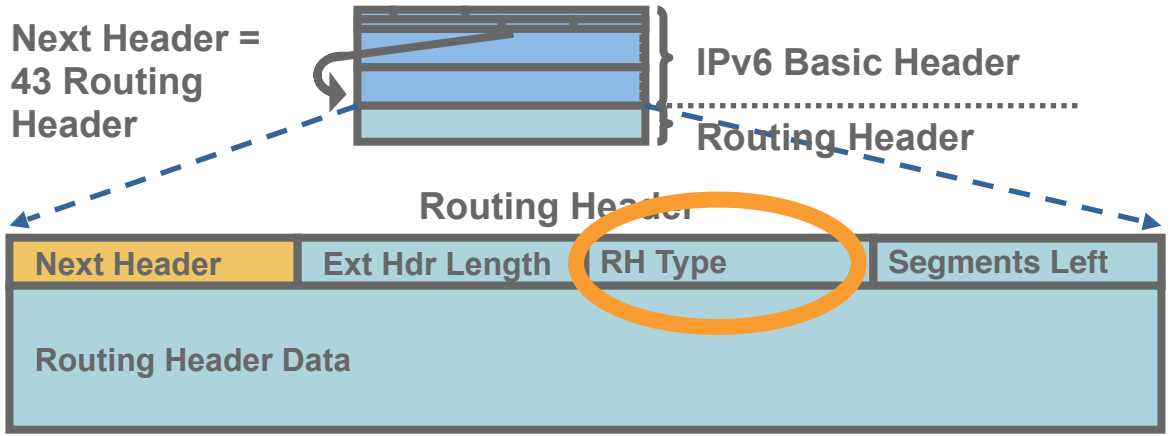
IPv6 Routing Header

- Processed by intermediate routers



Cisco live!

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Network Working Group
Internet-Draft
Intended status: Standards Track
Expires: April 24, 2020

C. Filsfils, Ed.
D. Dukes, Ed.
Cisco Systems, Inc.
S. Previdi
Huawei
J. Leddy
Individual
S. Matsushima
Softbank
D. Voyer
Bell Canada
October 22, 2019

IPv6 Segment Routing Header (SRH)
draft-ietf-6man-segment-routing-header-26

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Segment Routing Header = SRH

- RFC 8200 defines a generic Routing Header, with sub-types
  - 0: source routing => deprecated
  - 1: NIMROD
  - 2: mobile IPv6
  - 3: RPL (IoT)
  - 4: Segment Routing
- https://datatracker.ietf.org/doc/draft-ietf-6man-segment-routing-header/
- This IETF draft has been approved by the IESG
- So it will be an RFC any time soon ☺️

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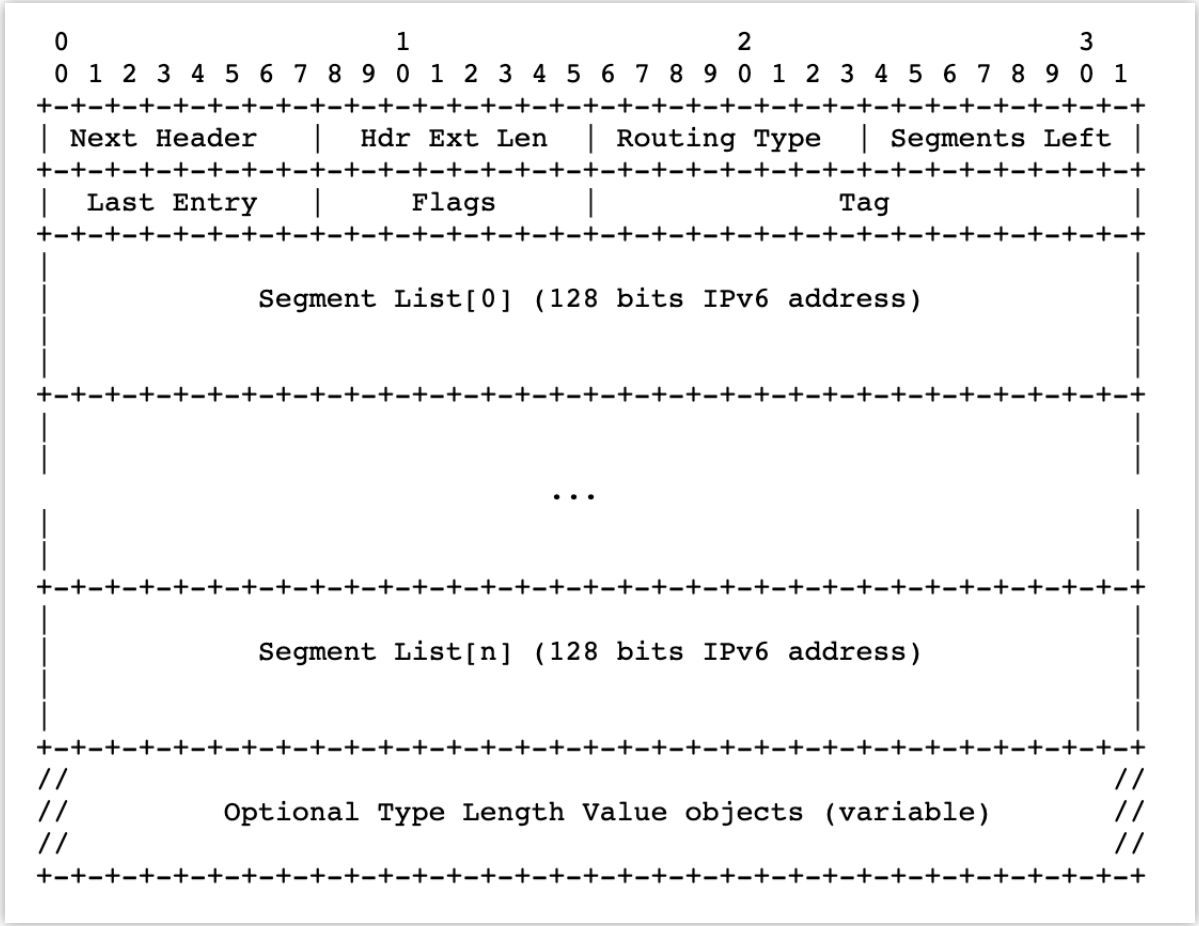

