



Voice over Internet Protocol (VoIP) providers have been increasing market share in the USA as buyers seek to find increased efficiency, services, and cost savings. At the same time traditional, incumbent telephone companies have been hanging onto their switched telephone services or 'plain old telephone services' (POTS). These factors have presented competitive VoIP service providers with a market opportunity to be more flexible, more customized, and more aggressive in winning customers from the telephone companies.

At the end of 2016, the FCC reported 121.33M telephone service connections in the USA, split between Incumbent Local Exchange Carriers (ILECs, or traditional phone companies) and Non-ILEC competitors. The competitive providers hold 62.9M of these connections while the traditional providers hold 58.3M connections.

In the Residential market, 32.9M connections receive service from non-ILEC competitors (47%), and 19.7M connections (35% of total) are VoIP services provided by non-ILEC to Businesses. A further 20% of the market is provided by non-ILEC to Business as switched services (either wholesale resold or on owned infrastructure).

Clearly, customers are buying VoIP. But as a VoIP provider, how do you increase sales, increase customer satisfaction and reduce customers support issues and churn? One way is by eliminating the quality and cost issues that can drive end-customers to shop around and choose alternate providers at the end of their contract or return to the ILEC for traditional services.

Accomplish these goals and extend your service reach to new markets nationally and internationally by deploying SD-WAN technology. With SD-WAN you'll be able to deliver service over-the-top to any branch or location that can get broadband service.



SD-WAN's Key Benefits

According to Gartner, between the years of 2015 and 2017, the research firm received a 10x increase in the number of inquiries from end-user organizations about SD-WAN and its use-cases. Of the top reasons for choosing SD-WAN, key findings in the report indicated availability, costs, and reliability ranked the highest.

Other Key Benefits Are:

- Security is achieved through network segmentation, increased visibility, data encryption, and a centralized provisioning system.
- Multiple connection types are supported, including cable, DSL, MPLS, and wireless LTE connections, allowing a myriad of technologies to be utilized depending on their locations.
- As current business locations and models change, it becomes easier to add bandwidth to these sites.

Some businesses are still hesitant to switch despite these benefits. Because VoIP routes packets via the Internet, there's competition with other traffic on a single circuit. Therefore, companies want guarantees they'll receive optimal performance from their VoIP system.

VoIP and SD-WAN

Using Software-Defined Wide Area Networking, you'll be able to connect your VoIP servers to the customer's location using standard circuits and still provide Quality of Service, redundancy and high quality voice. SD-WAN software creates a multi-path, resilient VPN (Virtual Private Network) with sub-second failover between caller and call processor.

It isn't uncommon for individuals to jump to conclusions when they hear about receiving reliable connectivity for their phones over the Internet. Responses include: "Will it be better than Skype?", "What if my Internet disconnects?"

SD-WAN answers these questions and provides a technology solution to provide voice quality and ensure reliable, redundant multi-path and multi-carrier connectivity that keeps calls going even if an Internet circuit flaps or experiences spikes in latency.

SD-WAN makes it possible to deliver end-to-end QoS (Quality of Service) over any broadband Internet connection providing customers crisp video and clear voice that's more affordable than dedicated fiber or MPLS circuits. Customizable QoS profiles allocated bandwidth and priority to real-time packets, Link or Circuit Aggregation allows multiple circuits from multiple carriers to be treated as a single virtual tunnel, providing greater bandwidth and redundancy at an affordable ROI.





Link Aggregation and Automatic Failover: Keep Business Running

SD-WAN delivers Automatic Failover when multiple Links or Circuits are aggregated, and the bandwidth is stacked into one large data "pipe" or tunnel. Not only does this deliver more usable bandwidth, but it also allows critical applications to be survivable as failed links are removed seamlessly from the tunnel and session IP addresses are preserved, so calls and session-based connections are maintained. The net result is your customer's business remains fully functional.

Link Aggregation Brings More Customers On-Net

Additionally, Link Aggregation means you can reach more customers than ever. By aggregating bandwidth from any broadband Internet provider in your customer's area and providing your own IP Addressing, together with the customer premise hardware (CPE), you have a more extensive, more ubiquitous managed network. You can reach any customer location and bring formerly "off-net" customers "on-net."

