PCECC Extensions

draft-ietf-pce-pcep-extension-for-pce-controller-01

draft-zhao-pce-pcep-extension-pce-controller-sr-04

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PCECC – PCE as a Central Controller

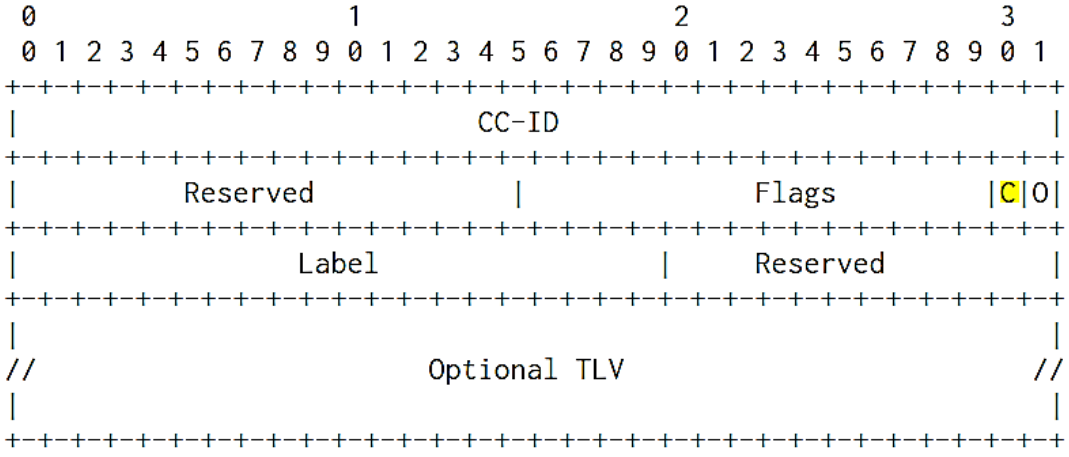
- RFC 8283 is published a while back
  - An architecture for use of PCE/PCEP in a network with central control.
  - Introduces the architecture for PCE as a central controller and examines the motivations/applicability for PCEP as a control protocol in this environment.
- PCECC Extensions
  - Basic PCECC [I-D.ietf-pce-pcep-extension-for-pce-controller]
    - Recently adopted
  - PCECC-SR [I-D.zhao-pce-pcep-extension-pce-controller-sr]
    - In WG adoption Queue

Major Updates to both I-Ds

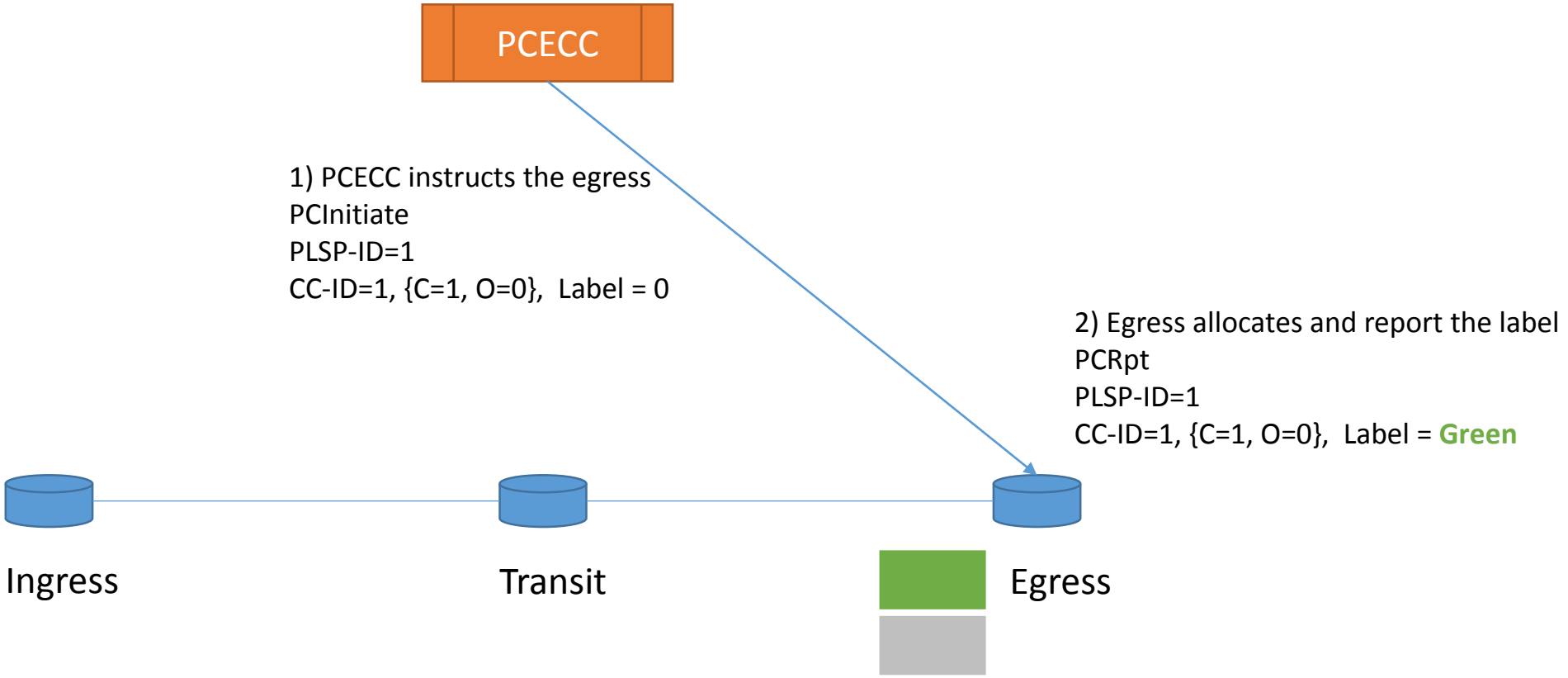
- Support for Binding SID
  - PCECC can assign the Binding SID itself
  - Reuses the TE-PATH-BINDING TLV as per [I-D.sivabalan-pce-binding-label-sid]
- Support for PCC Allocations (as instructed by PCECC)
  - PCECC can request the PCC to allocate a label for a particular instruction
  - No need to control the label space at the PCECC (useful in some scenarios)