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IPv6 Segment Routing

Stack of 128-bit Segment IDs within the IPv6 header

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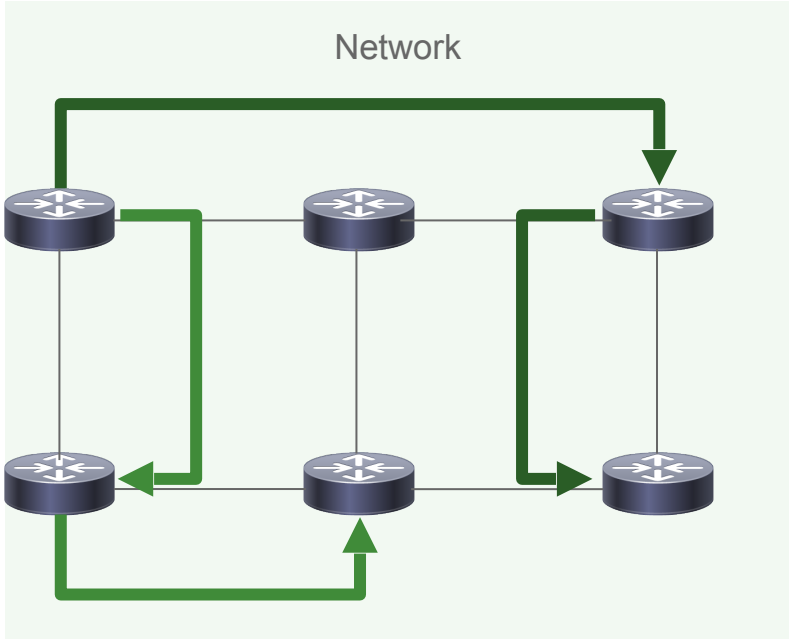
IPv6 Segment Routing

Stack of 128-bit Segment IDs within the IPv6 header



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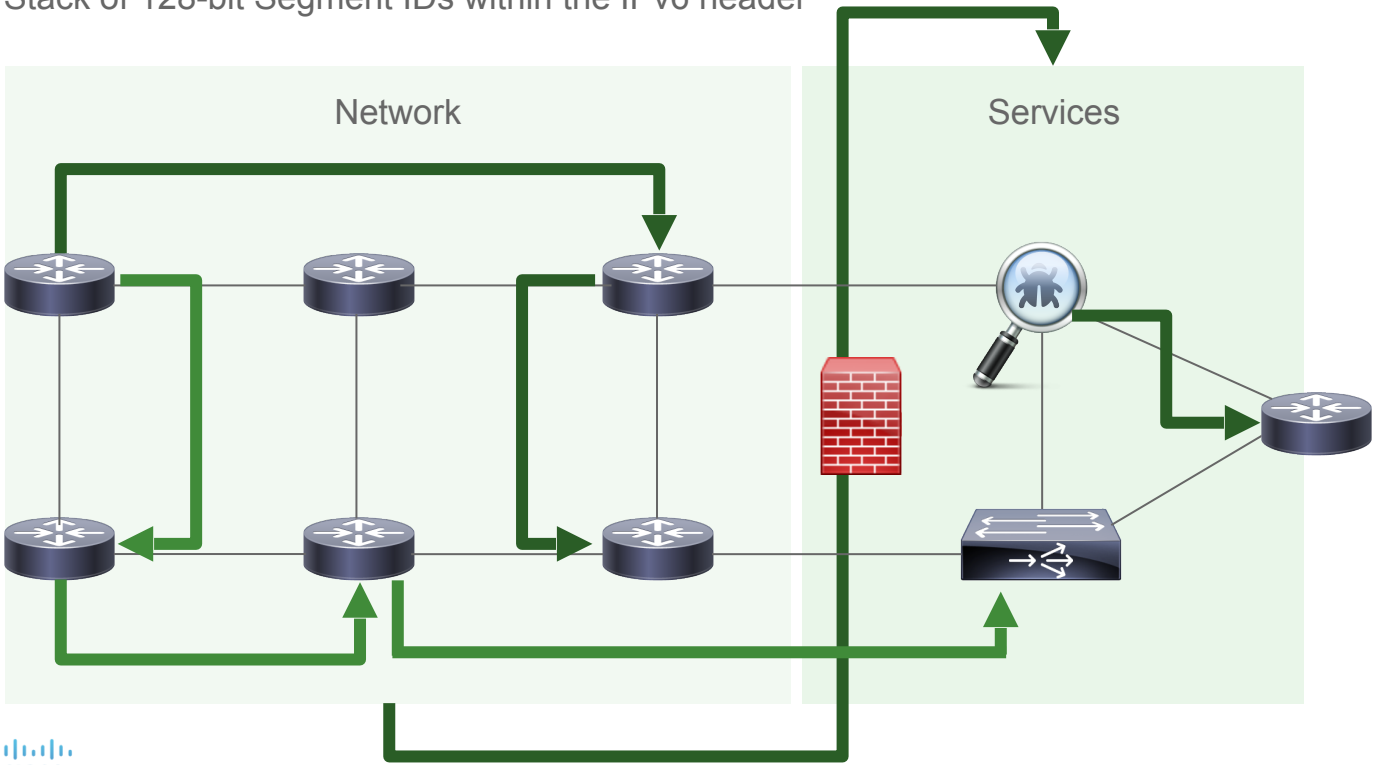
IPv6 Segment Routing

Stack of 128-bit Segment IDs within the IPv6 header



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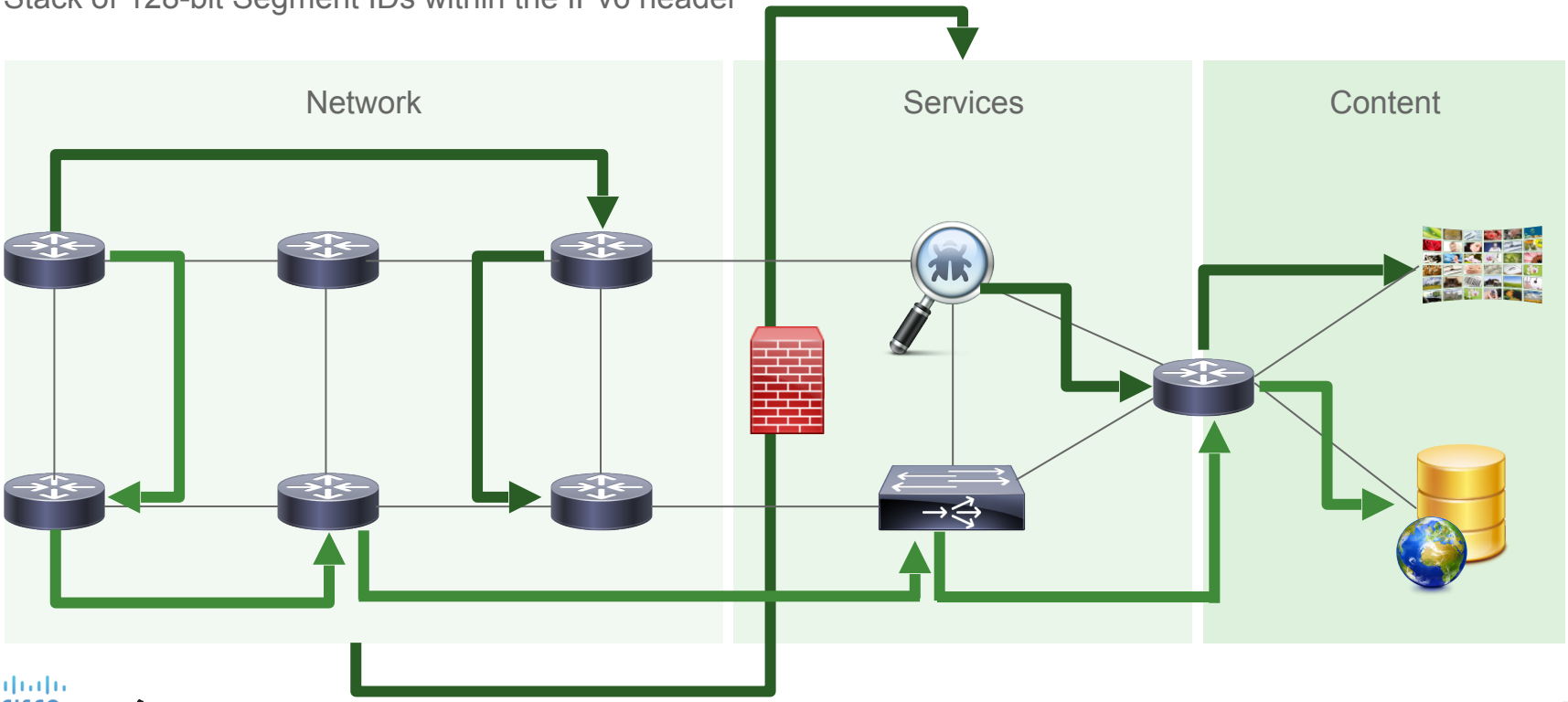
IPv6 Segment Routing

