I2RS March 5 Interim
Design Team introduction

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I2RS co-chair

I2RS topics

- I2RS Work Areas
- I2RS Protocol independent topology drafts
- I2RS RIB
- I2RS PBR
- I2RS Charter

I2RS Work

˝ I2RS problem and architecture drafts
 . [draft-ietf-i2rs-architecture-08](#)
 . [draft-ietf-i2rs-problem-statement-06](#)

˝ Use Case documents
 . [draft-ietf-i2rs-usecase-reqs-summary-00](#)

˝ I2RS protocol requirements
 . [draft-ietf-i2rs-pub-sub-requirements-00](#)
 . [draft-ietf-i2rs-traceability-02](#)
 . [draft-haas-i2rs-netmod-netconf-requirements-00](#) (pending updated)

˝ I2RS Protocol independent work
 . Forwarding RIB (RIB and PBR)
 . Topology

Protocol Independent Data Models

(presented first at I2RS and TEAS interims in December, 2014)

Protocol Independent (P.I.) Topologies

Abstract topology

| L1 topology | L2-topology | L3 topology | TE Topology | Service topology | PBR Topology*1 |

I2RS P.I. Abstract topology
˝   draft-clemm-i2rs-yang-network-topo-03
˝   Draft-dong-i2rs-inventory-00.txt

I2RS P.I. Topology Drafts
˝   draft-zhang-i2rs-l1-topo-yang-model-00
˝   draft-dong-i2rs-l2-network-topology-00
˝   draft-clemm-i2rs-yang-l3-topo-00
˝   draft-wang-i2rs-service-topo-dm-00

Other P.I. Work
˝   TEAS TE topology draft
˝   L3SM L3VPN draft *2

First Pass:
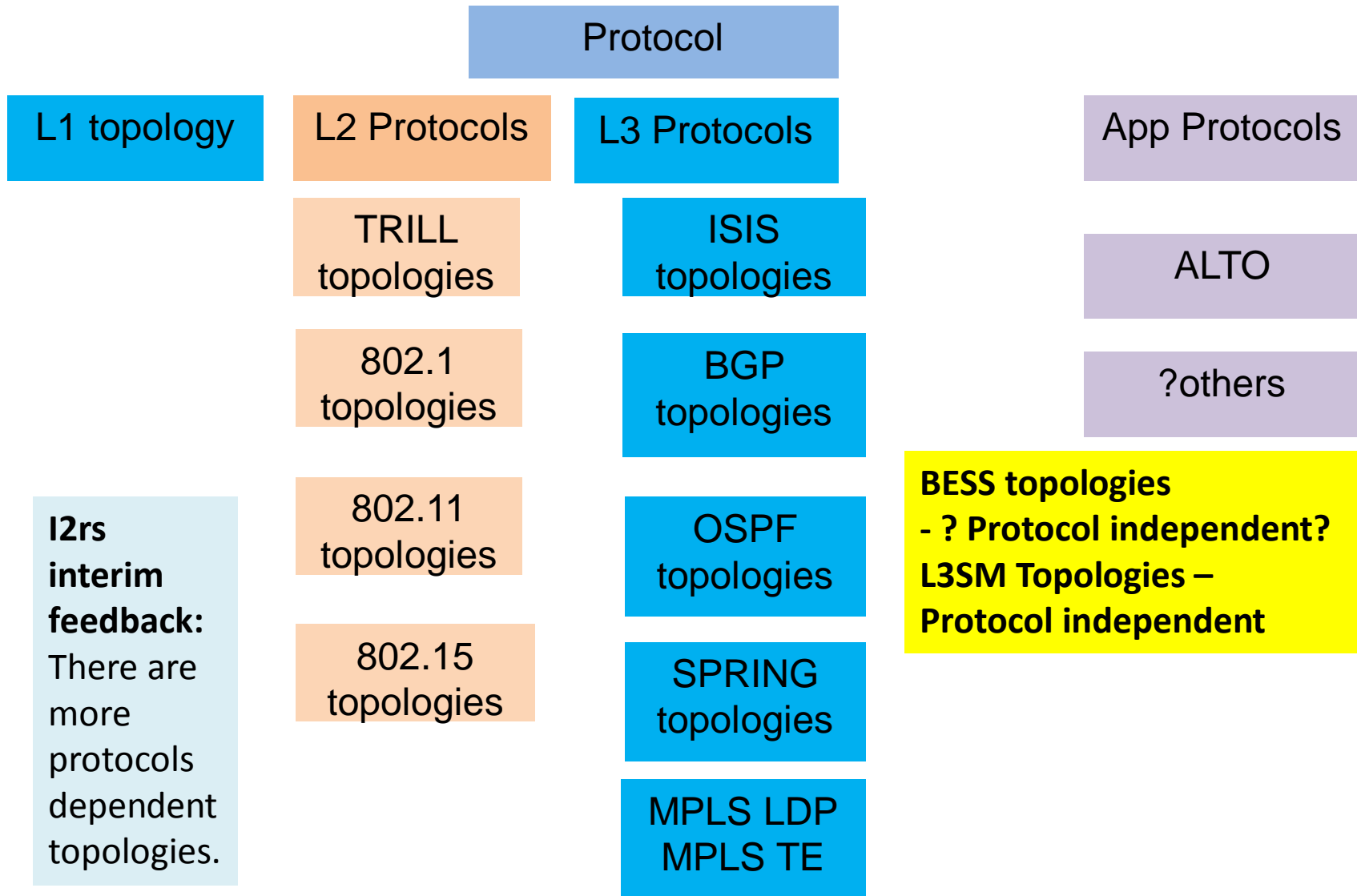3/5/2015: Initial drafts
3/9/2015: Call for adoption of drafts

