**Test Name**

VXLAN Overlay Functional Test

**Test Abstract**

The purpose of this test is to determine VXLAN overlay data center fabric capabilities and ease of provisioning the fabric. This test requires IP connectivity between endpoints.

The tests will include link failures, node failures, and NOS configuration changes on service connections.

**Test Topology**

A Side

B Side

Leaf / TOR

Spine / EOR

Border / Access



Dell

Srvr4

Dell

Srvr5

Dell

Srvr6

Dell

Srvr3

Dell

Srvr2

Dell

Srvr1



VPN Access

**Testbed Requirements**

Each switching and routing device in the network to utilize VXLAN capabilities to distribute the layer 2 overlay to any point in the network. Where possible, leverage IP address saving capabilities (unnumbered) and highlight ease of provisioning and operations.

This test may require SDN controllers or routing functionality such as BGP EVNP.

Automation support for configuring and troubleshooting.

**Detailed Steps**

Test1: Configure layer 3 network

Test2: Ensure routing protocol interoperability

Test3: Confirm end to end connectivity

Test4: Establish and verify VXLAN overlay operational

Test5: Disrupt primary route between endpoints to verify VXLAN tunnel resiliency

Test6: Time and observe revert

Test7: Test MTU capability over the tunnel to ensure fabric is capable of passing large packets

**Results**

(Record data loss and service outage time for link down, node down, and configuration scenarios)

**Observations**

Note configuration complexity, or lack thereof.

Verify protocol interoperability or lack thereof.

Verify operationally capable of quickly identifying outage location.

**Defects**

(Note any observed defects and anticipated severity; e.g., Critical, Major, Minor)

**Conclusions**

(Note conclusions based on Test Results and Observations)