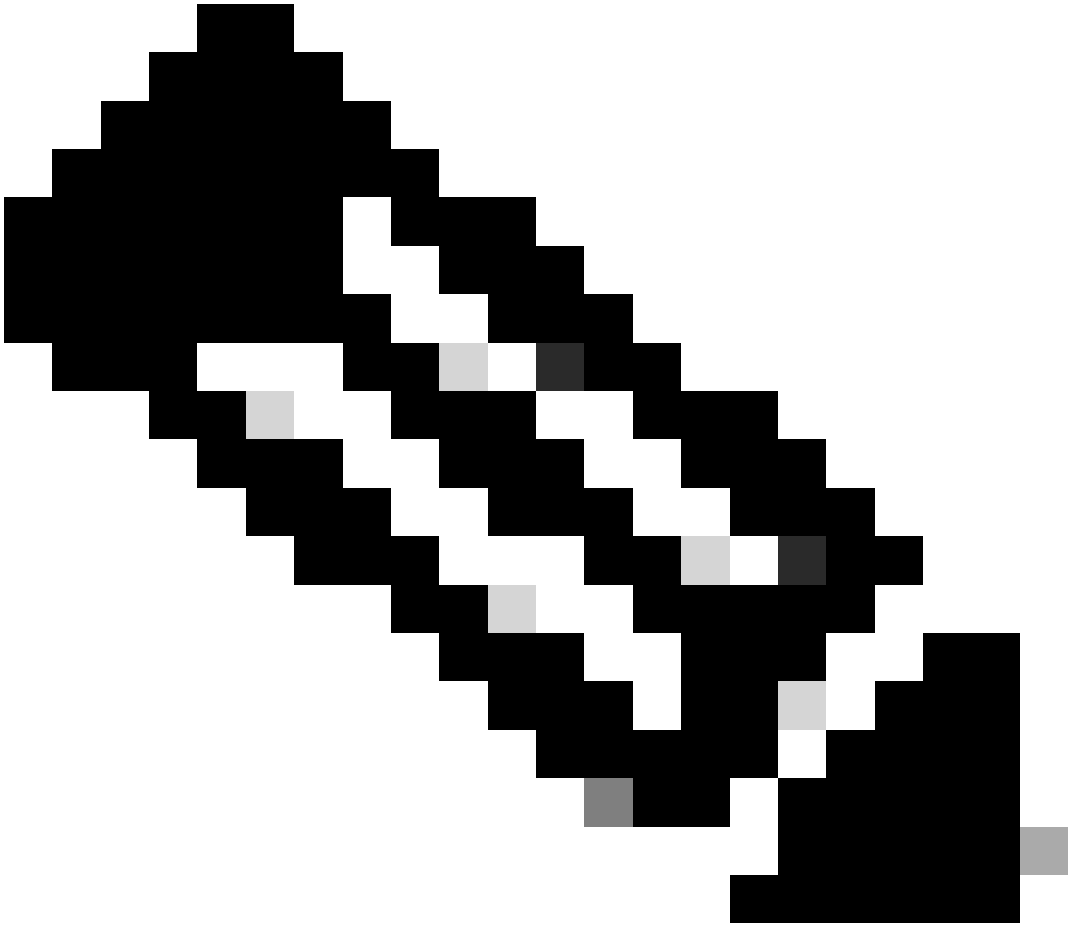


Note: This template is used for the initial IPFIX export of IPv4 flow information from a flow slot in the Flow Sensor engine when the Export Packet Payload check box is selected.

```
IPV4_FIRST_FLOW_DEEP_IPFIX_TEMPLATE_ID, 35
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SYSTEM_INIT_TIME_MILLISECONDS, 8
    NF_F_SRC_ADDR_IPV4, 4
    NF_F_DST_ADDR_IPV4, 4
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_SRC_MAC, 6
    NF_F_OUT_DST_MAC, 6
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_SRC_VLAN, 2
    NF_F_MPLS_LABEL_1, 3
```

```
NF_F_MIN_TTL, 1
NF_F_SRC_TOS, 1
NF_F_IP_SECTION_HEADER, 64
NF_F_IP_SECTION_PAYLOAD, 26
NF_F_FLOWSENSOR_INITIATOR | 0x8000, 1
0000, 8712
NF_F_TCP_SYN_TOTAL_COUNT, 2
NF_F_TCP_ACK_TOTAL_COUNT, 2
NF_F_TCP_FIN_TOTAL_COUNT, 2
NF_F_TCP_RST_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TRACES | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_TYPE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_CODE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_ID | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_DETAILS | 0x8000, 65535
0000, 8712
```

IPv4 Flow IPFIX - Template 337

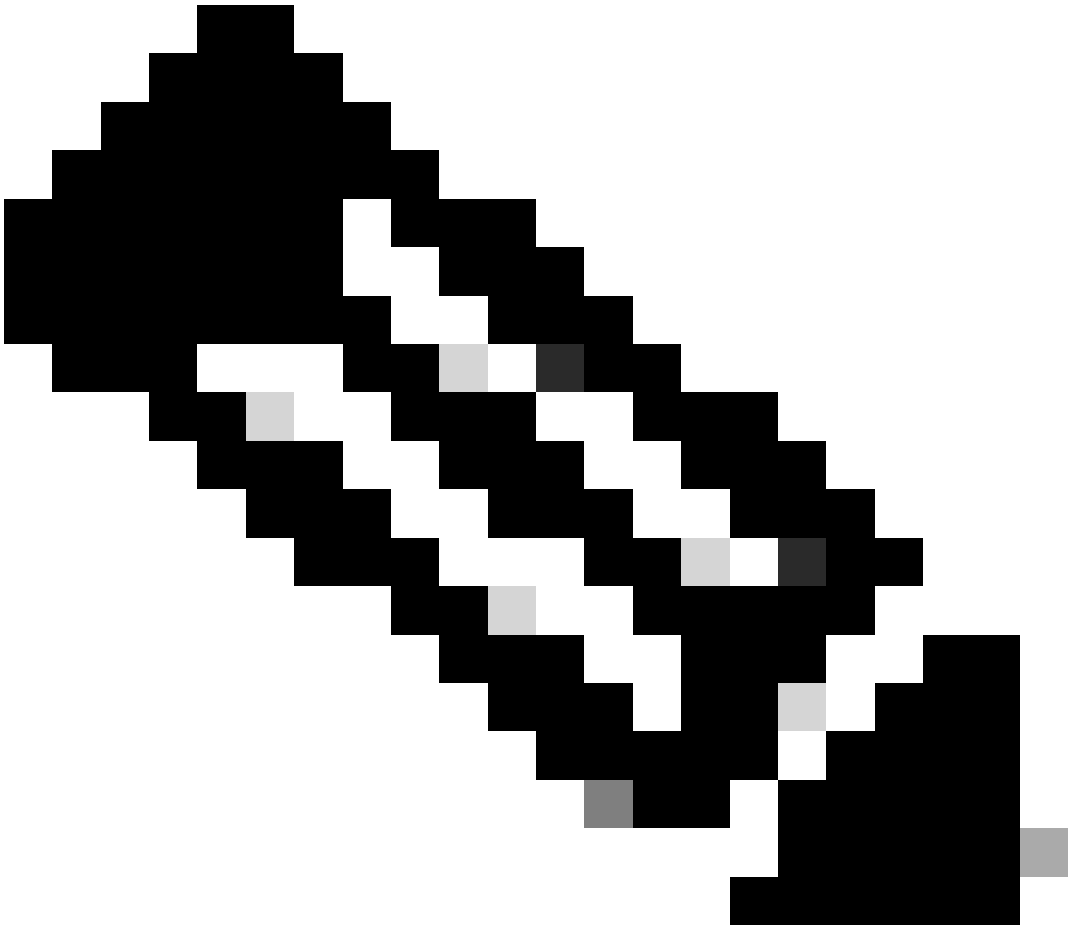


Note: This template is used for follow-on IPFIX exports of IPv4 flow information from a flow slot in the Flow Sensor engine.

```
IPV4_FLOW_IPFIX_TEMPLATE_ID, 27
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SYSTEM_INIT_TIME_MILLISECONDS, 8
    NF_F_SRC_ADDR_IPV4, 4
    NF_F_DST_ADDR_IPV4, 4
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_MIN_TTL, 1
    NF_F_TCP_SYN_TOTAL_COUNT, 2
    NF_F_TCP_ACK_TOTAL_COUNT, 2
    NF_F_TCP_FIN_TOTAL_COUNT, 2
```

```
NF_F_TCP_RST_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TRACES | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_TYPE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_CODE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_ID | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_DETAILS | 0x8000, 65535
0000, 8712
```

