

# Granite SD-WAN Technology Matrix



Technology	Meraki	VeloCloud	Fortinet
Granite Service Options	Granite Guardian: Monitoring and Management options available	Granite Guardian: Monitoring and Management options available	Granite Guardian: Monitoring and Management options available
General Technology Architecture	Cloud hosted multi-tenant servers and datacenters to support Meraki Dashboard/Organizations	Cloud hosted multi-tenant VeloCloud controller with Domains, distributed VeloCloud Gateways; Premium service included in offering	Datacenter-based multi-tenant vManage controller with vAnalyzer; Hub and Spoke, Full Mesh, Core Gateway, Dynamic VPN
Scalability	Max 25000 devices per organization; Hardware and software capable of supporting 2G of throughput	Unlimited scalability to the customer with dedicated controller; Hardware and software capable of supporting 10G throughput	Max 100,000 devices per vManage if upgraded to capacity; Hardware and software capable of supporting 100G throughput
Important Features	Easy to use & deploy; AutoVPN has out of the box full mesh capabilities, user friendly dashboard for analytics; content filtering and IDS/IPS included with Advanced Security license	Premium service allows for improved application performance and delivery to cloud SaaS providers; sub-second failover and forward error correction allow for increased voice/video performance and survivability	SD-WAN architecture built on top of industry leading next generation firewall service; SLA target customization, forward error correction, SSL or IPSEC
Granite Price: Hardware & Software; 200M, 3 YR Term (approximation only)	\$40 per month (approximation only)	\$130 per month (approximation only)	\$50 per month (approximation only)
Deployment	Physical or Virtual	Physical or Virtual	Physical or Virtual
Deployment Differentiator	Build networks within organization using templates	Create customer domains within controller using profiles	Shared or Customer VDOMs used to build customer networks
Access Types	Any transport (MPLS, Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.)	Any transport (MPLS, Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.)	Any transport (MPLS, Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.)
Active/Active or Active/Passive	2 Active only with standby failover	3+ with standby failover option	3+ with standby failover option
Routing & Redundancy Capabilities	Dual VPN, Dynamic path selection, QoS, Traffic Shaping, Policy-based routing; High Availability pairs option on any device	Dynamic routing (multicast, OSPF, BGP), dynamic mesh VPN, hub clustering, customizable business policy, WAN Optimization, Application Acceleration, QoS, Traffic Shaping, Internet Gateways, Packet Duplication, Link Aggregation; High Availability pairs option on any device	Full Routing capabilities, BGP, OSPF, etc), customizable SLA targets for application control, WAN Optimization, Application Identification and Steering, QoS, Traffic Shaping; High availability pairs on all models
Encryption	Yes	Yes	Yes
Firewall Features	Premise-based Advanced Security features integrated into SD-WAN device	Need to leverage a separate premise or cloud-based firewall solution	Device bundle includes Unified Threat Management service
Cloud Connect	Can leverage any cloud connect services supplied by carriers	AWS, Azure, Google	AWS, Azure, Google, O365; all major Cloud providers supported
Additional Notes/ Limitations	Does not include application optimization. Failover events typically take 30 seconds so voice/video sessions will be dropped in the event of a down link	Does not include security, must be paired with cloud or premise-based firewall solution	Upgrading portal to be more appealing to users, storage for log retention