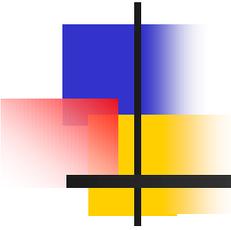
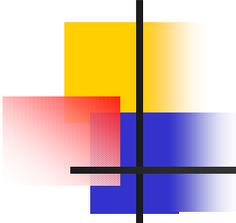


MPLS-IX and Inter-IX Operation

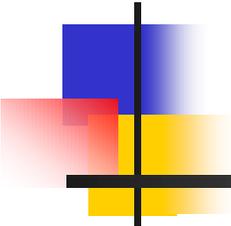


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Agenda

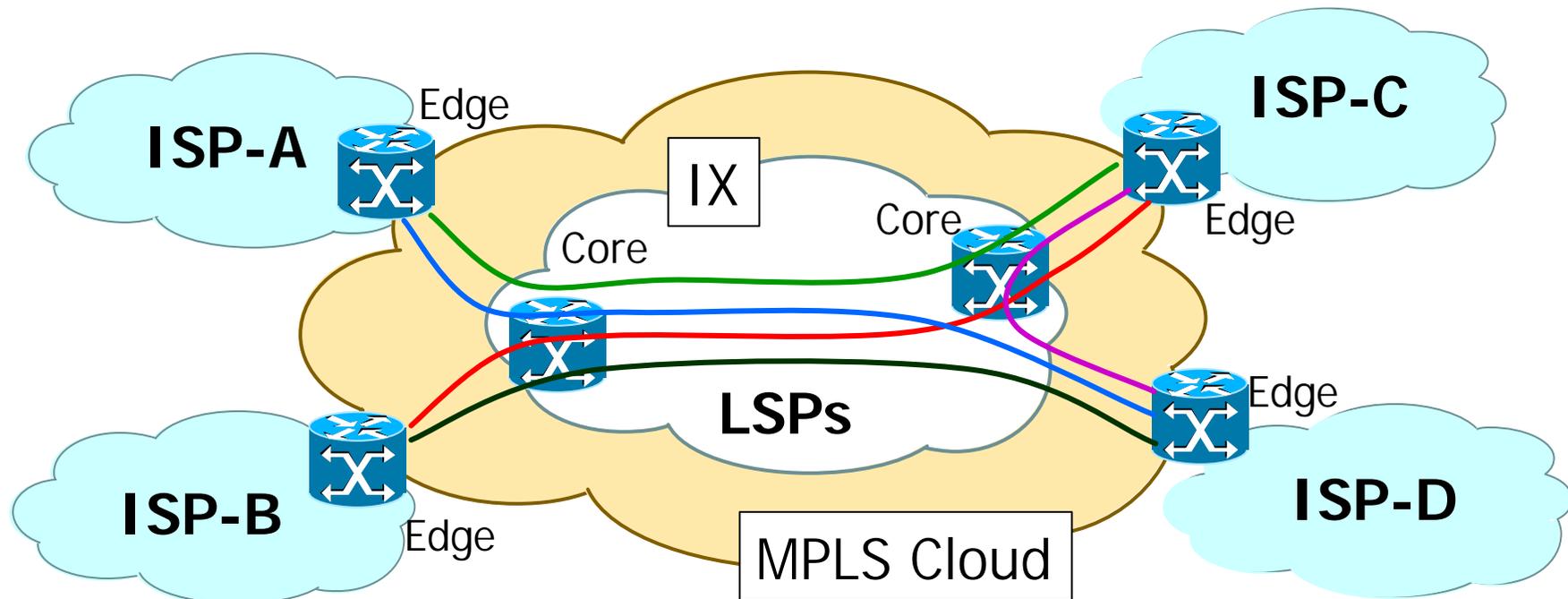
- MPLS-IX Overview
- JT MPLS-IX
- Current Operation Status
- Inter-IX Overview
- Inter-IX Current Status



