Extensions to Path Computation Element Communication Protocol (PCEP) for Hierarchical Path Computation Elements (PCE)

draft-zhang-pce-hierarchy-extensions-01.txt

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Updates from -00 version

- Minor changes
- Added ditor's notes with the open points and suggestions
- Added section on Building of parent topology

OPEN issues

- Parent PCE TED management
  - Framework document relies on basic domain connectivity, precluding TE aggregation mechanisms.
  - Options: should be a decision of the network operator to decide the level of information exchange allowed.
  - It will depend on the actual scenario (e.g. multi-area WSON vs Inter-AS/carriers)
- Do we decouple Hierarchical TED management?
- Alternative approaches:
  - (Dhruv) suggest to keep the Parent-PCE's topology graph free of BNs (Boundary Nodes) and inter-AS TE link; it being composed only of neighbor domain adjacency.

OPEN issues

- Domain representation
  - Alignmente with e.g. draft-dhruv on domain sequence
  - Avoid new encodings for domains which could re-use Route sub-objects
- OF codes
  - New requirements arise regarding OF codes
  - Consideration of actual OF codes (e.g. minimize domain crossing) and policies affecting them (e.g. do not allow domain re-enter).
  - specify the OF codes to apply at both levels?
    - at the parent level and also the child's (i.e. intra-domain level)

OPEN issues

- Reachability
  - Current framework and pcep drafts rely on polling to locate endpoints. (caching is not preculed)
  - Solutions based on notifications/announcements of endpoint (prefixes) can be considered.
- Exclusions
  - exclusions need to take into account domains.

Next Steps

- Discuss the open points (meeting, mailing list)
- Update the draft according to the chosen direction