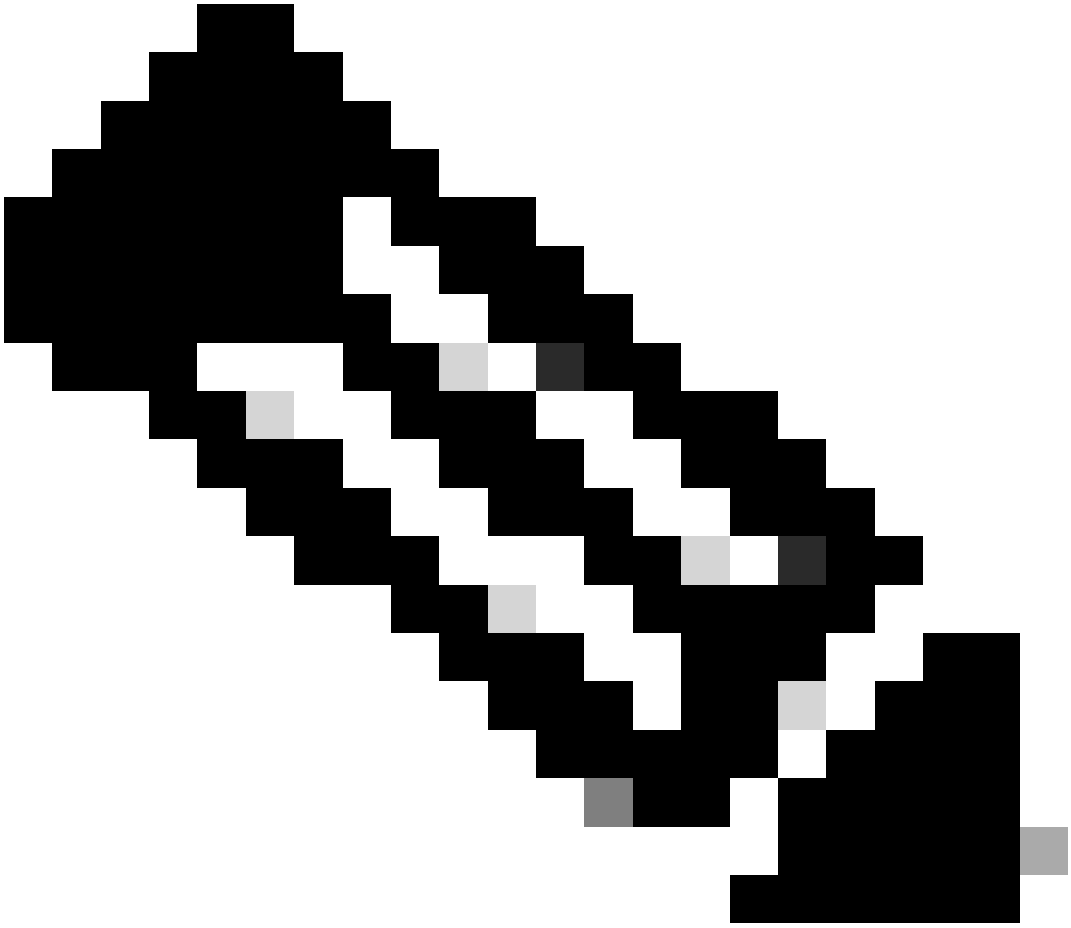
IPv4 Event IPFIX - Template 338



Note: This template is used for IPFIX exports of IPv4 bad fragment and flag combination counts detected by the Flow Sensor engine.

```
IPV4_EVENT_IPFIX_TEMPLATE_ID, 19
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SYSTEM_INIT_TIME_MILLISECONDS, 8
    NF_F_SRC_ADDR_IPV4, 4
    NF_F_DST_ADDR_IPV4, 4
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_PROTOCOL, 1
    NF_F_FLOWSENSOR_BAD_FLAG_XMAS | 0x8000, 2
    0000, 8712
    NF_F_FLOWSENSOR_BAD_FLAG_SYN_FIN | 0x8000, 2
    0000, 8712
    NF_F_FLOWSENSOR_BAD_FLAG_BAD_RST | 0x8000, 2
    0000, 8712
    NF_F_FLOWSENSOR_BAD_FLAG_NO_ACK | 0x8000, 2
    0000, 8712
    NF_F_FLOWSENSOR_BAD_FLAG_URG | 0x8000, 2
    0000, 8712
    NF_F_FLOWSENSOR_BAD_FLAG_NOFLAG | 0x8000, 2
    0000, 8712
    NF_F_FLOWSENSOR_BAD_TCP_PROBE | 0x8000, 2
    0000, 8712
    NF_F_FLOWSENSOR_SHORT_FRAG_ATTACK | 0x8000, 2
    0000, 8712
    NF_F_FLOWSENSOR_FRAG_PKT_TOO_SHORT | 0x8000, 2
    0000, 8712
    NF_F_FLOWSENSOR_FRAG_PKT_TOO_LONG | 0x8000, 2
    0000, 8712
    NF_F_FLOWSENSOR_FRAG_DIFFERENT_SIZES | 0x8000, 2
    0000, 8712
```

IPv6 First Flow IPFIX - Template 339

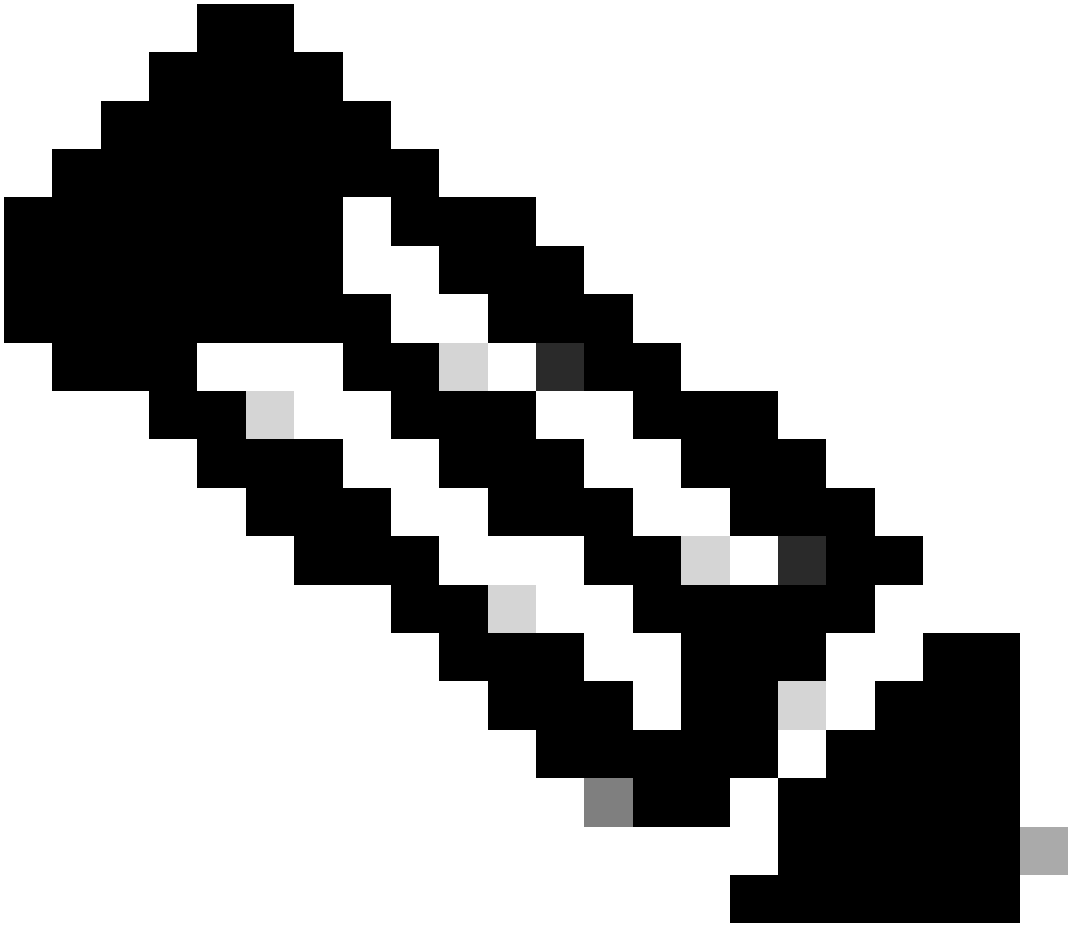


Note: This template is used for the initial IPFIX export of IPv6 flow information from a flow slot in the Flow Sensor engine.

```
IPV6_FIRST_FLOW_IPFIX_TEMPLATE_ID, 33
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SYSTEM_INIT_TIME_MILLISECONDS, 8
    NF_F_SRC_ADDR_IPV6, 16
    NF_F_DST_ADDR_IPV6, 16
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_SRC_MAC, 6
    NF_F_OUT_DST_MAC, 6
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_SRC_VLAN, 2
    NF_F_MPLS_LABEL_1, 3
```

```
NF_F_MIN_TTL, 1
NF_F_SRC_TOS, 1
NF_F_FLOWSENSOR_INITIATOR | 0x8000, 1
0000, 8712
NF_F_TCP_SYN_TOTAL_COUNT, 2
NF_F_TCP_ACK_TOTAL_COUNT, 2
NF_F_TCP_FIN_TOTAL_COUNT, 2
NF_F_TCP_RST_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TRACES | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_TYPE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_CODE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_ID | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_DETAILS | 0x8000, 65535
0000, 8712
```

IPv6 First Flow Deep IPFIX - Template 340

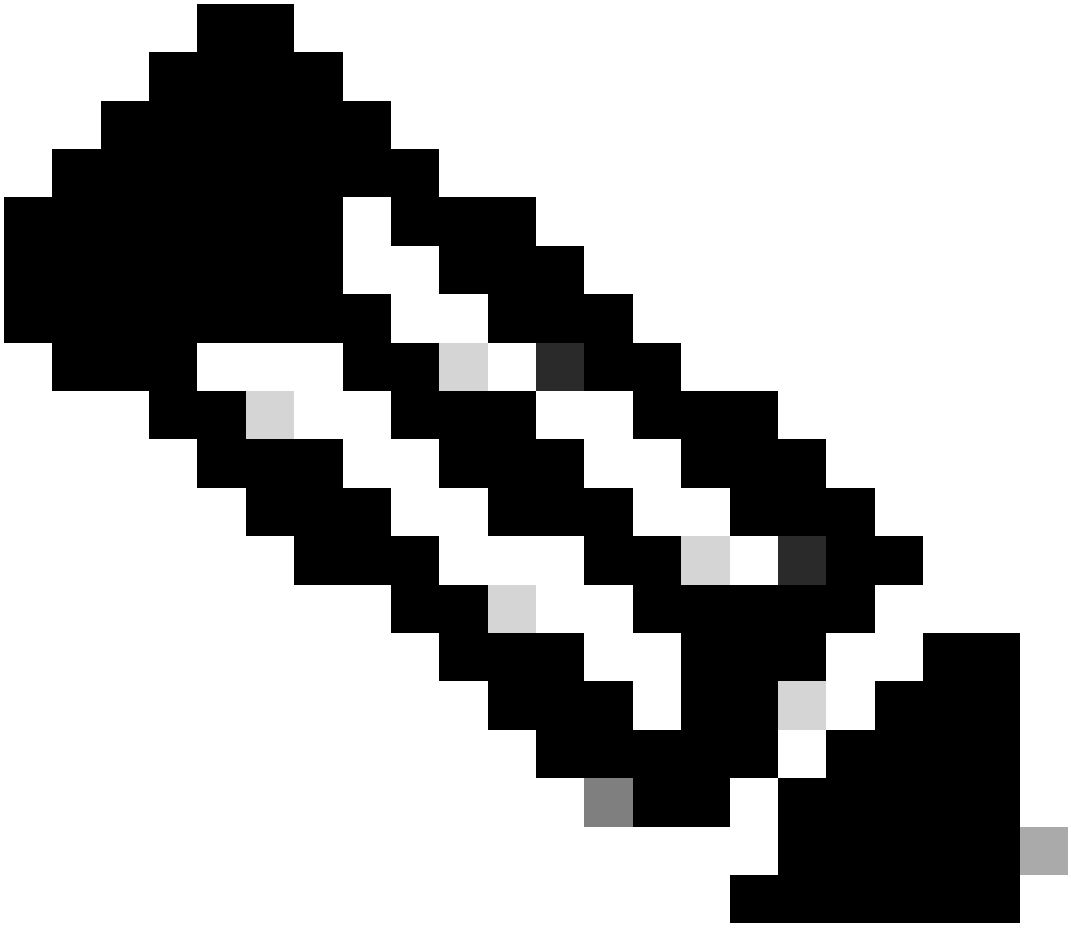


Note: This template is used for the initial IPFIX export of IPv6 flow information from a flow slot in the Flow Sensor engine when the Export Packet Payload check box is selected.

```
IPV6_FIRST_FLOW_DEEP_IPFIX_TEMPLATE_ID, 35
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SYSTEM_INIT_TIME_MILLISECONDS, 8
    NF_F_SRC_ADDR_IPV6, 16
    NF_F_DST_ADDR_IPV6, 16
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_SRC_MAC, 6
    NF_F_OUT_DST_MAC, 6
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_SRC_VLAN, 2
    NF_F_MPLS_LABEL_1, 3
```

```
NF_F_MIN_TTL, 1
NF_F_SRC_TOS, 1
NF_F_IP_SECTION_HEADER, 64
NF_F_IP_SECTION_PAYLOAD, 26
NF_F_FLOWSENSOR_INITIATOR | 0x8000, 1
0000, 8712
NF_F_TCP_SYN_TOTAL_COUNT, 2
NF_F_TCP_ACK_TOTAL_COUNT, 2
NF_F_TCP_FIN_TOTAL_COUNT, 2
NF_F_TCP_RST_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TRACES | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_TYPE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_CODE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_ID | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_DETAILS | 0x8000, 65535
0000, 8712
```

