

SRv6 Context Indicator SIDs for SR-Aware Services

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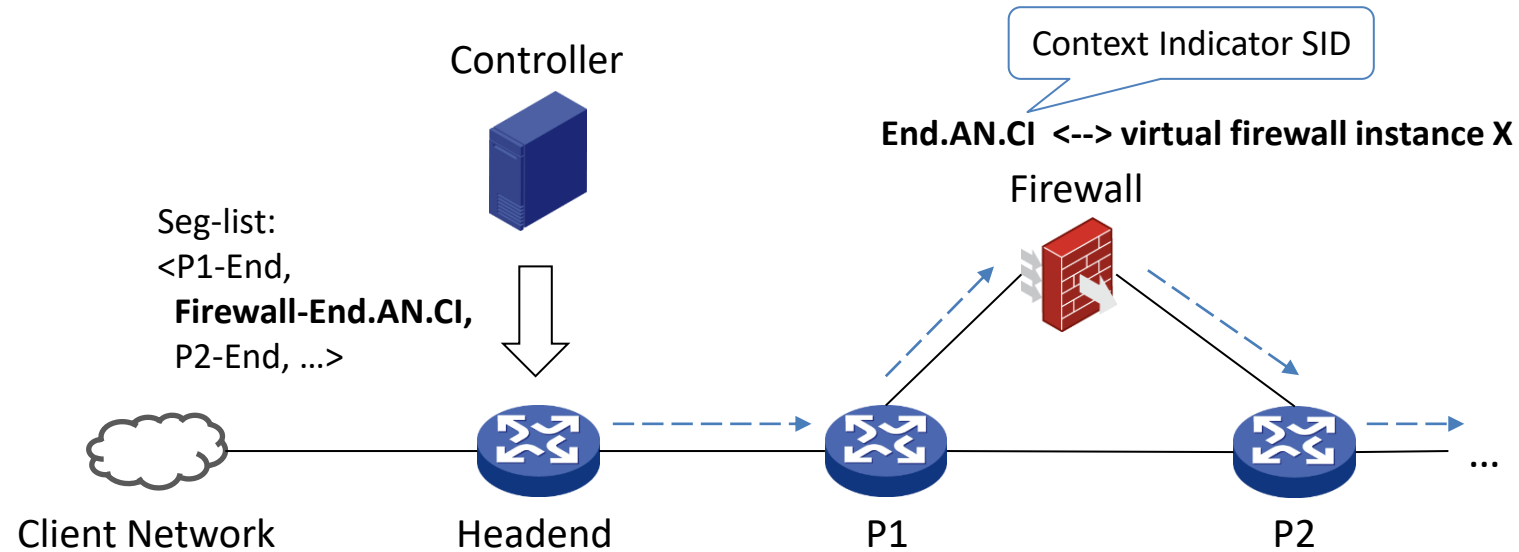
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Introduction

- An SR-aware service can process the SR information in the packets it receives. For example, an SR-aware firewall filtering SRv6 traffic based on its final destination must retrieve that information from the last entry in the SRH rather than the Destination Address field of the IPv6 header.
- [draft-ietf-spring-sr-service-programming-07] defines End.AN for SR-aware function. But service-specific functions are not included.
- This draft defines new variants of End.AN behavior, which can be used as context indicator for SR-aware services.

Context Indicator SID



- SRv6 Context Indicator SID: Providing the context on how to process the packet for SR-aware service nodes. A typical application is the SR-aware firewall identifying specific virtual firewall instance when applying VPN-specific rules for inner packets.
- Static Context Indicator SID: Associated with a certain context. For example, SID-1 <-> Instance-1, SID-2 <-> Instance-2, ..., SID-N <-> Instance-N (one-to-one mapping).
- Dynamic Context Indicator SID: Associated with a bunch of contexts. For example, SID-1 <-> Instance-1,2,...,N (one-to-many mapping). The headend node will fill additional context information in the packet, like VPN instance.
- Motivation of Defining New Behaviors: Service-specific functions would be friendly to implementations of SR-aware service nodes. For the dynamic context indicator, the headend node needs to determine its actions to fill additional context information.

Endpoint Behaviors

End.AN.CI.S: Endpoint with SR-Aware Service Static Context Indicator

End.AN.CI.D: Endpoint with SR-Aware Service Dynamic Context Indicator.

Four sub-types of End.AN.CI.D SID, carrying variable context information in different positions:

- **End.AN.CI.D.A:** Arguments in SID
- **End.AN.CI.D.T:** SRH Tag
- **End.AN.CI.D.V:** SRH TLV for context
- **End.AN.CI.D.D:** New options in DoH before SRH

Next Steps

- Any questions or comments are welcome.

Thanks