



Messaging and VoIP service owned by Meta WhatsApp MessengerScreenshot depicting WhatsApp [1][2]Initial releaseFebruary 2009; 16 years ago (2009-02)Stable release(s) [±]iOS25.4.77[3] / February 25, 2025; 4 months ago (February 25, 2025)Android2.25.6.74[4] / March 10, 2025; 3 months ago (March 10, 2025; 3 months ago (January 20, 2025; 4 months ago (February 25, 2025; 4 months ago (February 25, 2025; 4 months ago (February 25, 2025) Written in Erlang[6]Operating systemAndroid, iOS, iPadOS, KaiOS, macOS, Windows, Windows, Windows (February 25, 2025; 4 months ago (February 25, 2025) Written in Erlang[6]Operating systemAndroid, iOS, iPadOS, KaiOS, macOS, Windows, Windows (February 25, 2025; 4 months ago (February 25, 2025; 4 mo Phone, Wear OS, Meta QuestSize183.7 MB (iOS)[7] 48.02 MB (Android)[8] Available in 40 (iOS) and 60 (Android)[9] languagesTypeSocial media, instant messaging, VoIPLicenseProprietary software with EULA" European Region"[10]" others"[11] Websitewhatsapp.com This article is part of a series aboutMeta Platforms History Instagram WhatsApp Acquisitions Products and services Facebook 2021 outage Features Dating Feed Like button Reels Other products Instagram Threads Messenger Kids Meta AI Meta Portal Quest 3 Que Adam Mosseri Related organizations Oversight Board Business Criticism Privacy concerns Content management Censorship by Cambridge Analytica data scandal 2020 ad boycotts 2021 company files leak WhatsApp security and privacy features WhatsApp snooping scandal Litigation Young v. Facebook, Inc. (2011) Fraley v. Faceboo Inc. (2016) Force v. Facebook, Inc. (2019) FTC v. Meta Platforms (ongoing) Related Facebook, Inc. IPO vie WhatsApp (officially WhatsApp Messenger) is an American social media, instant messaging (IM), and voice-over-IP (VoIP) service owned by technology conglomerate Meta.[12] It allows users to send text, voice messages and video messages,[13] make voice and video calls, and share images, documents, user locations, and other content.[14][15] WhatsApp's client application runs on mobile devices, and can be accessed from computers.[16] The service requires a cellular mobile telephone number to sign up.[17] WhatsApp was launched in February 2009. In January 2018, WhatsApp released a standalone business app called WhatsApp Business which can communicate with the standard WhatsApp client. [18][19] The service was created by WhatsApp Inc. of Mountain View, California, which was acquired by Facebook in February 2014 for approximately US\$19.3 billion. [20][21] It became the world's most popular messaging application by 2015,[12][22] and had more than 2 billion users worldwide by February 2020,[23] with WhatsApp Business having approximately 200 million monthly users by 2023.[24] By 2016, it had become the primary means of Internet communication in regions including the Americas, the Indian subcontinent, and large parts of Europe and Africa.[12] For a chronological guide, see Timeline of WhatsApp. WhatsApp was founded in February 2009 by Brian Acton and Jan Koum, former employees of Yahoo! A month earlier, after Koum purchased an iPhone, he and Acton decided to create an app for the App Store. The idea started off as an app that would display statuses in a phone's Contacts menu showing if a person was at work or on a call.[25] Their discussions often took place at the home of Koum's Russian friend Alex Fishman in West San Jose. They realized that to take the idea further, they would need an iPhone developer. Fishman visited RentACoder.com, found Russian developer Igor Solomennikov, and introduced him to Koum.[25] Koum named the app WhatsApp to sound like "what's up". On February 24, 2009, he incorporated[60] WhatsApp Inc. in California. However, when early versions of WhatsApp Inc. in California. However, when early versions of WhatsApp Inc. in California. downloaded by only a handful of Fishman's Russian-speaking friends, Apple launched push notifications, allowing users to be pinged even when not using the app. Koum updated WhatsApp so that everyone in the user's network would be notified when a user's status changed. This new facility, to Koum's surprise, was used by users to ping "each other with jokey custom statuses like, 'I woke up late' or 'I'm on my way.'"[25] Fishman said, "At some point it sort of became instant messaging".[25] WhatsApp 2.0, released for iPhone in August 2009, featured a purpose-designed messaging component; the number of active users suddenly increased to 250,000. Although Acton was working on another startup idea, he decided to join the company.[25] In October 2009, Acton persuaded five former friends at Yahoo! to invest \$250,000 in seed funding, and Acton became a co-founder and was given a stake. He officially joined WhatsApp on November 1.[25] Koum then hired a friend in Los Angeles, Chris Peiffer, to develop a BlackBerry version, which arrived two months later.[25] Subsequently, WhatsApp for Symbian OS was added in May 2010, and for Android OS in August 2010.[27] In 2010 Google made multiple acquisition offers for WhatsApp, which were all declined.[61] To cover the cost of sending verification texts to users, WhatsApp was changed from a free service to a paid one. In December 2009, the ability to send photos was added to the iOS version. By early 2011, WhatsApp was one of the top 20 apps in the U.S. Apple App Store. [25] In April 2011, Sequoia Capital invested about \$8 million for more than 15% of the company, after months of negotiation by Sequoia partner Jim Goetz. [62][63][64] By February 2013, WhatsApp had about 200 million active users and 50 staff members. Sequoia invested another \$50 million, and WhatsApp was valued at \$1.5 billion.[25] Some time in 2013[65] WhatsApp acquired Santa Clara-based startup SkyMobius, the developers of Vtok,[66] a video and voice calling app.[67] In a December 2013 blog post, WhatsApp claimed that 400 million active users used the service each month.[68] The year 2013 ended with \$148 million in expenses, of which \$138 million in losses.[69] On February 19, 2014, one year after a venture capital financing round at a \$1.5 billion valuation,[38] Facebook, Inc. (now Meta Platforms) announced it was acquiring WhatsApp for US\$19 billion, its largest acquisition to date.[21] At the time, it was the largest acquisition of a venture-capital-backed company in history.[20] Sequoia Capital received an approximate 5,000% return on its initial investment.[70] Facebook, which was advised by Allen & Co, paid \$4 billion in Cash, \$12 billion in Facebook shares, and, advised by Morgan Stanley, an additional \$3 billion in restricted stock units granted to WhatsApp's founders Koum and Acton.[71] Employee stock was scheduled to vest over four years subsequent to closing.[21] Days after the announcement, WhatsApp users experienced a loss of service, leading to anger across social media.[72] The acquisition was influenced by the data provided by Onavo, Facebook's research app for monitoring competitors and trending usage of social activities on mobile phones, as well as startups that were performing "unusually well".[73][74][75] The acquisition caused many users to try, or move to, other message services. Telegram claimed that it acquired 8 million new users.[76] and Line, 2 million.[77] At a keynote presentation at the Mobile World Congress in Barcelona in February 2014, Facebook CEO Mark Zuckerberg said that Facebook's acquisition of WhatsApp was closely related to the Internet.org vision.[78][79] A TechCrunch article said about Zuckerberg's vision: The idea, he said, is to develop a group of basic internet services that would be free of charge to use - "a 911 for the internet". These could be a social networking service, maybe search and other things like weather. Providing a bundle of these free of charge to users will work like a gateway drug of sorts - users who may be able to afford data services and phones these the point of why they would pay for those data services. This would give them some context for why they are important, and that will lead them to pay for more services like this - or so the hope goes.[78] Three days after announcing the Facebook purchase, Koum said they were working to introduce voice calls. He also said that new mobile phones would be sold in Germany with the WhatsApp brand, and that their ultimate goal was to be on all smartphones. [80] In August 2014, WhatsApp was the most popular messaging app in the world, with more than 600 million users. [81] By early January 2015, WhatsApp had 700 million monthly users and over 30 billion messages every day. [82] In April 2015, Forbes predicted that between 2012 and 2018, the telecommunications industry would lose \$386 billion because of "over-the-top" services like WhatsApp and Skype.[83] That month, WhatsApp had over 800 million users.[84][85] By September 2015, it had grown to 900 million;[86] and by February 2016, one billion.[87] On November 30, 2015, the Android WhatsApp client made links to messaging service Telegram unclickable and not copyable.[88][90] Multiple sources confirmed that it was intentional, not a bug,[90] and that it had been implemented when the Android source code that recognized Telegram URLs had been identified.[90] (The word "telegram" appeared in WhatsApp's code. [90]) Some considered it an anti-competitive measure; [88][90] WhatsApp offered no explanation. On January 18, 2016, WhatsApp's co-founder Jan Koum announced that it would no longer charge users a \$1 annual subscription fee, in an effort to remove a barrier faced by users without payment cards. [91][92] He also said that the app would not display any third-party ads, and that it would have new features such as the ability to communicate with businesses. [87][93] On May 18, 2017, the European Commission announced that it was fining Facebook €110 million for "providing misleading information about WhatsApp takeover" in 2014. The Commission said that in 2014 when Facebook