Stack of 128-bit Segment IDs within the IPv6 header



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IPv6 Segment Routing

Source, **S**
(IPv6 SR host)

Payload

Segment **D**

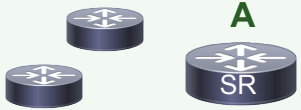
Segment **C**

Segment **B**

Segment **A**

Dest **D**

Source S



Dest, **D**
(IPv6 host)

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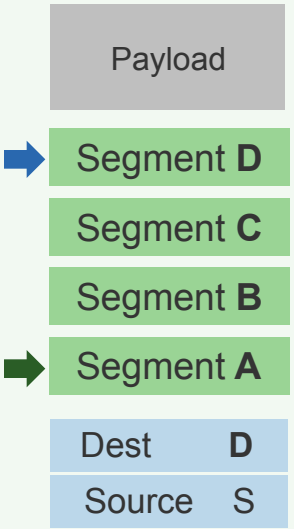
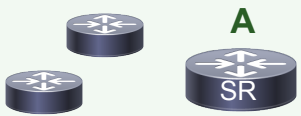
IPv6 Segment Routing

Source, **S**
(IPv6 SR host)





Dest, **D**
(IPv6 host)

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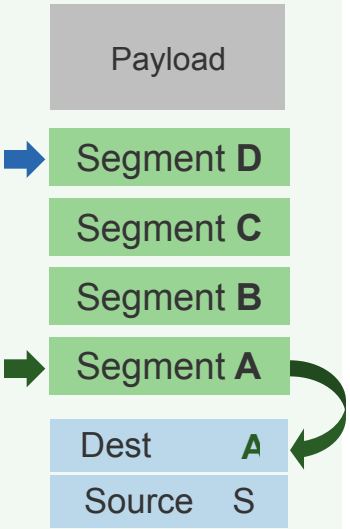
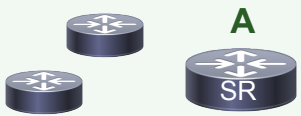
IPv6 Segment Routing

Source, **S**
(IPv6 SR host)





Dest, **D**
(IPv6 host)

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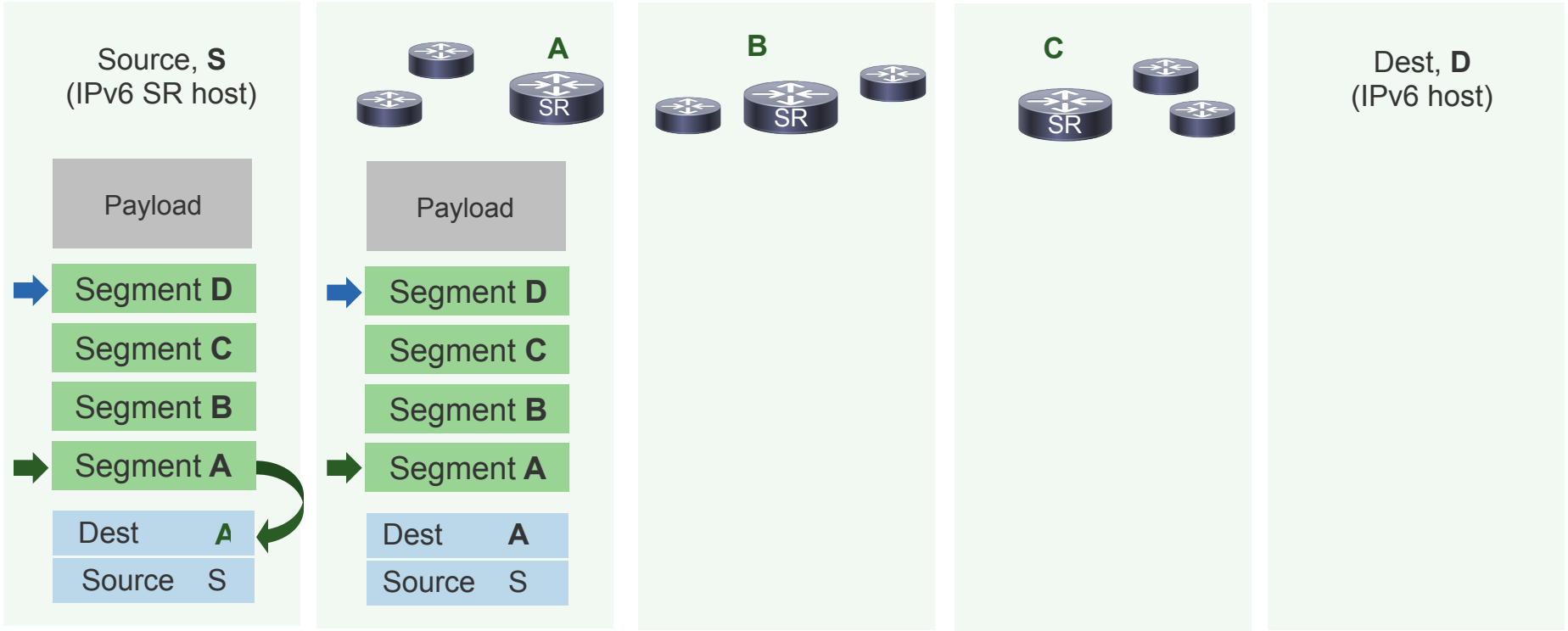
IPv6 Segment Routing



