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FREE RESOURCE — GUIDE

Multi-Site Networking Guide

SD-WAN, VPN tunnels, and centralised policies across multiple office locations. Connect your sites securely with reliable, high-performance networking.

4	SD-WAN	Centralise	Free
CONNECTIVITY OPTIONS	RECOMMENDED TECHNOLOGY	MANAGE ALL SITES FROM ONE PLACE	NETWORKING GUIDE

When You Need Multi-Site Networking

If your business operates from 2 or more locations that need to share data, applications, or phone systems, you need a multi-site networking strategy. The right approach depends on your bandwidth needs, budget, application requirements, and growth plans.

1 Connectivity Options Compared

Understanding the main options for connecting multiple office sites.

TECHNOLOGY	SPEED	RELIABILITY	COST	
MPLS	10Mbps–10Gbps	Very high (SLA)	££££	Large enterprises, low-latency requirements
SD-WAN	Depends on underlay	High (redundant)	££	Most SMEs, multi-circuit aggregation
IPsec VPN	Depends on internet	Good	£	Budget-conscious, simple site-to-site
Meraki Auto VPN	Depends on internet	High	££	Meraki customers, easy deployment
Azure VPN / ExpressRoute	Up to 10Gbps	Very high	££–££££	Azure-heavy environments

Why SD-WAN Is the Modern Choice

SD-WAN combines multiple internet circuits (fibre, broadband, 4G/5G) into a single resilient connection with intelligent traffic routing. It delivers MPLS-like reliability at a fraction of the cost, with centralised cloud management across all sites.

2 SD-WAN Architecture

Design an SD-WAN architecture that meets your performance and resilience requirements.

A typical SD-WAN deployment uses dual internet circuits at each site (primary fibre + backup broadband/4G) with an SD-WAN appliance that provides automatic failover, traffic prioritisation, and encrypted tunnels between sites.

- → **Circuit diversity:** Use different ISPs and technologies for primary and backup circuits. If primary is BT fibre, use a Virgin or 4G backup — not another BT circuit.
- → **Traffic prioritisation:** Configure application-aware routing to prioritise VoIP and video over the best-performing circuit, while routing bulk data over the cheapest path.
- → **Centralised management:** Choose an SD-WAN solution with cloud management (Meraki, Fortinet, Cisco Viptela) for visibility and control across all sites from a single dashboard.
- → **Zero-touch provisioning:** Modern SD-WAN appliances can be shipped to remote sites and configured remotely, eliminating the need for on-site engineers at every location.
- → **Hub-and-spoke vs mesh:** Use hub-and-spoke if most traffic flows to a central site. Use full mesh if sites need to communicate directly with each other.

3 Centralised Policy & Security

Manage security and access policies consistently across all sites.

One of the biggest advantages of modern multi-site networking is the ability to define policies centrally and push them to all sites. This ensures consistent security regardless of site size or local IT capability.

→ **Firewall policies:** Define and deploy firewall rules centrally. Changes propagate to all sites within minutes.

→ **Content filtering:** Apply web filtering policies consistently across all sites to block malicious and inappropriate content.

→ **IDS/IPS:** Enable intrusion detection and prevention across all site firewalls from the central dashboard.

→ **Split tunnelling:** Decide whether all internet traffic routes through the central site (more secure) or breaks out locally at each site (better performance). SD-WAN allows per-application decisions.

→ **VPN policies:** Manage remote access VPN from a single point, allowing users to connect regardless of which site they are nearest to.

Avoid Configuration Drift

When managing multiple sites, it is easy for configurations to drift apart over time (ad-hoc changes at individual sites). Use centralised management and configuration templates to prevent this. Audit site configurations quarterly to verify consistency.

4 Implementation Planning

Plan the deployment of multi-site networking across your locations.

SITE	LOCATION	PRIMARY CIRCUIT	BACKUP CIRCUIT
HQ			
Branch 1			
Branch 2			
Branch 3			

Deployment Sequence

Deploy the hub/HQ site first and verify all policies and routing. Then deploy branch sites one at a time, starting with the smallest/least critical. Verify each site thoroughly before moving to the next. Keep the old connectivity active in parallel until the new SD-WAN is proven.

Notes

Need Multi-Site Networking?

We design and deploy SD-WAN and multi-site networking solutions that connect your offices with reliable, secure connectivity.

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