

Network Services Framework

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Network Services Framework: NSI-WG



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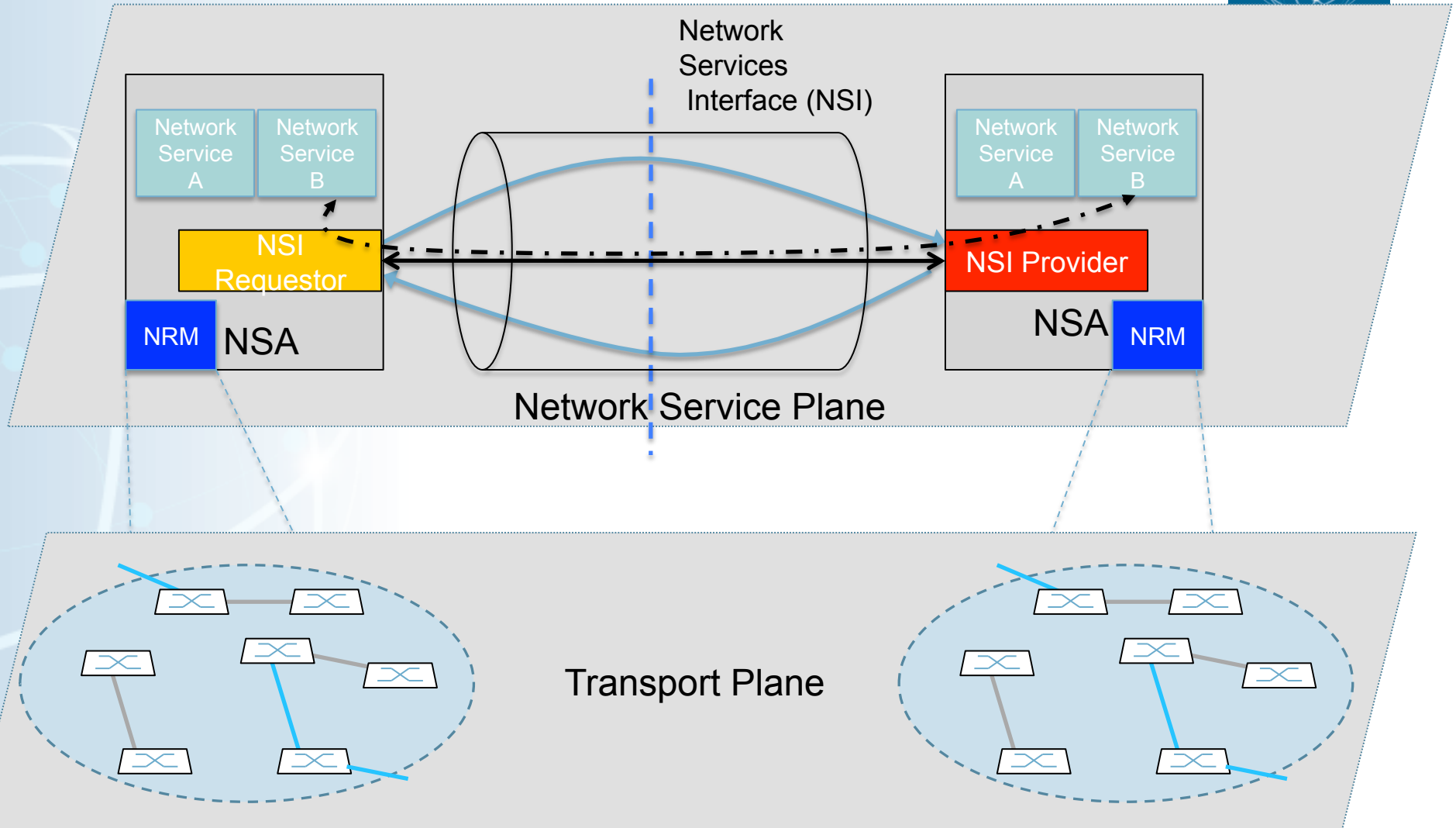
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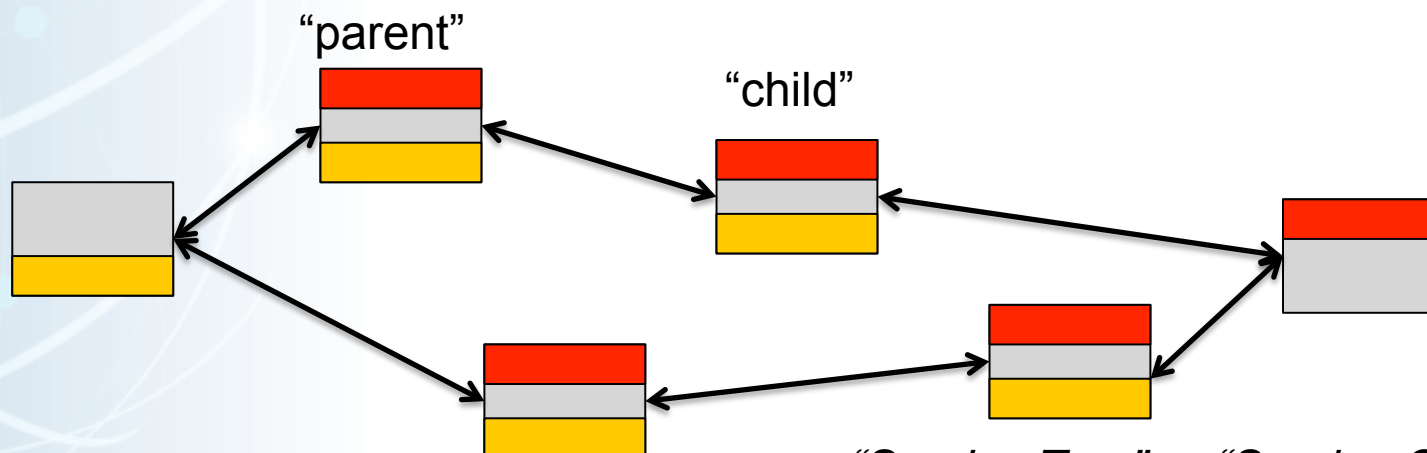
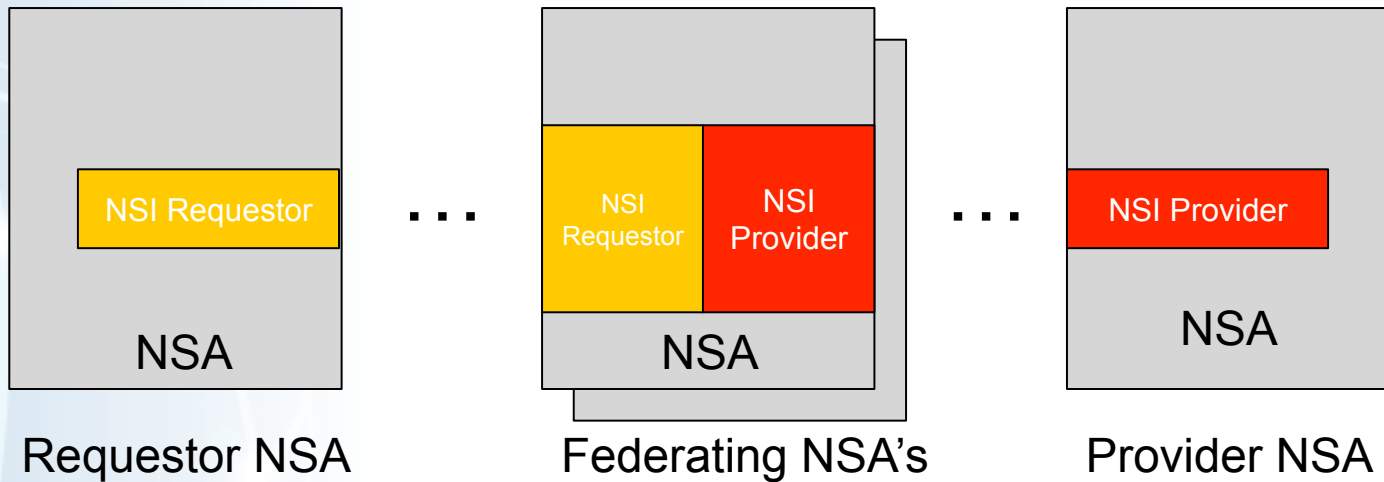
NSI Concepts