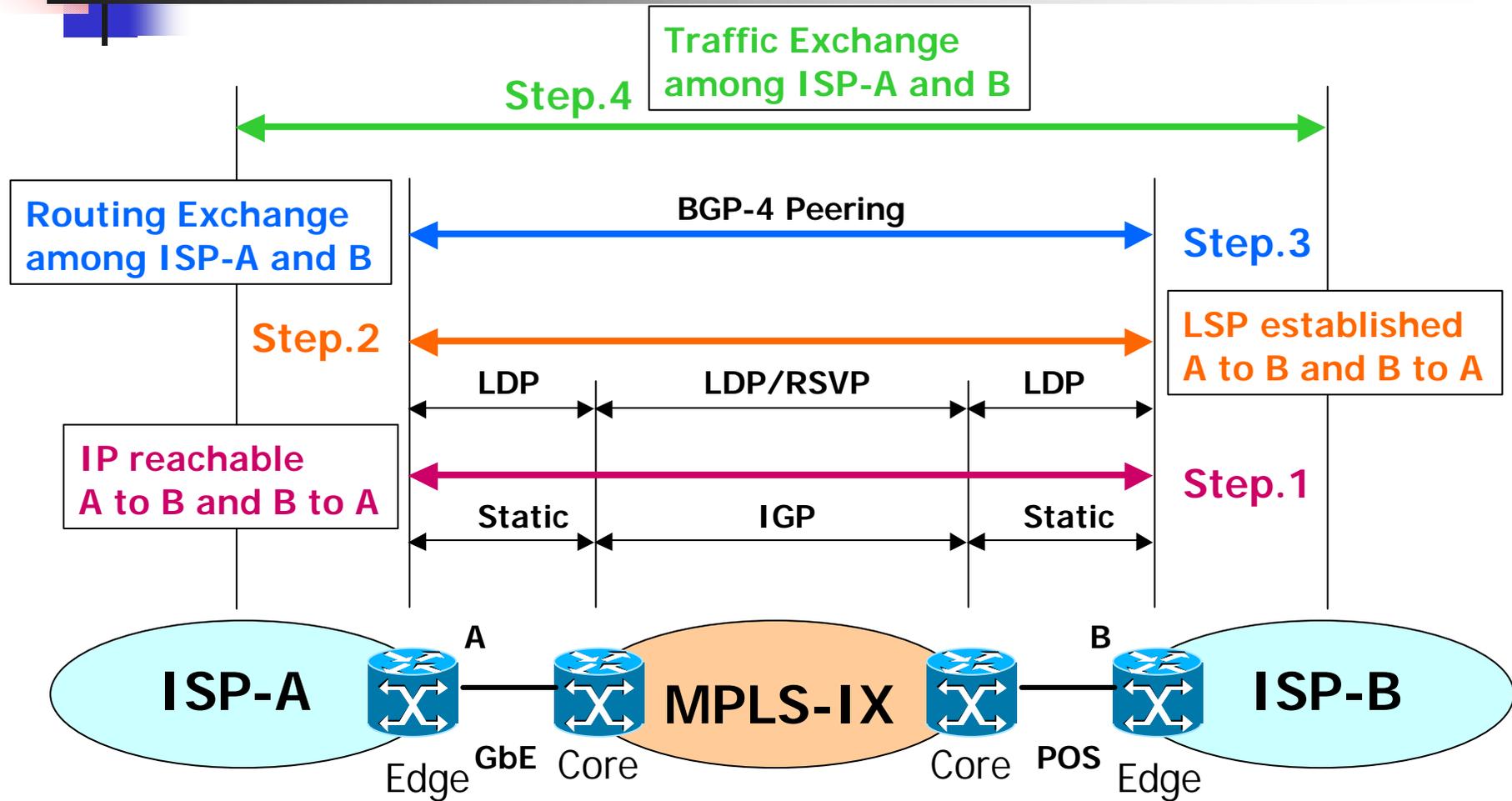
MPLS-IX Overview

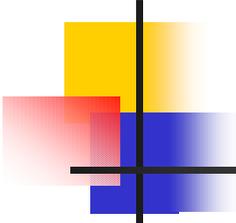
Applying MPLS to “IX”

- LSP set up among ISP ASBRs.
 - “Peering Policy” are symbolized by Label.



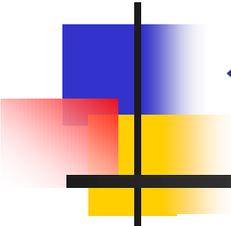
eBGP Peering over MPLS LSP



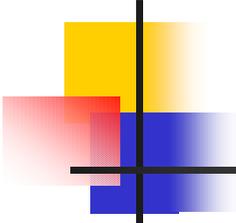


MPLS-IX Benefits

- Media Independent
 - Using any Layer-2 media is possible.
 - Connecting among different media is possible.
 - E.g, ATM<->Ethernet, Ethernet<->POS
- Scalable Distributed IX
 - Easy Path(LSP) setting.
 - Without path configuration of each MPLS routers.
 - IX can build IP(Layer-3) Backbone.
 - IX only have to have IX topology.
 - Participants also have BGP and peer's routes.
- Interworking among current IX is possible.



