

SDN Workshop

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Wrap-up

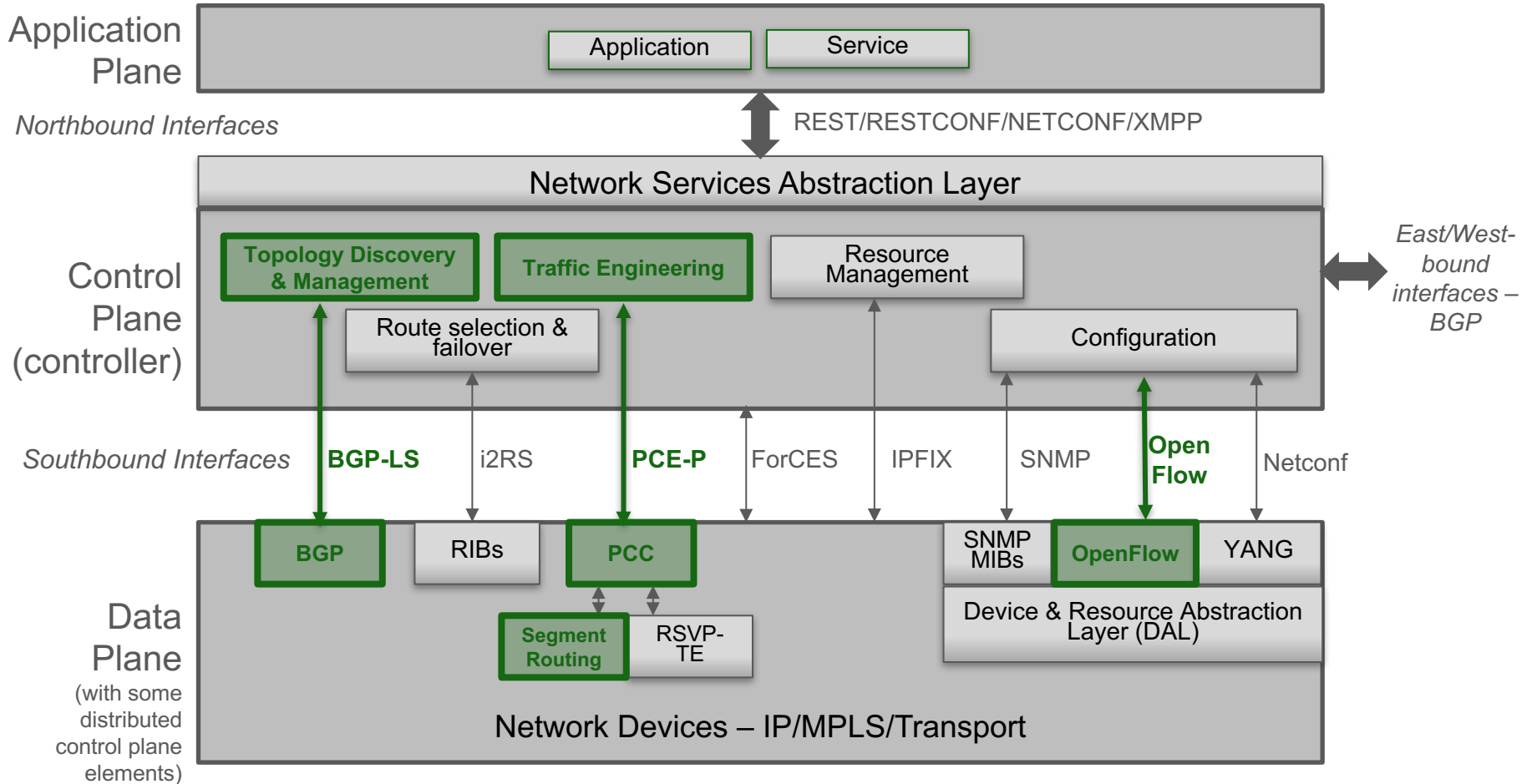
SDN Workshop



Scope

- As you have seen, SDN covers a vast range of technologies
- In this workshop, we focused on:
 1. OpenFlow: the foundational technology for SDN, and;
 2. The move from distributed path computation to centralised path computation. Technologies of focus will include:
 - Segment routing
 - BGP-LS
 - Path Computation Element (PCE)

Areas of coverage



Note: designations of north-bound and south-bound are relative to the control plane (“controller”)

Recapping objectives:

- At the end of the workshop, you should be able to articulate:
 - the motivation behind SDN
 - the reasons for the development of OpenFlow
 - the currently accepted architectural framework for SDN
- In addition, you should have a detailed understanding of:
 - the OpenFlow protocol and the improvements introduced by various versions
 - segment routing and the problems it solves
 - acquiring network topology information using BGP-LS
 - how a path computation element (PCE) can be used to enhance path calculations

OpenFlow

- What we learned:
 - Details of OpenFlow protocol from v1.0 to later versions
 - Operation of OpenFlow in a simulated network with Mininet and the OpenDaylight controller
- Participant feedback:
 - What have you learned ?
 - Do you have any unanswered questions ?

