

Return to the land of living draft-llsyang-rtgwg-dst-src-routing *previously known as* draft-ietf-rtgwg-dst-src-routing

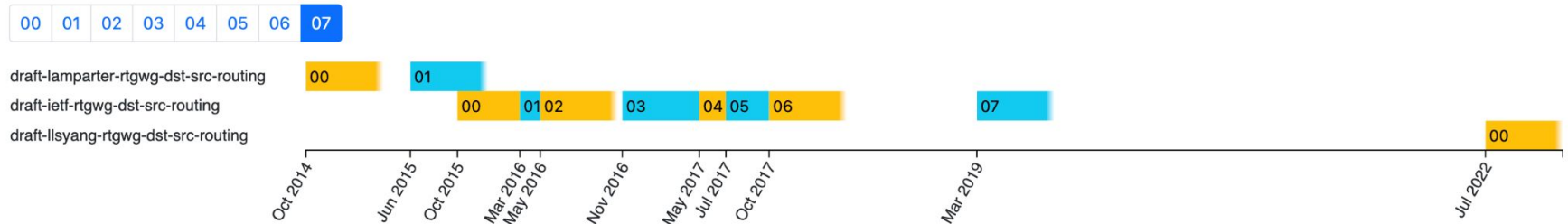
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RTGWG, IETF114, Philadelphia, July 2022

Document History

- July 2019: the authors asked for WGLC on draft-ietf-rtgwg-dst-src-routing
- WGLC never happened
- Draft Expired
- We still need to take source into account while making routing decision
- July 2022: draft-ietf-rtgwg-dst-src-routing-07 resubmitted as

Versions:



Use Cases

IPv6 multihoming using PA space

Traffic Engineering/Traffic Segmentation

Walled-Garden and limiting access to specific sources only

...and a few others...

Key Principles

The document defines expected behaviour, not exact algorithm

The source prefix is matched after the destination prefix.

Difference in behaviour between routes with a source prefix of `::/0` and routes without source prefix **MUST NOT** be visible.

Route Lookup (Simplified)

packet

Dst: 2001:db8:2::1 src: 2001:db8:f00::2

::/0, source ::/0 via fe80::1
2001:db8::/32, source 2001:db8:1:1::/64 via fe80::2
2001:db8:2::/48, source 2001:db8::/32 via fe80::3
2001:db8:2::/48, source 2001:db8:f00::/48 via fe80::33
2001:db8:2::/64, source 2001:db8:1::/48 via fe80::4
2001:db8:2::/64, source 2001:db8:1::/64 via fe80::5

1. Select all routes with the most specific destination

2001:db8:2::/64, source 2001:db8:1::/48 via fe80::4
2001:db8:2::/64, source 2001:db8:1::/64 via fe80::5

2. Select all routes with the most specific source

No route matching the source

3. Select less specific destination

4. Select all routes with the most specific source

2001:db8:2::/48, source 2001:db8::/32 via fe80::3
2001:db8:2::/48, source 2001:db8:f00::/48 via fe80::33

2001:db8:2::/48, source 2001:db8:f00::/48 via fe80::33

Adoption Call?