

ZOOM VIDEO CONFERENCING: CHEAT SHEET





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ZOOM: A CHEAT SHEET ABOUT THE VIDEO CONFERENCING SOLUTION

Zoom is now a household name for work-from-home employees. Here is your guide to Zoom basics, including its security vulnerabilities and video conferencing alternatives such as Microsoft Teams.

BY BRANDON VIGLIAROLO

Due to the COVID-19 pandemic, more people are working from home. With workforces scattered to the wind, many businesses have had to adapt to virtual meetings as the new normal, which has been a massive boon for the video chat and conferencing software Zoom.

In February 2020, Zoom added more users than it did in the entirety of 2019. Major media platforms started using Zoom to stream broadcasts from at-home anchors, and "Zooming" quickly became eponymous with video chats and virtual meetings.

Zoom's explosive growth came with increased focus on security and privacy issues that went largely unnoticed before. Major companies and governments around the world have been banning Zoom from work use, and half a million sets of user credentials have even been found for sale on the Dark Web.

Zoom has pledged to fix a long list of security issues, but that hasn't stopped a third of users from getting cold feet. So, is Zoom still a video conferencing app worth using? If so, who should use it when so much personal and business security could be at risk? Learn more by reading this Zoom basics guide.

WHAT IS ZOOM?

Zoom is video conferencing software for Windows, macOS, Linux, and mobile devices that run iOS or Android. It supports one-on-one calls, as well as group meetings that can hold up to 100 users for free or 500 users with an additional purchase.

Zoom, the company, was founded in 2011 by Eric Yuan, and the Zoom application was released in 2013. Zoom has been lauded for its simple interface, ease of use, and accessibility to non-tech savvy people, which has aided in its steady climb as a video conferencing app of choice for small businesses, enterprises, and individuals. By 2017, Zoom had grown into a unicorn company by reaching \$1 billion in valuation.

Along with its desktop and mobile apps, Zoom offers solutions for enterprise conference rooms, browser extensions, and a web client that allows meeting participants to attend meetings without having to install the Zoom app.



Zoom has attracted many users by having a robust free tier, which allows meetings of up to 100 people without restricting any app features, instead limiting meetings for free accounts to 40 minutes.

IS ZOOM SAFE TO USE?

With the outbreak of the COVID-19 pandemic, Zoom saw a massive spike in users because of stay-at-home orders. By the end of March 2020, security issues started being reported.

TechRepublic sister site CNET has a total rundown of all the security flaws discovered in Zoom since March; here are some of the highlights.

- March 26: An investigation finds that Zoom is sending user data to Facebook without permission. Zoom removed its Facebook data collection the following day.
- March 30: Another investigation finds that Zoom is not using end-to-end encryption, Zoom bombs are first reported, and multiple flaws in both the windows and macOS versions of Zoom are reported.
- April 1: Zoom is treating email addresses with the same domain (e.g., ISPs, but not email-only services like Gmail) as if they belong to the same company, allowing countless users access to names, photos, and email addresses of other users. Zoom CEO Eric Yuan issues a public apology, and Zoom freezes all feature rollouts to focus on security fixes.
- April 2: A data mining feature is discovered that allows some users to gain access to LinkedIn profiles of other Zoom users.
- April 3: Recordings of thousands of Zoom meetings, many containing private information, are found freely viewable and unsecured on the web. Zoom issues another apology, and reveals it's using AES-128 encryption instead of the much more secure AES-256.
- **April 5:** Zoom admits in a statement that some calls were being accidentally routed through a whitelisted server located in China.
- April 6: The first collection of Zoom accounts is found for sale on the dark web.
- April 13: A further 500,000 Zoom accounts are found for sale on the dark web, with many costing as little as a few cents.
- **April 16:** Two new privacy bugs are discovered: One allows an attacker to view and download Zoom meeting videos stored in the cloud via an unsecured link, and a second lets deleted meeting recordings be viewed in the cloud for hours after deletion.
- April 20: Former engineers at Zoom partner Dropbox revealed that the company knew of a 2019 Mac exploit months before finally addressing it.



- **April 22:** Security researchers discover a flaw in Zoom that, with the proper malware, could allow recording of a meeting without host or attendee knowledge, even if recording is disabled.
- **April 28:** A US government intelligence report warns that Zoom could be vulnerable to spying by foreign governments.

Zoom has issued numerous apologies and pledged to improve its security.

Some of the security issues, like Zoom bombing, can be addressed by users taking steps to protect their video meetings, and Zoom has enabled by default many of the security features needed to do so. Other issues like poor encryption, lack of end-to-end encryption during meetings, and account theft can't be stopped by good Zoom user habits.

Zoom released Zoom 5.0 in late April 2020, addressing many of the security issues listed above. Features and enhancements in Zoom 5.0 include:

- AES 256-bit encryption, which brings Zoom in-line with other video conferencing apps;
- Data routing controls, which allow account administrators to control which data centers meetings are routed through, likely to address the accidental routing of calls to China;
- The relocation of security settings in one menu for meeting hosts, located on the bottom bar during a Zoom call;
- The waiting room is now on by default;
- Meeting passwords are now on by default, and account admins can set their own password complexity rules;
- Cloud recordings are now password protected;
- Changes to contact sharing to eliminate contact information leaks;
- Admin dashboard changes that allow administrators to track how meetings are connected to data centers;
- Chat notifications can optionally not show a preview of messages;
- Non-personal meeting ID codes have been lengthened to 11 digits; and
- Invite options and meeting IDs have been relocated to the participants menu to make it harder to accidentally share meeting IDs.

