



SDN Layers and Architecture Terminology

draft-haleplidis-sdnrg-layer-terminology-04

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Changes from v01

- 3 Releases since Vancouver.
- Added a lot of scientific related references
 - Including Nick's recent SDN history paper
- Added Resource Description
 - Component available within a system.
- Taken into consideration:
 - Comments received by mail and in meeting
 - The extensive discussion in the list for control vs management.

Control vs Management (I)

- Control Plane
 - Usually distributed
 - Mainly for configuration of the forwarding plane (over DAL), how to handle packets.
- Interface characteristics
 - Time-critical interface, requires low-latency and high-bandwidth
 - Oriented towards wire efficiency and device representation.

Control vs Management (2)

- Management Plane
 - Usually centralized
 - Ensure that devices run optimally.
 - Mainly interfaces with the operational plane (over MAL) (typo in draft).
- Interface characteristics
 - Messages tend to be less frequent than CP
 - Oriented towards usability. Optimal wire performance is secondary.

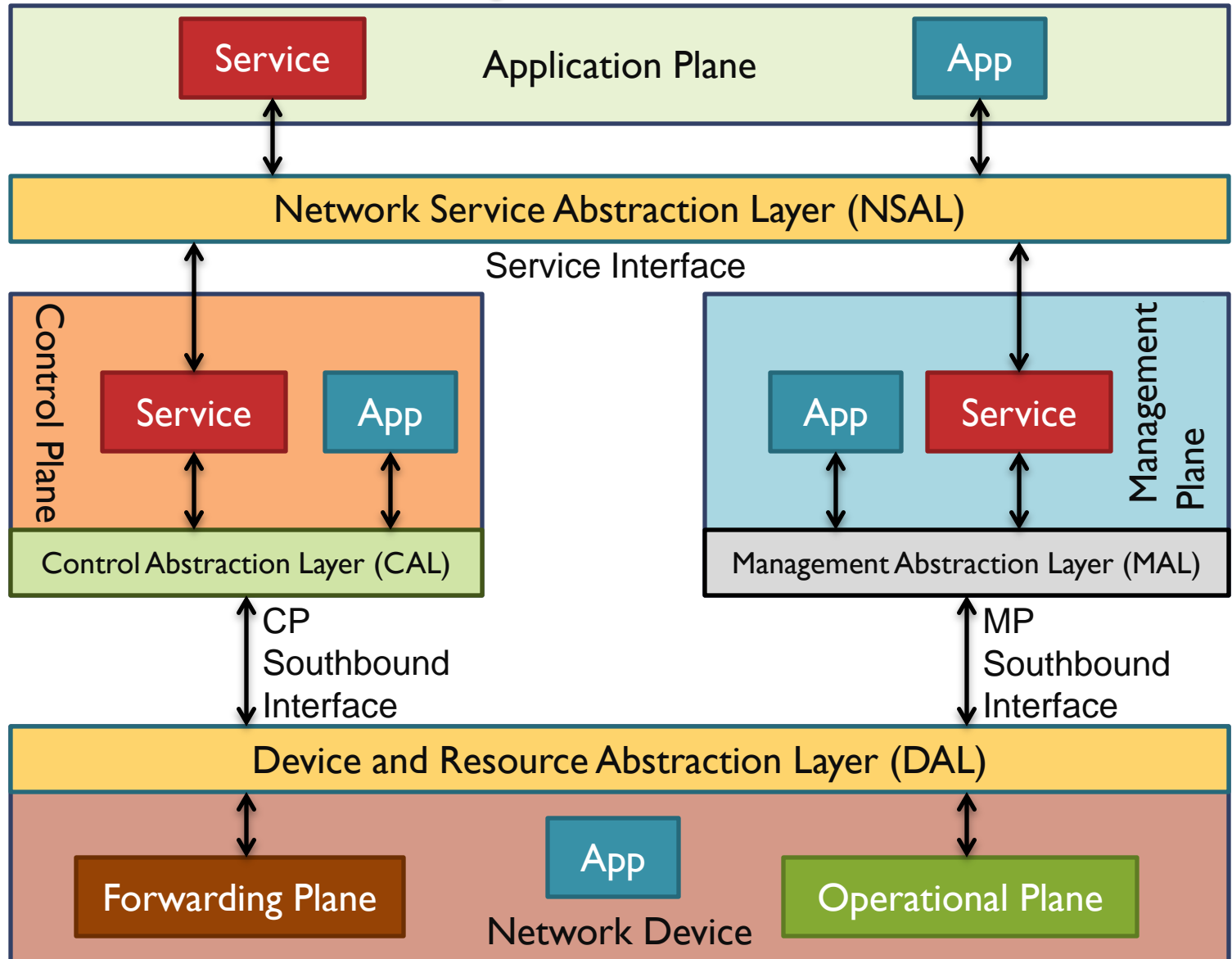
Disclaimers in text

- This document follows a network device centric approach.
- Network devices contain and are resources
- No distinction between "physical" and "virtual" resources.
- Recursion of services, applications or planes.
- Abstract view of planes. (e.g. Management over Control is implementation specific)

Slight changes in Figure 1

- Changed SAL to NSAL
 - Avoid usage of overloaded term of Service Abstraction Layer.
 - DAL includes resources abstraction
- Implied in text
 - Network devices is an aggregation and container for resources
 - A network device can be a resource in itself.

Reference Layer Model



New text for application & NSAL

- Application plane definition
 - Plane where applications that rely on the network to provide services for end users and processes reside.
- NSAL
 - Provided semantics for interfaces standards
 - REST
 - RPC

Time for OUR questions

- SDN work in ITU.
 - Comparison?
- Other SDO's we missed?
- East/West interface
 - Include in Figure 1?
 - Simple text in document – Need more?
- NSAL
 - Other interfaces to include?
- Anything else?

Moving Forward

- Comments / Feedback
 - Thanks to contributors on the list and the rg for the discussion and comments.
 - Looking forward for more!
- Care to suggest text and help our effort?
 - Map your FAVORITE framework and provide us with text/details/comments
- Adopted as RG document