2nd pass (? April to July)
˝   TE drafts Topology drafts will be written to align TEAS to work
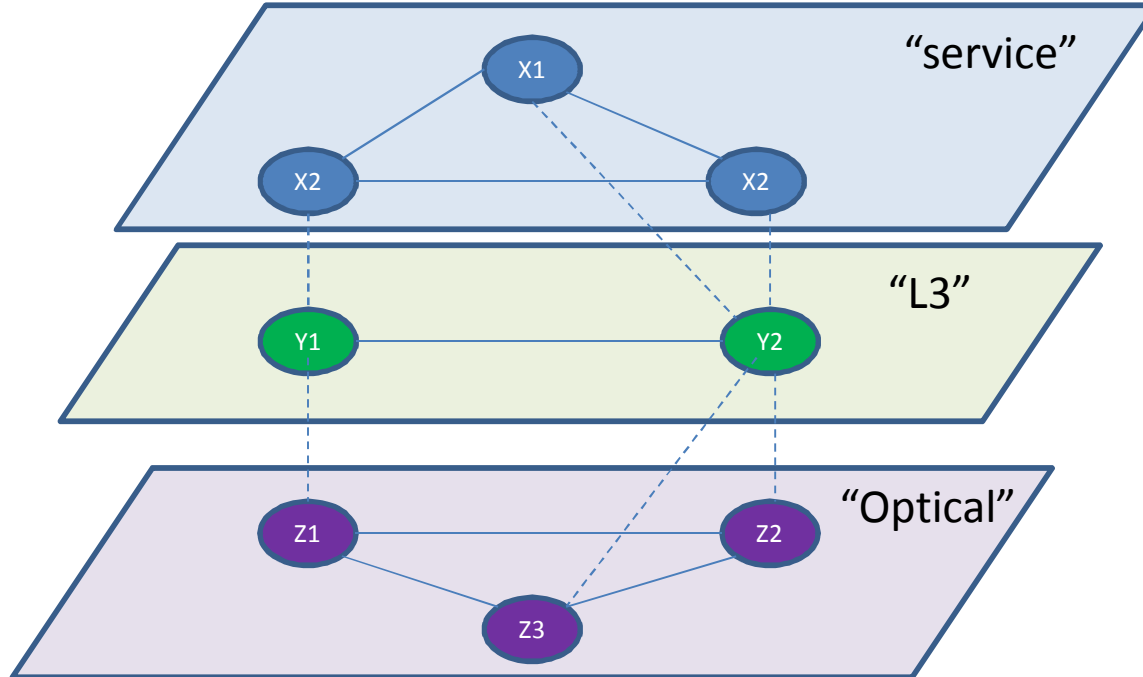˝   **Service topology drafts** with VPN topologies

*1 May not be needed
*2 SUPA status (P.I. or P.T) unknown

Protocol Dependent Topologies (PDT)