** Slides contain animation, does not show in pdf*

NSA = Network Services Agent
NRM = Network Resource Manager

NSI Concepts: Multi-Domain



* Slides contain animation, does not show in pdf

"Service Tree" or "Service Chain"

NSI Protocol



...	Ver.	Network Svc. Type	<i>Trust/Auth Information</i>	<i>Req./Prov. NSA</i>
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Base NSI Protocol

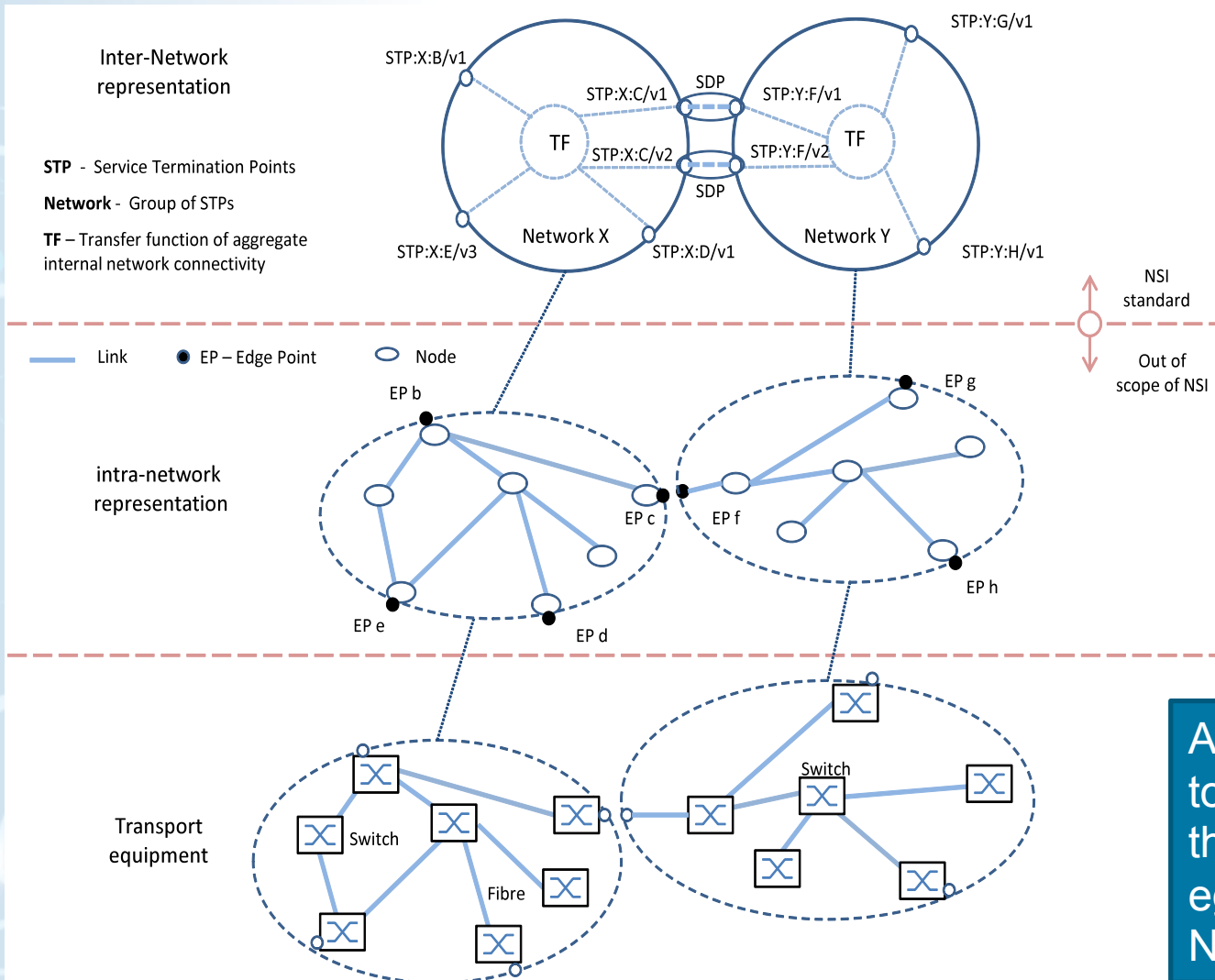
...	Service Definition	<i>Service Instance ID</i>	<i>Service Primitive</i>	Svc. Msg. Seq. #
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Service-Service Protocol

