



PHYSICAL/LOGICALLY CONNECTIVITY OPTIONS

SP SOLUTIONS FOR DCI

CUSTOMER SOLUTIONS / OVERLAY FOR DCI

NOT DCI OPTION

	Dark Fiber	DWDM	L2 Trunks	L3 PTP Links	MPLS L3VPN	MPLS L2VPN	VPLS	EVPN	OTV	GRE / IPSEC Tunnels	VXLAN NVGRE, Geneve	TRILL	LISP
BUSINESS													
Business Continuity	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Workload Mobility	YES	YES	YES	NO	NO	YES	YES	YES	YES	NO	YES	NO	NO <small>needs underlay support</small>
Disaster Recovery	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Site Migrations	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	NO	YES
Load Balancing Workloads	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES
ARCHITECTURAL													
Efficiency	LOW	LOW	LOW	LOW	MEDIUM	LOW	MEDIUM	HIGH	HIGH	LOW	MEDIUM	MEDIUM	HIGH
Scalability	LOW	LOW	MEDIUM	MEDIUM	HIGH	MEDIUM	MEDIUM	HIGH	MEDIUM	LOW	HIGH	LOW	HIGH
Solution Complexity	LOW	MEDIUM	LOW	LOW	LOW	MEDIUM	MEDIUM	MEDIUM	HIGH	HIGH	HIGH	MEDIUM	HIGH
Solution Cost (CAPEX, Rent)	EXPENSIVE	VERY EXPENSIVE	MEDIUM	MEDIUM	MEDIUM TO HIGH	MEDIUM TO HIGH	MEDIUM TO HIGH	HIGH	LOW	LOW	LOW	LOW	LOW
TECHNICAL													
Layer 2 Extension	YES	YES	YES	NO	NO	YES	YES	YES	YES	NO	YES	YES	NO <small>needs underlay support</small>
Path Optimization	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES
+3 DCs (ease of deployment)	COMPLEX	COMPLEX	MEDIUM	MEDIUM	EASY	MEDIUM	EASY	EASY	EASY	COMPLEX	EASY	COMPLEX	MEDIUM
Multi-Tenancy	NO	NO	NO	NO	YES	YES	YES	YES	YES	NO	YES	NO	YES
QoS	YES <small>Upper layers</small>	YES <small>Upper layers</small>	YES <small>QoS</small>	YES <small>DSCP</small>	YES (EXP)	YES (EXP)	YES (EXP)	YES (EXP)	Depends on Underlay	Limited	Depends on Underlay	Depends on Underlay	N/A
Application Geo Location Clusters	NO	NO	NO	NO	YES	NO	NO	YES	YES	NO	YES	NO	YES
Transport Independent	NO	NO	NO	NO	NO <small>Somehow</small>	NO <small>Somehow</small>	NO <small>Somehow</small>	YES	YES	YES	YES	YES	YES
Multihoming (Loop avoidance)	YES <small>2 site limit</small>	YES <small>2 site limit</small>	NO	NO	NO	YES	YES	NO	NO	NO	Depends on DCI	YES	NO
Multipathing (Load Balancing)	YES <small>2 site limit</small>	YES <small>2 site limit</small>	NO	YES	YES	YES	YES	YES	NO	NO	Depends on DCI	YES	NO
OPERATIONAL													
Operations Maintenance	SIMPLE	MEDIUM	SIMPLE	SIMPLE	SIMPLE	MEDIUM	COMPLEX	MEDIUM	MEDIUM	COMPLEX	MEDIUM	MEDIUM	MEDIUM
Operations Rebalancing Workloads	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	NO