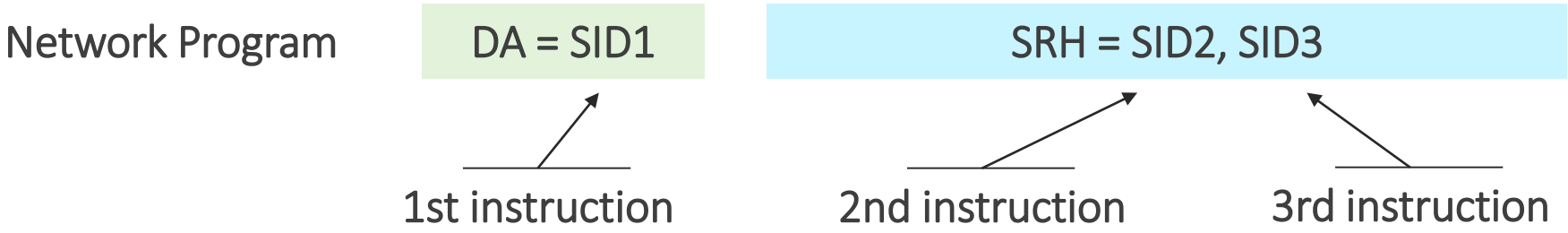
SRv6 - Reminder

Network Programming



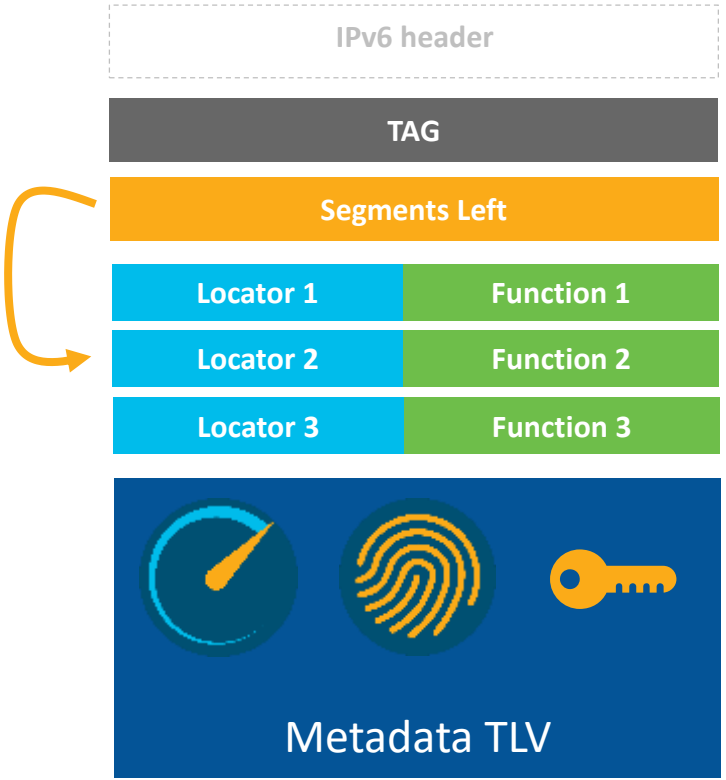
- A network program is a list of instructions (128-bit SRv6 SID)
- An instruction can be bound to any behavior
  - TE/FRR: END, END.X
  - VPN: END.DX, END.DT

