Improving UCaaS with Purpose-Built SD-WAN

Deploy any UCaaS platform with a reliable connection to the Cloud

Business Challenges with UCaaS

Unified Communications as a Service (UCaaS) is changing how companies connect to the world. It's also changing how they have to think about their Internet connectivity. Every UCaaS application has its own performance requirements, and those requirements are often at odds with broadband Internet connections that constantly suffer from performance issues and outages. This can lead to UCaaS application performance problems, like dropped calls, choppy voice and video, and echoing, that frustrate users and reduce productivity.

Traditional solutions, like MPLS, BGP, Load Balancers and Dual-WAN Firewalls have significant limitations when it comes to supporting UCaaS over broadband Internet. To overcome these limitations, IT/Ops professionals are turning to SD-WAN to improve their WAN connectivity. But, many SD-WAN solutions were built around legacy networking models based on manual policies and custom configurations. They lack the ability to control and prioritize all traffic to and from the cloud, and across the entire journey, from beginning to end. The end result is an SD-WAN experience that's unnecessarily complex and unpredictable— slowing the deployment and adoption of UCaaS and other Cloud services.

OVER 1 MONTH ON AVERAGE, **BIGLEAF PREVENTS:**

3.5 hours
Internet downtime

23 hours
severe drop in performance

34 hours
moderate drop in performance

Solution: Bigleaf Cloud-first SD-WAN

Bigleaf SD-WAN was designed specifically for the needs of cloud technologies like UCaaS. Our site-to-cloud architecture provides Enterprise-grade connectivity to any cloud technology with full visibility and control of all upload and download traffic. Our intelligent platform reacts in real-time to new cloud deployments and changing Internet performance to ensure the UCaaS user experience is always optimized. And Bigleaf scales to support any number of locations and cloud applications, without the need for manual configuration or policies.

Bigleaf makes it easy and seamless for companies to benefit from the speed, ease and flexibility of cloud technologies like UCaaS without worrying about outages and performance problems.

Key Bigleaf Benefits for UCaaS

- Full site-to-cloud visibility and control
- UCaaS traffic prioritization up and down without the need for policies
- SLA-backed 99.99% uptime
- Installs in minutes without the need for expensive IT resources
- Requires no reconfiguration for new locations, circuits or cloud services
- Works seamlessly with your trusted firewall or VPN

Bigleaf Cloud-Access Network – The Foundation for a Performance-based UCaaS Experience

Bigleaf's unique site-to-cloud architecture creates traffic tunnels that traverse your entire Internet connection. Your UCaaS traffic is controlled from the Bigleaf branch office router, over your carrier's last mile, middle mile, core router, and peering point, and into Bigleaf's Gateway Clusters. We have complete Site-to-Cloud visibility and control over the entire Internet connectivity path.

BIGLEAF PROVIDES ENTERPRISE-GRADE CONNECTIVITY FOR ANY CLOUD TECHNOLOGY OVER ANY KIND OF INTERNET CONNECTION.

Bigleaf's Gateway Clusters tunnel UCaaS traffic over your broadband internet connection(s), always using the best circuit for each application type. This is all done without changing the IP address when traffic is moved from one circuit to another, preventing VoIP calls from getting dropped and keeping video streams uninterrupted.

Our Cloud-Access Network peers with over 1000 different cloud applications, content providers, and carrier networks. Each of our network PoPs connects to the major peering exchange within each region, and we select our PoP data center locations based upon the best peering available.

Bigleaf inherently supports any cloud service and any Internet connection - out-of-the-box. The Bigleaf peering backbone connects directly to any cloud provider, so there is no need for specialized integrations that other SD-WAN services require to physically connect products and services to cloud and SaaS providers.

Easy Deployment— No Networking Expertise Required

Our unique automated installation process doesn't require any manual configuration or policy creation. Our pre-configured router connects easily to any existing firewall with a simple IP address update. So remote locations can get up and running on our SD-WAN service within 5 minutes.

Keep Your Existing Security Investment

We understand the investment in your security architecture, and that you are confident with the security it provides. You can rest assured Bigleaf will support your security investment. Bigleaf resides outside of the existing firewall, without replacing or requiring changes to your existing security strategy. Bigleaf looks just like a normal Internet connection to the firewall. There's no NAT or proxying, and there's no need to disable any firewall features.