Protocol

L1 topology

L2 Protocols

TRILL topologies

802.1 topologies

802.11 topologies

802.15 topologies

L3 Protocols

ISIS topologies

BGP topologies

OSPF topologies

SPRING topologies

MPLS LDP MPLS TE

App Protocols

ALTO

?others

BESS topologies
- ? Protocol independent?
L3SM Topologies –
Protocol independent

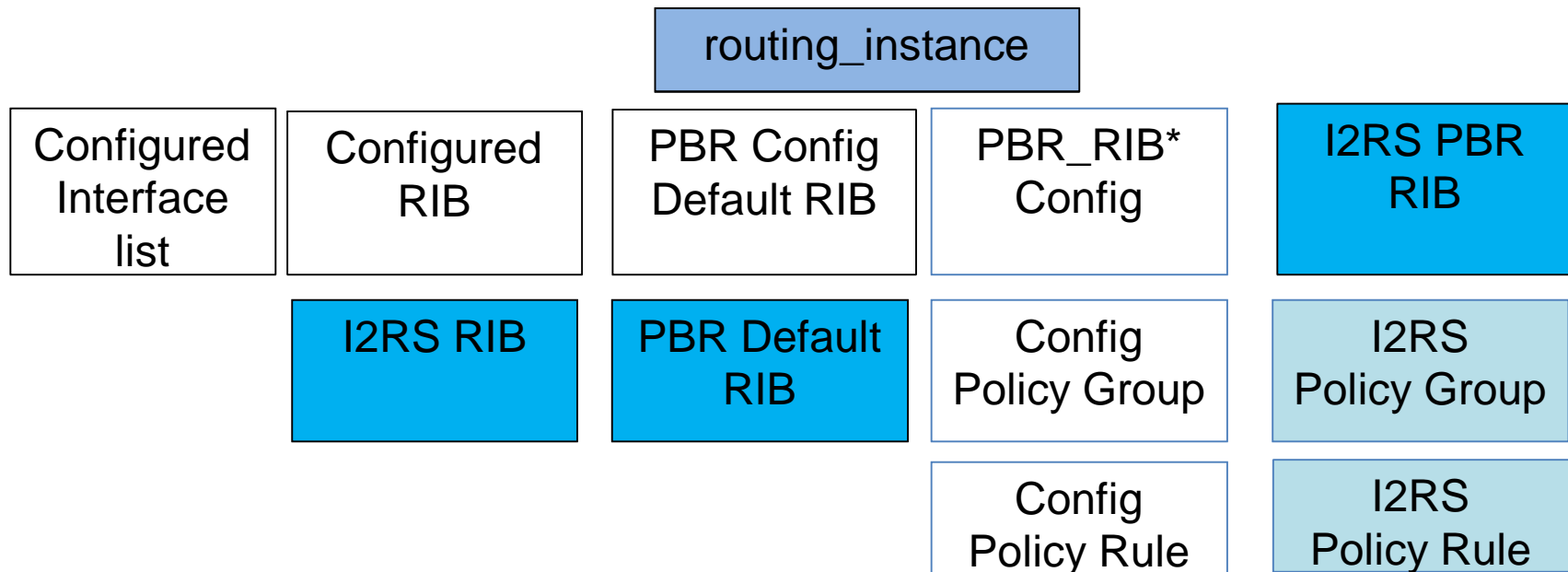**I2rs interim feedback:** There are more protocols dependent topologies.
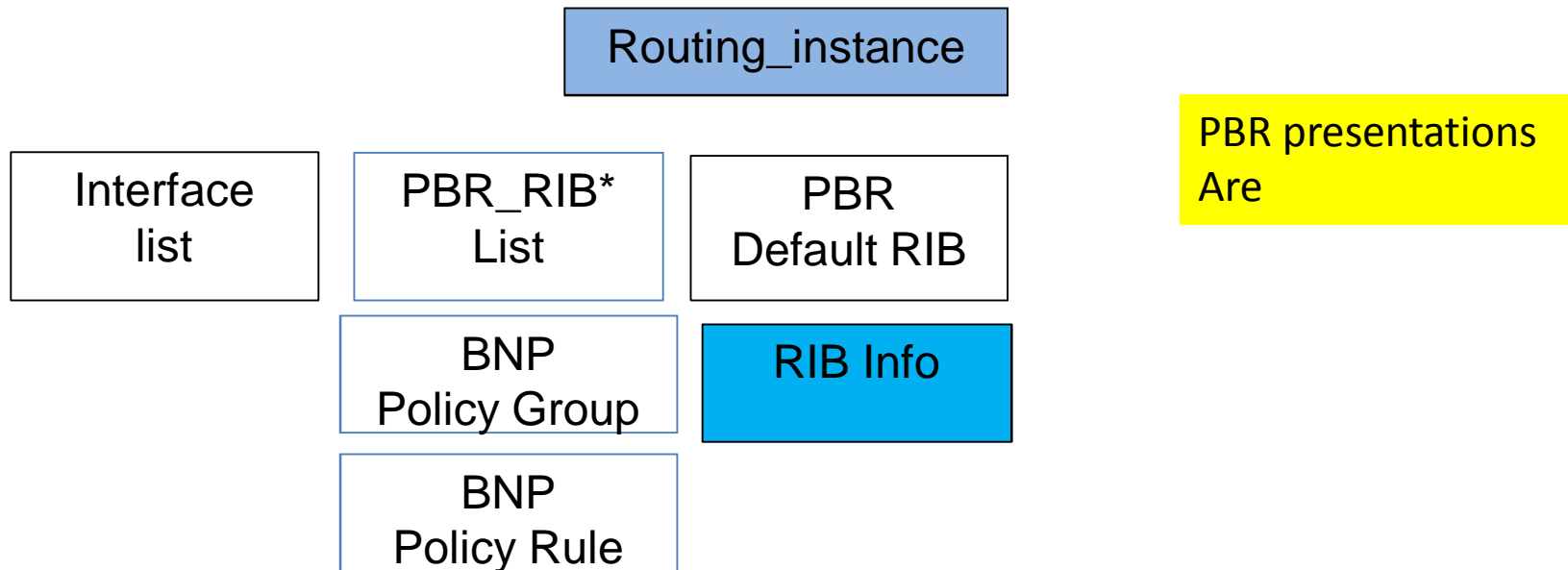
Clemm
Horizontal and vertical layering