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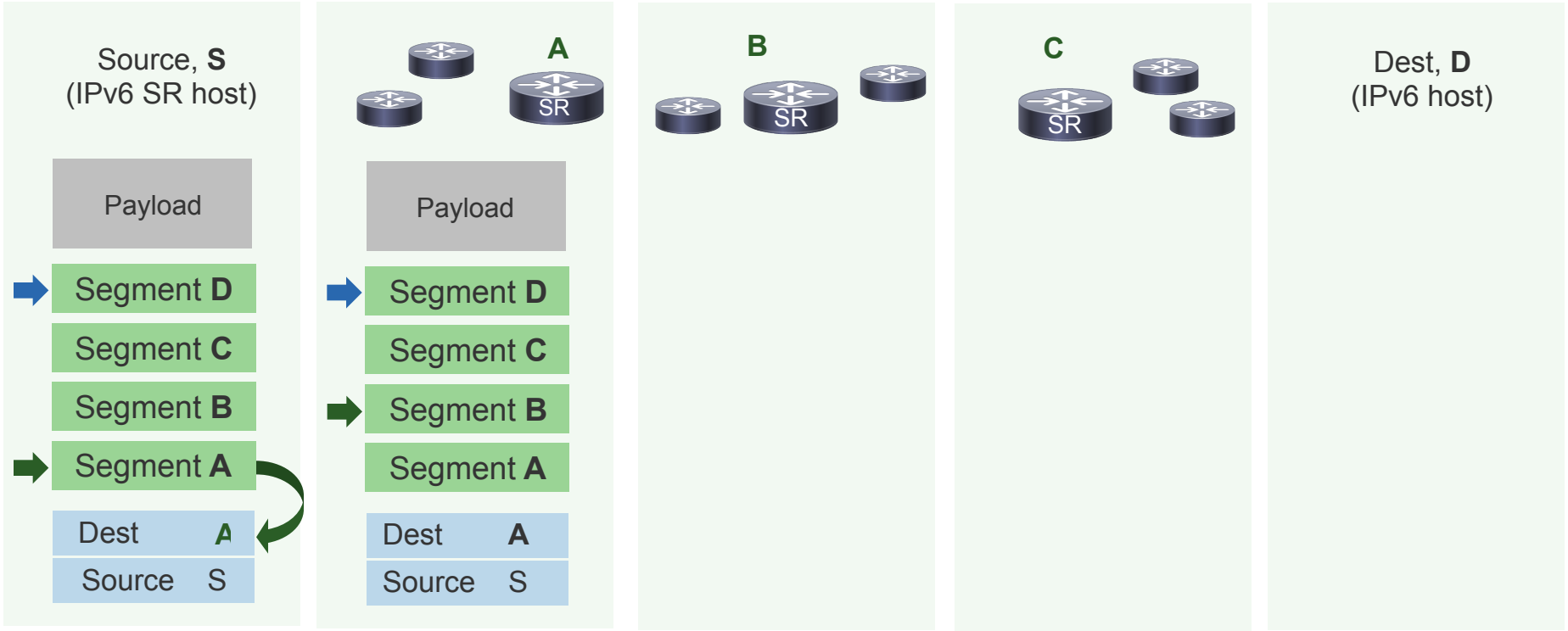
IPv6 Segment Routing



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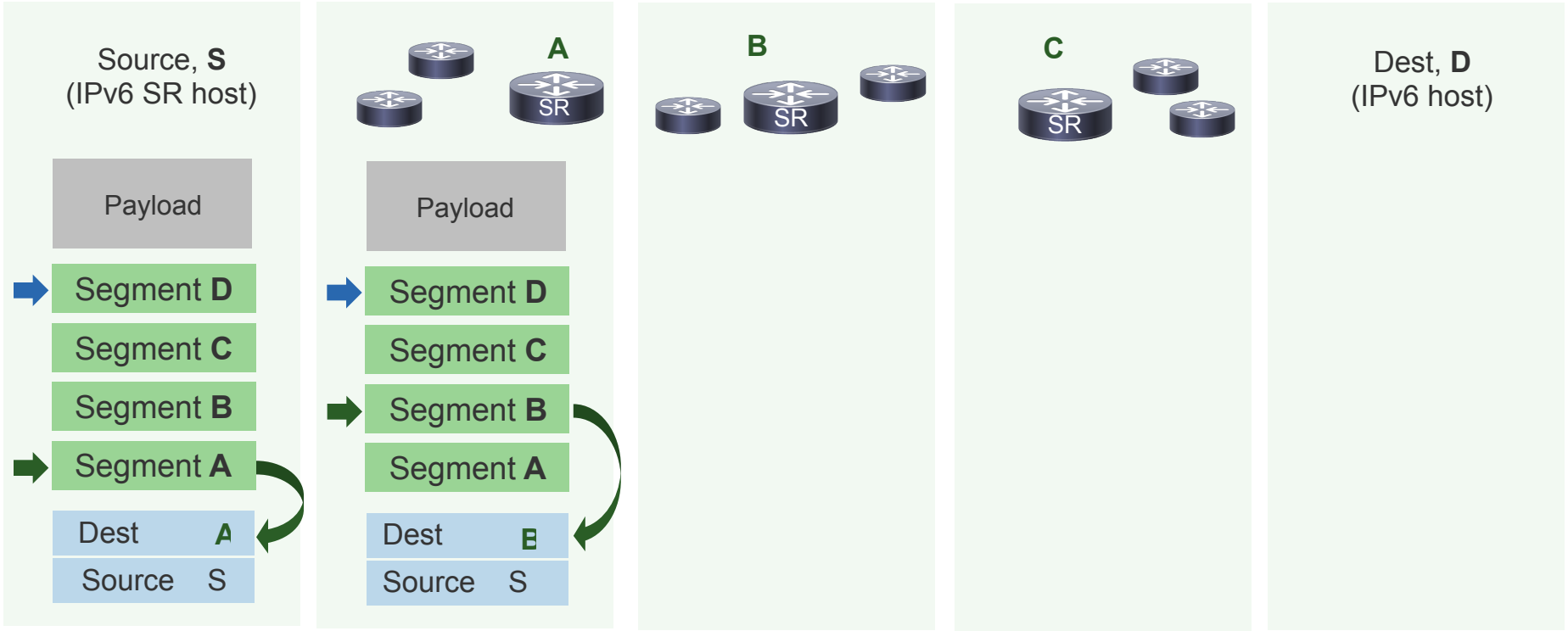
IPv6 Segment Routing



