Service Chaining using Unified Source Routing Instructions

draft-xu-mpls-service-chaining-03

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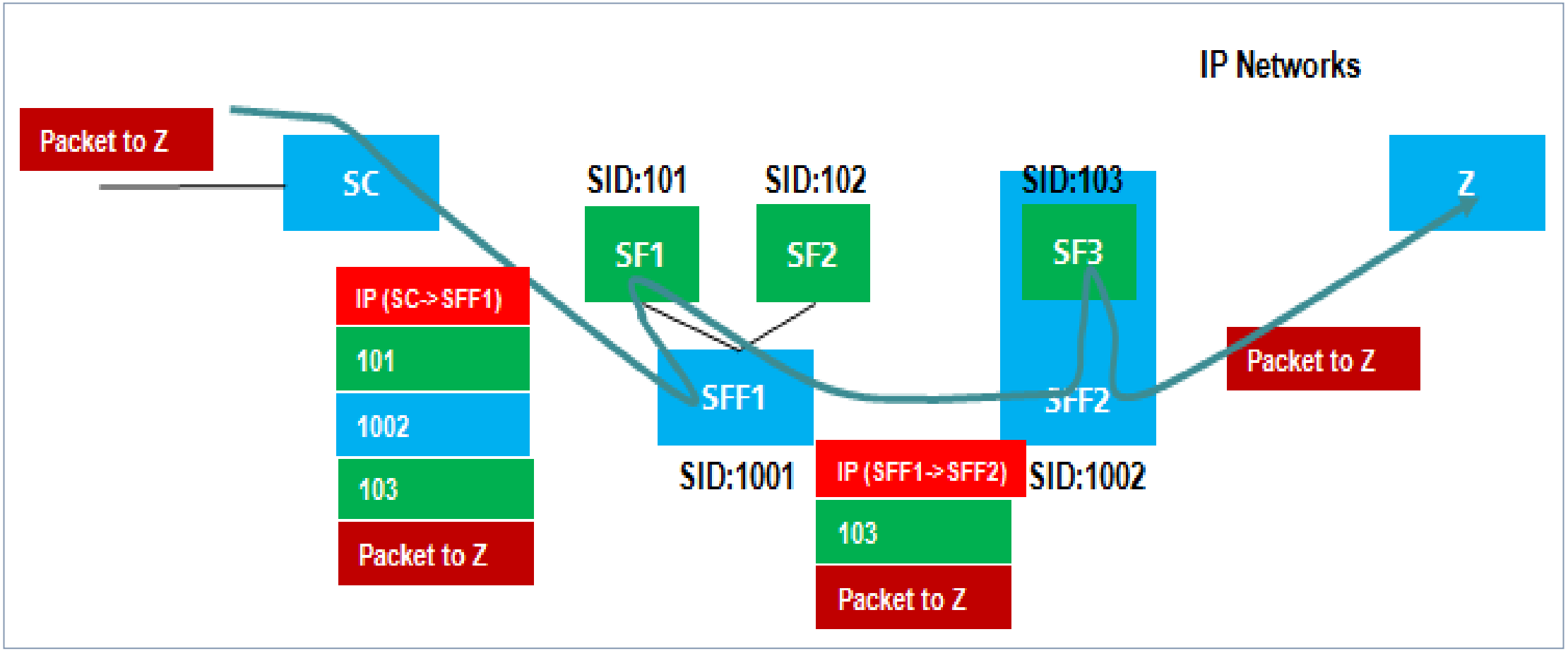
Changes since -00 version

- Three new co-authors added.
  - Jeff Tantsura (Individual) 、Martin Vigoureux (Nokia) and Shaowen Ma (Juniper)
- Add some text about how to carry metadata.

Service Chain as an Overlay=Transport-independent



How to Carry Metadata

- Since the MPLS encapsulation has no explicit protocol identifier field to indicate the protocol type of the MPLS payload, how to indicate the presence of metadata (i.e., the NSH which is only used as a metadata container) in an MPLS packet is a potential issue to be addressed.
- Two possible ways that we had considered so far:
  - SFFs allocate two different labels for a given SF, one indicates the presence of NSH while the other indicates the absence of NSH. This approach has no change to the current MPLS architecture but it would require more than one label binding for a given SF.
  - Another possible way is to introduce a protocol identifier field within the MPLS packet as described in [I-D.xu-mpls-payload-protocol-identifier].
- More details would be specified in future versions.

Advantages over NSH

- Less states on SFF nodes.
- Leverage the efficient MPLS network programming capability.
- Build on the existing MPLS forwarding platform.

Next Steps

- Comments and suggestions?