Distributed Logical Router Design Considerations with Multiple vDS

The following are some of the Distributed Logical Routing (DLR) and Dynamic Routing design considerations when architecting and deploying NSX for vSphere.

If you have multiple Virtual Distributed Switches (vDS), such as a “Compute vDS” and “Edge vDS” and that span multiple cluster’s (“Compute Cluster 1” / “Compute Cluster 2” and “Edge Cluster”) and a VXLAN Transport Zone that spans these “3” Clusters then one design consideration is that only VXLAN LIFs are supported. This is because you can have only one VXLAN LIF connecting to a logical switch. And only one Distributed Logical Router (DLR) can be connected to a logical switch.

Recall that the Distributed Logical Router (DLR) owns the logical interface (LIF). This concept is similar to interfaces on a physical router. But on the Distributed Logical Router (DLR), the interfaces are called LIFs. The LIF connects to logical switches or distributed port groups. Also, be aware that the Distributed Logical Router (DLR) can have a maximum of 1,000 LIFs.

Distributed Logical Routing (DLR) provides the following benefits:

- No hair pinning and optimized handling of East / West Traffic
- Supports a large number of LIFs (1000)
- Scalable routing topologies

Dynamic Routing Protocol support also helps adapt to changing logical network topologies and provides greater scalability.