BIGLEAF IS INTELLIGENT ENOUGH TO CORRECT INTERNET PERFORMANCE ISSUES IN REAL TIME. AUTOMATED POLICIES AND TRAFFIC HEURISTICS ARE USED TO PRIORITIZE AND ROUTE UCAAS TRAFFIC OVER THE BEST AVAILABLE CONNECTION.

Ensuring UCaaS Performance with Built-in Intelligence

Dynamic QoS

Bigleaf Dynamic QoS automatically flags traffic based on application and network characteristics, prioritizing traffic in real-time without the need for policies or custom configuration. Our bi-directional QoS determines traffic priority based on network attributes, such as stream consistency or traffic bursts— ensuring that sensitive UC traffic, like VoIP, video conferencing, and other crucial traffic streams, aren't degraded by network congestion.

Since we automatically identify all application types and we're constantly aware of circuit throughput, we can apply QoS policies to any circuit, without manual configuration. This protects UCaaS traffic when ISPs introduce buffering and delays, ensuring critical real-time UCaaS traffic remains unimpeded.

Same IP Address Failover

We protect UCaaS traffic, so when an Internet circuit has an outage, you won't. Your IP address doesn't change. Your underlying Internet circuits are abstracted away, so the network doesn't have to concern itself with changing IP addresses. This ensures your VoIP, web conference, and every other application stays up!

Before traffic traverses the path between Bigleaf's Gateway Clusters and your building, we encapsulate each packet in a tunnel. This encapsulation enables us to provide static IP addresses that don't change when traffic moves between ISP connections. You can use Bigleaf IP addresses, or if you have your own portable block we can route that too.

Intelligent Load Balancing

Bigleaf makes the most efficient use of all Internet circuits by continually monitoring circuit performance and routing traffic dynamically over the best path. Bigleaf uses traffic heuristics to prioritize and route traffic over the best connection. We understand each traffic type, and monitor all network connections, 10 times per second, for packet-loss, latency, jitter, and capacity.

We effectively identify UCaaS application traffic flows and automatically determine the performance needs of those applications. Applying our patent-pending algorithms, we integrate application traffic flow data with the real-time circuit monitoring data we gather. This ensures optimal load-balancing and QoS for all UC applications, throughout the traffic's journey across the WAN at any point, and at any time.

BIGLEAF SCALES QUICKLY IN GROWING BUSINESSES. IDEAL FOR ANY NUMBER OF SITES, BIGLEAF IS EASY TO INSTALL AND DEPLOY WITHOUT EXPERT IT HELP AND REQUIRES NO RECONFIGURATION FOR NEW LOCATIONS, CIRCUITS, OR CLOUD SERVICES.

Stay in Control of Your VoIP Experience with 360° visibility

Bigleaf will automatically manage your ISP connections for you, but when analyzing issues, you will want visibility into your network's health.

Bigleaf's Web Dashboard with actionable reports and alerts gives you all the circuit performance and application traffic data you need to stay in the driver's seat.

You'll know when things change, when they need attention, and what to do next to ensure a reliable user experience for every application and technology.

Conclusion

Bigleaf's SD-WAN technology and service delivery model provides you with a stress-free WAN. With our pre-configured install, and unique cloud-based network service, your users will enjoy consistent and reliable UCaaS performance. We solve network problems in real-time by continually monitoring all traffic types and broadband Internet connections, then routing the highest priority traffic over the most optimal paths. By intelligently adapting to changing Internet problems and application needs, Bigleaf delivers a quality UCaaS experience to all your users.

Bigleaf works with any VoIP provider, including:

About Bigleaf Networks

Bigleaf provides a software-defined WAN solution built with a Cloud Access Network that enables you to ensure performant uptime for any Cloud-based technologies across all sites and users. Unlike policy-based solutions, Bigleaf auto-detects application needs and network conditions and intelligently adapts traffic in real time. With Bigleaf, you can easily provide Enterprise-grade connectivity for all of your Cloud applications, improve visibility into your internet usage, and simplify your network.