PCC Allocated Labels in PCECC

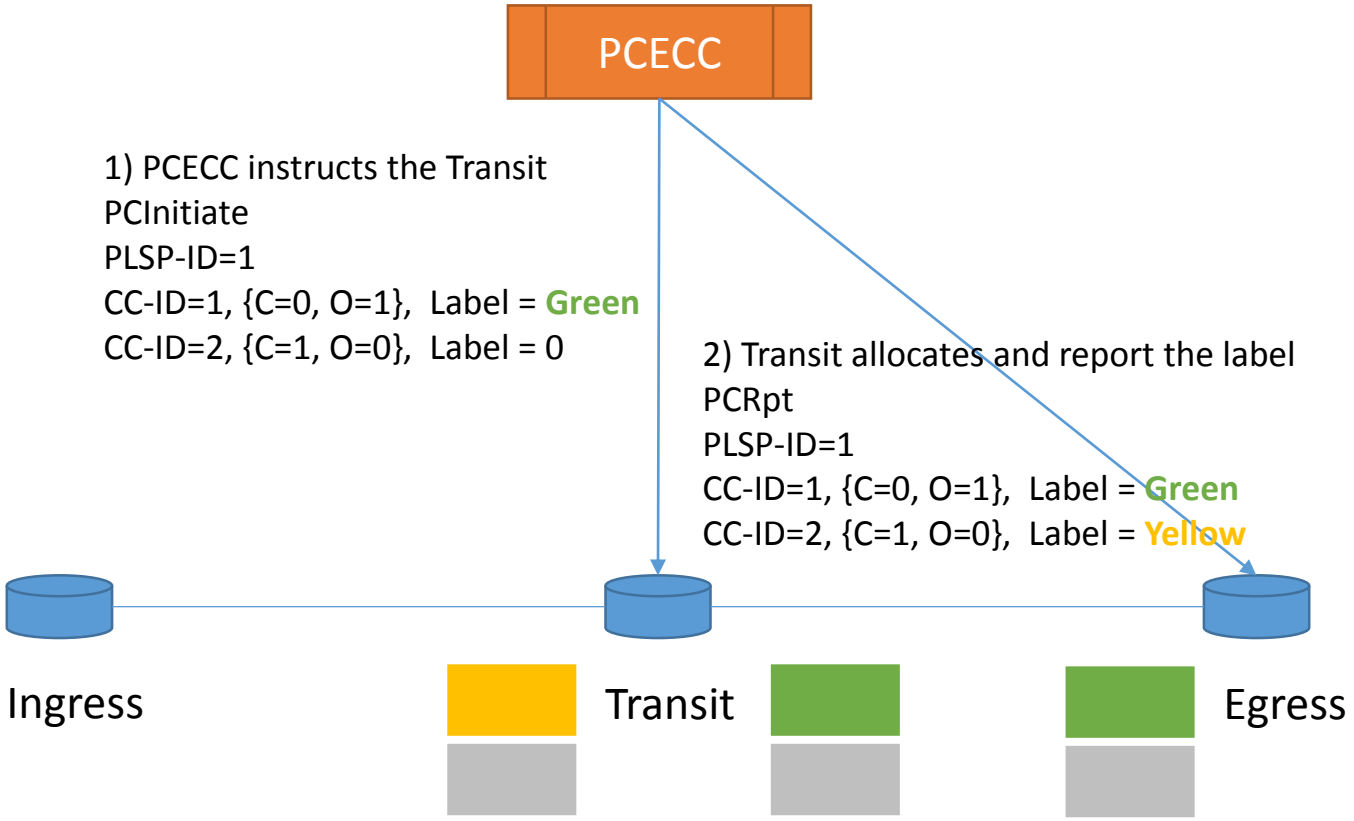
- A new flag in CCI object called C-Bit for ‘PCC Allocation’.
  - Indicates that the allocation needs to be done by the PCC
- PCECC sets the flag and Label=0
- PCC allocates a label and report it to the PCECC with flag set and Label=L1