formally identify and define the characteristics associated with each service offering



Service Termination Point (STP)



An STP names a topological location that is the ingress/ egress point of a Network.

STP Concept (contd.)

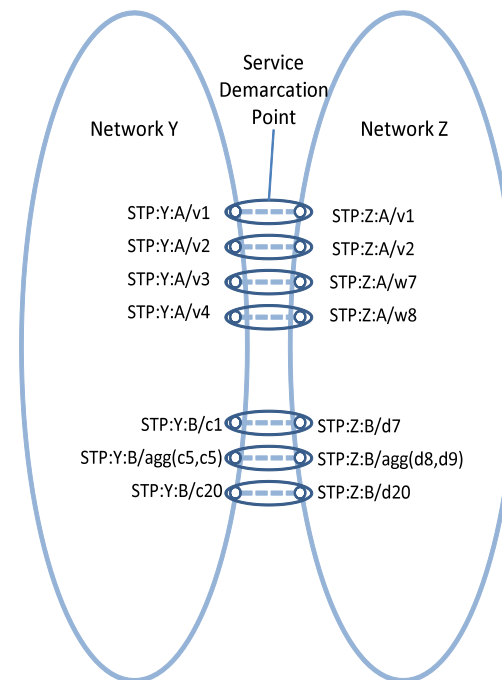


An STP is a symbolic reference:

1. a Network identifier string in the higher order portion
2. a local STP identifier in the lower order portion.

An STP must always resolve to a specific topological port object as defined in the intra-network topology representation.

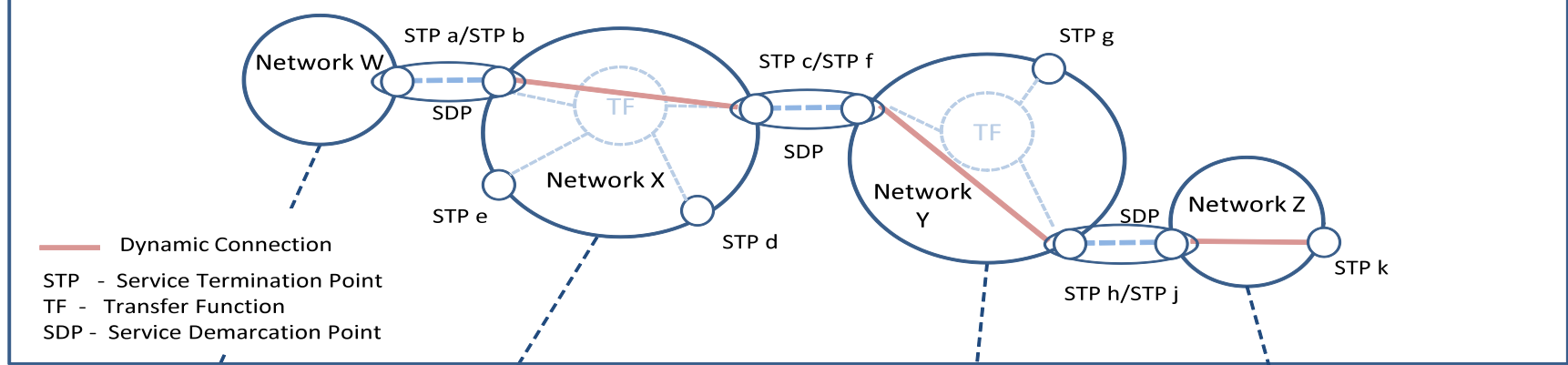
SDP: when two STPs with matching capabilities are paired