acquired the messaging app, it "falsely claimed it was technically impossible to automatically combine user information from Facebook and WhatsApp had begun sharing user information with its parent company, allowing information such as phone numbers to be used for targeted Facebook advertisements. Facebook acknowledged the breach, but said the errors in their 2014 filings were "not intentional".[94] In September 2017, WhatsApp's co-founder Brian Acton left the company to start a nonprofit group,[95] later revealed as the Signal Foundation, which developed the WhatsApp competitor Signal.[96] He explained his reasons for leaving in an interview with Forbes a year later.[97] WhatsApp also announced a forthcoming business platform to enable companies to provide customer service at scale,[98] and airlines KLM and Aeroméxico announced their participation in the testing.[99][100][101][98] Both airlines had previously launched customer services on the Facebook Messenger platform. In January 2018, WhatsApp launched WhatsApp Business for small business use.[57] In April 2018, WhatsApp co-founder and CEO Jan Koum announced he would be leaving the company.[102] By leaving before November 2018, due to concerns about privacy, advertising, and monetization by Facebook,[103] Acton and Koum were initially believed to have given up \$1.3 billion in unvested stock options, [104] however, it was later reported that Koum's replacement would be Chris Daniels. [107] On November 25, 2019, WhatsApp announced an investment of \$250,000 through a partnership with Startup India to provide 500 startups with Facebook ad credits of \$500 each.[108] In December 2019, WhatsApp announced that a new update would lock out any Apple users who had not updated to iOS 9 or higher and Samsung, Huawei, Sony and Google users who had not updated to version 4.0 by February 1, 2020. The company also reported that Windows Phone operating systems would no longer be supported after December 31, 2019.[109] WhatsApp was announced to be the 3rd most downloaded mobile phone app of the decade 2010-2019.[110] In March, WhatsApp partnered with the World Health Organization and UNICEF to provide messaging hotlines for people to get information on the 2019-2020 coronavirus pandemic.[111] In the same month WhatsApp began testing a feature to help users find out more information.[112][113][114][115] In January 2021, WhatsApp began testing a feature to help users find out more information.[112][113][114][115] In January 2021, WhatsApp began testing a feature to help users find out more information.[112][113][114][115] In January 2021, WhatsApp began testing a feature to help users find out more information.[112][113][114][115] In January 2021, WhatsApp began testing a feature to help users find out more information.[112][113][114][115] In January 2021, WhatsApp began testing a feature to help users find out more information.[112][113][114][115] In January 2021, WhatsApp began testing a feature to help users find out more information.[112][113][114][115] In January 2021, WhatsApp began testing a feature to help users find out more information.[112][113][114][115] In January 2021, WhatsApp began testing a feature to help users find out more information.[112][113][114][115] In January 2021, WhatsApp began testing a feature to help users find out more information.[112][113][114][115] In January 2021, WhatsApp began testing a feature to help users find out more information.[112][113][114][115] In January 2021, WhatsApp began testing a feature to help users find out more information.[112][113][114][115] In January 2021, WhatsApp began testing a feature to help users find out more information.[112][113][114][115] In January 2021, WhatsApp began testing a feature to help users find out more information.[112][113][114][115] In January 2021, WhatsApp began testing a feature to help users find out more information.[112][113][114][115] In January 2021, WhatsApp began testing a feature to help users find out more information.[112][113][114][115] In January 2021, WhatsApp began testing a feature to help users find out more information.[112][113][114][115] In January 2021, WhatsApp began testing a feature to help users find out more informatio WhatsApp to share data with its parent company, Facebook; users who did not accept by February 8, 2021, would lose access to the app. This led many users to ditch WhatsApp and move to other services such as Signal and Telegram.[116] However, Facebook said the WhatsApp policy would not apply in the EU, since it violates the principles of GDPR.[117][118] Facing criticism, WhatsApp postponed the update to May 15, 2021,[119][120] but said they had no plans to limit functionality of users, nor nag users who did not approve the new terms.[121] On October 4, 2021, Facebook had its worst outage since 2008, which also affected other platforms owned by Facebook, such as Instagram and WhatsApp.[122][123] In August 2022, WhatsApp launched an integration with JioMart, available only to users in India. Local users can text special numbers in the app to launch an in-app shopping process, where they can order groceries.[124] In 2022, WhatsApp added the ability for users to turn off their online status.[125] In March 2024, Meta announced that WhatsApp would let third-party messaging services enable interoperability with WhatsApp, a requirement of the EU's Digital Markets Act (DMA). This allows users to send messaging apps and WhatsApp while maintaining end-to-end encryption.[126][127] This article is in list format but may read better as prose. You can help by converting this article, if appropriate. Editing help is available. (January 2025) In November 2010, a slate of improvements for the ability to search for messages in your chat history, trimming long videos to a sendable size, the ability to cancel media messages as they upload or download, and previewing photos before sending them.[128] In March 2012, WhatsApp improved its location. but also the location, but also the location, but also the ir apps, giving users a way to send short audio recordings directly in their chats.[129][130] In January 2015, WhatsApp launched a web client that allowed users to scan a QR code with their mobile app, mirroring their chats to their browser. The web client was not standalone, and required the user's phone to stay on and connected to the internet. It was also not available for iOS users on launch, due to limitations from Apple.[131][132] Voice calls between two accounts were added to the app in March and April 2015.[133] By June 2016, the company's blog reported more than 100 million voice calls per day were being placed on WhatsApp.[134] On November 10, 2016, WhatsApp launched a beta version of two-factor authentication for allowed them to use their email addresses for further protection.[135] Also in November 2016, Facebook ceased collecting WhatsApp data for advertising in Europe.[94] Later that month, video calls between two accounts were introduced.[136] On February 24, 2017, (WhatsApp's 8th birthday), WhatsApp launched a new Stat feature similar to Snapchat and Facebook stories.[137] In July 2017, WhatsApp added support for file uploads of all file types, with a limit of 100 MB. Previously between March 2016 and May 2017, only limited file types, with a limit of 100 MB. Previously between March 2016 and May 2017, NPT/PPTX, RTF, TXT, XLS/XLSX), were allowed to be shared for file attachments.[138][139] Later in September 2018, WhatsApp introduced group audio and video call features.[140][141] In October, the "Swipe to Reply" option was added to the Android beta version, 16 months after it was introduced for iOS.[142] On October 25, 2018, WhatsApp announced support for Stickers. But unlike other platforms WhatsApp requires third-party apps to add Stickers to WhatsApp officially launched a new fingerprint app-locking feature for Android devices - a new design consisting of a darker palette.[143] In October 2019, WhatsApp launched its "dark mode" for iPhone and Android devices - a new design consisting of a darker palette.[145] In October 2020, WhatsApp rolled out a feature allowing users to mute both individuals and group chats forever. The mute options are "8 hours", "1 week", and "Always" option replaced the "1 year" option that was originally part of the settings. [146] [147] In March 2021, WhatsApp started rolling out support for third-party animated stickers, initially in Iran, Brazil and Indonesia, [148] then worldwide. [149] In July 2021, WhatsApp announced forthcoming support for sending uncompressed images and videos in 3 options: Auto, Best Quality and Data Saver, [150] and end-to-end encryption for backups stored in Facebook's cloud. [151] The company was also testing multi-device support, allowing Computer users to run WhatsApp without an active phone session.[152] In August 2021, WhatsApp has the facility to hide users' online status ("Last Seen"). In December 2021, WhatsApp changed the default setting from "everyone" to only people in the user's contacts or who have been conversed with ("nobody" is also an option).[154] In April 2022, WhatsApp announced undated plans to roll out a Communities feature allowing several group chats to exist in a shared space, getting unified notifications and opening up smaller discussion groups. The company also announced plans to implement reactions, the ability for administrators to delete messages in groups and voice calls up to 32 participants. [155] In May 2022, the file upload limit was raised from 100 MB to 2 GB, and maximum group size increased to 512 members.[156] In April 2023, the app rolled out a feature that would allow account access across multiple phones, in a shift that would make it more like competitors. Messages would still be end-to-end encrypted.[157] WhatsApp officially rolled out the Companion mode for Android users, allowing you to link up to five Android phones to a single account. Now, the