Prioritizing and VoIP

VoIP and prioritizing packets through QoS aren't new concepts. SD-WAN extends this control to circuits such as Internet circuits that formerly couldn't be policed.

Packet Loss Detection

Packet loss detection over multiple circuits allows an SD-WAN platform to provide error-free transmission by actively managing traffic over each circuit. This allows the platform to avoid sending multiple versions of the same packet thereby increasing network traffic by better managing the performance of all circuits that have been aggregated into the tunnel.

Bandwidth Adaptation and Link Tuning: A Consistent Experience

A quality end-user experience isn't just about bandwidth and failover, however. The consistency of experience is also key as it prevents end-users from opening tickets related to Internet congestion or time-of-day.

SD-WAN can make sure end-users' experience is not affected by Internet circuits with intermittent packet loss or congestion. Bandwidth Adaptation automatically adjusts link characteristics to overcome the impacts of jitter, latency and packet loss. Maximum link speeds can also be managed through Link (or Leg) Tuning to eliminate degradation due to link saturation.

By managing the network and Internet circuits more effectively, you will increase end-customer satisfaction, reduce tickets and improve the experience of your VoIP platform. You will retain more customers and acquire more customers as the quality of your services improve.

Delivering VoIP and Cloud Connectivity

In addition to hosted VoIP, business is also making more use of Cloud services and applications. From CRM (Customer Relationship Management) such as Salesforce, through to PoS (Point of Sale), Inventory control applications, database hosting, hosted email, online video conferencing, banking and accounting packages, business is transitioning to Cloud applications.

These factors are driving demand for more flexible network configurations and Internet connectivity. And it is driving Cloud Service Providers to consider how to deliver better application experience and how to manage that experience without needing to engage network providers in the process.

SD-WAN helps you resolve these customer questions by providing a platform that offers multi-site Wide Area Networks that are easy to deploy, support flexible configurations and can be managed from end-to-end, right into the customer LAN. SD-WAN separates the underlying network transport from the application layer.

SD-WAN presents you with a network and application-aware overlay managed through a centralized management server. In doing so, this allows you to coordinate and manage a multi-site WAN effectively and deploy policies across the WAN or even across multiple customer WANs.

How is this beneficial to businesses? For end-customers, SD-WAN solution improves the experience of applications and network performance and improves ROI. For Service Providers, SD-WAN automates the process of service provisioning and simplifies management and troubleshooting, ultimately resulting in significant business agility and enterprise productivity.



Improving VoIP Sales with SD-WAN

For those who are already familiar with SDN (Software Defined Networking), SD-WAN offers the same concept except its application is for Wide Area Networks. When companies wish to manage internal data centers in a single location, they'll utilize this architecture to achieve this goal. However, when organizations would like to improve their VoIP performance, they implement an SD-WAN technology. It isn't uncommon for managers to believe, if there's a single office or a single Internet connection, this kind of technology is useless for the organization. However, optimization the quality of VoIP is still possible under these circumstances.

SD-WAN and Ease of Management

Previously, the management of a network infrastructure requiring a sensitive video and voice application was an ongoing and challenging process. However, through the deployment of SD-WAN, it will monitor network conditions and make adaptations to the needs of the company, thus ensuring optimal access to bandwidth and networks for systems that are critical during of congestion in the network.

How Does This All BenefitBusinesses Today?

When VoIP providers deploy SD-WAN, they receive tools necessary for delivering crystal-clear, reliable voice around the world. Broader reach, more flexible networks and and better ability to deliver managed VoIP allows VoIP providers to expand their businesses and increase customer satisfaction. With SD-WAN, you'll be able to deliver and sell VoIP in a more effective manner, reach more customers, and bring more "off-net" customers into your pipeline.



Multapplied SD-WAN is more than software, it's a white label, white box business platform. We enable service providers to own customer relationships, elevate the delivery of network and cloud-based services, and maximize revenues and profits.

Contact Us