IPv6 Flow IPFIX - Template 341

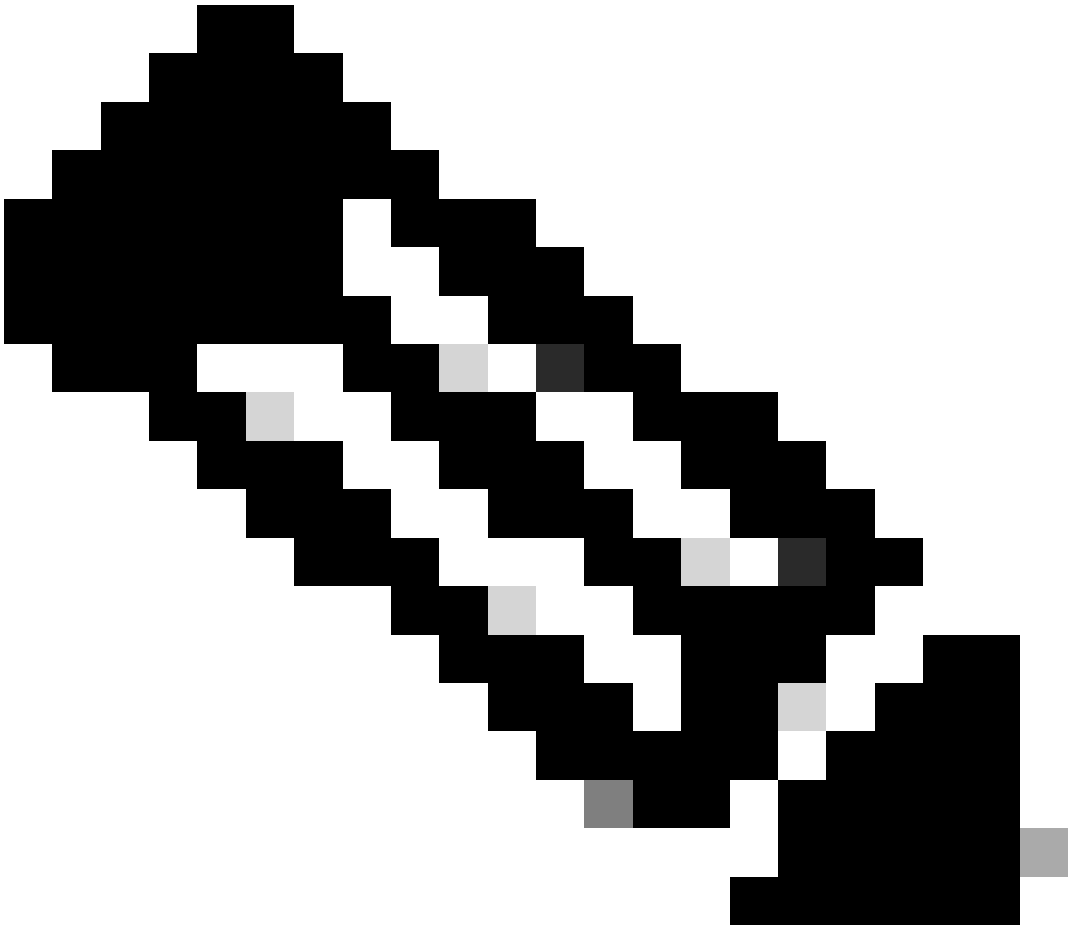


Note: This template is used for follow-on IPFIX exports of IPv6 flow information from a flow slot in the Flow Sensor engine.

```
IPV6_FLOW_IPFIX_TEMPLATE_ID, 27
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SYSTEM_INIT_TIME_MILLISECONDS, 8
    NF_F_SRC_ADDR_IPV6, 16
    NF_F_DST_ADDR_IPV6, 16
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_MIN_TTL, 1
    NF_F_TCP_SYN_TOTAL_COUNT, 2
    NF_F_TCP_ACK_TOTAL_COUNT, 2
    NF_F_TCP_FIN_TOTAL_COUNT, 2
```

```
NF_F_TCP_RST_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TRACES | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_TYPE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_CODE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_ID | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_DETAILS | 0x8000, 65535
0000, 8712
```

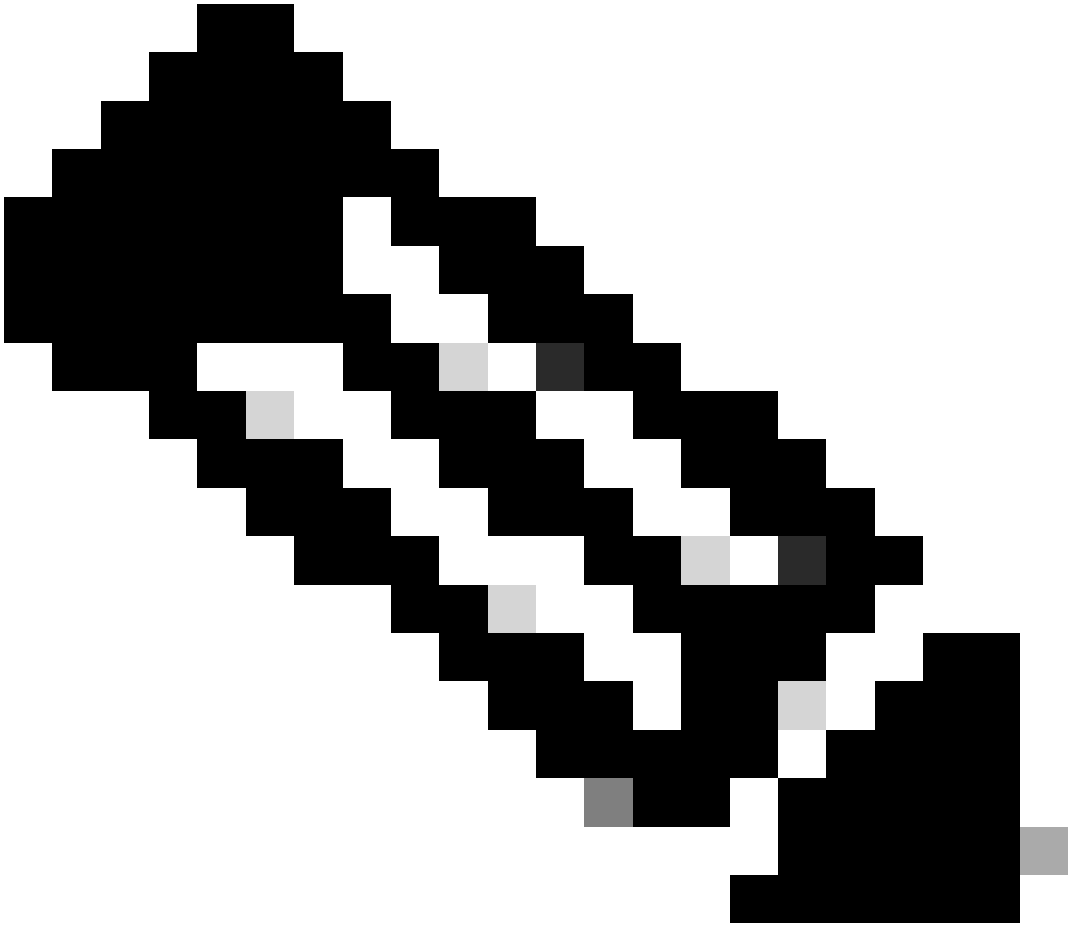
IPv6 Event IPFIX - Template 342



Note: This template is used for IPFIX exports of IPv6 bad fragment and flag combination counts detected by the Flow Sensor engine.

```
IPV6_EVENT_IPFIX_TEMPLATE_ID, 19
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SYSTEM_INIT_TIME_MILLISECONDS, 8
    NF_F_SRC_ADDR_IPV6, 16
    NF_F_DST_ADDR_IPV6, 16
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_PROTOCOL, 1
    NF_F_FLOWSENSOR_BAD_FLAG_XMAS | 0x8000, 2
    0000, 8712
    NF_F_FLOWSENSOR_BAD_FLAG_SYN_FIN | 0x8000, 2
    0000, 8712
    NF_F_FLOWSENSOR_BAD_FLAG_BAD_RST | 0x8000, 2
    0000, 8712
    NF_F_FLOWSENSOR_BAD_FLAG_NO_ACK | 0x8000, 2
    0000, 8712
    NF_F_FLOWSENSOR_BAD_FLAG_URG | 0x8000, 2
    0000, 8712
    NF_F_FLOWSENSOR_BAD_FLAG_NOFLAG | 0x8000, 2
    0000, 8712
    NF_F_FLOWSENSOR_BAD_TCP_PROBE | 0x8000, 2
    0000, 8712
    NF_F_FLOWSENSOR_SHORT_FRAG_ATTACK | 0x8000, 2
    0000, 8712
    NF_F_FLOWSENSOR_FRAG_PKT_TOO_SHORT | 0x8000, 2
    0000, 8712
    NF_F_FLOWSENSOR_FRAG_PKT_TOO_LONG | 0x8000, 2
    0000, 8712
    NF_F_FLOWSENSOR_FRAG_DIFFERENT_SIZES | 0x8000, 2
    0000, 8712
```

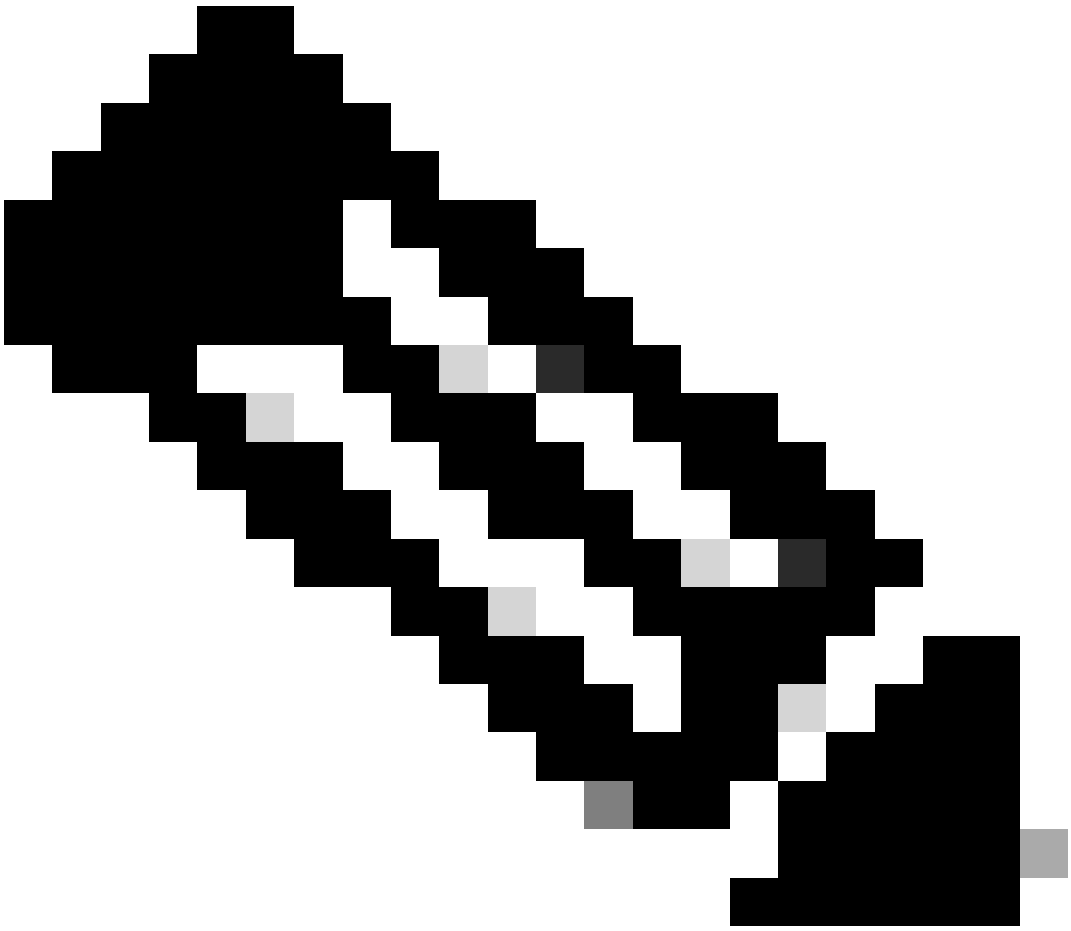
IPv4 Source Email Counts IPFIX - Template 343



