Bidirectional Flow Export using IPFIX
draft-ietf-ipfix-biflow-03

http://www.ietf.org/internet-drafts/draft-ietf-ipfix-biflow-03.txt

Brian Trammell <bht@cert.org>

Elisa Boschi <elisa.boschi@hitachi-eu.com>

Tuesday, March 19, 2007

IETF 68 - Prague, Czech Republic

Motivation

- Bidirectional flow information useful for a variety of use cases.

- Biflow matching becomes more efficient closer to the measurement interface, and often best addressed at the Metering Process itself.

- Need an efficient way to export this data using IPFIX.

Single Record Biflows

- Represent each bidirectional flow with a single record.

- Assign direction to biflows using a variety of methods, according to application:
  - Initiator as biflow source
  - Perimeter exterior as biflow source
  - Arbitrary direction if all else fails

- Use PEN to create "reverse" information elements to represent reverse direction values.

Reverse PEN

- Allocate an IANA private enterprise number (PEN) to the draft.

e=0	octetTotalCount = 85	length = 4

e=1	reverseOctetTotalCount = 85	length = 4
reverse PEN = TBA		
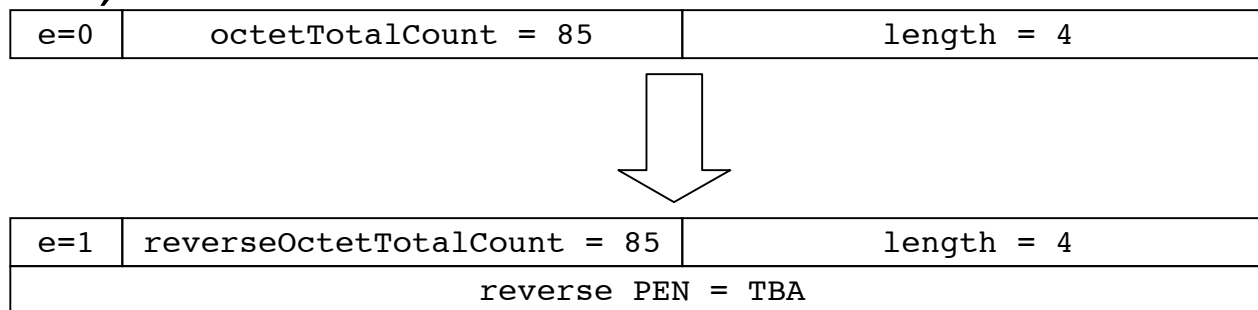
- Information elements within this PEN IE number space correspond to the IETF number space, except that they apply to the reverse direction of a biflow.

- Recommend reserving a bit of the IE number for the same purpose for true vendor IEs.

IANA Pre-Review

- -03 was sent to IANA in February for pre-review.

- Reverse PEN will be assigned in order at IANA review time.

- Modified the document slightly per IANA comments to simplify IANA review process.

From San Diego to Vancouver

- **-01, -02 (January 2007)**
  - addressed remaining open issues with direction assignment.
  - added biflowDirection IE to allow an EP to signal which direction assignment method is in effect.
  - added guidelines on "reverse" direction IE assignment for vendor-specific IEs.

- **-03 (March 2007)**
  - addressed WG Last Call concerns
  - addressed IANA pre-review concerns

- **IESG submission**

Questions and Discussion