feature is also made available to iOS users, allowing them to link up to four iPhones.[158] In May 2023, WhatsApp allowed users to edit messages, aligning itself with competitors such as Telegram and Signal which already offered this feature. According to the company, messages could be edited within a 15-minute window after being sent. Edited messages were tagged as "edited" to inform recipients that the content had been modified.[159] WhatsApp has rolled out a feature called WhatsApp Channels was launched which allows content creators, public figures and organizations to send newsletter-like broadcasts to large numbers of users. Unlike messages in groups or private chats, channels are not end-to-end encrypted.[161] Channels are not end-to-end encrypted.[16 before becoming widely available in September 2023.[162][163][164][165] In July 2023, video messages were added to WhatsApp. Similar to voice messages, this feature allows users to record and send short videos directly in a chat. This lets users share videos of themselves more quickly, and without adding anything to their device's gallery. Currently, video messages are limited to 60 seconds.[166][167] In October 2023, support for logging in to multiple accounts was added, allowing users to switch between different WhatsApp accounts in the same app. They also introduced passkey support, where a user can verify their login with on-device biometrics, rather than SMS. Text formatting options like code blocks, quote blocks, quote blocks, and bulleted lists and became available for the first time.[168] In November 2023, WhatsApp added a "voice chat does not call all group members directly; they instead receive a notification to join the voice chat" chat.[169] WhatsApp also began rolling out support for sending login codes to a linked email address, rather than via SMS.[170] In a later update on November 30, WhatsApp added a Secret Code feature, which allows those who use locked chats to enter a unique password that hides those chats from view when unlocking the app.[171][172] In December 2023, WhatsApp's "View Once" feature expanded to include voice messages sent this way are deleted after the recipient listens to them the first time.[173][174] In April 2024, an AI-powered "Smart Assistant" became widely available in WhatsApp, allowing users to ask it questions or have it complete tasks such as generating images. The assistant is based on the LLaMa 3 model, and is also available on other Meta platforms like Facebook and Instagram.[175][176] WhatsApp also introduced chat filters, allowing up to 32 participants. [177] In June 2024, improvements were made to voice and video calls, allowing up to 32 participants. in video calls, adding audio to screen sharing, and introducing a new codec to increase call reliability.[178] In September 2024, WhatsApp expanded their chat filter feature, adding the ability for users to create custom lists that contain specific chats of their choice.[179] In November 2024, the ability to transcribe voice message, rather than listening to the audio.[180] In December 2024, WhatsApp introduced several new video calling features, including the ability to select specific participants from a group to make a call, rather than calling all group members. Visual effects also became available, adding visual filters to a user's video feed.[181] In December 2024, WhatsApp introduced a reverse image search feature, allowing users to verify image authenticity directly within the second seco app using Google Search.[182][183] After months at beta stage, the official first release of WhatsApp for iOS launched in November 2009. In January 2010, and for Android OS in August 2011, a beta for Nokia's non-smartphone OS Series 40 was added. A month later, support for Windows Phone was added, followed by BlackBerry 10 in March 2013.[184] In April 2015, support for Samsung's Tizen OS was added.[185] The oldest device capable of running WhatsApp was the Symbian-based Nokia N95 released in March 2007, but support was later discontinued. In August 2014, WhatsApp released an update, adding support for Android Wear smartwatches. [186] On January 21, 2015, WhatsApp launched WhatsApp Web, a browser-based web client that could be used by syncing with a mobile device's connection. [42] On February 26, 2016, WhatsApp announced they would cease support for BlackBerry (including BlackBerry) 10), Nokia Series 40, and Symbian S60,[187][188] as well as older versions of Android (2.2), Windows Phone (7.0), and iOS (6), by the end of 2017, [190] In June 2017, support for BlackBerry and Series 40 was once again extended until the end of 2017, while Symbian was dropped.[191] Support for BlackBerry and older (version 8.0) Windows Phone and older (version 6) iOS devices was dropped on January 1, 2018, it was announced that WhatsApp would soon be available for KaiOS feature phones.[193][194] WhatsApp added support for iPads and iPadOS on May 27, 2025.[195] WhatsApp was officially made available for PCs through a manouncement made by an announcement made by a manouncement ma Koum on his Facebook page: "Our web client is simply an extension of your phone: the web browser mirrors conversations and messages from your mobile device—this means all of your messages still live on your phone". As of January 21, 2015, the desktop version was only available to Android, BlackBerry, and Windows Phone users. Later on, it also added support for iOS, Nokia Series 40, and Nokia S60 (Symbian).[197][198] Previously the WhatsApp user's handset had to be connected to the Internet for the browsers are supported except for Internet Explorer. WhatsApp Web's user interface is based on the default Android one and can be accessed through web.whatsapp.com. Access is granted after the users scan their personal QR code through their mobile WhatsApp application. There are similar solutions for macOS, such as the open-source ChitChat, previously known as WhatsMac.[200][201][202] In January 2021, the limited Android beta version allowed users to use WhatsApp Web without having to keep the mobile app connected to the Internet. In March 2021, this beta feature was extended to iOS users.[203] However, linked devices (using WhatsApp Web, Wh 14 days.[204] The multi-device beta can only show messages for the last three months on the web version, which was not the case without the beta because the web version anymore [206][207] On May 10, 2016, the messaging service was introduced for both Microsoft Windows and macOS operating systems. Support for video and voice calls from desktop clients was later added. Similar to the WhatsApp Web format, the app, which synchronises with a user's mobile device, is available for download on the website. It supported operating systems Windows 8 and OS X 10.10 and higher. [56] [208] In 2023, WhatsApp replaced the Electron-based apps with native version is based on UWP while the Mac version is based on UWP while the Electron-based apps with native version is based on UWP while the Mac version is based on UWP while the Electron-based apps with native version is based on UWP while the Mac version is based on UWP while the Electron-based apps with native version is based on UWP while the Mac version is based on UWP while the Electron-based apps with native version is based on UWP while the Mac version is based on called Wear OS) in 2014.[186] WhatsApp uses a customized version of the open standard Extensible messaging and presence protocol (XMPP).[211] A 2019 document of DOJ confirms by quotes "FunXMPP" as the protocol operated by Whatsapp,[212] related to a dispute to Pegasus malware, against NSO firm.[213] Upon installation, it creates a user account using the user's phone number as the username (Jabber ID: [phone number]@s.whatsapp.net). WhatsApp software automatically add contacts to the user's WhatsApp contact list. Previously the Android and Nokia Series 40 versions used an MD5-hashed, reversed-version of the phone's IMEI as password, [214] while the iOS version used the phone's Wi-Fi MAC address instead of IMEI.[215][216] A 2012 update implemented generation of a random password on the server side.[217] Alternatively a user can send to any contact in the WhatsApp database through the url number] where [phone number] is the number of the contact including the country code. Some devices using dual SIMs may not be compatible with WhatsApp implemented voice calling, which helped WhatsApp to attract a different segment of the user population.[219][220] WhatsApp's voice codec is Opus,[221][222][223] which uses the modified discrete cosine transform (MDCT) and linear predictive coding (LPC) audio compression algorithms.[224] WhatsApp uses Opus at 8-16 kHz sampling rates.[221][223] On November 14, 2016, WhatsApp video calling for users using Android, iPhone, and Windows Phone devices. [225][226] In November 2017, WhatsApp implemented a feature giving users seven minutes to delete messages sent by mistake. [227] Multimedia messages are sent by mistake. [227] Multimedia messages are sent by mistake. applicable.[228] WhatsApp uses a "store and forward" mechanism for exchanging messages between two users. When a user sends a message, it is stored on a WhatsApp server, which tries to forward it to the addressee, and repeatedly requests acknowledgement of receipt. When the message is acknowledgement of receipt. after 30 days, it is also deleted.[229][self-published source?] On November 18, 2014, Open Whisper Systems announced a partnership with WhatsApp client platform.[230] Open Whisper Systems said that they had already incorporated the protocol into the latest WhatsApp client for Android, and that support for other clients, group/media messages, and key verification would be coming soon after.[231] WhatsApp confirmed the partnership to reporters, but there was no announcement or documentation about the encryption feature on the official website, and further requests for comment were