SRv6 Header

RFC – Proposed Standard

18 HW linerate implementations

8 deployments



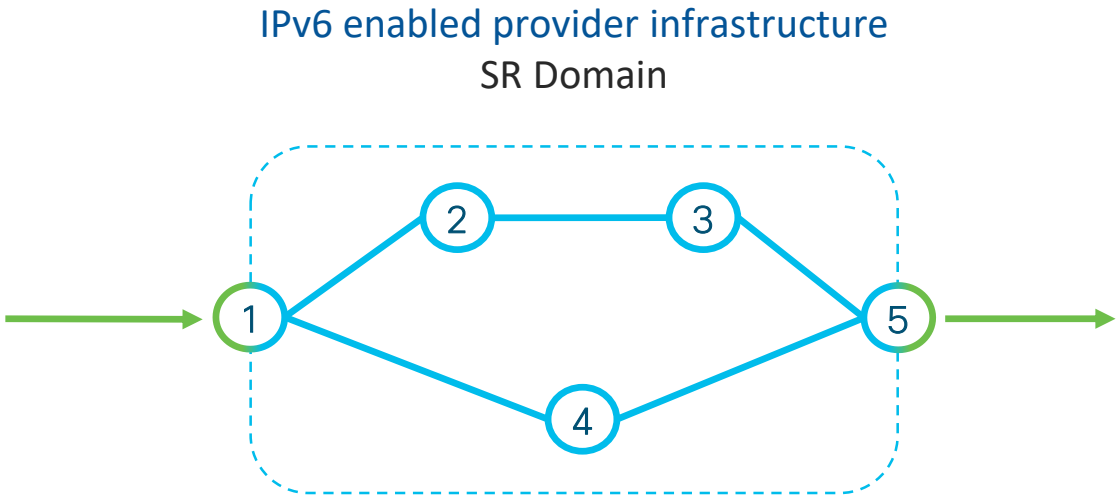
Optimized for HW processing

e.g. FRR, TE & VPN use-cases

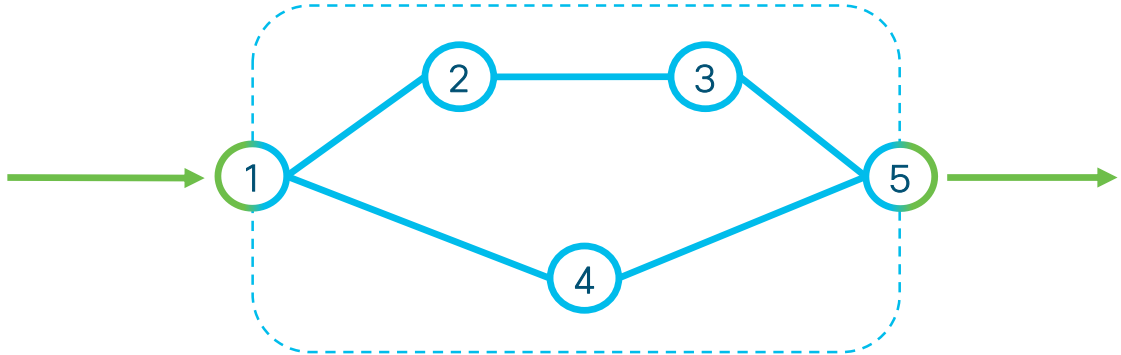
Optimized for SW processing

e.g. NFV, Container, Micro-Service

SRv6 Domain

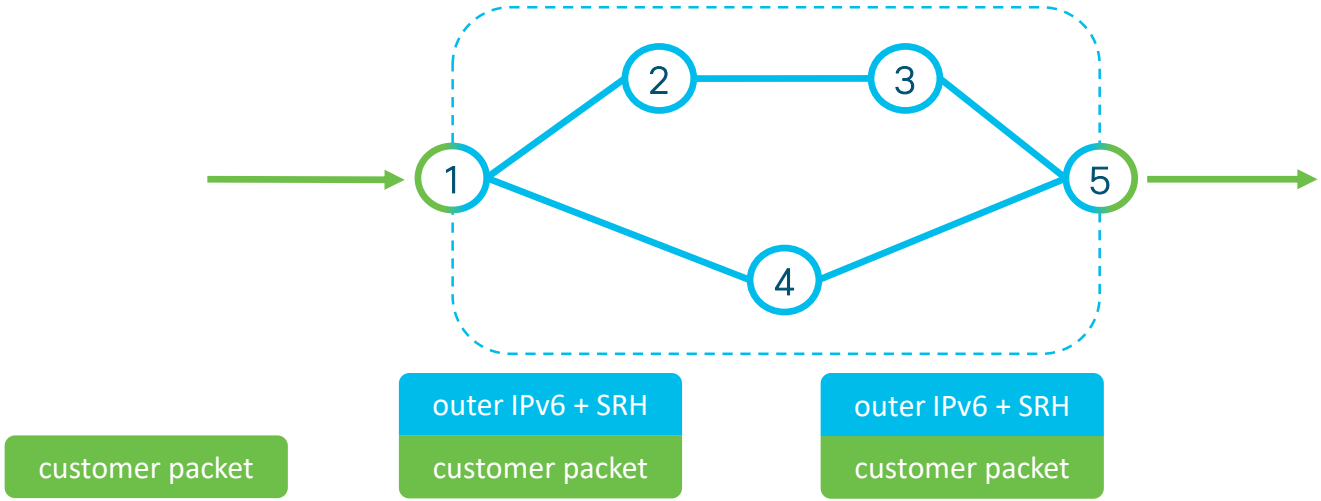


Encapsulation at the Domain ingress



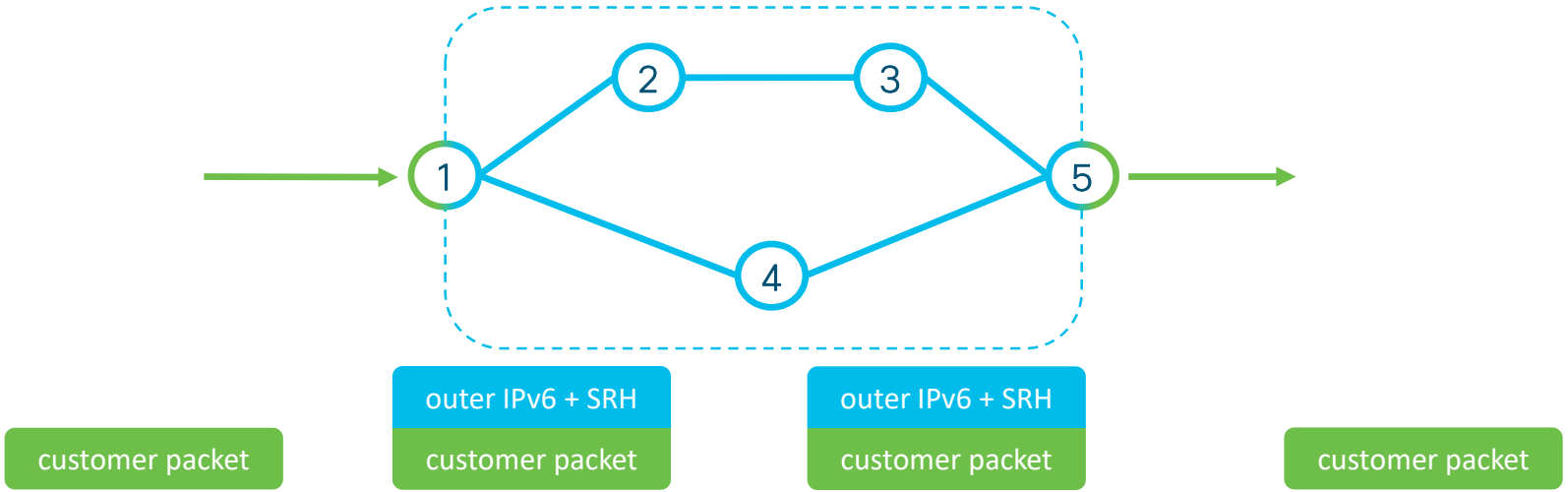
- IPv4, IPv6 or L2 frame is encapsulated within the SR Domain