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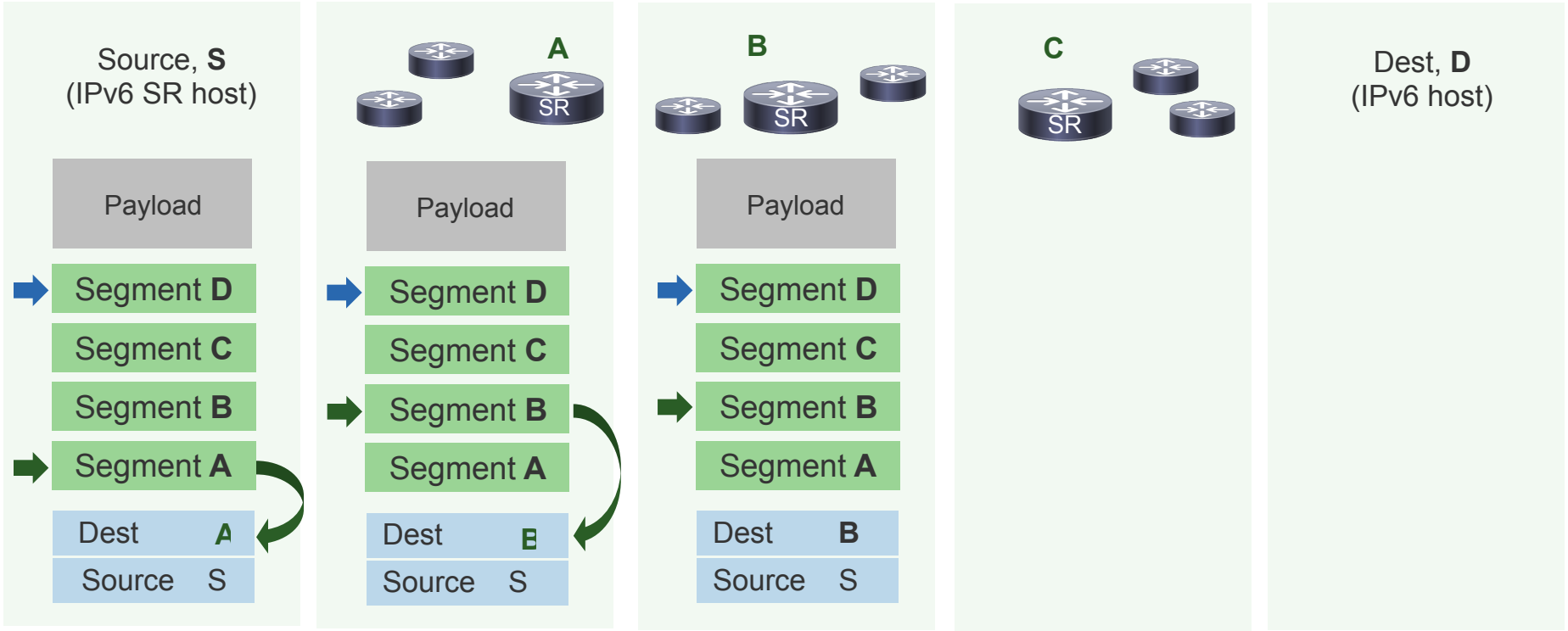
IPv6 Segment Routing



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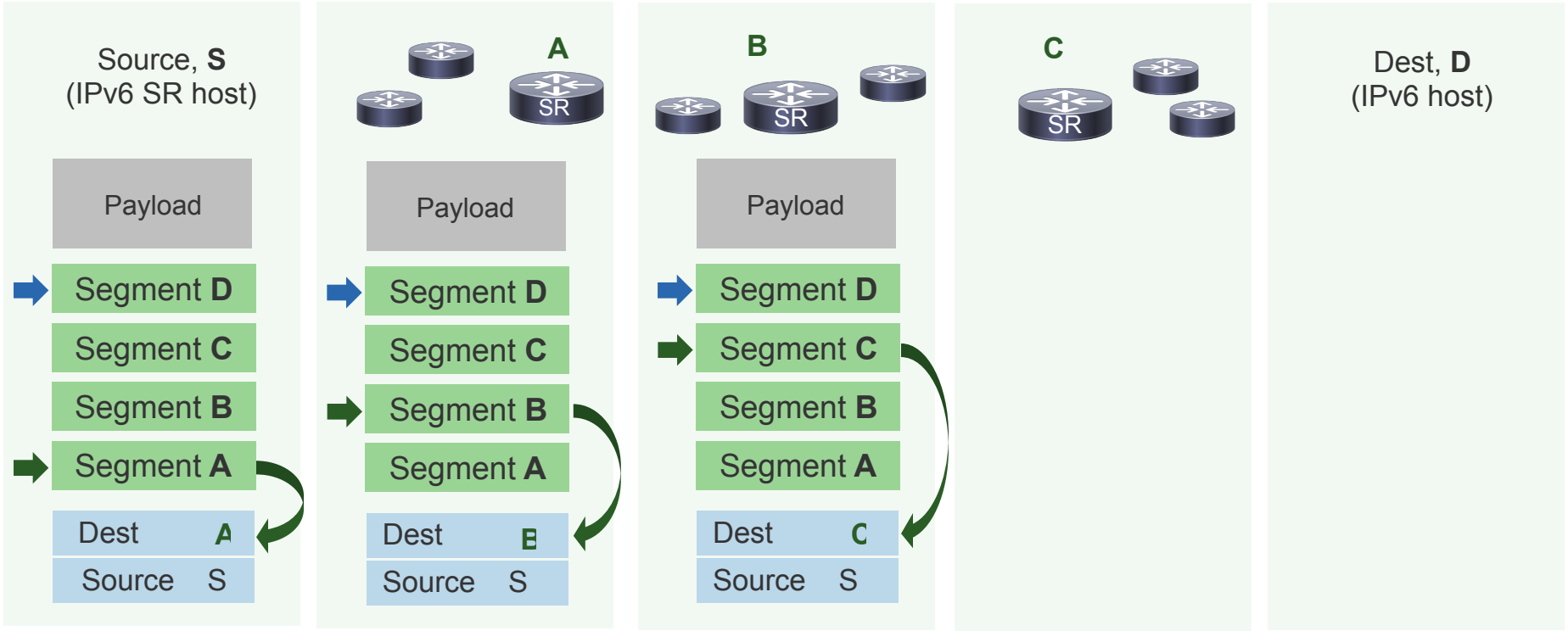
IPv6 Segment Routing