declined.[232] In April 2015, German magazine Heise security used ARP spoofing to confirm that the protocol had been implemented for Android-to-Android messages from or to iPhones running iOS were still not end-to-end encrypted.[233] They expressed the concern that regular WhatsApp users still could not tell the difference between end-to-end encrypted messages and regular messages.[233] On April 5, 2016, WhatsApp and Open Whisper Systems announced that they had finished adding end-to-end encryption to "every form of communication" on WhatsApp, and that users could now verify each other's keys.[53][54] Users were also given the option to enable a trust on first use mechanism to be notified if a correspondent's key changes.[234] According to a white paper that was released along with the Signal Protocol.[235] WhatsApp calls are encrypted with SRTP, and all client-server communications are "layered within a separate encrypted channel".[235] On October 14, 2021, WhatsApp rolled out end-to-end encryption for backups on Android and iOS. The feature has to be turned on by the user and provides the option to encrypt the backup either with a password or a 64-digit encryption key.[236] The application can store encrypted copies of the chat messages onto the SD card, but chat messages are also stored unencrypted in the SQLite database file "msgstore.db".[237] WhatsApp Payments (marketed as WhatsApp Pay) is a peer-to-peer money transfer feature. The service became generally available in India and Brazil, and in Singapore for WhatsApp Pay) is a peer-to-peer money transfer feature. WhatsApp received permission from the National Payments Corporation of India (NPCI) to enter into partnership with multiple Indian banks, [240] for transactions over Unified Payments via WhatsApp were initially restricted to 20 million users, [243] and to 100 million users in April 2022, [244] and became generally available to everyone in August 2022. [245] See also: Diem (digital currency) On February 28, 2019, The New York Times reported that Facebook was "hoping to succeed where Bitcoin failed" by developing an in-house cryptocurrency that would be incorporated into WhatsApp. The project reportedly involved more than 50 engineers under the direction of former PayPal president David A. Marcus. This "Facebook coin" would reportedly be a stablecoin pegged to the value of a basket of different foreign currencies.[246] In June 2019, Facebook said that the project would be named Libra. and that a digital wallet named "Calibra" was to be integrated into Facebook and WhatsApp.[247] After financial regulators in many regions raised concerns, Facebook stated that the currency, renamed Diem since December 2020, would require a government-issued ID for verification, and the wallet app would have fraud protection. Calibra was rebranded to Novi in May 2020.[248][250] Meta (formerly Facebook) ended its Novi project on September 1, 2022.[251][252] WhatsApp has repeatedly imposed limits on message forwarding in response to the spread of misinformation in countries including India and Australia. The measure, first introduced in 2018 to combat spam, was expanded and remained active in 2021. WhatsApp stated that the forwarding limits had helped to curb the spread of misinformation regarding COVID-19.[253][254][255] Main article: Indian WhatsApp University In India, WhatsApp University India, WhatsAp lynch mobs in India murdered innocent people because of malicious WhatsApp messages falsely accusing the victims of intending to abduct children. [256] There were a series of incidents between 2017 and 2020, after which WhatsApp announced changes for Indian users of the platform that labels forwarded messages as such. [257] In an investigation on the use of social media in politics, it was found that WhatsApp was being abused for the spread of fake news in the 2018 presidential elections in Brazil.[258] It was reported that US\$3 million was spent in illegal concealed contributions related to this practice.[259] Researchers and journalists called on WhatsApp's parent company Facebook, to adopt measures similar to those adopted in India and restrict the spread of hoaxes and fake news.[258] Main article: Reception and criticism of WhatsApp was initially criticized for its lack of encryption, sending information as plaintext.[260] Encryption was first added in May 2012.[261][262][263] End-to-end encryption was only fully implemented in April 2016 after a two-year process. As of September 2021[update], it is known that WhatsApp makes extensive use of outside contractors and artificial intelligence systems to examine certain user messages, images and videos (those that have been flagged by users as possibly abusive); and turns over to law enforcement metadata including critical account and location information.[264] In 2016, WhatsApp was widely praised for the addition of end-to-end encryption and earned a 6 out of 7 points on the Electronic Frontier Foundation's "Secure Messaging Scorecard".[265] WhatsApp was criticized by security researchers and the Electronic Frontier Foundation for using backups that are not covered by end-to-end encryption and allow messages to be accessed by third-parties. [266][267] In May 2019, a security vulnerability in WhatsApp was found and fixed that allowed a remote person to install spyware by making a call which did not need to be answered. [268][269] In September 2019 WhatsApp was criticized for its implementation of a 'delete for everyone' feature. iOS users can elect to save media to their camera roll automatically. When a user deletes media for everyone, WhatsApp does not delete images saved in the iOS camera roll and so those users are able to keep the images. WhatsApp released a statement saying that "the feature is working properly", and that images stored in the camera roll cannot be deleted due to Apple's security layers.[270] In December 2019, WhatsApp confirmed a security flaw that would allow hackers to use a malicious GIF image file to gain access to the recipient's data. When the recipient opened the gallery within WhatsApp, even if not sending the malicious image, the hack is triggered and the device and its contents become vulnerable. The flaw was patched and users were encouraged to update WhatsApp, [272][273][274] On December 17, 2019, WhatsApp fixed and users were encouraged to update WhatsApp.[272][273][274] On December 17, 2019, WhatsApp fixed and users were encouraged to update WhatsApp.[272][273][274] On December 17, 2019, WhatsApp fixed and users were encouraged to update WhatsApp.[272][273][274] On December 17, 2019, WhatsApp fixed and users were encouraged to update WhatsApp.[272][273][274] On December 17, 2019, WhatsApp fixed and users were encouraged to update WhatsApp.[272][273][274] On December 17, 2019, WhatsApp fixed and users were encouraged to update WhatsApp.[272][273][274] On December 17, 2019, WhatsApp fixed and users were encouraged to update WhatsApp.[272][273][274] On December 17, 2019, WhatsApp fixed and users were encouraged to update WhatsApp.[272][273][274] On December 17, 2019, WhatsApp fixed and users were encouraged to update WhatsApp fixed and security flaw that allowed cyber attackers to repeatedly crash the messaging application for all members of group chat, which could only be fixed by forcing the complete uninstall and reinstall of the app.[275] The bug was discovered by Check Point in August 2019 and reported to WhatsApp. It was fixed in version 2.19.246 onwards.[276][277] For security purposes, since February 1, 2020, WhatsApp has been made unavailable on smartphones using legacy operating systems like Android 2.3.7 or older and iPhone iOS 8 or older that are no longer updated by their providers. [278] In April 2020, the NSO Group held its governmental clients accountable for the allegation of human rights abuses by WhatsApp. In its revelation via documents received from court, the group claimed that the lawsuit brought against the company by WhatsApp threatened to infringe on its clients' "national security and foreign policy concerns". However, the company by WhatsApp threatened to infringe on its clients' "national security and foreign policy concerns". Arabia, Bahrain, Kazakhstan, Morocco, Mexico and the United Arab Emirates. [279] On December 16, 2020, a claim that WhatsApp gave Google access to private messages was included in the anti-trust case against the latter. As the complaint was heavily redacted due to being an ongoing case, it did not disclose whether this was alleged tampering with the app's end-to-end encryption, or Google accessing user backups.[clarification needed][280] In January 2021, WhatsApp announced an update to their Privacy Policy which stated that WhatsApp would share user data with Facebook and its "family of companies" beginning February 2021. Previously, users could opt-out of such data sharing, but the new policy removed this option. The new Privacy Policy would not apply within the EU, as it is illegal under the GDPR. Facebook and WhatsApp were widely criticized for this move. [117][118][281] The enforcement of the privacy policy was postponed from February 8 to May 15, 2021, [119][282] WhatsApp announced they had no plans to limit the EU, as it is illegal under the GDPR. Facebook and WhatsApp were widely criticized for this move. [117][118][281] The enforcement of the privacy policy was postponed from February 8 to May 15, 2021, [119][281] The enforcement of the privacy policy was postponed from February 8 to May 15, 2021, [119][281] The enforcement of the privacy policy was postponed from February 8 to May 15, 2021, [119][281] The enforcement of the privacy policy was postponed from February 8 to May 15, 2021, [119][281] The enforcement of the privacy policy was postponed from February 8 to May 15, 2021, [119][281] The enforcement of the privacy policy was postponed from February 8 to May 15, 2021, [119][281] The enforcement of the privacy policy
