

New Information Elements for the IPFIX Information Model

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Introduction

- The IPFIX Information Model [RFC5102] defines an extensible list of Information Elements which may be transmitted by the IPFIX protocol [RFC5101].
- This document lists a series of new Information Elements to update the IPFIX Information Model.
- IPFIX Information Model [RFC5102]: “MUST be published using a well-established and persistent publication medium” .

Therefore, this is a proposed standard.

Note: IANA requests experts review, but don't need WG approval

Overview

- We propose 36 new information elements .
- 6 in NetFlow version 9 compatible range (below 128).
- 30 new Information Elements for NAT, firewall, VRF and layer 2.

New NetFlow v9 compatible fields

- We reviewed all the NetFlow v9 fields in the < 128 range which are currently RESERVED in IPFIX.
- IANA should allocate the following ones:

<u>ID</u>	<u>Name</u>
82	interfaceName
83	interfaceDescription
89	forwardingStatus
91	mplsTopLabelPrefixLength
98	postIpDiffServCodePoint
99	multicastReplicationFactor

- The other ones are proprietary and would be enterprise-specific in IPFIX, so RESERVED

Proposed new IPFIX fields for NAT, FW & VRF

<u>ID</u>	<u>Name</u>	<u>ID</u>	<u>Name</u>
225	natTranslatedSrcAddrIPv4	231	InitiatorOctets
226	natTranslatedDstAddrIPv4	232	ResponderOctets
227	natTranslatedSrcPort	233	firewallEvent
228	natTranslatedDstPort	234	ingressVRFID
229	natOriginatingAddressRealm	235	egressVRFID
230	natEvent	236	VRFname

NB These fields are listed as “under discussion” at
<http://ipfix.netlab.nec.de/infoElements.php>

Proposed new IPFIX fields for layer 2:

<u>ID</u>	<u>Name</u>	<u>ID</u>	<u>Name</u>
239	ethernetType	247	metroEvclid
240	ethernetHeaderLength	248	metroEvcType
241	ethernetPayloadLength	249	pseudoWireId
242	ethernetTotalLength	250	pseudoWireType
243	dot1qVlanId	251	pseudoWireControlWord
244	dot1qPriority	252	ingressPhysicalInterface
245	dot1qCustomerVlanId	253	egressPhysicalInterface
246	dot1qCustomerPriority	254	postDot1qVlanId
		255	postDot1qCustomerVlanId

Proposed new PSAMP field

<u>ID</u>	<u>Name</u>
335	selectorName

Deprecated fields

- The new dot1qVlanId supersedes the existing vlanID.
- The new postDot1qVlanId supersedes the existing postVlanId.

Status

- Propose new v9 compatible fields should be added immediately for backwards compatibility.
- New IPFIX and PSAMP fields already submitted to IANA for expert review.
- The existing postVlanId and postVlanId will become deprecated once the new fields have been approved.
- This draft is a place holder for new (Cisco) Information Elements
- Our goal: make sure that the field IDs don't change

Questions?