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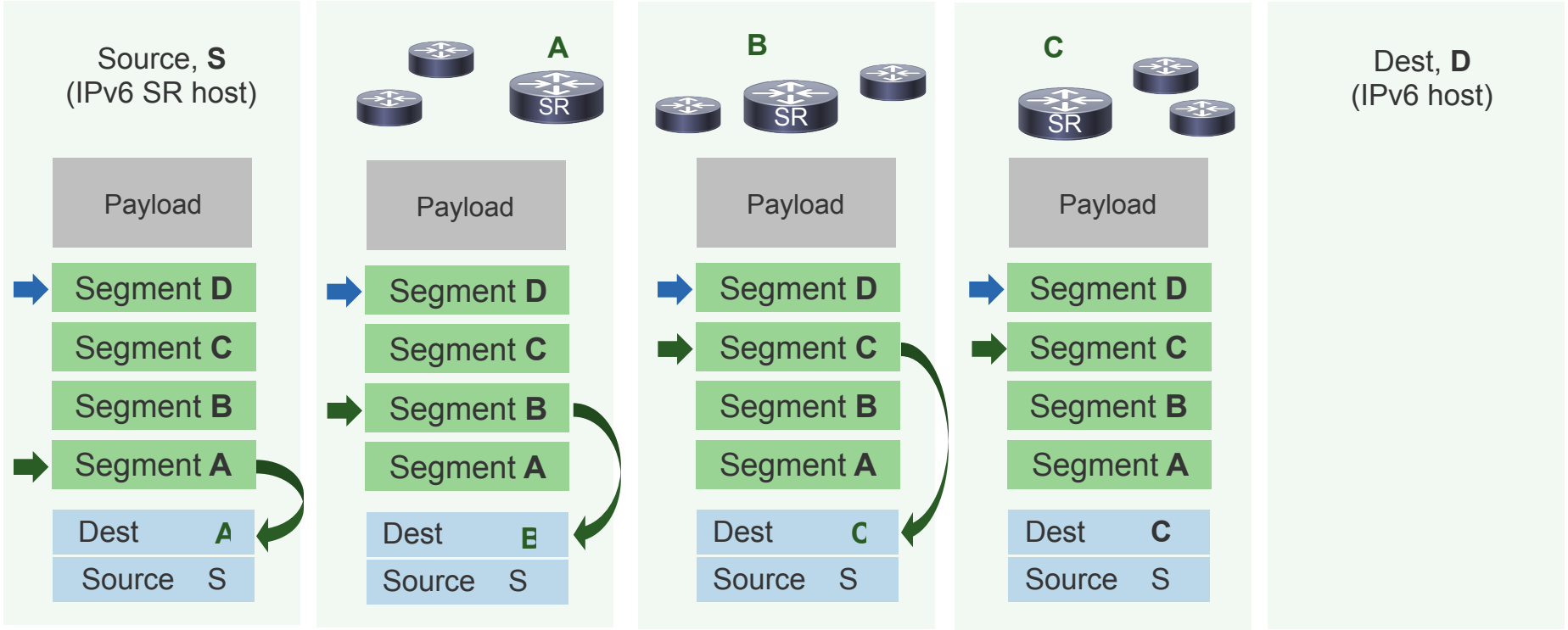
IPv6 Segment Routing



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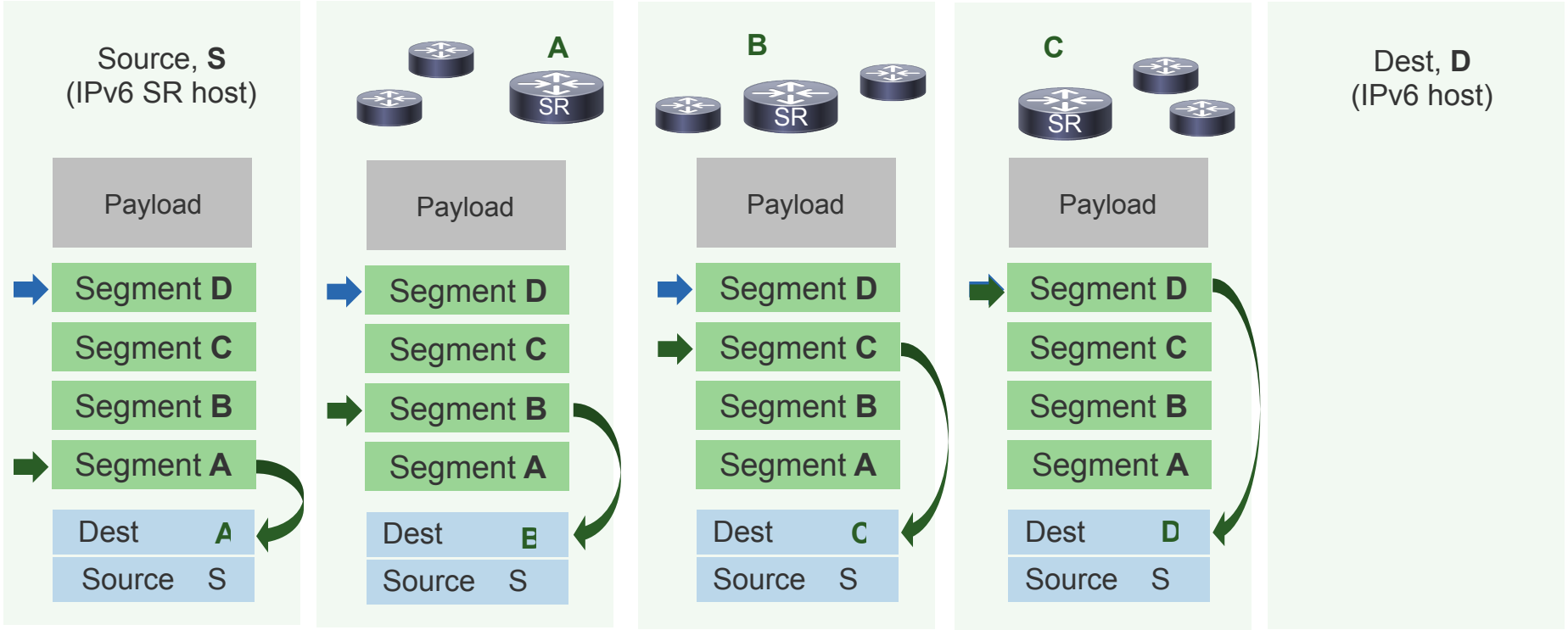
IPv6 Segment Routing



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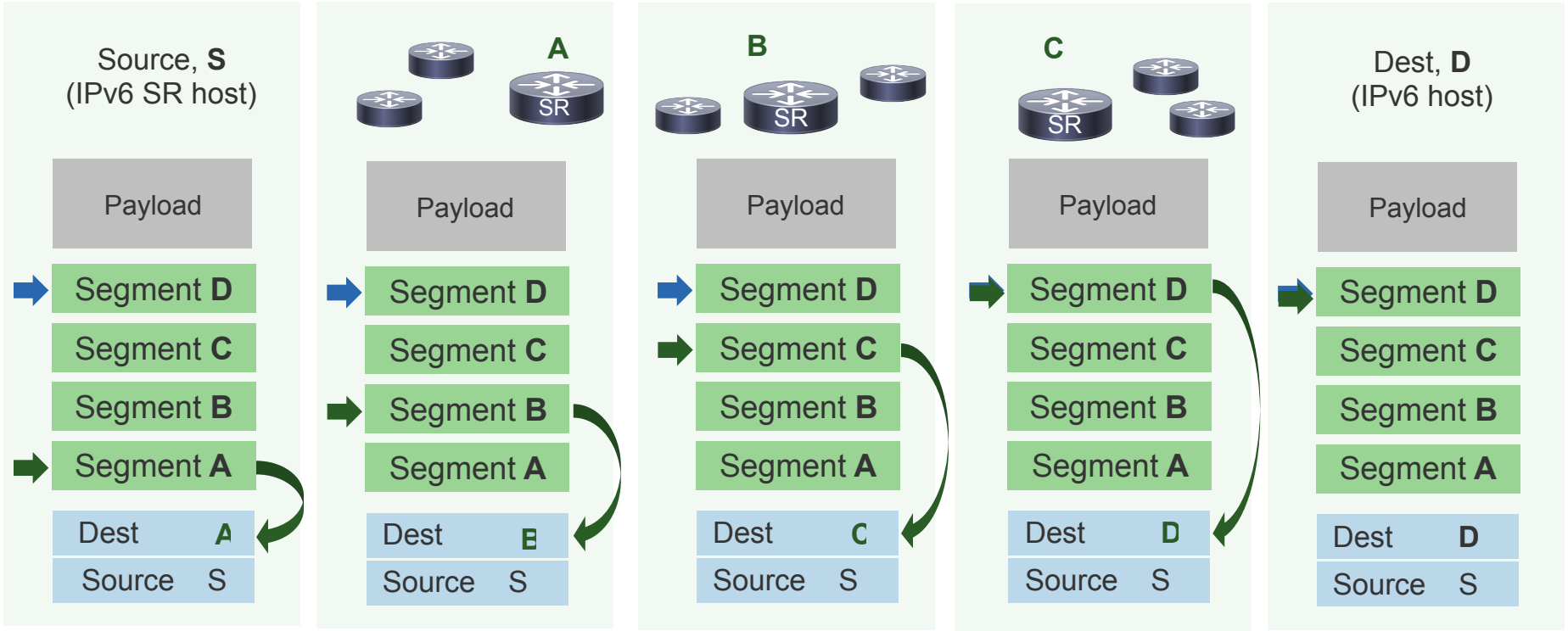
IPv6 Segment Routing



