Roadmap: SD-WAN Gen 2 to Gen 3 Evolution

For Review by Infrastructure, Security, Operations Leadership and ARB

Agenda

- 1. Context: Why Modernize WAN Architecture
- 2. SD-WAN Gen 2 – Current State
- 3. SD-WAN Gen 3 – Target State
- 4. Day 0–2 Transformation Plan
- 5. Migration Checklist & Risk Overview
- 6. Key Recommendations & Next Steps

Why Modernize SD-WAN Now?

- Increased SaaS, IaaS, and remote work adoption
- Centralized backhaul model adds latency & cost
- ZTNA and SSE adoption demand cloud-first connectivity
- Cloud Exchanges and DIA reduce dependency on MPLS

SD-WAN Gen 2 – Scenario 2

- Hub-and-spoke with centralized egress
- MPLS + Internet hybrid underlay
- Perimeter firewall-centric security
- Limited cloud/SaaS optimization
- Complex operational model with static routing

SD-WAN Gen 3 – Scenario 3

- Distributed, identity-aware access model
- Cloud-native routing + SSE inline enforcement
- Metro breakout + cloud exchange optimization
- ZTNA for users; SWG + CASB for SaaS
- IaC, observability, and continuous compliance

Day 0–2 Transformation Plan

- Day 0: Assess, Design, Select SSE vendor, Update Landing Zones
- Day 1: Deploy SSE PoPs, ZTNA clients, SD-WAN routing policies
- Day 2: Automate policies, monitor performance, phase out MPLS

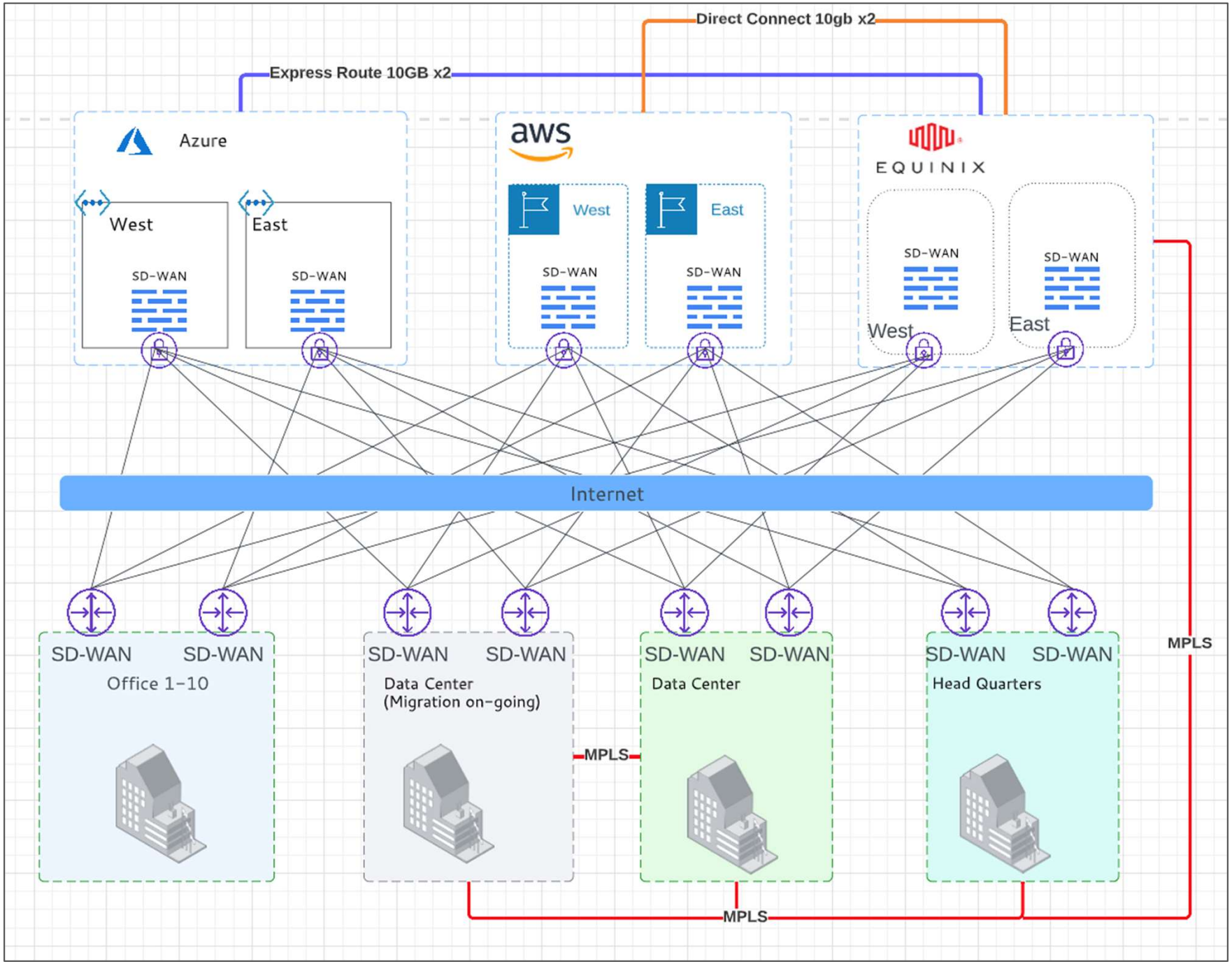
Migration Checklist (Sample)

- Pre-reqs: SSE vendor selected, IAM integrated, DIA enabled
- Owners: Network Eng (infra), CyberSec (ZTNA/SWG), CloudOps (Landing Zones)
- Risks: Latency shifts, misrouting, ZTNA auth gaps, policy drift
- KPIs: Access latency, tunnel success rate, SaaS block violations

Key Recommendations

- Finalize SSE vendor and PoP rollout plan
- Pilot metro DIA breakout + ZTNA flows
- Define SD-WAN & SSE integrated policies
- Present business case to ARB board
- Plan phased MPLS retirement per site group

SD-WAN Gen 2 Pattern - Classic overengineered network



SD-WAN Gen 3 Pattern - Network as a Service