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IPFIX Export Template Formats from FastRADIUS 3

IPFIX Export Template Formats from FastRADIUS

IPFIX export is configured with the following parameters:

```
ipfix_dev=em1
ipfix_udp_collectors=1.2.3.4:1500,1.2.3.5:1501
ipfix_tcp_collectors=1.2.3.6:9418
```

where:

em1 — network interface name for export

ipfix_udp_collectors — UDP collector addresses

ipfix_tcp_collectors — TCP collector addresses

Template:

No.	Byte Count	Data Type	IANA	Description
1001	4	int32	43823	Timestamp
4001	4	int32	43823	AAA Event Type: 0 - start, 1 - end, 2 - update
4002	-	string	43823	Accounting session ID (max. length - 64 bytes)
1003	4	ipv4	43823	IPv4 address, for IPv6 set to 0
1103	16	ipv6	43823	IPv6 address, for IPv4 set to 0 (::)
1002	-	string	43823	Login
4003	4	int32	43823	Connection Type
4004	-	string	43823	Calling station ID
4005	-	string	43823	Called station ID
4006	4	ipv4	43823	NAS IP address, for IPv6 set to 0
4106	16	ipv6	43823	NAS IPv6 address, for IPv4 set to 0 (::)
4007	4	int32	43823	NAS Port
4008	8	int64	43823	Incoming bytes
4009	8	int64	43823	Outgoing bytes
4010	4	int32	43823	Service Type
4011	4	int32	43823	NAS Port Type
4012	-	string	43823	NAS ID
8	4	ipv4	-	Source IP address of the accounting packet
7	2	int16	-	Source port of the accounting packet
12	4	ipv4	-	Destination IP address of the accounting packet
11	2	int16	-	Destination port of the accounting packet
4014	16	ipv6	43823	Assigned IPv6 Prefix
4015	1	int8	43823	Length of the assigned IPv6 prefix
4016	16	ipv6	43823	Delegated IPv6 Prefix
4017	1	int8	43823	Length of the delegated IPv6 prefix

No.	Byte Count	Data Type	IANA	Description
4020	-	string	43823	3GPP-SGSN-MCC-MNC Country code (MCC) and mobile network code (MNC) where the SGSN operates  This field is added when ipfix_extra_gsm=1
4021	4	ipv4	43823	3GPP_SGSN_Address IP address of the SGSN (Serving GPRS Support Node) processing traffic  This field is added when ipfix_extra_gsm=1
4022	4	int32	43823	3GPP_Charging_ID Unique ID used for accounting and session billing  This field is added when ipfix_extra_gsm=1
4023	4	int32	43823	3GPP_RAT_Type Radio Access Network type: e.g., UTRAN (3G), EUTRAN (4G), NR (5G), etc.  This field is added when ipfix_extra_gsm=1
4024	-	string	43823	3GPP-IMSI International Mobile Subscriber Identity in the mobile network  This field is added when ipfix_extra_gsm=1
4025	-	string	43823	3GPP_IMEISV Extended International Mobile Equipment Identity with software version  This field is added when ipfix_extra_gsm=1
4026	-	octet string	43823	3GPP_User_Location_Info 3GPP User Location Information  This field is added when ipfix_extra_gsm=1

Connection Types (Radius attribute Framed-Protocol values):

Type	Description
0	Attribute not set
1	PPP
2	SLIP
3	AppleTalk Remote Access Protocol (ARAP)
4	Gandalf proprietary SingleLink/MultiLink protocol
5	Xylogics proprietary IPX/SLIP
6	X.75 Synchronous
7	GPRS PDP Context

Configuration for ipfixreceiver:

[InfoModel]

```
InfoElements = timestamp,          43823, 1001, SECONDS, True
                  event_type,       43823, 4001, INT32,   True
                  acct_session_id,   43823, 4002, STRING
                  source_ip4,        43823, 1003, IP4ADDR, True
                  source_ip6,        43823, 1103, IP6ADDR
                  login,             43823, 1002, STRING
                  conn_type,         43823, 4003, INT32,   True
                  calling_station_id, 43823, 4004, STRING
                  called_station_id, 43823, 4005, STRING
                  NAS_ip4,           43823, 4006, IP4ADDR, True
                  NAS_ip6,           43823, 4106, IP6ADDR
                  NAS_port,          43823, 4007, INT32,   True
                  input_bytes,       43823, 4008, UINT64,  True
                  output_bytes,      43823, 4009, UINT64,  True
```

```
[ExportModelFile]
```

```
Delimiter = ;
```

```
ExportElements = timestamp, seconds, %%Y-%%m-%%dT%%H:%%M:%%S
                  event_type
                  acct_session_id
                  source_ip4, decodeipv4
                  source_ip6, decodeipv6
                  login
                  conn_type
                  calling_station_id
                  called_station_id
                  NAS_ip4, decodeipv4
                  NAS_ip6, decodeipv6
                  NAS_port
                  input_bytes
                  output_bytes
```