Note: This template is used for IPFIX exports of IPv4 email counts information sourced from the source IP address as detected by the Flow Sensor engine.

```
IPV4_SRC_EMAIL_COUNTS_IPFIX_TEMPLATE_ID, 8
    NF_F_SRC_ADDR_IPV4, 4
    NF_F_DST_ADDR_IPV4, 4
    NF_F_FLOWSENSOR_SRC_EMAIL_IN | 0x8000, 4
    0000, 8712
    NF_F_FLOWSENSOR_SRC_EMAIL_OUT | 0x8000, 4
    0000, 8712
    NF_F_FLOWSENSOR_SRC_EMAIL_IN_MESS | 0x8000, 4
    0000, 8712
    NF_F_FLOWSENSOR_SRC_EMAIL_OUT_MESS | 0x8000, 4
    0000, 8712
    NF_F_FLOWSENSOR_SRC_EMAIL_IN_TRYS | 0x8000, 4
    0000, 8712
    NF_F_FLOWSENSOR_SRC_EMAIL_OUT_TRYS | 0x8000, 4
    0000, 8712
```

IPv4 First Flow Response Time Monitoring - Template 344

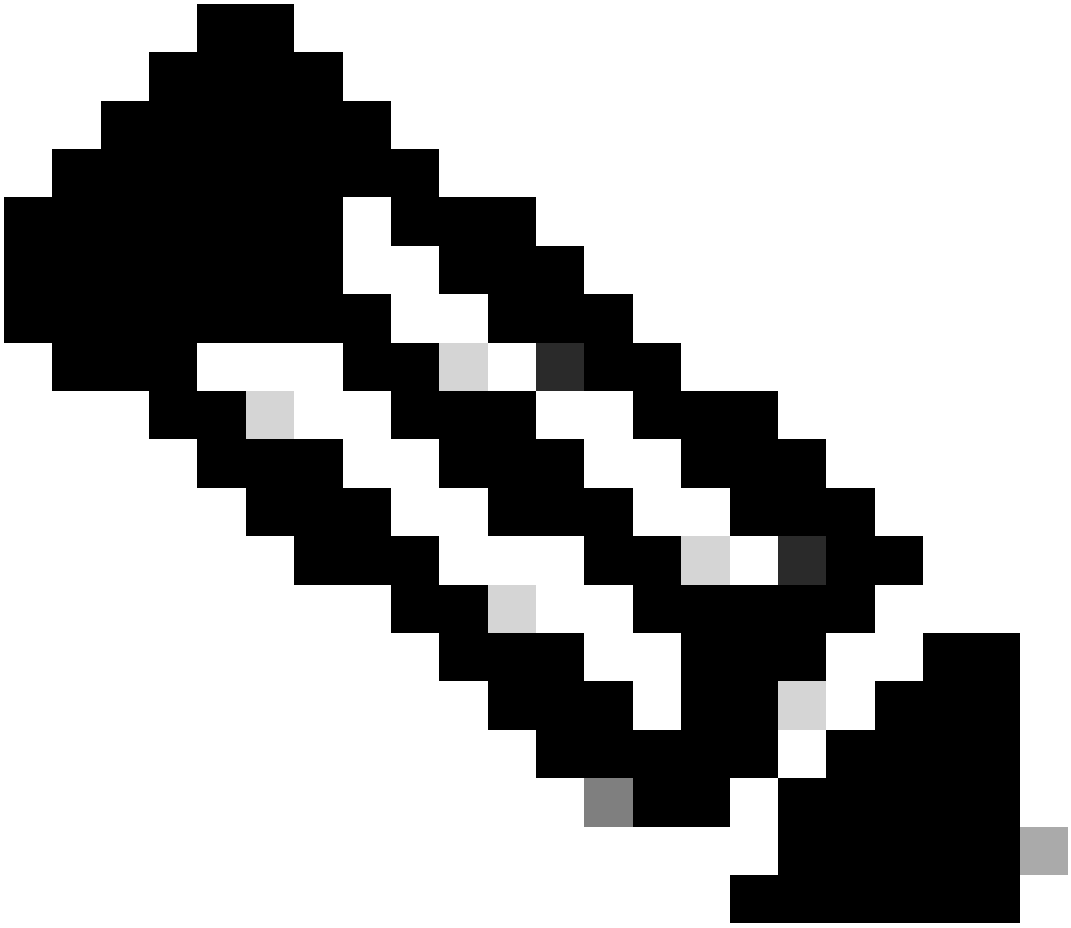


Note: This template is used for the initial IPFIX export of IPv4 flow information from a flow slot in the Flow Sensor engine when RTM data has been computed.

```
IPV4_FIRST_FLOW_RTM_IPFIX_TEMPLATE_ID, 36
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SYSTEM_INIT_TIME_MILLISECONDS, 8
    NF_F_SRC_ADDR_IPV4, 4
    NF_F_DST_ADDR_IPV4, 4
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_SRC_MAC, 6
    NF_F_OUT_DST_MAC, 6
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
```

```
NF_F_SRC_VLAN, 2
NF_F_MPLS_LABEL_1, 3
NF_F_MIN_TTL, 1
NF_F_SRC_TOS, 1
NF_F_FLOWSENSOR_INITIATOR | 0x8000, 1
0000, 8712
NF_F_TCP_SYN_TOTAL_COUNT, 2
NF_F_TCP_ACK_TOTAL_COUNT, 2
NF_F_TCP_FIN_TOTAL_COUNT, 2
NF_F_TCP_RST_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TRACES | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_TYPE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_CODE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_RTT | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_SVR_RESP | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_RETRANSMITS | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_ID | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_DETAILS | 0x8000, 65535
0000, 8712
```

IPv4 First Flow Deep Response Time Monitoring - Template 345

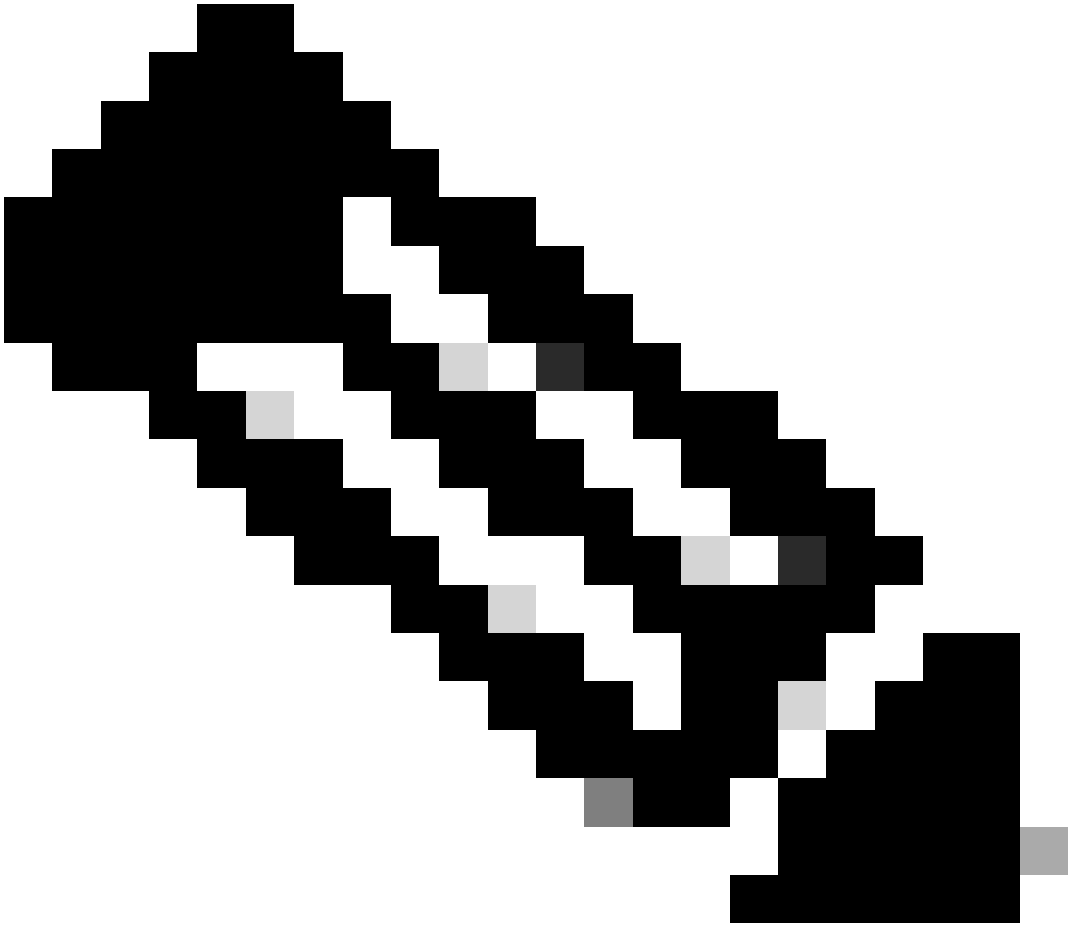


Note: This template is used for the initial IPFIX export of IPv4 flow information from a flow slot in the Flow Sensor engine when the Export Packet Payload check box is selected.

```
IPV4_FIRST_FLOW_DEEP_RTM_IPFIX_TEMPLATE_ID, 38
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SYSTEM_INIT_TIME_MILLISECONDS, 8
    NF_F_SRC_ADDR_IPV4, 4
    NF_F_DST_ADDR_IPV4, 4
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_SRC_MAC, 6
    NF_F_OUT_DST_MAC, 6
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_SRC_VLAN, 2
    NF_F_MPLS_LABEL_1, 3
```

```
NF_F_MIN_TTL, 1
NF_F_SRC_TOS, 1
NF_F_IP_SECTION_HEADER, 64
NF_F_IP_SECTION_PAYLOAD, 26
NF_F_FLOWSENSOR_INITIATOR | 0x8000, 1
0000, 8712
NF_F_TCP_SYN_TOTAL_COUNT, 2
NF_F_TCP_ACK_TOTAL_COUNT, 2
NF_F_TCP_FIN_TOTAL_COUNT, 2
NF_F_TCP_RST_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TRACES | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_TYPE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_CODE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_RTT | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_SVR_RESP | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_RETRANSMITS | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_ID | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_DETAILS | 0x8000, 65535
0000, 8712
```

