Export of Application Information in IPFIX

IETF-79 November 10th, 2010

<draft-claise-export-application-info-in-ipfix-00.txt>

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How to encode the Application id?

• IANA L3 is easy -> can refer to the IANA registry
• IANA L4 is easy -> can refer to the IANA registry
• What about IANA L7?
  – No IANA registry
  – Can we have one? No because some reverse engineering is sometimes required
    • Which implies that we post the signature along with the entry
    • Which implies a common language for protocol signature
      Neither of the two will happen
  – Conclusion: we need a way to export the app id without a signature
• What about L2?
  – Not everything is etherType based. So same issue
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Registry: IANA-L3 -> protocol
IANA-L4 -> port
CANA-L7 -> have to assign one per app
CANA-L2 -> have to assign one per app

CANA: Cisco Assigned Number Authority
Export of Application Information in IPFIX

• Cisco Systems way of exporting the app id
• Running code
• So an independent submission
  – Would like to get feedback anyway
• With CANA-L2 and CANA-L7 registries posted on www.cisco.com
• 3 new Information Elements:
  – applicationDescription, 94
  – applicationTag, 95
  – applicationName, 96
Export of Application Information in IPFIX

• This is HTTP, regardless of the port it runs on: 80, 8080 or 23
• If you want to know the protocol/port, export the protocol and destinationTransportPort Information Elements
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• An Options Template Record to export the mapping
  – applicationTag, (applicationName, applicationDescription)

• Resolving IANA L4 port collisions
  – 10 different entries in IANA-L4 for UDP versus TCP
  – we define that the L4 application is always TCP related, by
    convention. So, whenever the collector has a conflict in looking
    up IANA, it would choose the TCP choice.
  – Then the 10 UDP collisions would be defined in CANA-L7
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