Zoom said that version 5.0 is a key milestone in its 90-day security plan, with Zoom CEO Eric Yuan saying the company is working to earn customers' trust in the wake of a long list of security incidents.



Zoom 5.0 can be downloaded from Zoom.us now, and those with current Zoom installations should update their app immediately.

HOW DOES ZOOM COMPARE TO MICROSOFT TEAMS, SKYPE, AND GOOGLE HANGOUTS?

Zoom has a lot of competition, and its recent missteps have opened some very large windows for those competitors to step in and capture some of its market share. TechRepublic recently wrote about 10 Zoom alternatives, and some of those options have even added Zoom-like features recently to draw away security-conscious users.

Free video chat options similar to Zoom include:

- Microsoft Teams, the Office 365-integrated video chat platform, has been extended for free to anyone
 with an email address, and Microsoft has lifted meeting user limits to help those affected by the
 COVID-19 pandemic.
- Skype video calls can be attended by up to 50 people (half that of free Zoom accounts). For small business teams, this makes it an ideal option.
- Google Hangouts is free for individual users. Google's enterprise product, Meet, is reserved for G Suite customers, though those outside an organization can still attend, but not host, meetings.

WHAT ARE ZOOM'S BEST FEATURES FOR BUSINESS USERS?

The allure of Zoom isn't only in its myriad features, but also in its incredible usability. Zoom is designed with non-tech people in mind: Its interface is simple, signing up is quick and hassle free, and it works well with minimal user input. Anyone looking for a video conference solution for teams with people who don't like, or are unfamiliar with, modern tech will find Zoom a great solution.

Any business using Zoom or considering using it should keep an eye on tech news about security issues, and be sure to follow best security practices to protect your Zoom calls from unauthorized entry.

If Zoom's security troubles aren't enough to dissuade you from adopting it for business web conferencing, there are several enterprise features worth considering.

Video conferencing with Zoom, which is a free product with restrictions, can be upgraded with one of several plans that expand its features to include more participants, additional security features (like SSO, user management, and administrator controls), and other features.

Zoom Rooms is one such offering. At \$49 room/month, Zoom Rooms integrates with existing A/V



hardware in meeting rooms and features many of the user-friendly aspects of the regular Zoom app at a larger scale. Zoom Rooms has one-touch meeting join, wireless sharing, interactive whiteboard support, and its own scalable and supported hardware that can adapt to meeting rooms of various sizes.

Zoom also has a webinar platform that extends 100 person meetings to allow up to 10,000 view-only attendees. The 100 participants have the ability to use Zoom just like a regular call, making it ideal for panel discussions, media events, and education.

There's also Zoom Phone, a cloud-hosted enterprise phone-as-a-service platform that lets businesses offload their enterprise phone systems to free up a bit of server room space. Zoom Phone integrates with Salesforce, Office 365, and G Suite out of the box, and phone calls can be turned into Zoom calls with a single click.

Whether your business should choose, and by extension trust, Zoom is up to you and your IT leaders. With most of Zoom's enterprise features being designed for offices and not remote workers (with the exception of premium video conferencing tiers), it may make sense to delay a decision until Zoom has a chance to fix its security issues and repair its reputation.

IS ZOOM FREE?

Companies and individuals can sign up for, and get started with, Zoom by creating a free Zoom account at its website. Organizations considering a premium tier of Zoom can find out more about pricing on its plans page, from which subscriptions can also be purchased.

Zoom has four pricing tiers, which include the following features:

Free tier Zoom users get:

- A 100-person cap on meetings
- 40 minute time limits on group meetings (one-on-one calls have no limit)
- Local video recording
- Access to the Zoom web client
- Ticket support

Pro tier (\$14.99 month per meeting host) adds:

- 24-hour meeting durations
- An admin console with user management, metric reporting, and feature enable/disable abilities
- 1 GB of cloud storage for meeting recordings



- Access to Zoom's developer APIs
- Meeting scheduler delegation

The business tier (\$19.99 month/host, 10 host minimum) adds:

- A 300 user meeting cap
- Phone support
- Vanity URLs
- On-premise deployment options
- Managed domains
- SSO
- Company branding (for apps, invitations, and in meetings)
- Automatic transcriptions of meeting recordings stored in the Zoom cloud

The enterprise tier, Zoom's largest (\$19.99 month/host, 100 host minimum) adds:

- 500 meeting participants (up to 1,000 with additional package purchase)
- Unlimited cloud storage
- Dedicated support person
- Additional business metrics (ROI, adoption analysis, and roadmapping)
- Bundle discounts on other Zoom enterprise products

HOW DO I USE ZOOM?

Check out the Zoom tips published on TechRepublic, which include:

- How to turn on virtual backgrounds in Zoom
- How to get started with Zoom's apps for iOS and Android
- The best virtual backgrounds to use on Zoom for your next business meeting
- 17 best Zoom tips for business pros
- 8 essential Zoom apps for every business user
- 7 best Zoom games for some virtual face time during the coronavirus pandemic
- Flipboard: Zoom tips and tricks

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