IPv4 Flow Response Time Monitoring IPFIX - Template 346

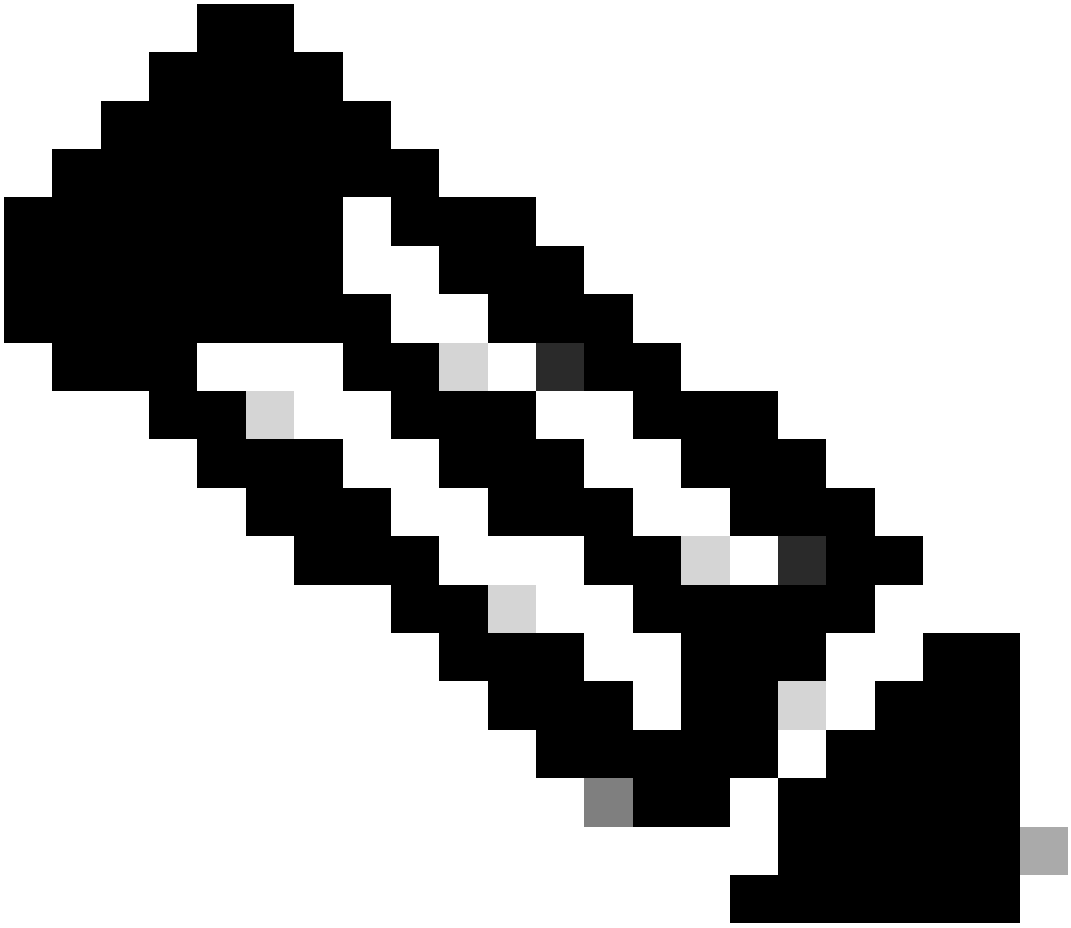


Note: This template is used for follow-on IPFIX exports of IPv4 flow information from a flow slot in the Flow Sensor engine when RTM data has been computed.

```
IPV4_FLOW_RTM_IPFIX_TEMPLATE_ID, 30
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SYSTEM_INIT_TIME_MILLISECONDS, 8
    NF_F_SRC_ADDR_IPV4, 4
    NF_F_DST_ADDR_IPV4, 4
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_MIN_TTL, 1
    NF_F_TCP_SYN_TOTAL_COUNT, 2
    NF_F_TCP_ACK_TOTAL_COUNT, 2
    NF_F_TCP_FIN_TOTAL_COUNT, 2
```

```
NF_F_TCP_RST_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TRACES | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_TYPE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_CODE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_RTT | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_SVR_RESP | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_RETRANSMITS | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_ID | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_DETAILS | 0x8000, 65535
0000, 8712
```

IPv6 First Flow Response Time Monitoring IPFIX - Template 347

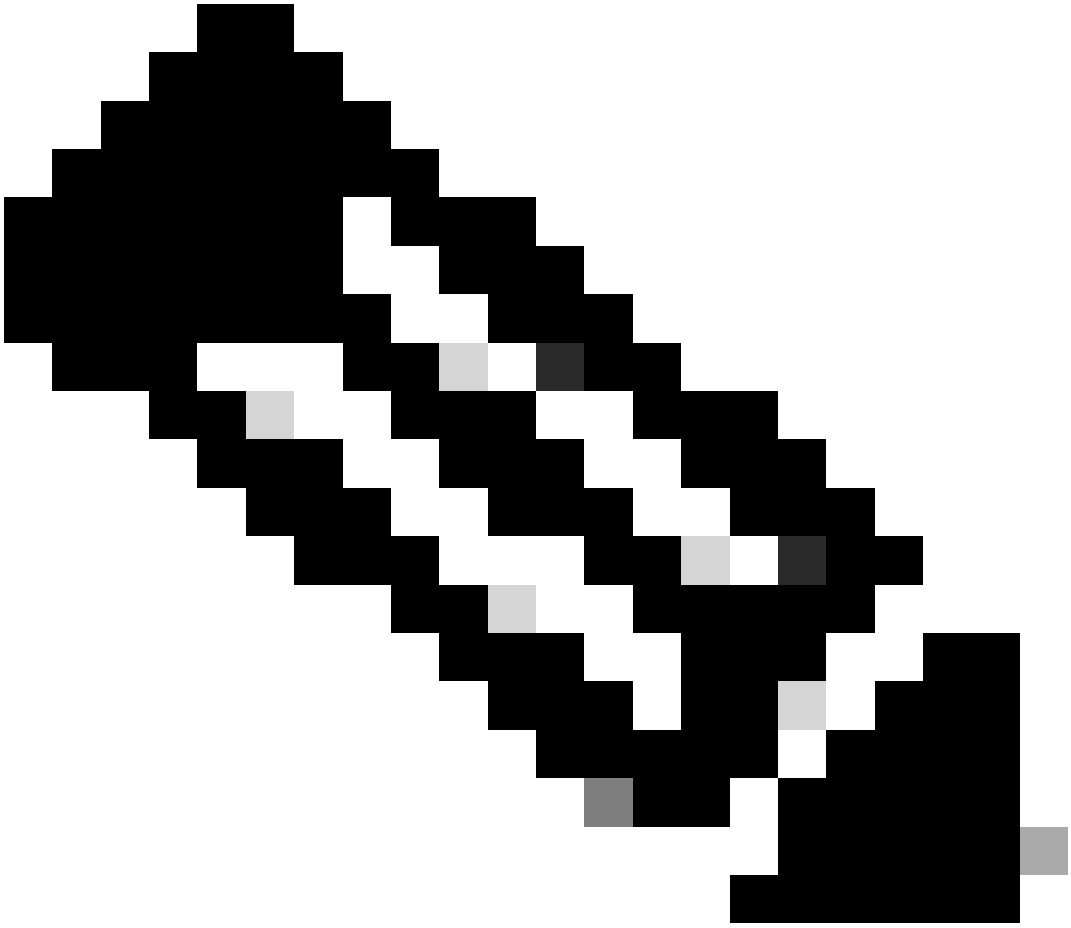


Note: This template is used for the initial IPFIX export of IPv6 flow information from a flow slot in the Flow Sensor engine when RTM data has been computed.

```
IPV6_FIRST_FLOW_RTM_IPFIX_TEMPLATE_ID, 36
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SYSTEM_INIT_TIME_MILLISECONDS, 8
    NF_F_SRC_ADDR_IPV6, 16
    NF_F_DST_ADDR_IPV6, 16
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_SRC_MAC, 6
    NF_F_OUT_DST_MAC, 6
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_SRC_VLAN, 2
    NF_F_MPLS_LABEL_1, 3
```

```
NF_F_MIN_TTL, 1
NF_F_SRC_TOS, 1
NF_F_FLOWSENSOR_INITIATOR | 0x8000, 1
0000, 8712
NF_F_TCP_SYN_TOTAL_COUNT, 2
NF_F_TCP_ACK_TOTAL_COUNT, 2
NF_F_TCP_FIN_TOTAL_COUNT, 2
NF_F_TCP_RST_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TRACES | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_TYPE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_CODE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_RTT | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_SVR_RESP | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_RETRANSMITS | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_ID | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_DETAILS | 0x8000, 65535
0000, 8712
```

