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Service Function Chaining:
SFC Architecture

draft-quinn-sfc-arch-04

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Document High Level Summary

- Describes an architecture that can be used for creation of Service Function Chains.

- Includes architectural concepts, principles, and components used in the construction of composite services using SFCs

- Does not propose solutions, protocols, or extensions to existing protocols.

Architectural Concepts

- Document describes foundational concepts for Service Function Chaining
  - Service Function Chains (SFC)
    - Chains → graphs
    - Policy-centric view
    - Linear, forked, cycles
  - Service Function Paths
    - Provide for the instantiation of SFCs into the network
  - Data, Control & Policy Plane interaction

Architecture Principals

- The SFC architecture predicated on several key principles:
  - Topological independence
  - Classification
  - SFC encapsulation
    - Consistent policy identifiers/shared metadata
    - Service path identification
 - Heterogeneous control / policy points

Major Architecture Components

- To support the architectural principals several logical components are defined and form the basis of the architecture
  - Service Function (SF)
  - Service Function Forwarder (SFF)
  - SFC Network Forwarder (SNF)
  - Service Classifier
  - Control Plane
  - Shared Context Data

SNF, SFF and SF
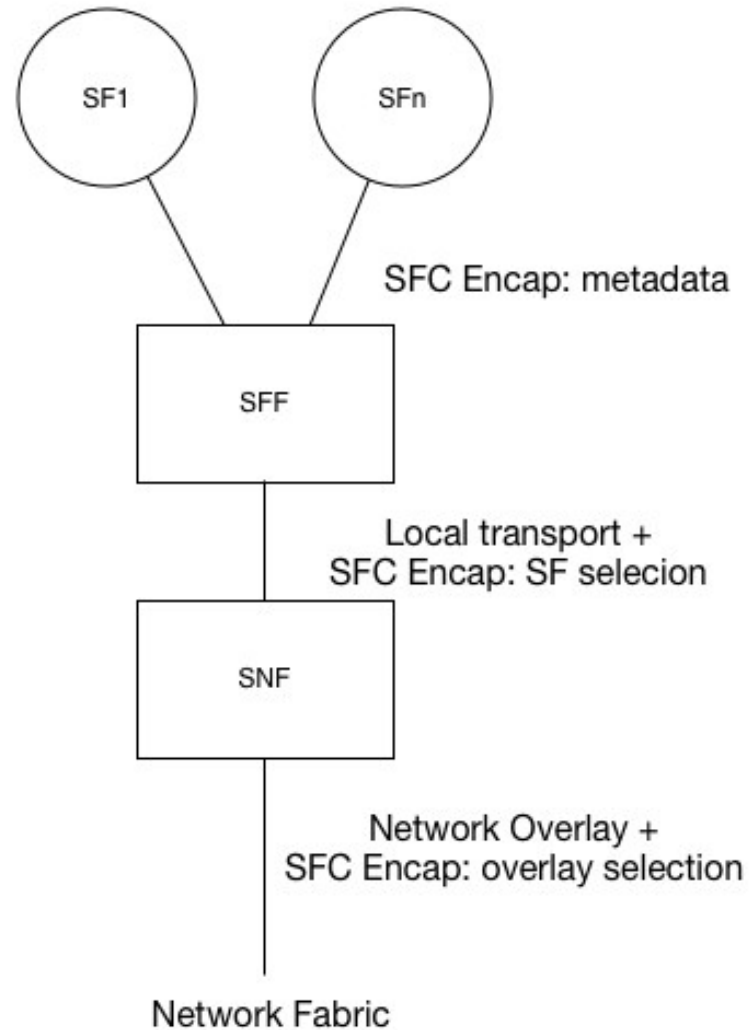
Overall Architecture
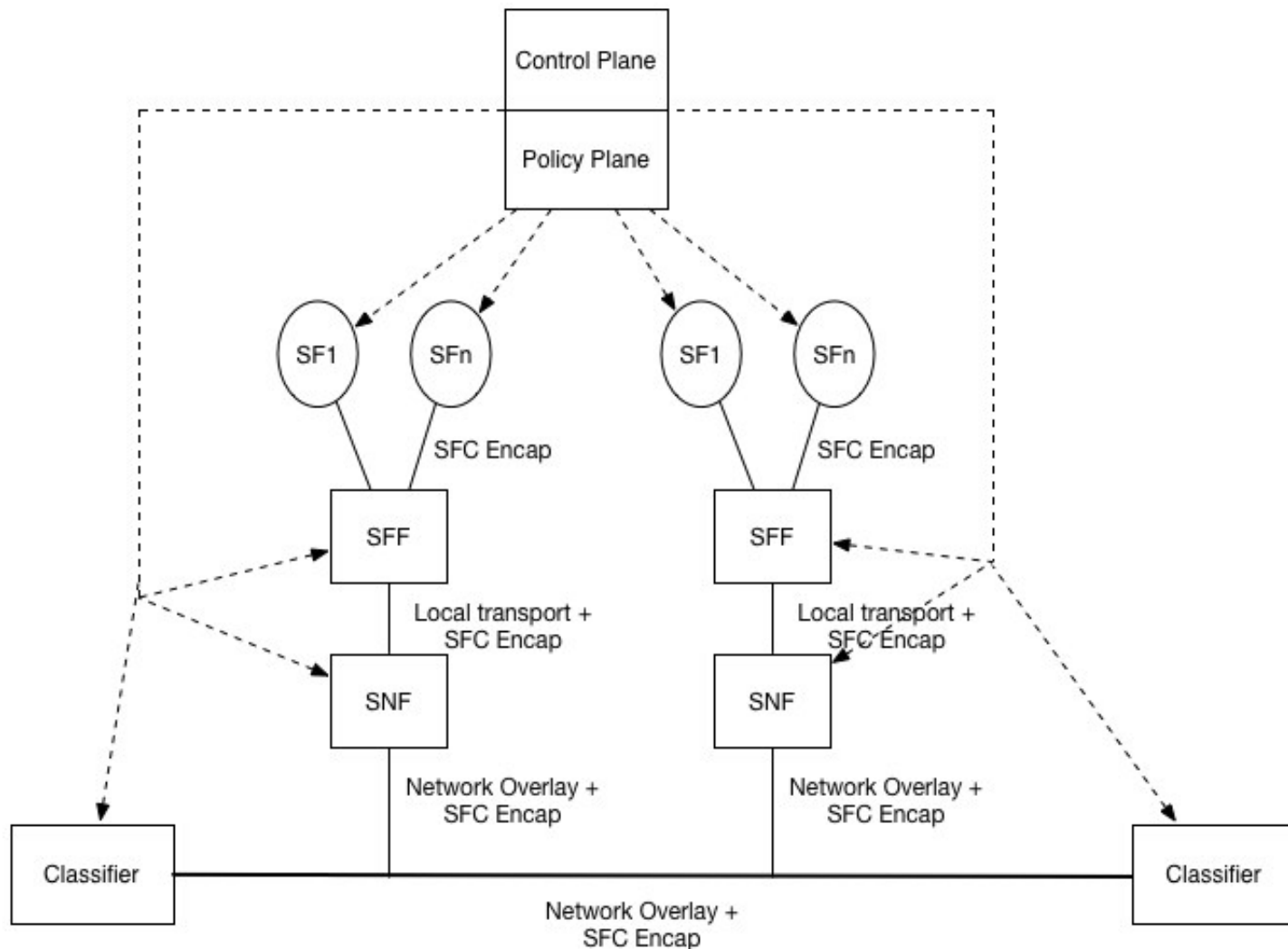
Document Status

- Widely reviewed
  - Several versions of the document have been published
- Several suggested updates planned for next version

Next Steps

- Continue to update document based on operator and SFC-list feedback
- Work with other architecture draft authors to align documents
- Adopt as a working group document
  - Work toward aligning all other documents to fulfill item (2) of the SFC charter (single architecture document)
- Fulfill WG milestone
  - Jan 2015 – Submit to IESG Informational document defining the architecture for SFC