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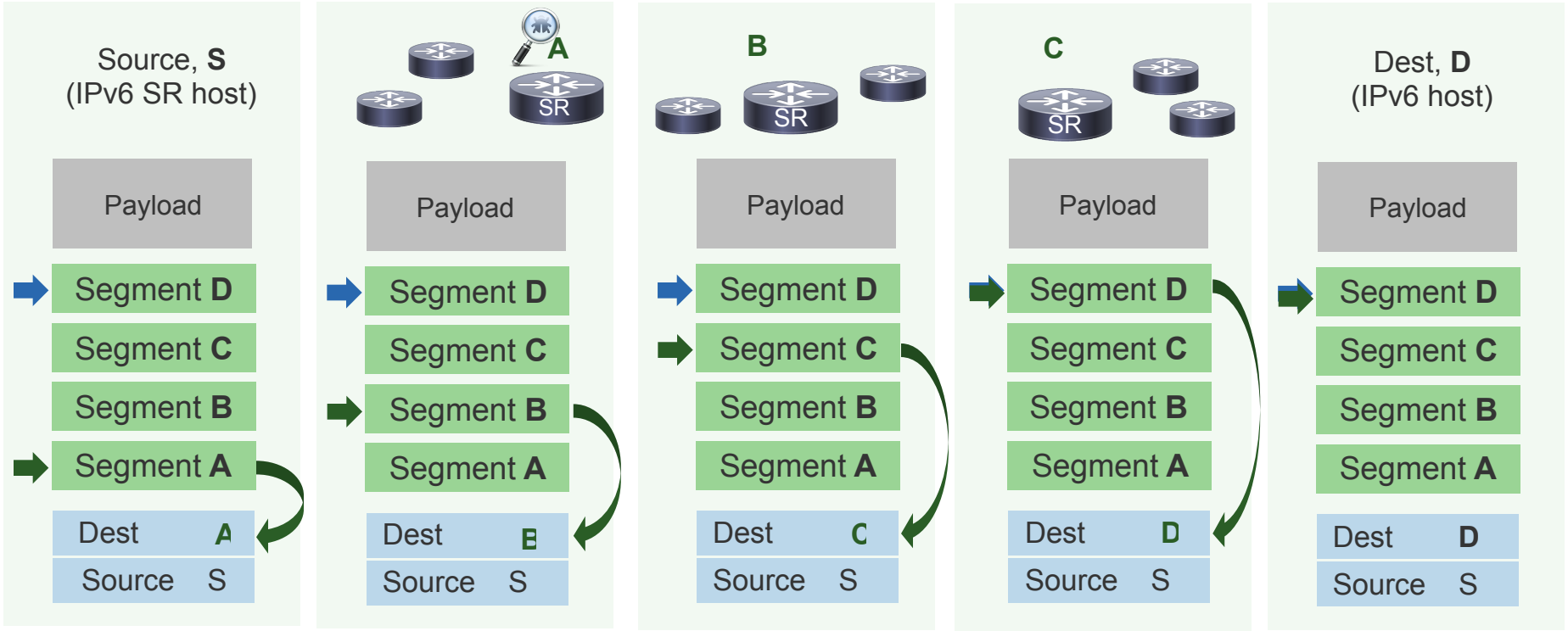
IPv6 Segment Routing



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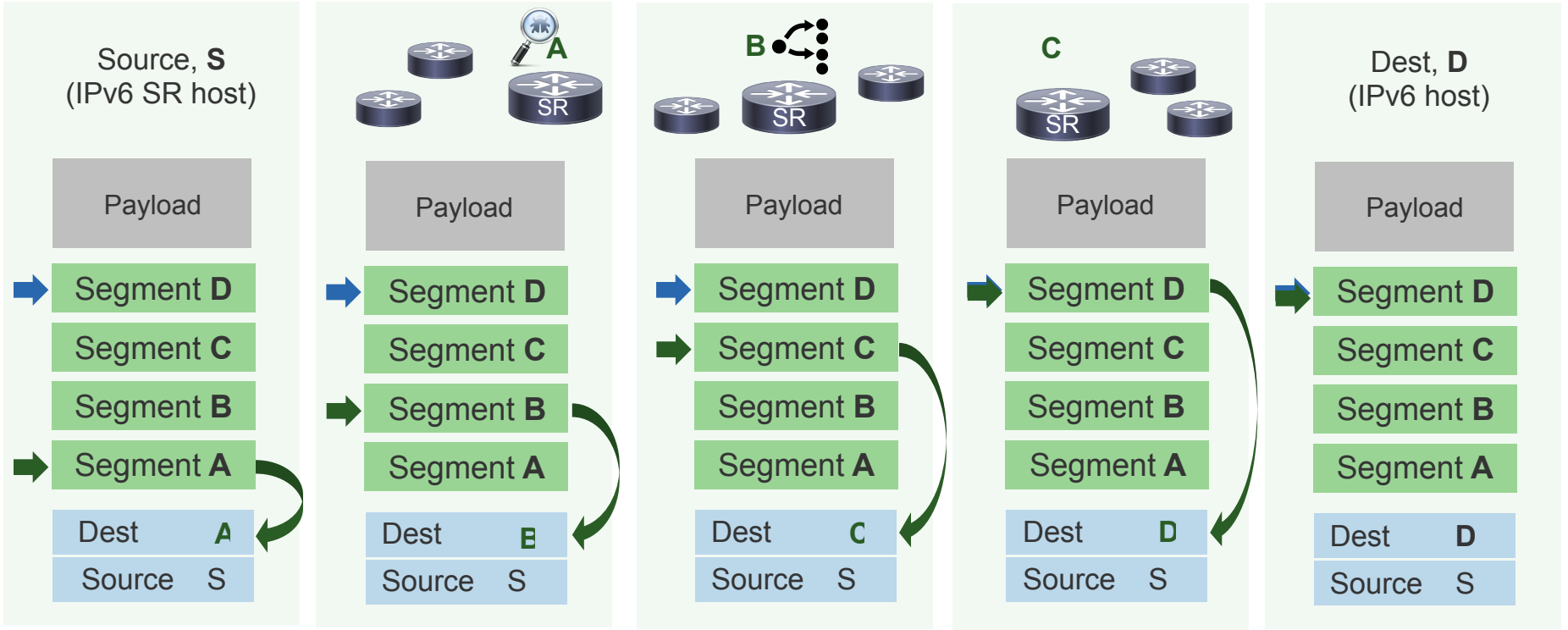
IPv6 Segment Routing