IPv6 First Flow Deep RTM IPFIX - Template 348

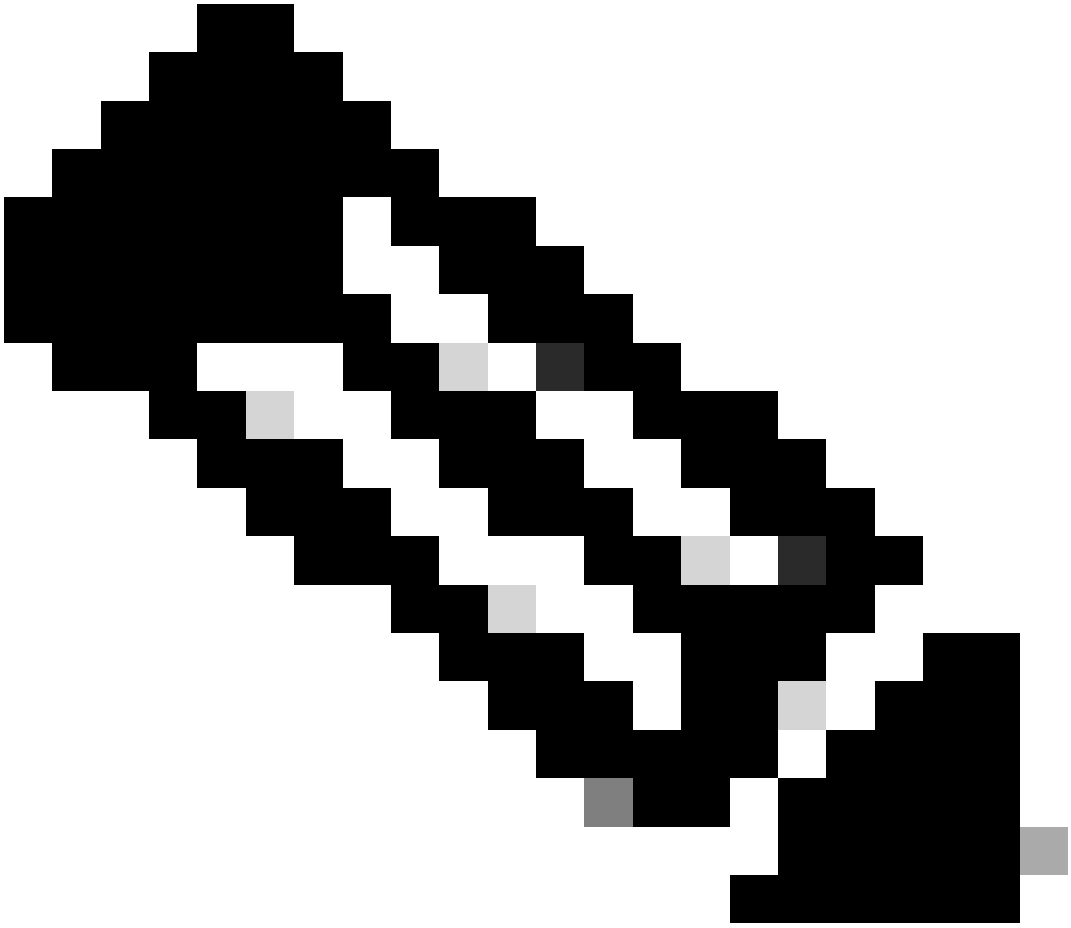


Note: This template is used for the initial IPFIX export of IPv6 flow information from a flow slot in the Flow Sensor engine when the Export Packet Payload check box is selected.

```
IPV6_FIRST_FLOW_DEEP_RTM_IPFIX_TEMPLATE_ID, 38
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SYSTEM_INIT_TIME_MILLISECONDS, 8
    NF_F_SRC_ADDR_IPV6, 16
    NF_F_DST_ADDR_IPV6, 16
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_SRC_MAC, 6
    NF_F_OUT_DST_MAC, 6
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_SRC_VLAN, 2
    NF_F_MPLS_LABEL_1, 3
```

```
NF_F_MIN_TTL, 1
NF_F_SRC_TOS, 1
NF_F_IP_SECTION_HEADER, 64
NF_F_IP_SECTION_PAYLOAD, 26
NF_F_FLOWSENSOR_INITIATOR | 0x8000, 1
0000, 8712
NF_F_TCP_SYN_TOTAL_COUNT, 2
NF_F_TCP_ACK_TOTAL_COUNT, 2
NF_F_TCP_FIN_TOTAL_COUNT, 2
NF_F_TCP_RST_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TRACES | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_TYPE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_CODE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_RTT | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_SVR_RESP | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_RETRANSMITS | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_ID | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_DETAILS | 0x8000, 65535
0000, 8712
```

IPv6 Flow Response Time Monitoring - Template 349

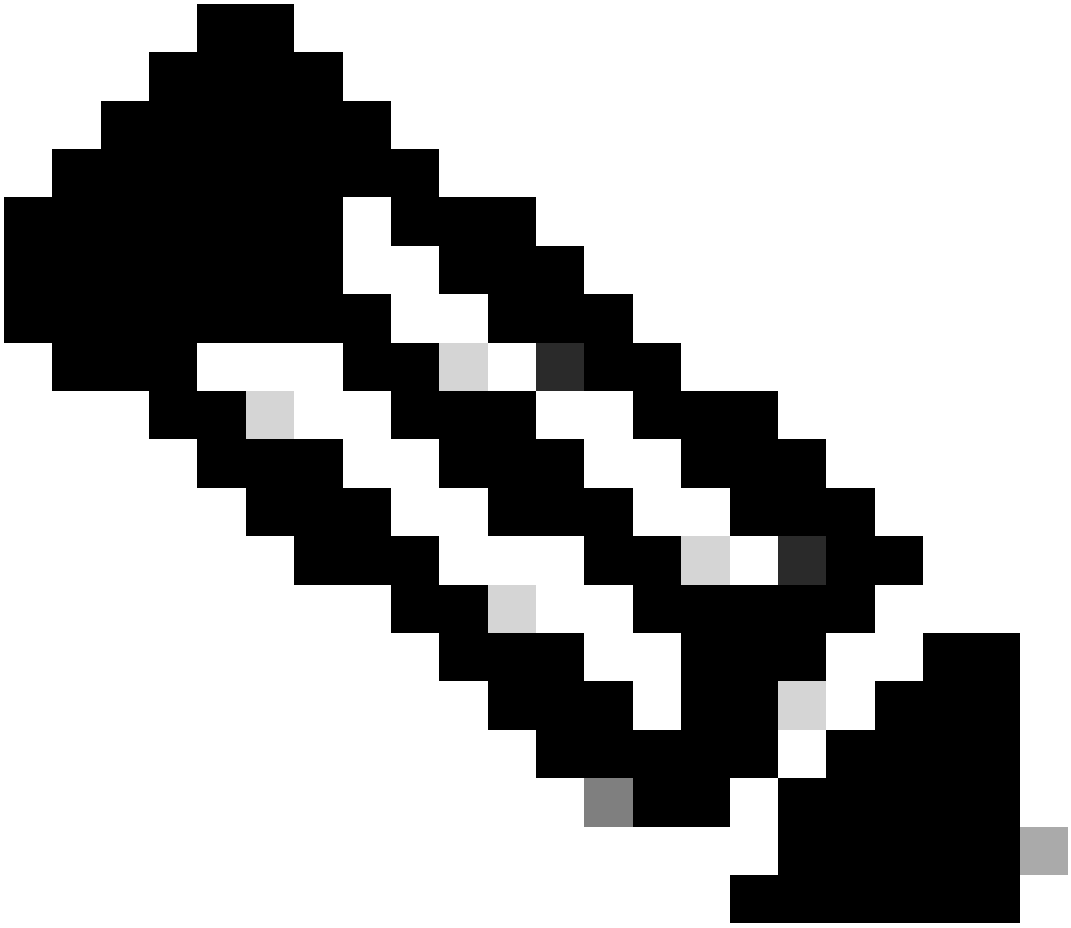


Note: This template is used for follow-on IPFIX exports of IPv6 flow information from a flow slot in the Flow Sensor engine when RTM data has been computed.

```
IPV6_FLOW_RTM_IPFIX_TEMPLATE_ID, 30
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SYSTEM_INIT_TIME_MILLISECONDS, 8
    NF_F_SRC_ADDR_IPV6, 16
    NF_F_DST_ADDR_IPV6, 16
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_IN_BYTES, 4
    NF_F_IN_PKTS, 4
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_TCP_FLAGS, 1
    NF_F_MIN_TTL, 1
    NF_F_TCP_SYN_TOTAL_COUNT, 2
    NF_F_TCP_ACK_TOTAL_COUNT, 2
    NF_F_TCP_FIN_TOTAL_COUNT, 2
```

```
NF_F_TCP_RST_TOTAL_COUNT, 2
NF_F_FLOWSENSOR_TCP_BAD_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SRS_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TCP_SYN_ACK_TOTAL_COUNT | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_TRACES | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_PROTOCOL | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_TYPE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_EMB_ICMP_CODE | 0x8000, 1
0000, 8712
NF_F_FLOWSENSOR_RTT | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_SVR_RESP | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_RETRANSMITS | 0x8000, 2
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_ID | 0x8000, 4
0000, 8712
NF_F_FLOWSENSOR_APPLICATION_DETAILS | 0x8000, 65535
0000, 8712
```

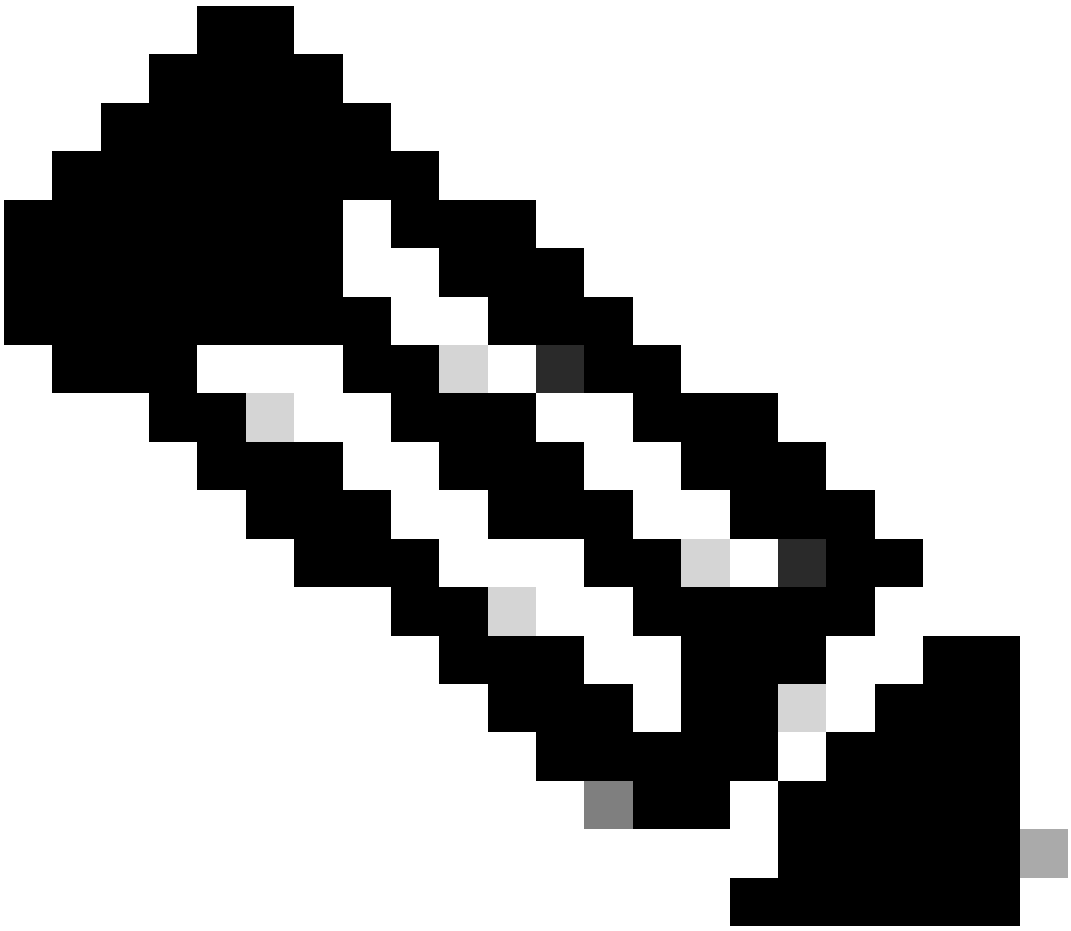
IPv4 Destination Email Counts IPFIX - Template 350