was postponed from February 8 to May 15, 2021, [119][281] The enforcement of the privacy policy was postponed from February 8 to May 15, 2021, [119][281] The enforcement of the privacy policy was postponed from February 8 to May 15, 2021, [119][281] The enforcement of the privacy policy was postponed from February 8 to May 15, 2021, [119][281] The enforcement of the privacy policy was postponed from February 8 to May 15, 2021, [119][281] The enforcement of the privacy policy was postponed from February 8 to May 15, 2021, [119][281] The enforcement of the privacy policy was postponed from February 8 to May 15, 2021, [119][281] The enforcement of the privacy policy was postponed from February 8 to May 15, 2021, [119][281] The enforcement of the privacy policy was postponed from February 8 to May 15, 2021, [119][281] The enforcement of the privacy policy was postponed from February 8 to May 15, 2021, [119][281] The enforcement of the privacy policy was postponed functionality of the app for those who did not approve the new terms. [121] On October 15, 2021, WhatsApp announced that it would begin offering an end-to-end encryption feature added an additional layer of protection to chat backups stored either on Apple iCloud or Google Drive. [283] On November 29, 2021, an FBI document was uncovered by Rolling Stone, revealing that WhatsApp responds to warrants and subpoenas from law enforcement within minutes. the user's contact information and address book.[284] In January 2022, an unsealed surveillance application revealed that WhatsApp started tracking seven users from US DEA investigators. The app collected data on who the users contacted and how often, and when and how they were using the app. This is reportedly not an isolated occurrence, as federal agencies can use the Electronic Communications Privacy Act to covertly track users without submitting any probable cause or linking a user's number to their identity.[285] At the beginning of 2022, it was revealed that San Diego-based startup Boldend had developed tools to hack WhatsApp's encryption, gaining access to user data, at some point since the startup's inception in 2017. The vulnerability was reportedly patched in January 2021. Boldend is financed, in part, by Peter Thiel, a notable investor in Facebook. [286] In September 2022, a critical security issue in WhatsApp's Android video call feature was reported. An integer overflow bug allowed a malicious user to take full control of the victim's application once a video call between two WhatsApp alerted 90 journalists and other members of civil society that they had been targeted by spyware used by the Israeli technology company Paragon Solutions. [288] As of 2023[update], WhatsApp is widely used by government institutions in the UK, although such use is viewed as problematical since it hinders the public, including journalists, from obtaining accurate government records when making freedom of information requests. [289] The information commissioner has said that the use of WhatsApp posed risks to transparency since members of Parliament, government ministers, and official show wished to avoid scrutiny might use WhatsApp despite there being official channels. [290] Transparency campaigners have challenged the practice in court. [291] Notably, during the COVID-19 pandemic the UK government routinely used WhatsApp to make decisions on managing the crisis, including on personal rather than government-issued devices. When the official inquiry into the pandemic began seeking evidence in May 2023, this presented issues for its ability to gather the material it sought. A personal device of the former Prime Minister, Boris Johnson, had been compromised by a security breach, and it was claimed that it could not be switched on to recover messages were not relevant to the inquiry, it only needed to hand over material it had selected as being relevant. The High Court, in a judicial review sought by the Cabinet Office, declared that all documents sought by the inquiry were to be handed over unredacted. [293] In 2018, it was reported that around 500,000 had faced disciplinary action for doing so. Higher usage was reported by frontline clinical staff to keep up with care needs, even though NHS trust policies do not permit their use.[294] In March 2019, WhatsApp and warned that it may ban those using unofficial clients.[295] Main article: WhatsApp snooping scandal In May 2019, WhatsApp was attacked by hackers who installed spyware on a number of victims' smartphones. [296] The hack, allegedly developed by Israeli surveillance technology firm NSO Group, injected malware onto WhatsApp users' phones via a remote-exploit bug in the app's Voice over IP calling functions. A Wired report noted the attack was able to inject malware via calls to the targeted phone, even if the user did not answer the call.[297] In October 2019, WhatsApp filed a lawsuit against NSO Group in a San Francisco court, claiming that the alleged cyberattack violated US laws including the Computer Fraud and Abuse Act (CFAA).[298] According to WhatsApp, the exploit "targeted at least 100 human-rights defenders, journalists and other members of civil society" among a total of 1,400 users in 20 countries. [299][300][2] In April 2020, the NSO Group held its governmental clients accountable for the allegation of human rights abuses by WhatsApp. In its revelation via documents received via court, the group claimed that the lawsuit brought against the company by WhatsApp threatened to infringe on its clients' "national security and foreign policy concerns". However, the company did not reveal the names of the end users, which according to research by Citizen Lab include, Saudi Arabia, Bahrain, Kazakhstan, Morocco, Mexico and the United Arab Emirates.[279] In July 2020, a US federal judge ruled that the lawsuit against NSO group could proceed. NSO Group filed a motion to have the lawsuit dismissed, but the judge denied all of its arguments.[301] Main article: Jeff Bezos phone hacking incident In January 2020, a digital forensic analysis revealed that the Amazon founder Jeff Bezos received an encrypted message on WhatsApp from the official account of Saudi Arabia's Crown Prince Mohammed bin Salman. The message reportedly contained a malicious file, the receipt of which resulted in Bezos' phone being hacked through WhatsApp, as he was one of the targets of Saudi's hit list of individuals close to The Washington Post journalist Jamal Khashoggi [302] In 2021, an FBI document obtained through a Freedom of Information request by Property of the People, Inc., a 501(c)(3) nonprofit organization, revealed that WhatsApp and iMessage are vulnerable to law-enforcement real-time searches.[303][304][284] In January 2022, an investigation by The Wire claimed that BJP, an Indian political party, allegedly used an app called Tek Fog which was capable of hacking inactive WhatsApp accounts en masse to mass message their contacts with propaganda. According to the report, a whistleblower with app access was able to hack a test WhatsApp account controlled by reporters "within minutes." [305][306] It was later determined that staff of their Meta investigative team had been using WhatsApp to plot the November 2015 Paris attacks. [308] According to The Independent, ISIS also uses WhatsApp to traffic sex slaves. [309] In March 2017, British Home Secretary Amber Rudd said encryption capabilities of messaging tools like WhatsApp are unacceptable, as news reported that Khalid Masood used the application several minutes before perpetrating the 2017 Westminster attack. Rudd publicly called for police and intelligence agencies to be given access to WhatsApp and other encrypted messaging services to prevent future terror attacks. [310] In April 2017, the perpetrator of the Stockholm truck attack reportedly used WhatsApp to exchange messages with an ISIS supporter shortly before and after the incident. The messages involved discussing how to make an explosive device and a confession to the attack.[311] In April 2017, nearly 300 WhatsApp groups with about 250 members each were reportedly being used to mobilize stone-pelters in Jammu and Kashmir to disrupt security forces' operations at encounter sites. According to police, 90% of these groups were closed down after police contacted their admins.