OSPF/ISIS Flooding Reduction in MSDC
draft-xu-ospf-flooding-reduction-in-msdc-02
draft-xu-isis-flooding-reduction-in-msdc-02

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Problem Statement

- **OSPF/ISIS is commonly used as a underlay routing protocol for Massively Scalable Data Center (MSDC) networks where CLOS is the most popular topology.**

- **Within the CLOS topology, a given OSPF/ISIS router would receive multiple copies of exactly the same LSA/LSP from multiple OSPF/ISIS neighbors. The unnecessary link-state information flooding wastes the precious process resource of OSPF/ISIS routers greatly and therefore OSPF/ISIS could not scale very well in MSDC networks.**
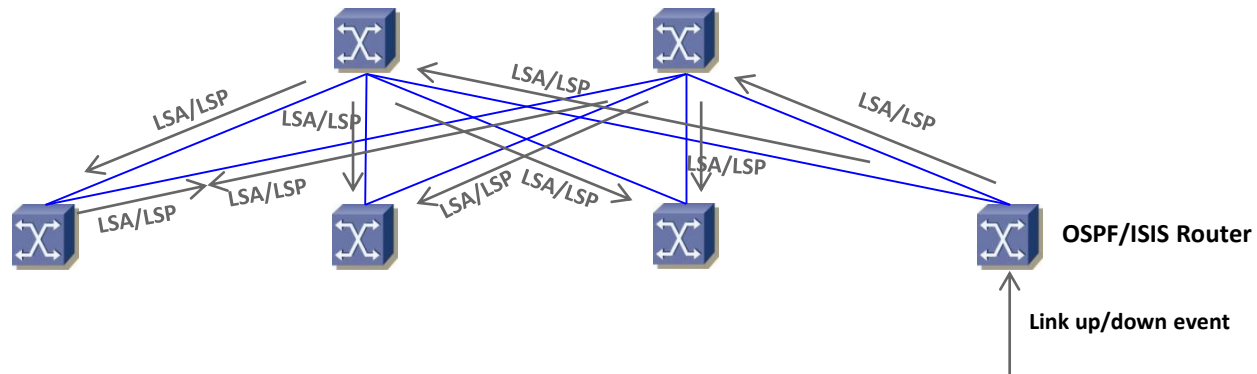
Solution Overview

- **Mix of centralized link-state information distribution and distributed SPF calculation.**
  - All OSPF/ISIS routers within the CLOS network are connected with controllers via a management LAN.
  - OSPF/ISIS routers within the CLOS network just need to exchange OSPF/ISIS Hello packets among them so as to discover OSPF/ISIS neighbors.
  - The link-state information is only required to be exchanged between OSPF/ISIS routers and controllers which are elected as OSPF/ISIS DR/DIS for the management LAN. When a given OSPF/IS-IS router lost its connection to the management LAN, it SHOULD actively establish adjacency with at least one of its OSPF/IS-IS neighbors within the CLOS network.
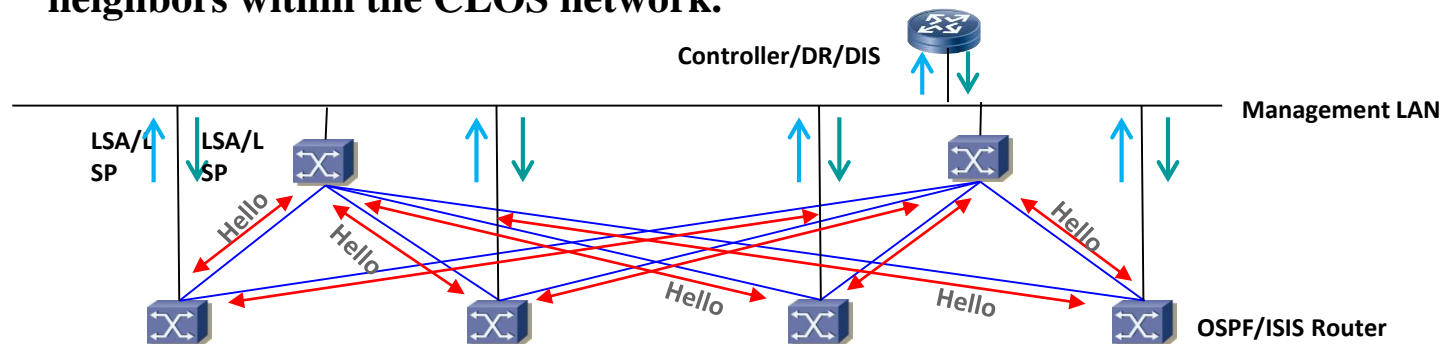
And more...

- **For more details, please refer to the drafts.**

- **Comments and suggestions?**