

Network Service Chaining (NSC) BoF Introduction

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BoF Chairs:

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Note Well

- This summary is only meant to point you in the right direction, and doesn't have all the nuances. The IETF's IPR Policy is set forth in BCP 79; please read it carefully. The brief summary:
 - By participating with the IETF, you agree to follow IETF processes.
 - If you are aware that a contribution of yours (something you write, say, or discuss in any IETF context) is covered by patents or patent applications, you need to disclose that fact.
 - You understand that meetings might be recorded, broadcast, and publicly archived.
- For further information, talk to a chair, ask an Area Director, or review the following:
 - BCP 9 (on the Internet Standards Process)
 - BCP 25 (on the Working Group processes)
 - BCP 78 (on the IETF Trust)
 - BCP 79 (on Intellectual Property Rights in the IETF)

Agenda

- Intro and Level-Setting of BoF (5)
- Network Based Services in Mobile Networks (10)
 - Walter Haeffner (walter.haeffner@vodafone.com)
- Network Function Virtualization (NFV) (10)
 - Diego Lopez (diego@tid.es)
- Enterprise Use Case (10)
 - Mudassir Tufail (mudassir.tufail@citi.com)
- Data Center Use Case (10)
 - Brad McConnell (bmcconne@rackspace.com)
- Q&A (15)
 - BoF Chairs

BoF Objectives/House Keeping

- **Goal of this BoF:** Explore the use cases and problem area behind Network Service Chaining (NSC)
 - demonstrate broad industry interest for service chaining work
- Network operators will be explaining their use cases
- Solutions and other individual submissions will **not** be presented or discussed
- This is a **non-WG forming BoF** and therefore we will not discuss a specific WG charter
 - Post-Berlin plan: Work on problem statement and scoping of work, ask to form WG around or after Vancouver
- Due to limited time please hold all questions until after the presentations
 - Please take questions not related to the presented use cases to the nsc@ietf.org mailing list after the BoF

Questions for the BoF

1. Is there agreement that this is an important problem area where standardization work is needed?
2. Should the IETF work towards creating a WG? (scope/charter to be worked out)
3. How many people are willing to work on the documents and solutions in this problem space?

Problem Statement

- Today's workloads consist of multi-tiered applications
 - Multiple distributed entities (e.g., Web server, load balancers, data base servers, etc.) cooperate to provide a service
- Individual workload components communicate with each other in carefully defined ways
 - Traffic between components required (by policy) to flow through specialized network services (e.g., firewalls, IDS, etc.)
 - Resultant communication flows modeled as a “service chain”
- Today, steering of traffic between services within a service chain achieved via L2/L3 data plane forwarding
 - Complex and difficult to automate, scaling challenges moving forward
- Current network service deployment models are generally static, hard to manipulate (create, move, destroy)
 - No efficient way to share information between the network and services, or among services
- Virtual platforms require more agile service insertion model
 - With horizontal/vertical scaling requirements