DATASHEET

Phone

Architected for Reliability

Zoom brings together Team Chat, Phone, Whiteboard, Meetings and more into a single solution. Purpose-built to work together, Zoom's intuitive experience automates tasks, simplifies management, and allows you to work from anywhere, so you can focus on building connections that matter. Zoom Phone is a feature-rich cloud phone solution for businesses of all sizes. It's simple to deploy and use on a mobile device, desktop, or desk phone. Zoom Phone, as part of Zoom One, gives customers simple pricing across the suite of collaboration workloads, minimizes the need for a bunch of add-ons, and makes it easy to support business needs now and in the future.

This guide provides insight into how Zoom has used our best-in-class architecture and innovation to pioneer the next-generation enterprise phone system for modern cloud business communications.

ZOOM

Built from Experience

Zoom's video conferencing solution is backed by a world-class engineering team dedicated to making video communications frictionless. Eric S. Yuan, Zoom's founder and CEO, is a web conferencing industry leader who founded Zoom in 2011 with an all-star, hand-picked team focused on building the next generation of online video conferencing.

2022 Leader in the Gartner UCaaS & Meetings Magic Quadrant

500,000 businesses globally trust Zoom

86% of the Fortune 100 companies choose Zoom

Zoom's proprietary software was created with the future of video communications in mind, and Zoom architected the Zoom Phone platform with this same video-first philosophy. Zoom has a full-stack engineering team with dedicated members for every layer of our architecture, including each supported device. This distinctive approach allows our engineers to innovate faster and continue to grow a high-quality service that scales with ease.

Innovative Features Designed for Collaboration

Zoom has designed a modern phone solution with features that are innovative to the cloud PBX world while maintaining our video-first approach. Zoom Phone allows customers to provide some of the best collaboration tools to end users in one easy-to-use client.

- Zoom Phone's key focus areas:
- Quality & Security
- Core Experiences
- Manageability
- Migration
- Innovation

"Zoom Phone has been an astounding success. Thanks to its innovative pricing model and widespread availability, it has quickly become an attractive option for many SMB and enterprise customers around the world."

—Elka Popova, VP of Connected Work Research at Frost & Sullivan

Zoom's vision of delivering consistent, high-quality experiences for desktop, mobile, and conference rooms is the focus of the Zoom Phone architecture design. Built to be just as accessible and easy to adopt as Zoom's other products, Zoom Phone keeps simplicity at its core. The end-user experience is a single pane of glass, where users can seamlessly transition from a phone call to a Zoom Meeting without disruptions or delays.

Zoom Phone customers benefit from an all-in-one solution that offers both traditional PBX functionality and next-generation collaboration features.

- Enhanced OPUS Codec
- Elevate Call to Meeting
- QoS and Usage Dashboards
- TLS 1.2 for Signaling & SRTP for Media
- 256-bit AES-GCM encryption on supported devices

- Shared Voicemail
- BYOC & Provider Exchange
- Intercom
- Hot Desking
- E911 & Nomadic E911
- Zoom Phone Local Survivability
- Video Mail & Video Greetings

*Some features only available with certain licenses or add-ons

Architected for Quality and Reliability

Zoom Phone was built in the cloud and for the cloud, using the same audio quality and application-layer-switching technology already available in our Zoom Meetings. Zoom's architecture has redundancy and resiliency built in, resulting in a highly-available solution that can scale to meet even the largest organization's needs.

Zoom has redundant Session Border Controllers (SBCs) in each of its data centers that secure client and carrier communications. These carrier-grade SBCs facilitate easy access for a broad range of organizations, from the smallest of customers to global enterprises. Load Balancers redirect SIP-based communications to Zoom's Call Switches to evenly distribute the call volume. This distribution enables a smooth experience for users, even during peak registration and busy call hours.
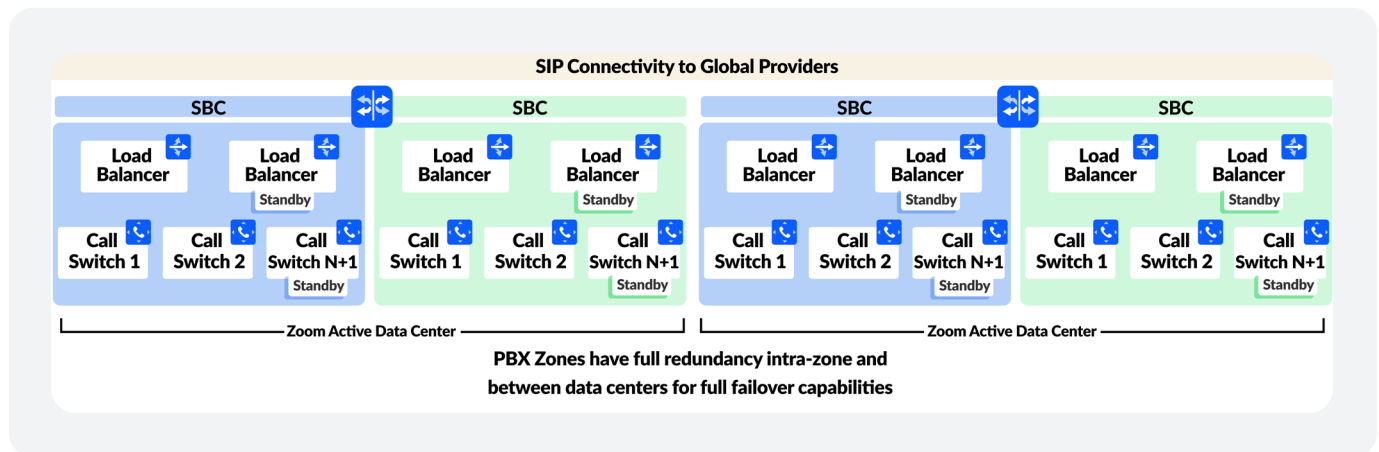
Call Switches are the core call control of Zoom Phone. These scalable components not only support base PBX functionality, but also facilitate telemetry data to the Zoom Phone Dashboard and enable features like elevating phone calls to Zoom Meetings.