- Outer IPv6 header includes an SRH with the list of segments

SRH of the outer IPv6 encapsulation



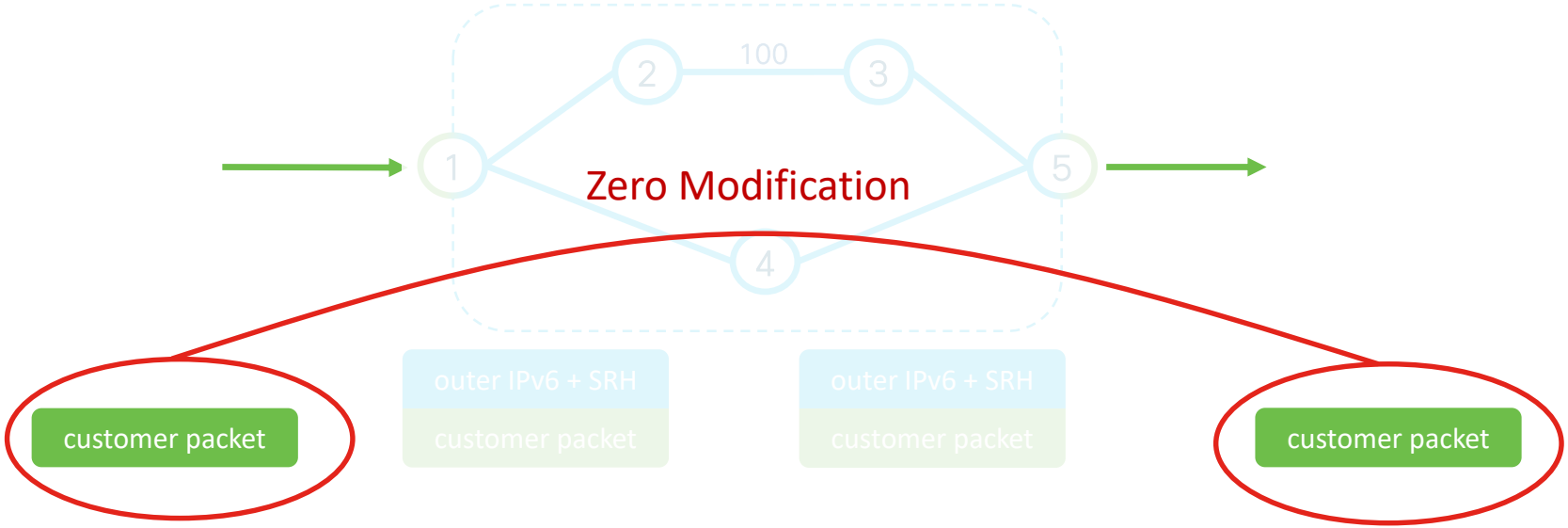
- Domain acts as a giant computer
- The network program in the outer SRH is executed

Decapsulation at Domain Egress



- Egress PE removes the outer IPv6 header as the packet leaves the SR domain

End-to-End Integrity



- End-to-end integrity principle is strictly guaranteed
  - Inner packet is unmodified
  - Same as SR-MPLS (MPLS stack is replaced by IPv6 outer header and SRH)