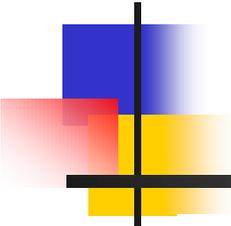
JT MPLS-IX



A Commercial MPLS-IX

- mplSASSOCIO
- “ASSOCIO” means that:
 - “AS” + “Socio”
- Launched in Nov. 2002





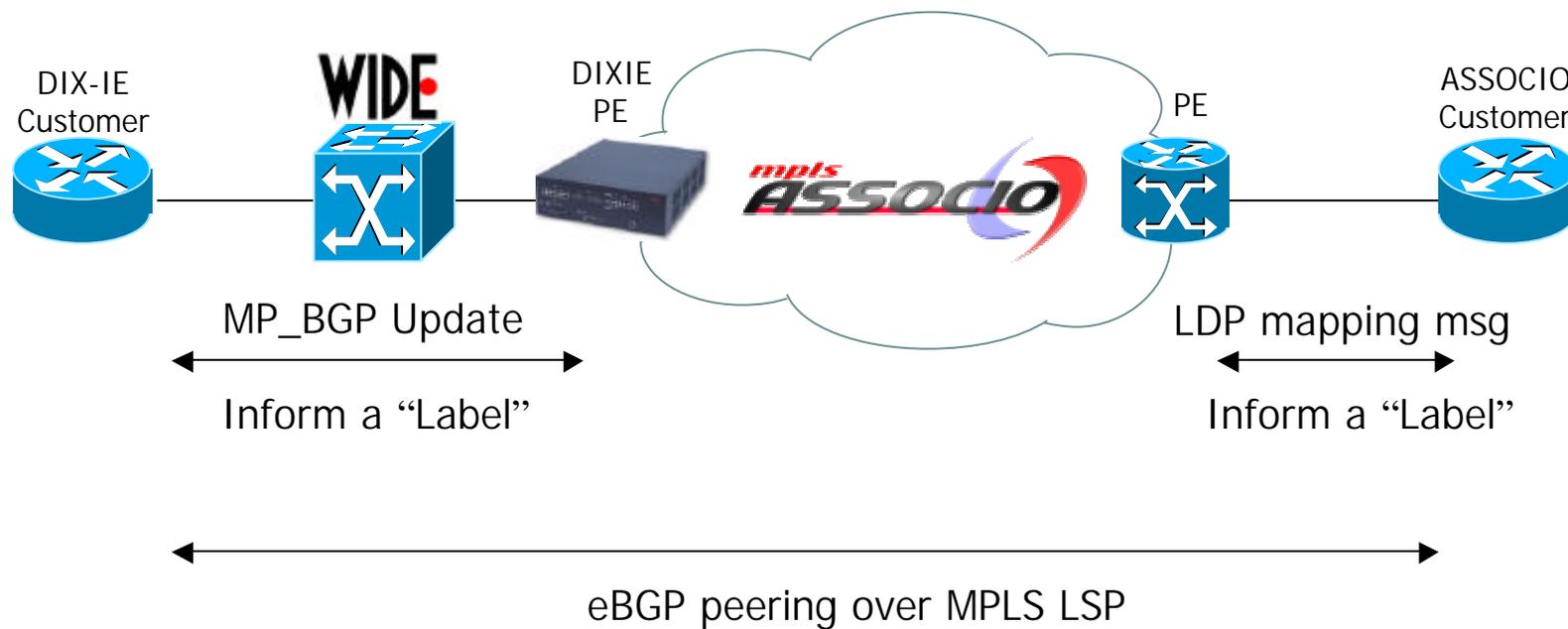
Inter-IX Operation

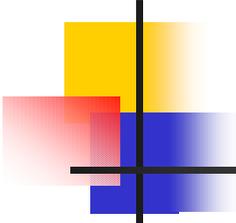
Inter-IX?

- IXP(s) interworking each other
 - An IX customer can make peering w/ other IXP customers
- Joint effort w/ WIDE DIX-IE



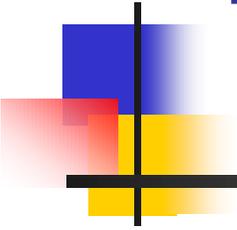
Inter-IX peering w/ MPLS





BGP Specification (RFC3107)

- Carrying label information in BGP-4
 - MP_BGP UPDATE
 - Capability value -> AFI:1, SAFI:4
 - Labeled unicast MP-NLRI -> AFI:1, SAFI:4
- Consult to make connectivity toward the neighbor.



Thanks!

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