The Zoom client leverages proprietary logic to monitor the client's bandwidth, packet loss, latency, and jitter, while also collecting the client's CPU usage, memory, and network I/O. This client technology actively monitors calls and makes real-time adjustments to overcome poor network conditions to provide superior call quality and reliability for various network environments and different devices.

The Zoom Phone Dashboard captures real-time and historical quality of service data, as well as usage and adoption metrics, call logs, and metrics related to nomadic emergency services. Zoom automatically rates each call with a Mean Opinion Score (MOS), allowing IT administrators to track the performance of all calls traversing the network and isolate potential network-related issues.

Globally Distributed Data Centers and Redundancy

Zoom has brokers and communications servers distributed among multiple interconnected data centers across the globe. Zoom's distributed network allows customers to place and receive calls from

SIP Connectivity to Global Providers

SBC | SBC | SBC | SBC

Load Balancer / Load Balancer (Standby) | Load Balancer / Load Balancer (Standby) | Load Balancer / Load Balancer (Standby) | Load Balancer / Load Balancer (Standby)

Call Switch 1 / Call Switch 2 / Call Switch N+1 (Standby) | Call Switch 1 / Call Switch 2 / Call Switch N+1 (Standby) | Call Switch 1 / Call Switch 2 / Call Switch N+1 (Standby) | Call Switch 1 / Call Switch 2 / Call Switch N+1 (Standby)

— Zoom Active Data Center — | — Zoom Active Data Center —

PBX Zones have full redundancy intra-zone and between data centers for full failover capabilities

their closest data center, providing maximum quality of service and minimum internet hops. Zoom also continuously evaluates our data centers and Internet Service Providers (ISPs) to optimize bandwidth, latency, and disaster recovery isolation performance.

Zoom's data centers are situated in secure colocation facilities that are ISP carrier neutral and provide physical security, redundant power, and simultaneous access to top-tier ISPs and peering partners. These data centers are built with fault-tolerant architecture with full redundancy and rapid failover capability. Aligned with our Zoom Meetings strategy, Zoom Phone has redundant links from our providers to our global data centers.

If an organization requires support for additional locations outside of Zoom's footprint, Bring Your Own Carrier (BYOC) is available to support connectivity for local PSTN access, even in the most remote regions of the world. Zoom Phone also leverages the existing Zoom backbone to transport voice traffic between data centers across the globe.

Capacity

Zoom Phone maintains Zoom's vision of 50% capacity in all aspects of our infrastructure. As with all things Zoom Phone, we align our capacity metrics to accommodate our growing business and meet peak usage requirements.

Disaster Recovery

Zoom Phone is set up in a multi-level redundant fashion with Active/Active zones in the primary data center and full disaster recovery capabilities in the secondary data center. Data centers are fully redundant with power, cooling, network carriers, and SIP providers to reduce the risk of interrupted service.

Zoom also offers a Zoom Phone Local Survivability module, which enables businesses and organizations to provide core phone features in the event of an external Internet outage. Zoom Phone Local Survivability (ZPLS) supports internal phone calls between users at a common site when Zoom data centers are unreachable, and customers can integrate ZPLS with an SBC for external PSTN dialing. ZPLS works with Zoom Node, an on-site, small-scale server, to provide failover capability and an additional layer of protection.

Conclusion

Zoom has used our best-in-class architecture to pioneer the next-generation enterprise phone system for modern cloud business communications. End users appreciate's innovative features, simplicity, reliability, and outstanding video and audio clarity, while IT managers can feel confident that the solution is globally available, scalable, and reliable.