SD-WAN

Streamlined Operation & Management of VoIP and Data Systems

USE CASE APPLICATIONS: SD-WAN

SD-WAN can be deployed in a wide variety of verticals to help customers optimize their voice and data quality.

iCloudConnect SD-WAN is ideal for any organization that needs high quality voice or those that have bandwidth limits and need reliability and stability for both their VoIP and standard data. By optimizing their existing bandwidth to prioritize high-quality voice applications, SD-WAN makes the day-to-day operation and management of VoIP and data systems easier, more efficient and worry-free.

SD-WAN can be deployed in a wide variety of verticals, helping customers across a range of different environments optimize their voice and data quality for improved business communications and operations. Here are just a few examples of how iCloudConnect SD-WAN can benefit real-world customers:

Single Circuit Use Case: Small to Midsize Car Dealership

iCloudConnect is useful for a small to midsize car dealership that has opted to only have a single circuit, but experiences both heavy voice and data traffic. The dealership is not big enough to have two separate circuits or even an IT staff, but must serve the needs of more than a dozen employees, each with their own phone to handle inbound and outbound calls, and who must use email, inventory tracking systems, a CRM, financing applications, a service scheduler, and manufacturer databases for service manuals. With one pipe for data and voice traffic and such heavy bandwidth demands, SD-WAN provides the dealership with:

Voice Traffic Prioritization

When SD-WAN is deployed in this single circuit environment, it utilizes voice traffic prioritization to devote bandwidth to the car dealership's daily voice traffic first. Once SD-WAN puts voice traffic at the front of the line, it then optimizes the dealership's heavy data traffic based on its top system priorities.

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Application Prioritization & Business Policy Enforcement:

SD-WAN uses application recognition to help optimize the dealership's abundance of data traffic. Application recognition automatically recognizes some standard industry business applications and carries out those prioritizations.

Business Policy Settings

With business policy settings, the dealership sets SD-WAN to prioritize data traffic in the applications its employees use most frequently like inventory systems, financing systems for credit checks, manufacturer databases, and service-specific applications.

Quality of Service

SD-WAN for a single circuit environment ensures the quality of service (QOS) during high traffic instances when dealership employees use the computer, call customers, and receive calls to close deals all at the same time. Despite the fact that optimization dictates that voice traffic comes first, there is only so much bandwidth available on a single circuit.

When voice quality at the dealership degrades on the single circuit, SD-WAN steps in by duplicating packets when it senses packet loss, delaying transmission of packets when it notices jitter, and ensuring that the voice data reaches the data center in the quickest and most efficient manner.

What happens without SD-WAN?

The dealership's voice quality suffers and its network slows down when all employees use their phones and computers simultaneously. There's no way to set voice or data priority which creates a traffic jam. The dealership's voice calls stutter and drop while data throughput slows to a crawl, preventing their employees from carrying out their day-to-day jobs effectively.

Two Circuits Use Case: Insurance Agent With Multiple Locations

A local insurance agency with several agents receives a significant volume of calls and emails from customers each day. The organization's insurance agents also generate quotes, manage accounts, and deal with claims at the same time. Even though the company follows the industry best practice of having separate, dedicated circuits just for voice and data, the demands on circuits are heavy. Depending on the date, time, or existence of a natural disaster, the insurance office sees a large shift in the amount of traffic on either circuit.

For the insurance agency with two circuits, SD-WAN provides extra value on top of the benefits that it provides for environments with single and multi-location as well as single circuits. These extra benefits for two-circuit locations include:

Continuous Circuit Monitoring

SD-WAN's continuous circuit monitoring works with circuit aggregation in an automated way to keep tabs on the insurance agency's bandwidth. SD-WAN watches the circuit to observe how much voice and data usage it receives. SD-WAN also determines if it needs to move traffic back and forth to keep the circuits well balanced and moving.

After the continuous circuit monitoring picks up on heavy bandwidth usage, SD-WAN will move traffic to the underutilized circuit. When the insurance agency runs out of bandwidth on its voice circuit and the data circuit is idle, circuit aggregation pushes traffic onto the other circuit to balance the load.

High Availability for Circuits from Different ISPs

Since the insurance company purchased its voice line from one ISP and its data line from another, SD-WAN uses circuit aggregation and continuous circuit monitoring to ensure the highest uptime.
If one ISP is experiencing issues that are affecting traffic flow on a circuit, SD-WAN reroutes the insurance agency's traffic to the non-affected circuit, utilizing the other ISP's stability to avoid degradation of voice quality and data throughput. SD-WAN for two circuits is the best method for organizations that require the highest uptime for customer support and for companies that have the ability to use more than one circuit with multiple ISPs. Since this insurance agency can work with two different carriers, SD-WAN can ensure the highest uptime during an ISP outage.

What happens without SD-WAN?

Without SD-WAN, the insurance agency's circuits are not monitored continuously and circuit aggregation is not put in place to balance the bandwidth load without an IT administrator getting involved. Without significant setup for this specific situation, when one ISP network is down, the other ISP is not able to be utilized as a backup resulting in a business-stopping outage for the insurance agency.

By optimizing their existing bandwidth to prioritize high-quality voice applications, SD-WAN makes the day-to-day operation easier, more efficient & worry-free.