Note: This template is used for IPFIX exports of IPv4 email counts information received by the destination IP address as detected by the Flow Sensor engine.

```
IPV4_DST_EMAIL_COUNTS_IPFIX_TEMPLATE_ID, 8
    NF_F_SRC_ADDR_IPV4, 4
    NF_F_DST_ADDR_IPV4, 4
    NF_F_FLOWSENSOR_DST_EMAIL_IN | 0x8000, 4
    0000, 8712
    NF_F_FLOWSENSOR_DST_EMAIL_OUT | 0x8000, 4
    0000, 8712
    NF_F_FLOWSENSOR_DST_EMAIL_IN_MESS | 0x8000, 4
    0000, 8712
    NF_F_FLOWSENSOR_DST_EMAIL_OUT_MESS | 0x8000, 4
    0000, 8712
    NF_F_FLOWSENSOR_DST_EMAIL_IN_TRYS | 0x8000, 4
    0000, 8712
    NF_F_FLOWSENSOR_DST_EMAIL_OUT_TRYS | 0x8000, 4
    0000, 8712
```

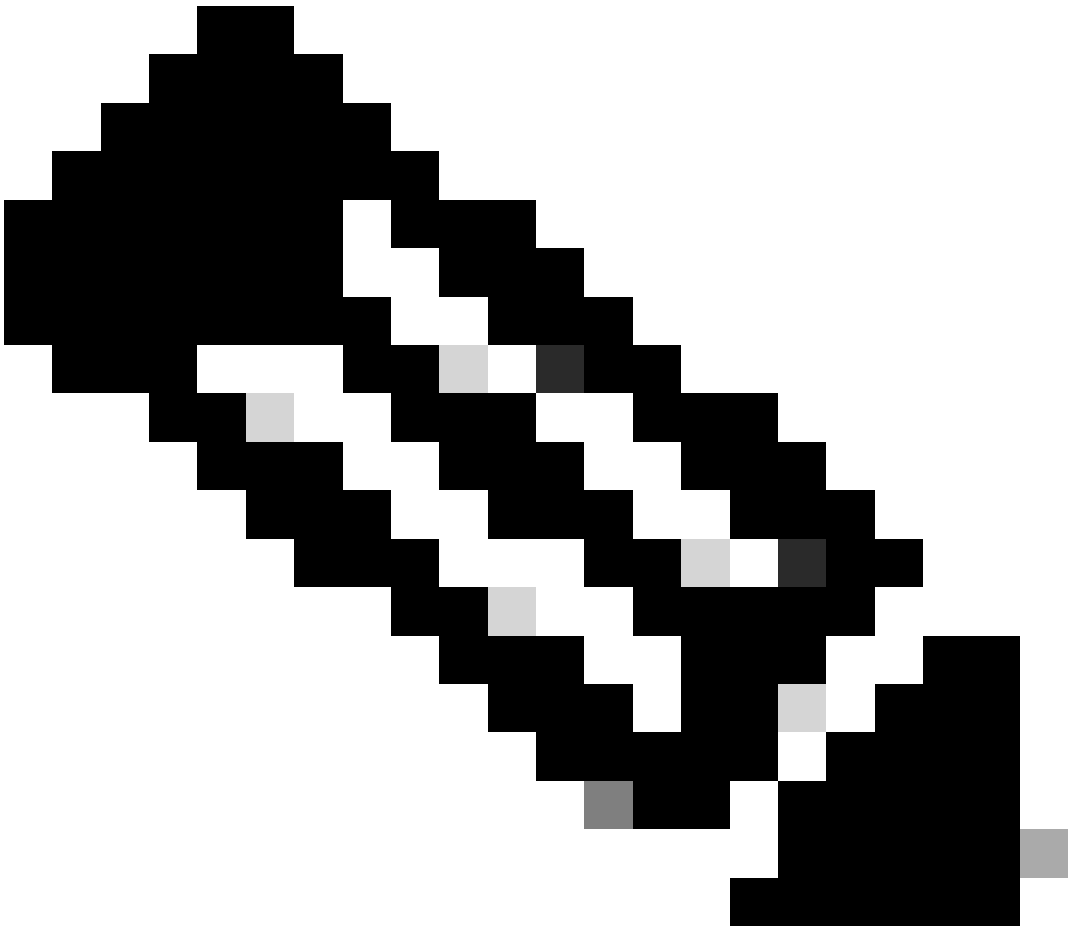
IPv6 Source Email Counts IPFIX - Template 351



Note: This template is used for IPFIX exports of IPv6 email counts information sourced from the source IP address as detected by the Flow Sensor engine.

```
IPV6_SRC_EMAIL_COUNTS_IPFIX_TEMPLATE_ID, 8
    NF_F_SRC_ADDR_IPV6, 16
    NF_F_DST_ADDR_IPV6, 16
    NF_F_FLOWSENSOR_SRC_EMAIL_IN | 0x8000, 4
    0000, 8712
    NF_F_FLOWSENSOR_SRC_EMAIL_OUT | 0x8000, 4
    0000, 8712
    NF_F_FLOWSENSOR_SRC_EMAIL_IN_MESS | 0x8000, 4
    0000, 8712
    NF_F_FLOWSENSOR_SRC_EMAIL_OUT_MESS | 0x8000, 4
    0000, 8712
    NF_F_FLOWSENSOR_SRC_EMAIL_IN_TRYS | 0x8000, 4
    0000, 8712
    NF_F_FLOWSENSOR_SRC_EMAIL_OUT_TRYS | 0x8000, 4
    0000, 8712
```

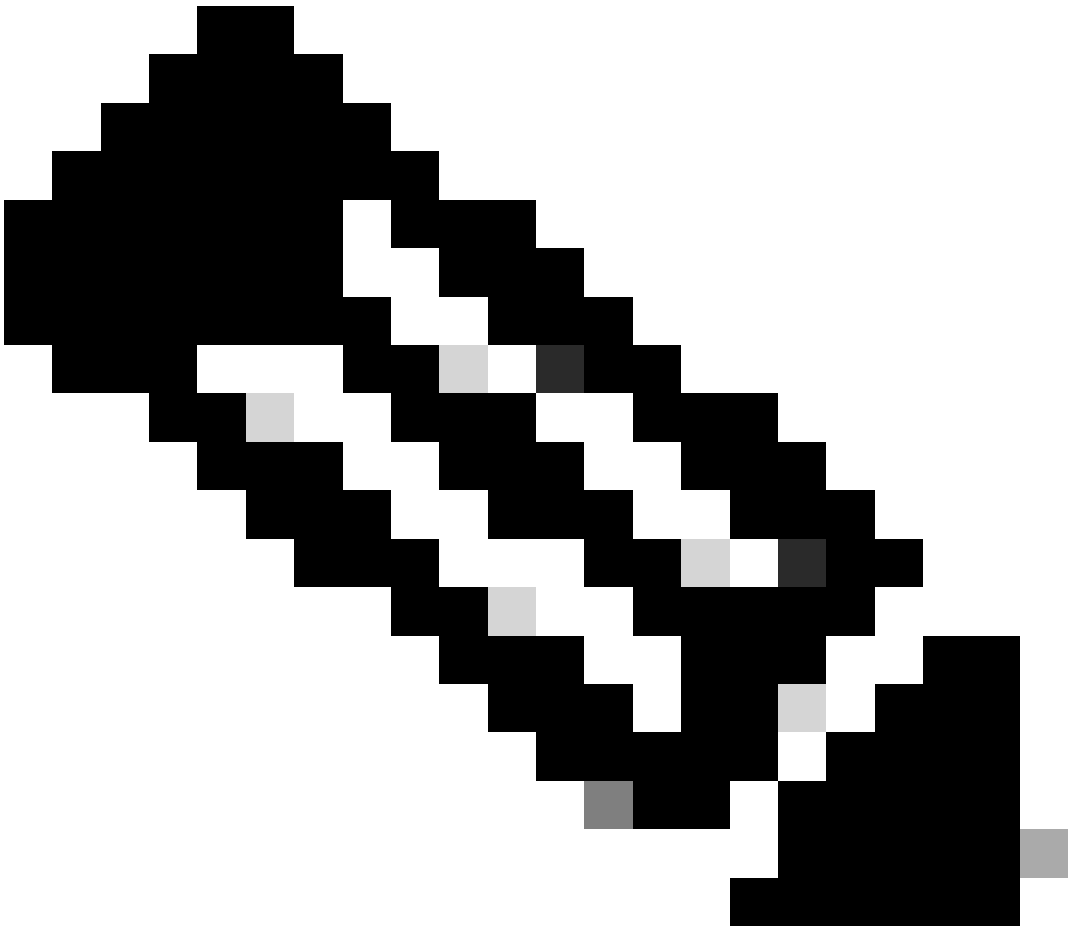
IPv6 Destination Email Counts IPFIX - Template 352



Note: This template is used for IPFIX exports of IPv6 email counts information received by the destination IP address as detected by the Flow Sensor engine.

```
IPV6_DST_EMAIL_COUNTS_IPFIX_TEMPLATE_ID, 8
    NF_F_SRC_ADDR_IPV6, 16
    NF_F_DST_ADDR_IPV6, 16
    NF_F_FLOWSENSOR_DST_EMAIL_IN | 0x8000, 4
    0000, 8712
    NF_F_FLOWSENSOR_DST_EMAIL_OUT | 0x8000, 4
    0000, 8712
    NF_F_FLOWSENSOR_DST_EMAIL_IN_MESS | 0x8000, 4
    0000, 8712
    NF_F_FLOWSENSOR_DST_EMAIL_OUT_MESS | 0x8000, 4
    0000, 8712
    NF_F_FLOWSENSOR_DST_EMAIL_IN_TRYS | 0x8000, 4
    0000, 8712
    NF_F_FLOWSENSOR_DST_EMAIL_OUT_TRYS | 0x8000, 4
    0000, 8712
```

