Software-Defined Wide Area Networking service description

Today's traditional network solutions can be complex to manage, often involving aging technology and multiple devices from multiple vendors. Distributed enterprises everywhere are realizing that some legacy networks were not built for today's digital world. Many businesses are increasingly dependent on cloud-based applications, mobility, and expanding branch facilities, which drive skyrocketing bandwidth demands and a much greater need for flexible, high-performance, and cost-effective network solutions.

Comcast Business SD-WAN

Comcast Business software-defined wide area networking (SD-WAN) brings together application-aware routing, secure VPN capabilities, and a stateful firewall into an integrated solution that is easy to operate and maintain. When paired with DOCSIS 3.1/Gigabit broadband service, Comcast offers distributed enterprises a way to make broadband smart and unleash the power of the virtualized network. It enables digital businesses to deploy applications faster, manage bandwidth demands efficiently, increase site capacity, and improve performance while providing distributed security, traffic management, and application visibility.

Valuable features include application-based routing and local Internet breakout, the ability to support load balancing/failover between Comcast connections and customers' existing networks, and the flexibility to support multiple WAN topologies, including any-to-any, hub and spoke, and full mesh. SD-WAN from Comcast Business is available across the U.S. Unlike some legacy telcos and "over-the-top" (OTT) providers, Comcast Business SD-WAN is built within a software-defined networking (SDN) platform that is capable of scaling to meet agile business needs.

Comcast Business ActiveCore® SDN Platform

Comcast Business SD-WAN is delivered over ActiveCore — a network-based, carrier-grade platform that enables businesses to virtualize their network functions and manage growing workloads. Providing dynamic scalability and deep service chaining, ActiveCore combines orchestration and virtualization to support better business performance and allow for flexible and scalable provisioning of services across the network.

ActiveCore enables enterprises to move away from pre-digital legacy networks to the purpose-built digital SDN world of centralized software controls that quickly, adeptly, and cost-effectively activate and manage resources. It eliminates labor-intensive and time-consuming on-site hardware installations and reconfigurations, reduces the strain of manual processes, and delivers performance and flexibility.

As the first cable company to offer carrier-grade SDN Gig-speeds, Comcast Business is changing the industry expectation of having to do more with less, allowing businesses to achieve more for their business with more for their network.

Service benefits

With traditional hardware-centric architectures that direct network traffic with routers and switches, upgrading and managing WAN capabilities requires costly equipment maintenance and labor. SD-WAN provides an attractive solution because its software-driven approach makes it possible to program network traffic routing without the typical hardware, minimizing physical equipment at sites and eliminating significant expenses while enhancing network capabilities.

SD-WAN also reduces reliance on legacy technologies, including MPLS, because it offers the option of sending lower-priority, less sensitive data over public Internet connections, reserving private links for mission-critical or particularly latency-sensitive traffic.

Other key benefits include:

- **High availability** – SD-WAN can leverage multiple connections at a location to help minimize downtime caused by network failure
- **Feature rich** – It can support a wide range of network-oriented services, including VPNs, virtual routers, firewalls, intrusion detection, WAN optimization and more
- **Application-oriented** – SD-WAN can support routing and prioritization rules based on the customer's underlying application
- **Flexible** – Software-oriented implementation means that customers can re-configure the service as their needs change
- **Simple to use** – SD-WAN is an integrated set of features, meaning customers are not required to manage and operate these services independently
- **Eliminates "vendor lock"** – Our open systems architecture supports SDN offerings from numerous technology providers
- **Informative** – It allows access to data and analytics, helping customers better understand and manage their network and data
- **Predictable pricing** – Fixed rate pricing, allows customers to scale their bandwidth consumption with the assurance that their rates will not change
- **Lower costs** – Reduces expensive, labor-intensive hardware and T1 or incremental Mbps transport to save on OPEX and CAPEX
- **Wireless back-up** – ActiveCore's wireless back-up service ensures that customers stay connected, have consistent costs with flat-rate pricing, and continue to have an accurate view of their entire network if their Internet connection experiences an unexpected outage or downtime.

Competitive landscape

In addition to Comcast Business, enterprises have the option of purchasing SD-WAN products from a pure OTT vendor or a managed service provider offering fully integrated VPN+IP connectivity solutions.

An important difference between Comcast Business' SD-WAN and other offerings is that our competitors' solutions are built without any underlying SDN/network functions virtualization (NFV) platform. They may perform VPN, firewall, and router functions, but not in the same scalable and orchestrated manner of our SD-WAN, which allows new services and vendors to be added and grow with the offering.

Why Comcast Business SD-WAN

Comcast Business is Powering Possibilities™. With SD-WAN and high-speed broadband from Comcast Business, companies can cost-effectively update their existing networks across one or multiple business locations, making branch offices as capable as headquarters. It offers enterprises the opportunity to add SD-WAN to their existing infrastructure, creating a carrier-grade hybrid WAN that cost-effectively adds bandwidth and increases service availability. And there's no need to rip and replace current infrastructure and investments in the process.

In addition to the more general benefits of SD-WAN, Comcast Business SD-WAN offers customers:

More capability and a cost-effective alternative

- Lower cost per Mbps using high-speed broadband rather than traditional T1s
- Gigabit speeds over coax via DOCSIS 3.1 where available
- Fiber-fed Ethernet

Secure, reliable network solutions for businesses of all sizes

- National solution that includes firewall and unified threat management (UTM)
- Direct Internet access to public/private clouds
- Universal customer premises equipment (uCPE) supports native and third-party VNFs and scales to support future capabilities

Control and visibility across customer network and applications

- Integrating Comcast's carrier-grade SD-WAN with its Internet solutions provides quality of service (QoS) visibility at the network and application levels
- Application-aware, prioritized routing makes networks "smart"

Consistent network and application performance

- Last-mile data products leveraging the nation's largest converged IP networks in the U.S.
- The best first mile to last mile coverage
- Six classes of service
- Great customer experience via carrier-grade, integrated solutions

Simplified management

- Centralized policy management and configuration, via simplified portal
- Secure network management capabilities from any device
- Actionable network insights sourced via real-time dashboards and customized reports.

Other key features

- Analytics of site details and WAN/app usage
- Mobile app reporting

- Wireless backup
- Multiple broadband WAN connection support

- Publicly routable static IP configuration
- Advanced traffic steering

- Automated service changes
- Managed router with firewall

FOR MORE INFORMATION
Please contact your Comcast Business Account Manager or visit business.comcast.com/SDN

MEF 3.0 CERTIFIED SD-WAN

COMCAST BUSINESS