Segment Routing

- What we learned:
 - Details of Segment Routing architecture and operation
 - IGP protocol extensions for SR
 - BGP Egress Peer Engineering
 - Interworking with LDP
 - Operation of a Cisco router environment with Segment Routing enabled
- Participant feedback:
 - What have you learned ?
 - Do you have any unanswered questions ?
 - Do you see applications in your network ?

BGP-LS

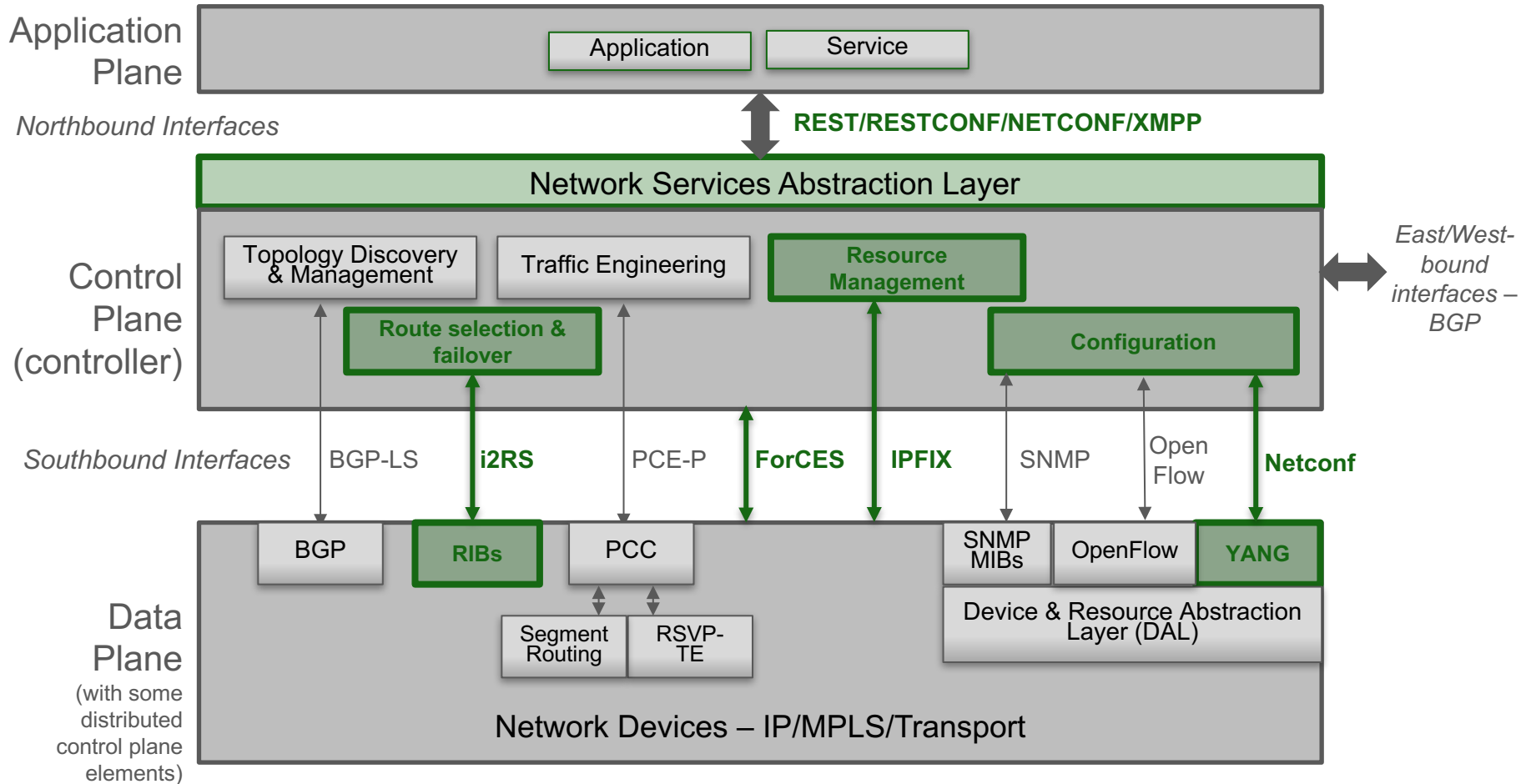
- What we learned:
 - Details of BGP-LS NLRI
 - Extensions for Segment Routing
 - Extensions for BGP EPE
 - Operation of BGP-LS in a Cisco router environment

- Participant feedback:
 - What have you learned ?
 - Do you have any unanswered questions ?
 - Do you see applications in your network ?

PCE

- What we learned:
 - Details of PCE architecture
 - Stateful PCE
 - PCEP
 - Segment Routing extensions
- Participant feedback:
 - What have you learned ?
 - Do you have any unanswered questions ?
 - Do you see applications in your network ?

Future SDN workshops



Note: designations of north-bound and south-bound are relative to the control plane ("controller")

Thank You !

End of session

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