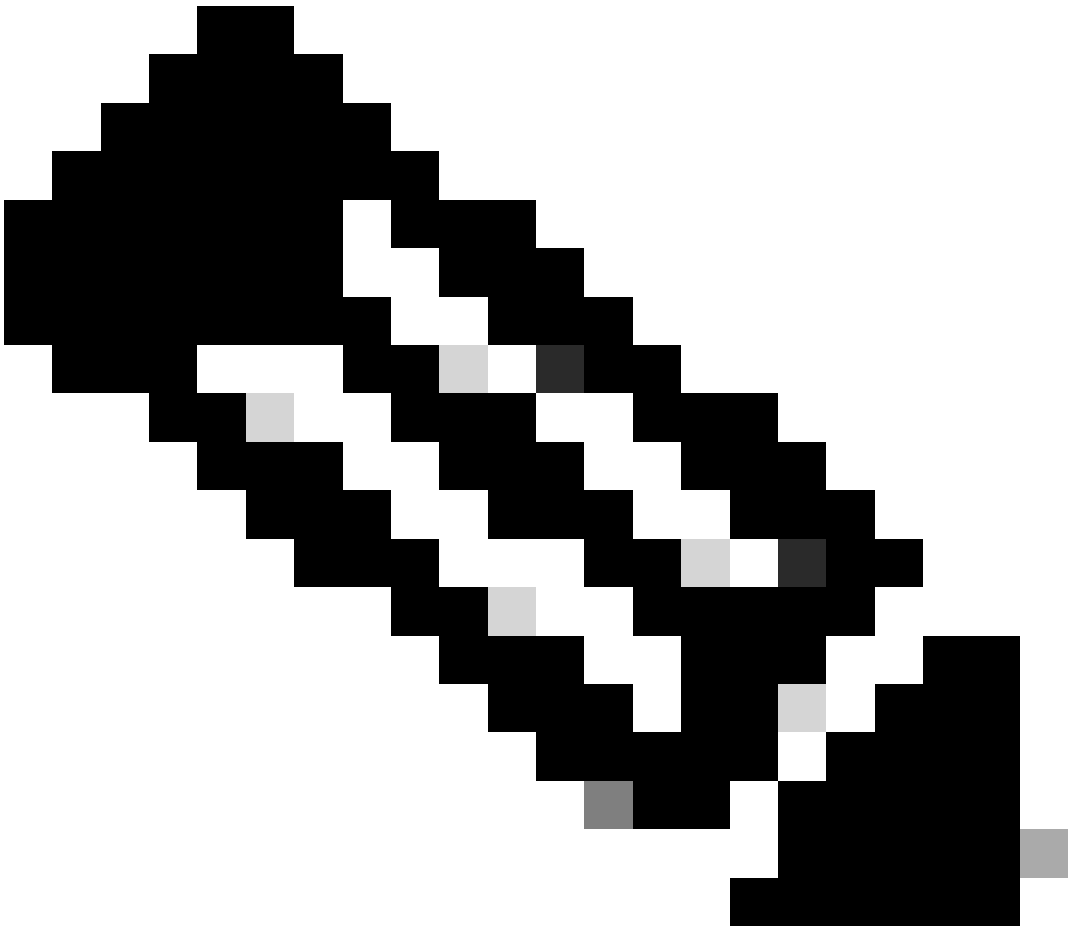
IPv4 ETA Initial Data Packet (IDP) IPFIX - Template 354



Note: This template is used for IPFIX flows that include the Initial Data Packet (IDP) element when the option to process ETA is selected on the Flow Sensor

```
IPV4_ETTA_IDP_IPFIX_TEMPLATE_ID, 11
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SYSTEM_INIT_TIME_MILLISECONDS, 8
    NF_F_SRC_ADDR_IPV4, 4
    NF_F_DST_ADDR_IPV4, 4
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_INITIAL_DATA_PACKET | 0x8000, 1300
    0000, 9
```

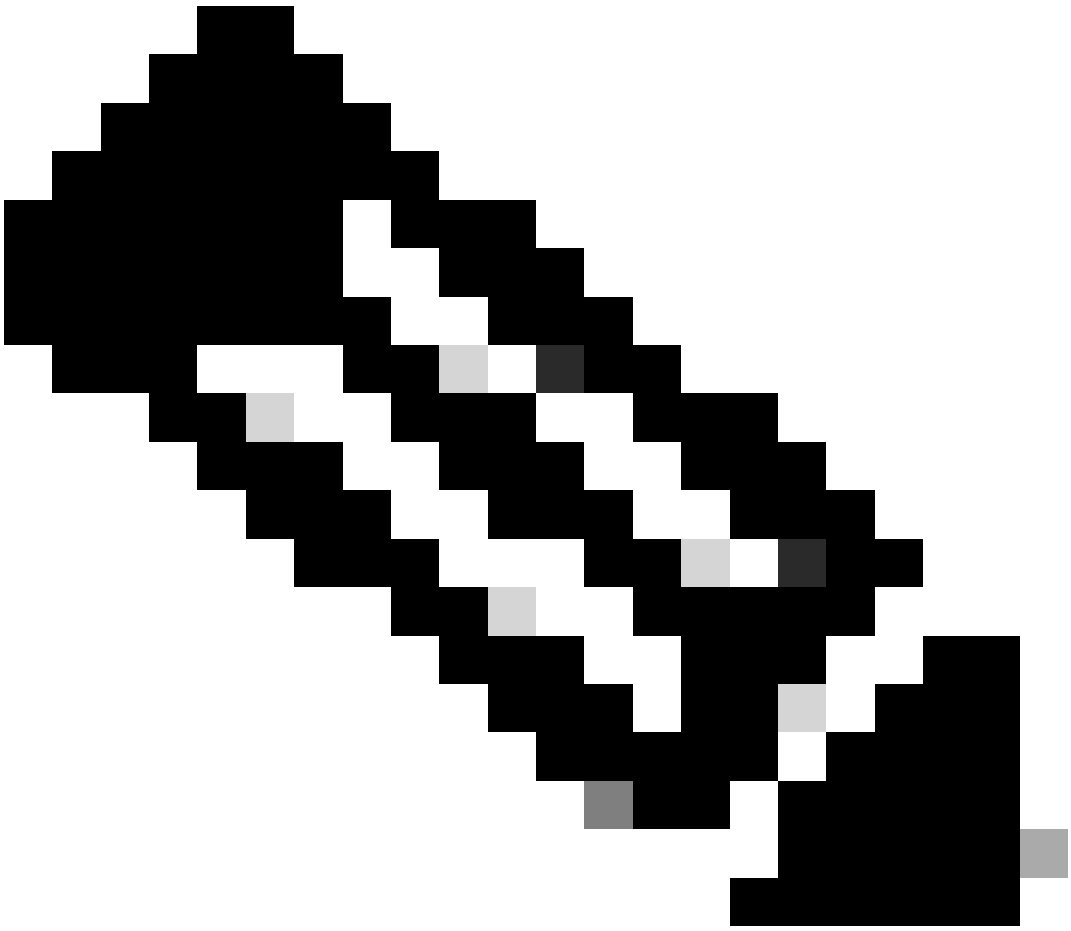
IPv4 ETA Sequence of Packet Lengths and Times (SPLT) IPFIX - Template 356



Note: This template is used for IPFIX flows that include the Sequence of Packet Lengths and Times (SPLT) element when the option to process ETA is selected on the Flow Sensor

```
IPV4_ETTA_SPLT_IPFIX_TEMPLATE_ID, 11
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SYSTEM_INIT_TIME_MILLISECONDS, 8
    NF_F_SRC_ADDR_IPV4, 4
    NF_F_DST_ADDR_IPV4, 4
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_SEQUENCE_PKT_LENGTH_TIME | 0x8000, 40
    0000, 9
```

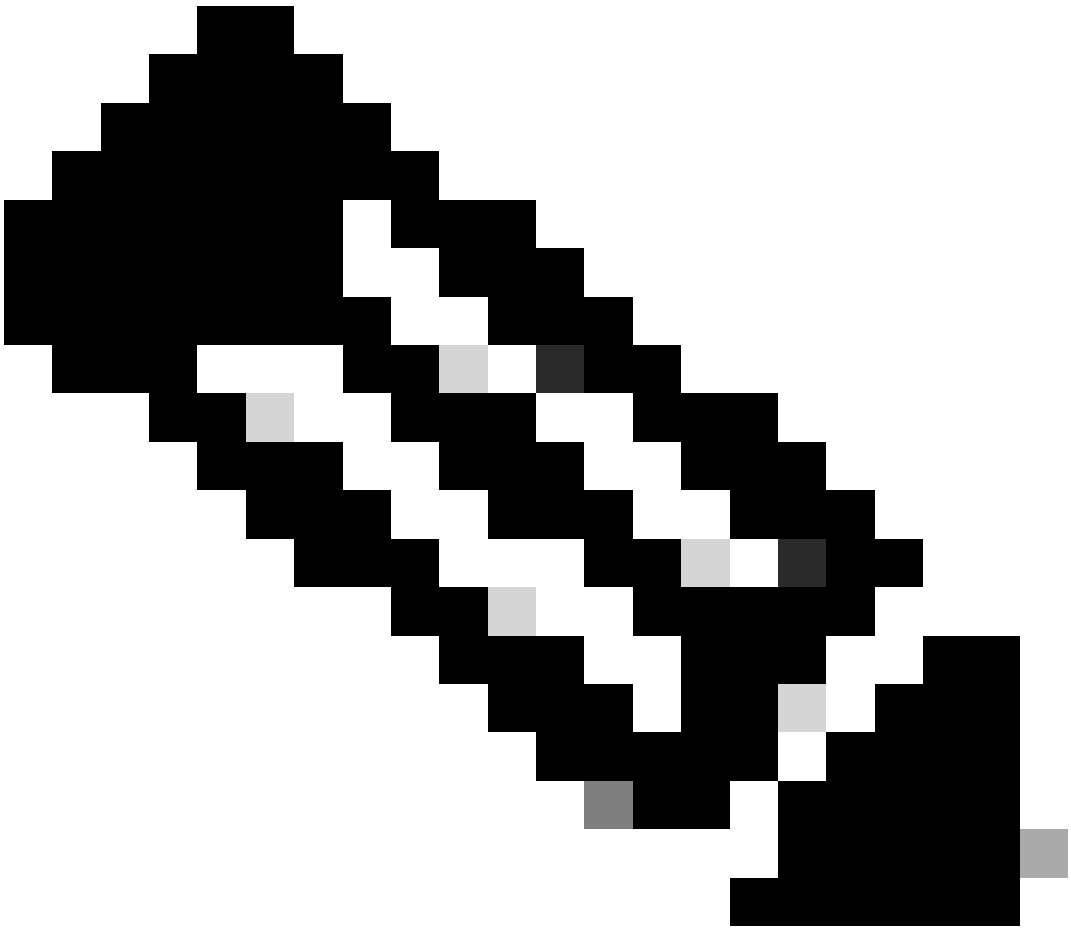
IPv6 ETA Initial Data Packet (IDP) IPFIX - Template 364



Note: This template is used for IPv6 IPFIX flows that include the Initial Data Packet (IDP) element when the option to process ETA is selected on the Flow Sensor

```
IPV6_ETTA_IDP_IPFIX_TEMPLATE_ID, 11
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SYSTEM_INIT_TIME_MILLISECONDS, 8
    NF_F_SRC_ADDR_IPV6, 16
    NF_F_DST_ADDR_IPV6, 16
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_INITIAL_DATA_PACKET | 0x8000, 1300
    0000, 9
```

IPv6 ETA Sequence of Packet Lengths and Times (SPLT) IPFIX - Template 366



Note: This template is used for IPv6 IPFIX flows that include the Sequence of Packet Lengths and Times (SPLT) element when the option to process ETA is selected on the Flow Sensor

```
IPV6_ETTA_SPLT_IPFIX_TEMPLATE_ID, 11
    NF_F_FIRST_SWITCHED, 4
    NF_F_LAST_SWITCHED, 4
    NF_F_SYSTEM_INIT_TIME_MILLISECONDS, 8
    NF_F_SRC_ADDR_IPV6, 16
    NF_F_DST_ADDR_IPV6, 16
    NF_F_L4_SRC_PORT, 2
    NF_F_L4_DST_PORT, 2
    NF_F_SRC_INTF_ID, 2
    NF_F_DST_INTF_ID, 2
    NF_F_PROTOCOL, 1
    NF_F_SEQUENCE_PKT_LENGTH_TIME | 0x8000, 40
    0000, 9
```