

Network Service Header (NSH)

draft-ietf-sfc-nsh

IETF93, Prague, July 2015

Paul Quinn, Editor

Uri Elzur, Editor

NSH Contributors

- Joel Halpern, Ericsson
- Surendra Kumar, Cisco Systems
- Michael Smith, Cisco Systems
- Jim Guichard, Cisco Systems
- Rex Fernando, Cisco Systems
- Navindra Yadav, Cisco Systems
- Wim Henderickx, Alcatel-Lucent
- Andrew Dolganow, Alcatel-Lucent
- Praveen Muley, Alcatel-Lucent
- Tom Nadeau, Brocade
- Puneet Agarwal
- Rajeev Manur, Broadcom
- Abhishek Chauhan, Citrix
- Sumandra Majee, F5
- David Melman, Marvel
- Pankaj Garg, Microsoft
- Brad McConnell, Rackspace
- Chris Wright, Red Hat Inc.
- Kevin Glavin, Riverbed
- Hong (Cathy) Zhang, Huawei US R&D
- Louis Fourie, Huawei US R&D
- Ron Parker, Affirmed Networks
- Myo Zarny, Goldman Sachs

Changes in This Version

- Cleaned up grammar and fixed errors
- Further alignment with architecture draft
 - Definition of terms
- Ensured consistency
 - Clarified roles
 - E.g. logical classifier present when SF (re)classifies

Implementation Update

- Open source implementations
 - Data Plane in OVS
 - SFF, classifier and proxy
 - Control Plane in OpenDaylight
(https://wiki.opendaylight.org/view/Service_Function_Chaining:Main)
 - YANG data models and JAVA RPC APIs
 - Extensible south-bound protocols, with few already implemented
 - Features such as SF selection and symmetry
 - Integration with ODL Group Based Policy
([https://wiki.opendaylight.org/view/Group_Based_Policy_\(GBP\)](https://wiki.opendaylight.org/view/Group_Based_Policy_(GBP)))
 - A GBP policy will initialize a Service Chain implemented by SFC/NSH
 - An SFC/NSH “chain” is part of a contract

Implementation Update [2]

- Multi-vendor implementation and initial deployments underway
 - Multi party Demo at MWC 2015 and Cisco Live 2015
 - Cisco, Intel, F5 and Citrix
 - OpenDaylight + OvS + SFs
 - NTT sponsored Interop event (<http://www.ntt.co.jp/news2015/1502e/150212a.html>)
 - NTT : Providing SFF, SFC Proxy, and Controller
 - ALAXALA : Providing Classifier, SFF, and SFC Proxy
 - Hitachi : Providing Classifier, SFF, and SFC Proxy
 - Cisco : Providing Classifier, SFF, and SFC Proxy
 - NEC : Providing Classifier, SFF, and SFC Proxy
 - Alcatel-Lucent Japan : Providing Classifier
 - Cisco XE and XR platforms
 - Intel 100GbE SDI adapter @MWC 2015
 - F5 -- BIGIP
 - Qosmos – NSH integrated DPI (MD Type=1 and 2) with AppID as metadata
 - Marvell -- Prestera family

Next Steps

- Complete fragmentation section
- Review security considerations section
- WG discussion of open items listed in draft