[312] Further, after a six-month probe which involved the infiltration of 79 WhatsApp groups, the National Investigation Agency reported that out of about 6386 members and admins of these groups, about 1000 were residents of Pakistan and gulf nations. Further, for their help in negating anti-terror operations, the Indian stone pelters were getting funded through barter trade from Pakistan and other indirect means.[313] In May 2022, the FBI stated that an ISIS sympathizer, who was plotting to assassinate George W. Bush, was arrested based on his WhatsApp data. According to the arrest warrant for the suspect, his WhatsApp account was placed under surveillance.[314] There are numerous ongoing scams on WhatsApp that let hackers spread viruses or malware.[315] In May 2016, some WhatsApp that let hackers spread viruses or malware.[317] There are numerous ongoing scams on WhatsApp that let hackers spread viruses or malware.[318] There are numerous ongoing scams on WhatsApp that let hackers spread viruses or malware.[319] There are numerous ongoing scams on WhatsApp that let hackers spread viruses or malware.[319] There are numerous ongoing scams on WhatsApp that let hackers spread viruses or malware.[319] There are numerous ongoing scams on WhatsApp that let hackers spread viruses or malware.[319] There are numerous ongoing scams on WhatsApp that let hackers spread viruses or malware.[319] There are numerous ongoing scams on WhatsApp that let hackers spread viruses or malware.[319] There are numerous ongoing scams on WhatsApp that let hackers spread viruses or malware.[319] There are numerous ongoing scams on
WhatsApp that let hackers spread viruses or malware.[319] There are numerous ongoing scams on WhatsApp that let hackers spread viruses or malware.[319] There are numerous ongoing scams on WhatsApp that let hackers spread viruses or malware.[319] There are numerous ongoing scams on WhatsApp that let hackers spread viruses or malware.[319] There are numerous ongoing scams on WhatsApp that let hackers spread viruses or malware.[319] There are numerous ongoing scams on WhatsApp that let hackers spread viruses or malware.[319] There are numerous ongoing scams on WhatsApp that let hackers spread viruses or malware.[319] There are numerous ongoing scams on WhatsApp that let hackers spread viruses or malware.[319] There are numerous ongoing scams on WhatsApp that let hackers spread viruses or malware.[319] There are numerous ongoing scams on WhatsApp that let hackers spread viruses or malware.[319] There are numerous ongoing scams on WhatsApp that let hackers spread viruses of the numerous of the numerous o the users' phones with malware.[316] A message that promises to allow access to their WhatsApp friends' conversations, or their contact lists, has become the most popular hit against anyone who uses the application in Brazil. Clicking on the message actually sends paid text messages. Since December 2016, more than 1.5 million people have clicked and lost money.[317][318] Another application called GB WhatsApp is considered malicious by cybersecurity firm Symantec because it usually performs some unauthorized operations on end-user devices.[319] WhatsApp is owned by Meta, whose main social media service Facebook has been blocked in China since 2009.[320] In September 2017, security researchers reported to The New York Times that the WhatsApp from the App Store in China, citing government orders that stemmed from national security concerns.[323][324] This section needs to be updated. The reason given is: Mentioned deadline has long passed. Please help update this article to reflect recent events or newly available information. (February 2025) On May 9, 2014, the government of Iran announced that it had proposed to block the access to WhatsApp service to Iranian residents. "The reason for this is the assumption of WhatsApp by the Facebook founder Mark Zuckerberg, who is an American Zionist", said Abdolsamad Khorramabadi, head of the country's Committee on Internet Crimes. Subsequently, Iranian president Hassan Rouhani issued an order to the Ministry of ICT to stop filtering WhatsApp.[325][326] It was blocked permanently until Meta answers September 2022.[327] Turkey temporarily banned WhatsApp in 2016, following the assassination of the Russian ambassador to Turkey.[328] On March 1, 2016, at dawn the next day, Dzodan was released because the Court of Appeal held that the arrest was disproportionate and unreasonable.[330] On May 2, 2016, mobile providers in Brazil were ordered to block WhatsApp for 72 hours for the service's second failure to cooperate with criminal court orders.[331] Once again, the block was lifted following an appeal, after less than 24 hours. [332] Brazil's Central Bank issued an order to payment card companies Visa and Mastercard on June 23, 2020, to stop working with WhatsApp on its new electronic payment system. A statement from the Bank asserted the decision to block the Facebook-owned company's latest offering was taken to "preserve an adequate competitive environment" in the mobile payments space and to ensure "functioning of a payment system that's interchangeable, fast, secure, transparent, open and cheap."[333][334] The government of Uganda banned WhatsApp and Facebook, along with other social media.[335] Users are to be charged USh.200/= per day to access these services according to the new law set by parliament.[336] The United Arab Emirates banned WhatsApp video chat and VoIP call applications[337][338] in as early as 2013[339] due to what is often reported as an effort to protect the commercial interests of their home grown nationally owned telecom providers (du and Etisalat).[339] Their app ToTok has received press suggesting it is able to spy on users.[340] In July 2021, the Cuban government blocked access to several other non-Swiss encrypted messaging services by army personnel. The ban was prompted by concerns of US authorities potentially accessing user data for such apps because of the CLOUD Act. The army recommended that all army personnel use Threema instead, as the service is based in Switzerland.[342] In August 2021, the digital rights organization Access Now reported that WhatsApp along with several other social media apps was being blocked in Zambia for the duration of the general election. The organization reported a massive drop-off in traffic for the blocked services, though the country's government made no official statements about the block. [343] The Saudi Central Bank (SAMA) has prohibited local banks from using instant messaging applications. This decision aims to enhance data security and protect customer information. [344] In mid-2013, WhatsApp Inc. filed for the DMCA takedown of the discussion thread on the XDA Developers forums about the then popular third-party client "WhatsApp Plus".[345] In 2015, some third-party WhatsApp clients that were reverse-engineering the WhatsApp mobile app, received a cease and desist to stop activities that were violating WhatsApp legal terms. As a result, users of third-party WhatsApp legal terms. As a result, users of third-party WhatsApp legal terms. [57] separated by the intended userbase: A WhatsApp Business app for small companies [347] An Enterprise Solution for bigger companies with global customer bases, such as airlines, e-commerce retailers and banks, who would be able to offer customer service and conversational commerce (e-commerce) via WhatsApp chat, using live agents or chatbots (as far back as 2015, companies like Meteordesk[348] had provided unofficial solutions for enterprises to attend to large numbers of users, but these were shut down by WhatsApp) In October 2020, Facebook announced the introduction of pricing tiers for services offered via the WhatsApp Business API, charged on a per-message basis.[349] [350] WhatsApp handled ten billion messages per day in August 2012,[351] growing from two billion in April 2012,[352] and one billion the previous October.[353] On June 13, 2013, WhatsApp announced that they had reached their new daily record by processing 27 billion messages.[354] According to the Financial Times, WhatsApp "has done to SMS on mobile phones what Skype did to international calling on landlines". [355] By April 22, 2014, WhatsApp had over 500 million monthly active users, 700 million monthly active users, 700 million wideos were being shared daily, and the messaging system was handling more than 10 billion messages each day. [356] [357] On August 24, 2014, Koum announced on his Twitter account that WhatsApp had over 600 million active users worldwide. At that point WhatsApp was adding about 25 million new users per day.[81][358] In May 2017, it was reported that WhatsApp users spend over 340 million minutes on video calls each day on the app. This is the equivalent of roughly 646 years of video calls per day.[359] By February 2017, WhatsApp had over 1.2 billion monthly active users by the end of 2017.[360] In January 2020, WhatsApp reached over 5 billion installs on Google Play Store making it only the second non-Google app to achieve this milestone.[361] As of February 2020, WhatsApp had over 2 billion users globally.[23][362] India is by far WhatsApp's largest market in terms of total number of users. In May 2014, WhatsApp crossed 50 million monthly active users in India, which is also its largest country by the number of monthly active users,[363] then 70 million in October 2014, making users in India 10% of WhatsApp's total user base.