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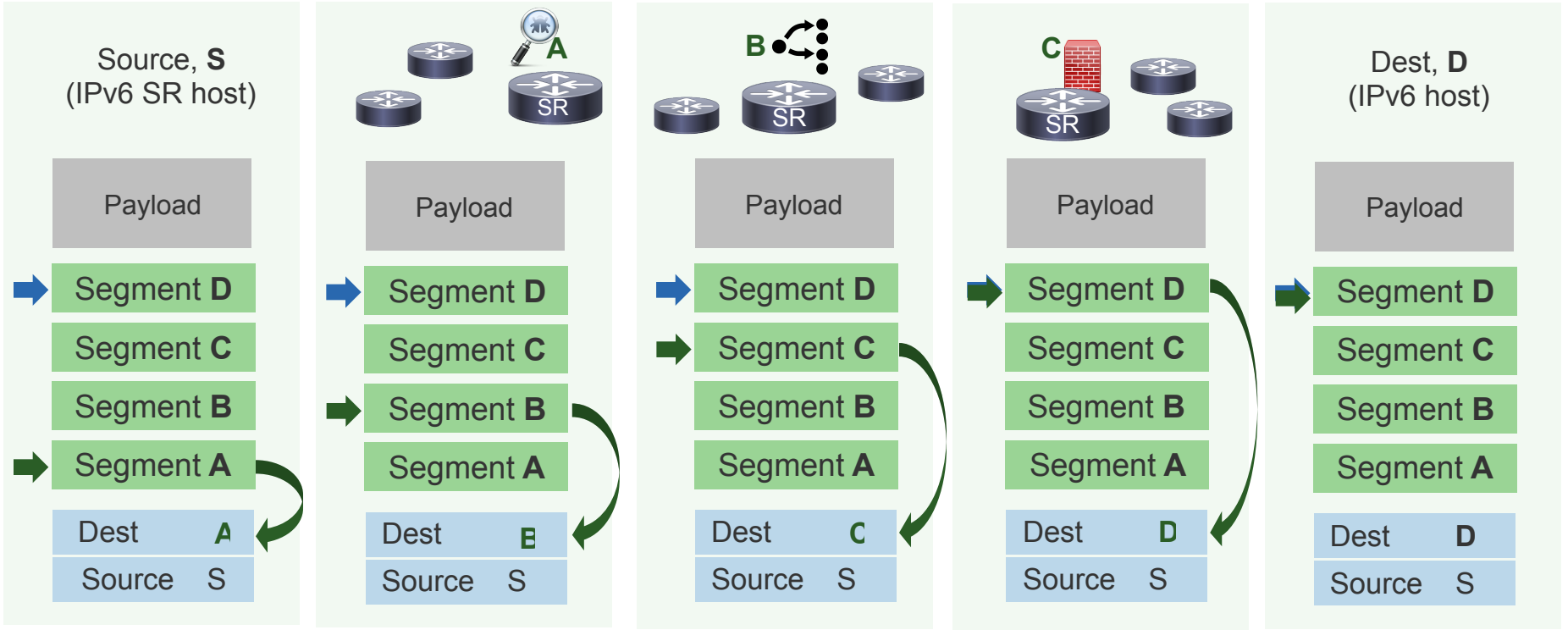

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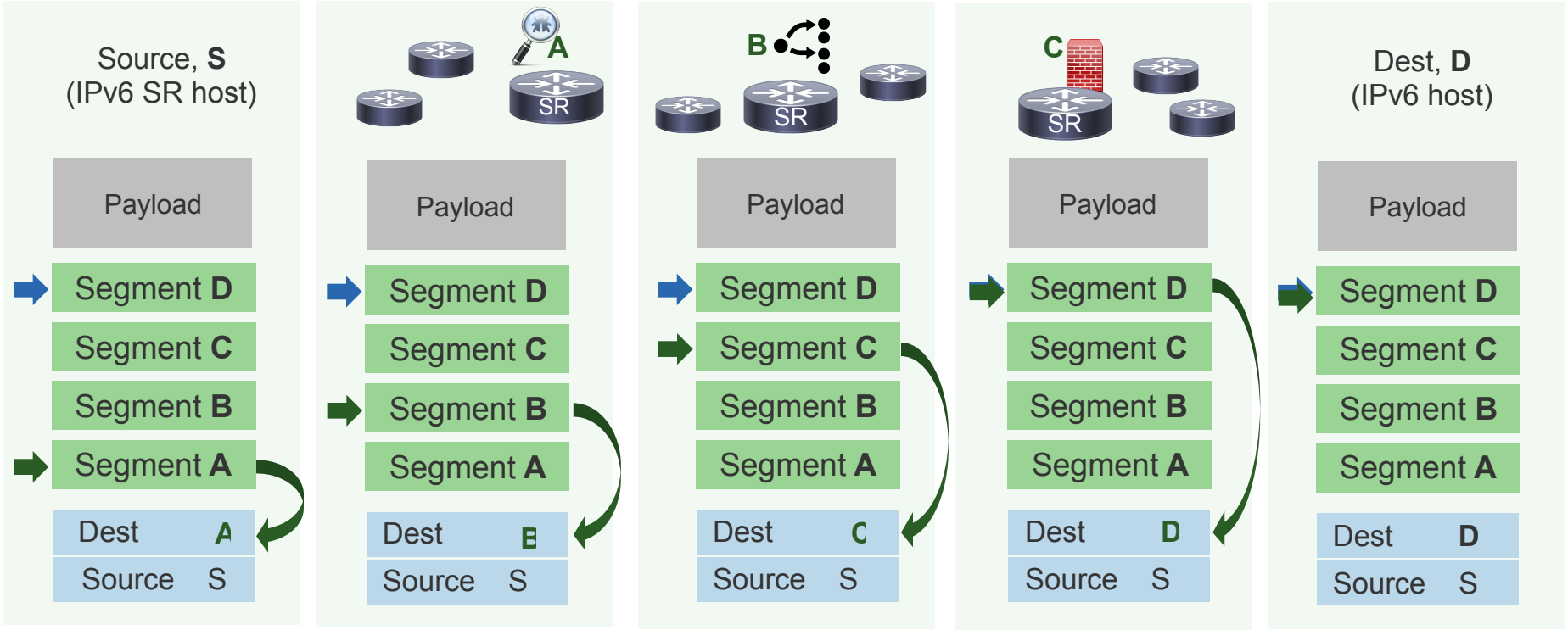
IPv6 Segment Routing

= Functions represented by IPv6 addresses



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