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draft-uttaro-idr-add-paths-guidelines-03

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Draft Status

• Informational or Standards Track?
  – Initial versions were Informational
  – Proposing change to Standards Track with -03, need WG feedback
  – Rationale: network operators need at least one mandatory path selection algorithm that is common between implementations
Mandatory Path Selection Mode

- Advertise N paths
  - The set of paths found by running the BGP decision process N times
    - After each iteration remove the best of the remaining paths and all other paths with the same NEXT_HOP or BGP identifier as the best path
  - N should be configurable, default value must be 2

- Why this mode?
  - Simple, can satisfy any requirement if N is configured properly (fast failover to optimal backup path, load-balancing, MED oscillation, etc.)
Optional Path Selection Modes

• All paths
  – useful for path monitoring

• AS-wide best paths
  – all paths up to the IGP tie-break, backup path not guaranteed

• AS-wide best paths and AS-wide second best paths
  – ensures availability of backup path
Historical Path Selection Modes

• Moved to Appendix, less broadly applicable
• Neighbor AS group best paths
• All paths with best and second best LOC PREF
• All paths at decisive step - 1
Other Changes from -02

- Deployment considerations related to
  - Configuring an upper bound on the number of advertised paths
  - The benefits of encapsulation to improve consistency between advertised paths and forwarding paths
Next Steps

• Interaction between Best-External and Add-Paths
  – Which takes precedence?
• Add-Paths for EBGP sessions
• WG adoption
Questions?