[364] In February 2017, WhatsApp reached 200 million monthly active users in India.[365] Israel is one of WhatsApp's strongest markets in terms of ubiquitous usage. According to Globes, already by 2013 the application was installed on 92% of all smartphones, with 86% of users reporting daily use.[366] In July 2024, WhatsApp reached 100 million users in the United States.[367] WhatsApp competes with a number of messaging services. They include services like iMessage (estimated 1.3 billion active users[372]), LINE (217 million active users[368]), WeChat (1.26 billion active users[369][370]), Telegram (900 million users in the United States.[367] WhatsApp competes with a number of messaging services. They include services like iMessage (estimated 1.3 billion active users[368]), WeChat (1.26 billion active users[369][370]), Telegram (900 million users in the United States.[367] WhatsApp competes with a number of messaging services. They include services like iMessage (estimated 1.3 billion active users[368]), WeChat (1.26 billio active users[373]), KakaoTalk (57 million active users[374]), and Signal (40 million active users[375]). Both Telegram and Signal in particular were reported to get registration spikes during WhatsApp has increasingly drawn its innovation from competing services,[377] such as a Telegram-inspired web version[378] and features for groups.[379] In 2016, WhatsApp was accused of copying features from a then-unreleased version of iMessage.[380] Portals: Telecommunication Technology Internet Comparison of VoIP software Criticism of Facebook Instagram List of most-downloaded Google Play applications ^ Horwitz, Jeff (February 12, 2020). 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Archived from the original on January 20, 2021. Retrieved August 8, 2019. ^ "WhatsApp gets accused of copying features from iMessage in iOS 10". Deccan Chronicle. July 5, 2016. Archived from the original on August 8, 2019. Retrieved August 8, 2019. Official website Media related to WhatsApp at Wikimedia Commons Retrieved from "2Former American maker of computer network products 3Com CorporationCompany typePrivateTraded asNasdag: COMS (1984[1]-2010)[1]IndustryComputer network products 3Com CorporationCompany typePrivateTraded asNasdag: others[1]DefunctApril 12, 2010; 15 years ago (2010-04-12)FateAcquired by Hewlett-PackardHeadquartersMarlborough, MassachusettsParentHewlett-Packard (2009-2010)Website3com.com at the Wayback Machine (archived 1996-10-23) 3Com Corporation was an American digital electronics manufacturer best known for its computer network products. The company was co-founded in 1979 by Robert Metcalfe, Howard Charney and others. Bill Krause joined as President in 1981. Metcalfe explained the name 3Com was a contraction of "Computer Communication Computers." 3Com provided network interface controller and switches, routers, wireless access points and controllers, IP voice systems, and intrusion prevention systems. The company was based in Santa Clara, California. From its 2007 acquisition of 100 percent ownership of H3C Technologies Co., Limited (H3C) — initially a joint venture with China-based Huawei Technologies—3Com achieved a market presence in China, and a significant networking market share in Europe, Asia, and the Americas.[citation needed] 3Com products were sold under the brands 3Com, H3C, and TippingPoint. On April 12, 2010, Hewlett-Packard completed the acquisition of 3Com.[3] It was merged into HPE's Aruba Networks business unit following HP's acquisition of Aruba in 2015 and subsequent split into HPE later that same year. After reading an article on ALOHAnet was an over-the-air wide area network system in Hawaii using ultra high frequency radios and made several assumptions that Metcalfe thought would not be correct in practice. He developed his own theories of how to manage traffic, and began to consider an "ALOHAnet in a wire" networking system. In 1972, he joined Xerox PARC to develop these ideas,
and after pairing up with David Boggs, the two had early 3 Mbit/s versions of Ethernet working in 1973. They then went on to build up a networking protocol known as PARC Universal Packet (PuP), with the entire system ready for build-out by prospective customers. Increasingly upset by management did nothing with it, even after being approached by prospective customers. Increasingly upset by management is lack of interest, Metcalfe left Xerox in 1975, but he was lured back again the next year. Further development followed, resulting in the seminal Xerox Network Systems (XNS) protocol, which was completed by 1978. Once again, Metcalfe found that management was unwilling to actually do anything with the product, and he threatened to leave and in 1979 he left the company.[4] Metcalfe subsequently co-founded 3Com in 1979.[1] The other co-founders were Metcalfe's college friend Howard Charney and two others.[1] Bill Krause joined as President in 1981 and became CEO in 1982 and led 3Com until 1992 when he retired. 11, DEC VAX-11, Sun-2 and the IBM PC. In the mid-1980s, 3Com branded their Ethernet technology as EtherSeries, while introducing a range of software and PC-based equipment to provide shared services over a local area network (LAN) using XNS protocols. These protocols were branded EtherShare (for file sharing), EtherPrint (for printing), EtherMail (for email), and Ether-3270 (for IBM host emulation). 3Com became a public company's network software products included: 3+Share file and printer sharing. 3+Mail e-mail. 3+Route for routing XNS over a 3+ Server serial port towards a remote 3+ (Route) LAN. 3+Remote/PC for routing XNS towards a Remote 3+ PC Workstation serial port. 3+NetConnect to support flexible XNS routing between a number of connected 3+ Ethernets AND/OR Token Ring Networks. 3+3270/SNA Gateway to enable standard 3+ MS-DOS workstations to emulate standard IBM 3270 Terminals, via the 3+ LAN and the connected SNA Gateway towards a remote IBM-compatible mainframe system MultiConnect (?) was a chassis-based multi-port 10BASE2 Ethernet repeater, 3Server, a server-grade PC for running 3+ services, 3Station, a diskless workstation, 3+Open file and printer sharing (based on Microsoft's LAN Manager). Etherterm terminal emulation, Etherprobe LAN analysis software. DynamicAccess software products for Ethernet NIC from mid-1990s with 10BASE-T connectors 3Com's expansion beyond its original base of PC and thin Ethernet products began in 1987 when it merged with Bridge Communications. This provided a range of equipment based on Motorola 68000 processors and using XNS protocols compatibly with 3Com's Etherterm PC software. CS/1, CS/200 communication servers") Ethernet bridges and XNS routers GS/1-X.25 X.25 gateway CS/1-SNA SNA gateway NCS/1 network control software running on a Sun Microsystems computer By 1995, 3Com's status was such that they were able to enter into an agreement with the city of San Francisco to pay \$900,000 per year for the naming rights to Candlestick Park. That agreement ended in 2002. 3Com PC Card for 10BASE-T In 1997, 3Com merged with USRobotics (USR), a maker of dial-up modems, and owner of Palm, Inc. USRobotics was known for its Sportster line of consumer-oriented modems, as well as its Courier business-class modem line. This merger spelled the beginning of the end of 3Com. In addition to consumer network electronics, USRobotics was a well-known manufacturer of a dialup access server, the "Total Control Hub", rebadged by 3Com as the "Total Control 1000", based largely on its Courier modem technology. This key business product competed against Cisco's AS5200 access server line in the mid-1990s as the explosion of the Internet led to service provider investment in dialup access server line in the mid-1990s as the explosion of the Internet led to service provider investment in dialup access server line in the mid-1990s as the explosion of the Internet led to service provider investment in dialup access server line in the mid-1990s as the explosion of the Internet led to service provider investment in dialup access server line in the mid-1990s as the explosion of the Internet led to service provider investment in dialup access server line in the mid-1990s as the explosion of the Internet led to service provider investment in dialup access server line in the mid-1990s as the explosion of the Internet led to service provider investment in dialup access server line in the mid-1990s as the explosion of the Internet led to service provider investment in dialup access server line in the mid-1990s as the explosion of the Internet led to service provider investment in dialup access server line in the mid-1990s as the explosion of the Internet led to service provider investment in dialup access server line in the mid-1990s as the explosion of the Internet led to service provider investment in the mid-1990s as the explosion of the Internet led to service provider investment in the explosion of the Internet led to service provider investment in the explosion of the Internet led to service provider investment in the explosion of the Internet led to service provider investment in the explosion of the Internet led to service provider investment in the explosion of the Internet led to service provider investment in the explosion of the Internet led to service provider investment in the explosion of the Internet led to service provider investment in the explosion of the Internet led to service provider investment in the e Total Control line until it was eventually spun off as a part of Commworks, which was then acquired by UTStarcom.