

Service Programming with Segment Routing

draft-xuclad-spring-sr-service-programming

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Scope

The document defines:

- Service SID behaviors
- Service metadata handling



Integration in SR architecture

- Defined in
 - RFC 8402
 - draft-ietf-spring-segment-routing-policy
- Seamless integration
 - Presence of service SIDs in a SID-list has no impact on the packet processing performance on non-service SIDs in the SID-list
 - Presence of non-service (e.g. underlay) SIDs in a SID-list imposes no restriction on the service SIDs capabilities.



Service SID behaviors

- By an SR-capable service
 - Processes packet with SR information on it
 - Processes service metadata if configured to do so
 - Moves to the next SID (MPLS POP or SRv6 End)
- By an SR proxy on behalf of a legacy service
 - Delivers a packet without SR information to the service
 - Moves to the next SID (MPLS POP or SRv6 End)
- SR-capable and proxies services can be seamlessly combined in a SID-list.



Service metadata

- Carried within the packet
- Set by the headend or an intermediate service endpoint
- Usable by any intermediate service endpoint
- Metadata lookup is triggered by the service SID
 - Only SID endpoints using the metadata look for it
- Examples: DPI information, traffic classes
(draft-guichard-spring-srv6-simplified-firewall)



Next steps

- Ask for working group adoption
- Seek WG input and feedback

