

# SRv6 Deployment Consideration

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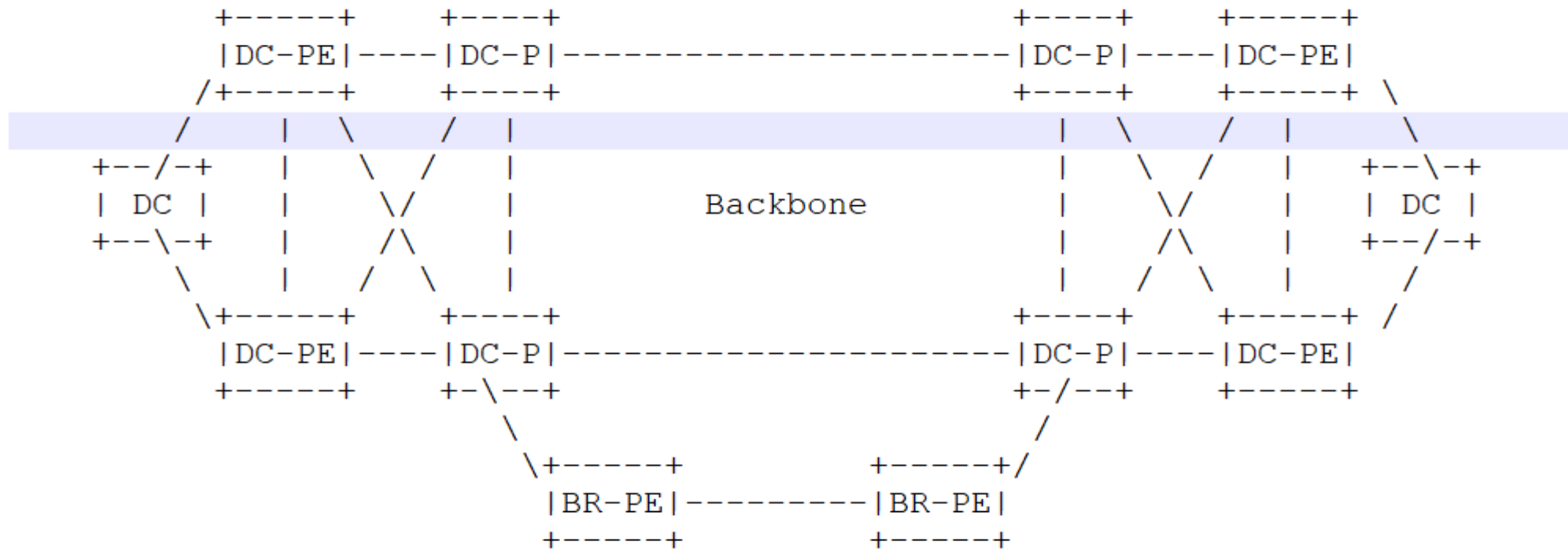
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# Background

- SRv6 has significant advantages and has attracted more and more interest from network operators and verticals. As so far, more than 100 networks has deployed SRv6.
- SRv6 Policy has been deployed to many network. SBFD, Ti-LFA , IFit, are also deployed to improve the SLA of network.
- Smooth network migration towards SRv6 is a key focal point and this document provides network design and migration guidance and recommendations on solutions in various scenarios. Deployment cases with SRv6 are also introduced.

# What are updated?

- A new deployment case of Agricultural Bank of China (ABC) was added.
- The deployment case is shown as follow figure.



# Old network status

- OSPFv2 and ISISv6 are all deployed at the backbone network.
- L3VPN is deployed at the backbone network to carry services, such as financial services, office services, and Internet services.
- Branch services are carried over traditional MPLS VPNs. The SR-TE is used but it is hard to be extended to a branch to implement end-to-end traffic management.
- Traffic between branches and data centers and between branches is carried over LDP tunnels. These tunnels must be planned and configured manually.
- The controller does not perform path optimization, and the backbone network does not have the intelligent traffic scheduling capability.

# New Network deployment

- ABC has deployed the network controller and SRv6 policy over its backbone network to automatically optimize link traffic.
- The SRv6 Policy is used to implement intelligent and centralized path computation to carry services between data centers and between branches and data centers.
- Multiple VPNs are divided by service, and SRv6 policies are selected based on the combination of VPN and DSCP. About 1800 SRv6 policies are deployed on the entire network.
- Both SRv6 and VxLAN are deployed at DC-PE to implement tunnel interworking between the DC network and the SRv6 backbone network.
- SBFDD is deployed to detect SRv6 policy connectivity. When a path fails, traffic can be quickly switched to other normal paths.
- IFIT (In-situ Flow Information Telemetry) is deployed to implement service-level SLA detection.

# Next Steps

- Comments are welcome

Thank You