Requirements For Service Function Chaining

`draft-boucadair-sfc-requirements`

M. Boucadair (mohamed.boucadair@orange.com)

C. Jacquenet (christian.jacquenet@orange.com)

Y. Jiang (jiangyuanlong@huawei.com)

R. Parker (Ron_Parker@affirmednetworks.com)

C. Pignataro (cpignata@cisco.com)

K. Naito (naito.kengo@lab.ntt.co.jp)

Why this document is needed?

- The SFC Problem Statement document identifies a set of issues encountered in operational networks

- Operators are seeking for solutions to solve those issues…while not increasing the complexity of network management operations (including hidden complexity)

- An effort is therefore required to help **identifying what are the core SFC functionalities** *vs.* optional features

- Have a **reference for the design phase**

Keep in Mind

"In protocol design, perfection has been reached not when there is nothing left to add, but when there is nothing left to take away."
(RFC1925)

Objectives And Organization

- Document requirements for Service Function Chaining solutions

- Currently lists

  - 33 generic requirements

  - 8 SF discovery requirements

  - 10 SFC diagnosis & troubleshooting

  - 3 security-related requirements

- Requirements are meant to facilitate SFC design as per the assumptions listed in the next slide

Assumptions

- No standard (list of) Service Functions
  - The set of SFs to be invoked varies as a function of the network capabilities and the services it supports

- SF chaining design and operation is specific to the administrative entity
  - The ordered set of SFs that need to be activated to deliver a given connectivity service is specific to the administrative entity that operates the SFC-capable network
  - SFC chaining polices adapts to business contexts and guidelines
  - Several SF chaining policies can be simultaneously enforced within an administrative domain to meet different, service-specific requirements
  - SF-specific configuration is outside the scope of SF chaining design and operation
  - How to bind traffic to a given SF chaining is policy-based

Focus on Subscriber-Awareness Requirement

- http://tools.ietf.org/html/draft-boucadair-sfc-requirements-03#section-6:

  "Designing the SFC solution to accommodate per-subscriber SFCs rather than SFCs on a per group of subscribers basis, should be conditioned by the outcomes of assessing the validity of use cases requiring such per-subscriber SFC feature."

- (Recurrent) discussion in the mailing list

- "Per-subscriber SFC" term is confusing

  – The requirement is about the support of per-subscriber classification

  – Does not meant that millions of SFCs will be instantiated in the network…but rather SFCs will be finite

  – The outcomes of the thread will be recorded in the next revision of the draft

Next Step

- Adopt the document as a WG item?
- Comments and contributions are more than welcome

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