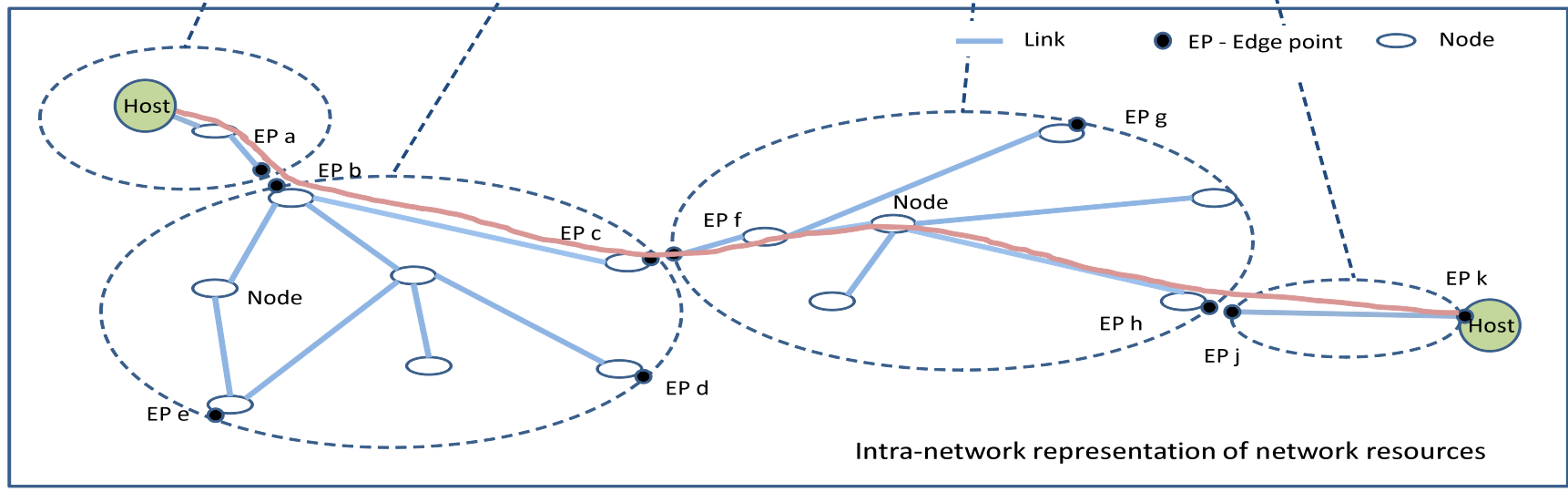
Connection Service using STPs



Inter-Network representation of network resources



Intra-network representation of network resources





GLIF and NSI Discussion

GLIF supported the case to create NSI-WG

FENIUS as an intermediate step to move multiple implementations towards the same API

- Very successful – demonstrations and new concepts (Aut.-Gole)

Request for support from GNI-API/GLIF group

- Ensure that the FENIUS effort stays in sync with NSI WG
- All the GLIF requirements are properly represented for NSI v1 protocol specification
- Most important: Put resources to help define and create a prototype implementation of the NSI protocol. Focus on learning, documenting and transitioning FENIUS to NSI.
- Challenge: Demo with NSI protocol at the 11th Annual GLIF 2011?

OGF Status



NSI Services Framework – in public comment

- Comments received, document being revised

NSI Connection Services Architecture doc in progress

- Weekly Wed. calls with “spirited” discussions incl. email

NSI Protocol

- Needs to gather momentum