



One administrative domain using BGP

IDR WG (IETF 117, July, 2023)

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Problem statement

- Networks under a common administrative entity can span multiple autonomous systems
 - Evolution
 - Mergers/acquisitions
 - Partnerships, business relationships
 - ...
- Desire for better policy control and influence on route selection by carrying otherwise-stripped attributes across EBGP boundary



Basic approach

- Define a new BGP peering type EBGP-OAD in addition to EBGP and IBGP
- The peering type is configured explicitly on both sides of a session
 - I.e. no capability negotiation
- Follow EBGP processing rules for the most part
 - E.g. AS_PATH procedures remain the same
- In addition, IBGP and non-transitive attributes can be optionally exchanged



Misconfiguration

- If the two sides of a session are not configured with the same peering type
 - Attributes get ignored
 - Standard EBGP processing applies
 - Session remains operational



Version 2 Draft Modifications

- Detail Handling of all BGP Attributes explained
- Changes to the Decision process added
- Added text to specify Route announcement using import and export policies
- Added text to the Deployment section to explain the risk of enabling BGP OAD in an unidirectional manner



Next steps

- Request review and feedback
- Request WG for the draft adoption