

Secure, SLA-Backed SD-WAN for Unified Communication and UCaaS

Unified Communications: The WAN Transformation Challenge for Today's Global Enterprise

Today's distributed workforce increasingly relies on the mix of messaging and collaboration tools that form Unified Communications (UC/UCaaS). While beneficial to the business, UC's networking requirements challenge any WAN transformation initiative.

Voice and video require minimal latency and packet loss. Outages and slow-downs in the network become readily apparent to anyone in the middle of a voice or video call. Moving UC to the cloud with UC-as-a-Service (UCaaS), such as RingCentral, 8x8, Fuze, and Skype, poses further complications, requiring predictable, low-latency cloud access from any branch location.

The Internet Alone Cannot Solve the UC Problem

Broadband Internet connections, such as DSL and cable, provide the affordable bandwidth and rapid-deployment needed by WAN transformation initiatives. But alone they fail to address all of the factors that can degrade the Quality of Experience (QoE) of UC and UCaaS:

In the Internet first- and last-mile, broadband connections are oversubscribed resulting in high rates of packet loss that disrupt voice and video calls. Blackouts can also be a problem due to cable cuts and a provider's equipment failures.

Within the Internet middle-mile, packet loss remains an issue particularly at congested peering points and latency becomes a far bigger challenge. Today's less-than-optimum Internet routing unpredictably aggravates the delay caused by the long distance between enterprise locations, making it difficult to deliver consistent, enterprise-grade quality voice.



The Cato management console provides real-time and historic traffic analytics including jitter, packet loss, and Mean Opinion Score (MOS) measurements.

Solving UC and UCaaS Challenges

Cato provides a comprehensive networking and security solution for UC and UCaaS traffic. Cato Cloud is a secure, cloud-based SD-WAN built on a global, privately managed network. The Cato Cloud protects the quality of experience of UC and UCaaS while still enabling organizations to eliminate MPLS costs. Specific UC and UCaaS features include:



Last-Mile Optimization

Cato overcomes the packet loss and availability problems that undermine UC/UCaaS sessions. Sophisticated QoS prioritizes upstream and downstream last-mile access. Active/Active Protection aggregates capacity and protects UC sessions from brownouts and blackouts. Policy-based Routing (PbR) selects the optimum path for UC sessions. Packet Duplication and Fast Packet Recovery mitigate last-mile packet loss.



Middle-Mile Optimization

The Cato Cloud network avoids the unpredictable behavior of the Internet. Cato Cloud is a private, global, network of PoPs built on top of multiple SLA-backed tier-1 carriers. Optimized routing algorithms direct UC traffic across the paths with the least latency and packet loss.



UCaaS Access Optimization

Cato natively supports UCaaS and cloud datacenters (IaaS) without additional configuration, complexity, or point solutions. Cato intelligently drops UCaaS traffic at the Cato Point of Presence (PoP) closest to the UCaaS instance anywhere across the globe to minimize latency and packet loss.



Built-In VoIP Protection

Cato protects UC components against network attacks across all locations connected to the Cato Cloud without the need for dedicated appliances or additional security services.

Last-mile optimization

- Multiple transports
- Active / Active
- Policy Based Routing: MPLS or Cato
- QoS
- Packet Loss Mitigation