I2RS P.I. Forwarding RIBs

″ I2RS L3 RIB

. draft-ietf-i2rs-rib-info-model-06   (3/9/2015 release)

. Draft-wang-i2rs-rib-data-model-01   (3/9/2015 release)

″ Question: Should we have L1/L2/L3/Service P.I. forwarding RIBs?

. Service Forwarding needs the same forwarding RIB

			routing_instance	
Configured Interface list	Configured RIB	PBR Config Default RIB	PBR_RIB* Config	I2RS PBR RIB
	I2RS RIB	PBR Default RIB	Config Policy Group	I2RS Policy Group
			Config Policy Rule	I2RS Policy Rule

PBR as a Protocol Independent Topology

Routing_instance

Interface list	PBR_RIB* List	PBR Default RIB

BNP Policy Group

RIB Info

BNP Policy Rule

PBR presentations Are

I2RS PBR Models
- draft-hareskini-i2rs-L3-pbr-info-model-00 (-01 pending)
- draft-xx-i2rs-pbr-generic-dm-00   (-00 pending)
- draft-kini-i2rs-L3-pbr-yang-dm-00   (-00 pending)
- draft-dunbar-i2rs-sff-pbr-dm-00   (-00 pending)

Policy drafts (next releases will harmonize with)
- draft-ietf-netmod-acl-model-01
- draft-shaikh-rtgwg-policy-model-00
- draft-yan-rtgwg-routing-policy-yang-00
- draft-hares-i2rs-bnp-info-model-01

Q & A

Protocol Dependent IM/DM

″ I2RS proposals for Info Models:
  draft-wu-i2rs-isis-info-model-00 [i2rs/isis WG]
  draft-wu-i2rs-ospf-info-model-00 [i2rs/ospf WG]
  draft-hares-i2rs-bgp-im-02   [i2rs/bgp WG]

″ Data models in I2RS
  draft-wang-i2rs-isis-dm-00   [i2rs/isis WG]
  draft-wang-i2rs-ospf-dm-00   [i2rs/ospf WG]
  draft-wang-i2rs-bgp-dm-00   [i2rs/IDR WG]

″ Data models in Routing WGs
  draft-ietf-isis-yang-isis-cfg-01   [ISIS WG]
  draft-yeung-netmod-ospf-02   [OSPF proposed adoption]
  draft-zhdankin-netmod-bgp-cfg-01   [presented in IDR]
  draft-shaikh-idr-bgp-model-00   [Provider's OpenConfig]

″ AFI/SAFI RIBS + multi-topology implies that protocol specific topologies are in routing protocols