Goal

- Give ability for a PCC to advise PCE that a particular LSP is bound to a disjoint group of LSPs

Disjointness initiated by PCC and enforced by PCE
How?

- We simply rely on I-D.ietf-pce-association-group
- New Association type for PATH DIVERSITY
Changes from previous version

• We use a single association type rather than one per disjointness type
  – The disjointness type is encoded as part of the DISJOINTNESS-INFORMATION-TLV which becomes mandatory (SVEC like encoding)
Changes from previous version

• Coupling with an OF is possible by using the OF-List TLV (with a single entry) in the Association group object
  – Disjointness OFs are defined as part of I-D.dhody-pce-of-diverse

• Dedicated paragraph added to describe the use of the Shortest Path bit (P-bit)
Disjointness computation issues

• There may be cases where the PCE cannot find a disjoint path

• The S-bit (when unset) allows the PCE to relax the disjointness constraint

• As a consequence the PCE may:
  – Provide a path which is not disjoint
  – Not provide a path at all
Disjointness computation issues

• We propose a PCE to use the NO-PATH-VECTOR TLV as part of the LSP Object when it cannot provide a path, two new bits are added:

  bit "TBD3": when set, the PCE indicates that it could not find a disjoint path for this LSP.

  bit "TBD4": when set, the PCE indicates that it does not support the requested disjointness computation.
Disjointness computation issues

- When PCE relaxes a constraint, we propose a new TLV: RELAXED-CONSTRAINT TLV to be used in the LSP Object as well.
Next steps

• We tried to address the WG comments

• If we missed something, let us know!

• Please provide your feedback on the changes done