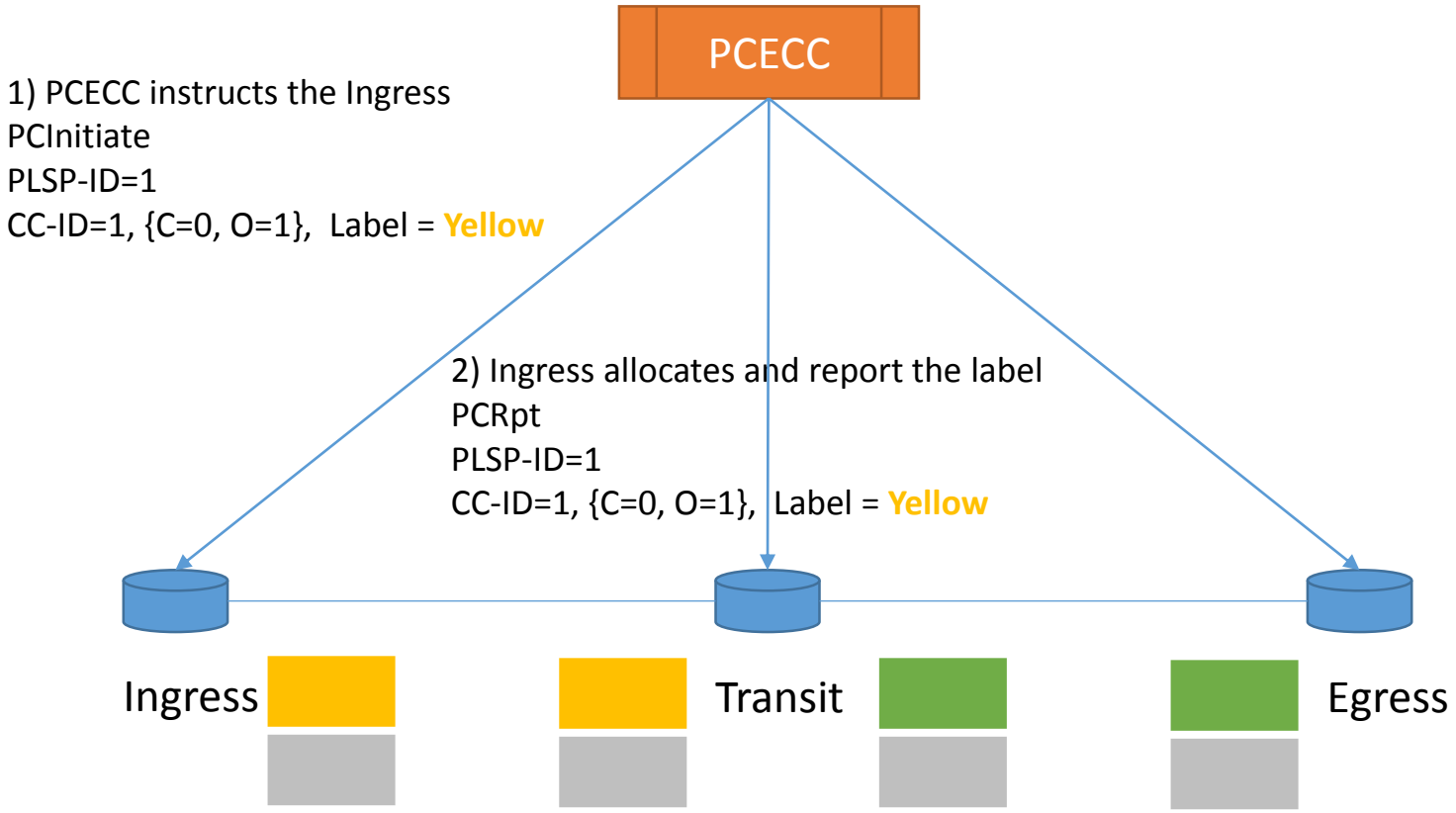
PCC Allocated Labels in PCECC



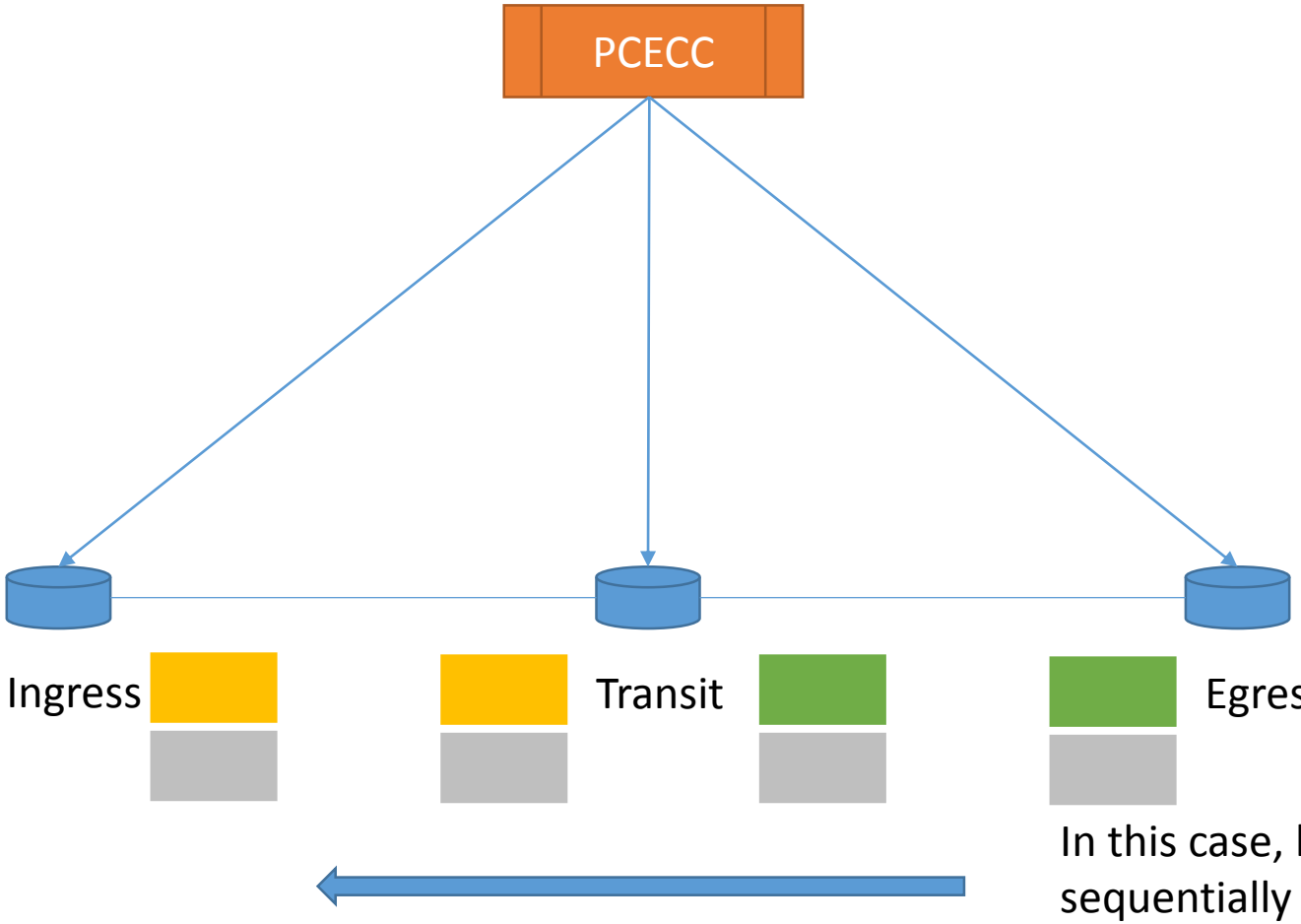
PCC Allocated Labels in PCECC



PCC Allocated Labels in PCECC



PCC Allocated Labels in PCECC



In this case, label allocation is done sequentially from egress towards ingress.

Our Ask

- Comments on the recent changes?
- Feedback from other implementers!
- *Hope to see PCECC-SR adoption call soon.*

Thanks!

Any Questions?