[6] In August 1998, Bruce Claflin was named chief operating officer. The modem business was rapidly shrinking. 3Com attempted to enter the DSL business, but was not successful. In the lucrative server network interface controller (NIC) business, 3Com dominated market share, with Intel only able to break past 3Com after dramatic price slashing. It started developing Gigabit Ethernet cards in-house but later scrapped the plans. Later, it formed a joint venture with Broadcom, where Broadcom would develop the main integrated circuit component and the NIC would be 3Com branded. In 1999, 3Com acquired NBX, a Boston company with an Ethernet-based phone system for small and medium-sized businesses. This product proved popular with 3Com's existing distribution channel and saw rapid growth and adoption. As one of the first companies to deliver a complete networked phone system, and increased its distribution channel with larger telephony partners such as Southwestern Bell and Metropark Communications, 3Com helped make VoIP into a safe and practical technology with wide adoption. 3Com then tried to move into the smart consumer appliances business and in June 2000, 3Com acquired internet radio startup Kerbango for \$80 million. It developed its Audrey appliance, which made an appearance on The Oprah Winfrey Show. It scrapped the Audrey and Kerbango products less than a year later. In March 2000, in a highly public and criticized move, 3Com exited the high-end core routers and switch market to focus on other areas of the business.[7] The CoreBuilder Ethernet and ATM LAN switches, PathBuilder and NetBuilder WAN Routers were all discontinued June 2000. CoreBuilder products and the customer base was migrated over to Extreme Networks. The PathBuilder and NetBuilder were transitioned to Motorola. 3Com focused its efforts from 2000 to 2003 on building up the HomeConnect, SuperStack, NBX and Total Control product lines. Due to this perceived exit from the Enterprise market, 3Com would never gain momentum with large customers or carriers again. In July 2000, 3Com spun off Palm as an independent company. Following Palm's U.S. Robotics was also spun out again as a separate company at this time.[citation needed] In January 2001, Claflin became chief executive officer, replacing Éric Benhamou, CEO from 1990 to 2000. He was criticized for the costly diversification in the mobile handheld computer market. At this point, the company's main line of business, selling add-on network interface controllers ("NICs"), was also shrinking rapidly, mainly because many new computers had NICs built in. The company went from employing more than 12,000 employees to fewer than 2,000. In May 2003, the company moved its Silicon Valley Santa Clara headquarters to Marlborough, Massachusetts. It also formed a venture called H3C with Huawei, whereby 3Com would sell and rebrand products under the joint venture.[8] In 2003, 3Com sold its CommWorks Corporation subsidiary to UTStarcom, Inc. CommWorks was based in Rolling Meadows, Illinois, and developed wireline telecommunications and wireless infrastructure technologies.[9] In January 2006, Claflin announced he would be leaving the company in August 2006 over his concerns about the questionable business ethics of Huawei and potential cyber security risks posed by Huawei. Edgar Masri returned to 3Com to head as president and CEO following Murray's departure. In September 2007, Bain Capital agreed to buy the company for \$2.2 billion, with minority equity financing from Huawei Technologies. However, the deal met with US government regulatory opposition and it fell through early in 2008, following concerns over Huawei's risk of conducting cyber security attacks against the United States and its allies, Huawei's former dealings in Iran, and Huawei being operated by a former dealings in Iran, and Huawei's risk of conducting cyber security attacks against the United States and its allies, Huawei's former dealings in Iran, and Huawei being operated by a former dealings in Iran, and Huawei's risk of conducting cyber security attacks left the company in April 2008, partially as a result of the failed Bain transaction. In April 2008, Robert Mao was named chief executive, and Ron Sege president and chief operating officer.[13] In fiscal year 2008 ended May 30, 2008, 3Com had annual
revenue of \$1.3 billion and more than 6,000 employees in over 40 countries. In September 2008, 3Com reported financial results for its fiscal 2009 first quarter, which ended August 29, 2008. Revenue in the quarter was \$342.7 million compared to revenue of \$319.4 million in the first quarter of

fiscal vear 2008.[14] The company reported that it had more than 2,700 engineers, with more than 1,400 United States patents and nearly 180 Chinese applications. It also reported pending applications for 35 separate inventions outside of China covering a wide range of networking technologies. On November 11, 2009, 3Com and Hewlett-Packard announced that Hewlett-Packard would acquire 3Com for \$2.7 billion in cash.[15] On April 12, 2010, Hewlett-Packard completed its acquisition.[3] When Hewlett-Packard split into Hewlett-Packard completed its acquisition.[3] When Hewlett-Packard split into Hewlett-Packard completed its acquisition.[3] When Hewlett-Packard split into Hewlett-Packard split intoHewlett-Packard split into Hewlet integrated into Aruba Networks along with the rest of HP's networking portfolio. Main article: List of 3Com products 3Com 3c905-TX 10/100 PCI network interface controller Fixed configuration Ethernet switches including stackable switches 3Com brand Gigabit switches 3Com brand Gigabit switches 3Com brand Gigabit switches 3Com brand Stackable switches 3Com brand Gigabit switches 3Com brand Gig Fast Ethernet switches Switch 5500, 4500, 4210, Baseline, OfficeConnect; H3C brand switches: 3Com brand s800, 7900E, 7500. H3C brand s9500, S7500E. Wide area network routers Wireless access points, adapters, and connectivity products Internet access gateways and firewalls, both wired and wireless Network management applications Network security platforms including the TippingPoint Intrusion Prevention System. IP Telephony applications including PBX and Computer Telephony Integration. Telecommunications products utilized Voice over Internet Protocol and Session Initiation Protocol (SIP). Voice platforms included VCX and NBX. Local area network interface cards IP Video Surveillance and Network Storage (marketed in China, South America and other key markets) Consumer USB webcams and associated software (3Com HomeConnect) The 3Com Laser Library which, at the time, was a revolutionary CD based documentation and tech support tool (brain child of Dirk Martin) 3Com came close to merging with computer maker Convergent Technologies, abandoning the pact just two days before a vote was scheduled in March 1986.[16] Later, 3Com went on to acquire the following:[17] Bridge Communications in 1987 BICC Data Networks in 1992 Star-Tek in 1993 Synernetics in 1993 Centrum in 1994 AccessWorks, Sonix Communications, Primary Access, and Chipcom in 1995 Axon Networks and OnStream Networks and OnStream Networks and OnStream Networks and Chipcom in 1996 Kerbango in 2000 TippingPoint in 2005 Huawei-3Com (H3C) in 2007 (Bought out Huawei's 49% stake for US\$882 million from a 2003 joint venture) CommWorks Corporation, based in Rolling Meadows, Illinois. It was sold to UTStarcom of Alameda, California in 2003. CommWorks was formerly the Carrier Network Business unit of 3Com, comprising several acquired companies: U.S. Robotics (Rolling Meadows, Illinois),[18] Call Technologies (Reston, Virginia),[19] and LANsource (Toronto, Ontario, Canada),[20] CommWorks was able to use technology from each company to create IP softswitch and IP communications software. U.S. Robotics provided media gateways (the Total Control 1000 product line, formerly used for dial-modem termination) and softswitch technology. Call Technologies provided fax-over-IP software that was integrated with the Unified Messaging platform. The Carrier Network Business unit of 3Com developed an Inter-working function technology that became the first and dominant 2G CDMA wireless data gateway product. In partnership with Unwired Planet (now Openwave) and Qualcomm Quicknet connect times versus modems connect times covering the 2G CDMA market sample carriers included Sprint.[23] It led to follow on products that became core to CommWorks/3Com co-developed an H.323-based softswitch with AT&T in 1998 for use in a "transparent trunking" application for AT&T's residential long-distance customers.[24] Long distance telephone calls were redirected from the LEC's ingress CLASS 5 switch to the Total Control 1000 media gateway, where it was passed to the egress LEC's CLASS 5 switch as an untariffed data call. CommWorks modified the gateway and softswitch software to support SIP for MCI/WorldCom's hosted business offering in 2000.[25] Although 3Com sold CommWorks to UTStarcom, [26] they retained intellectual property rights to the softswitch technology. After modifying the software to enable enterprise PBX features, 3Com released this technology as VCX, the industry's first pure SIP PBX, in 2003.[27] 3Station Busy Override Ungermann-Bass Sytek List of acquisitions by Hewlett-Packard ^ a b c d e f Hedden, Heather Behn; Salamie, David E.; Meyer, Stephen (2010) [previous versions appeared in vol.11 and 34]. Jacques, Derek; Kepos, Paula (eds.). "3Com Corporation". International Directory of Company Histories. 106. Farmington Hills, Michigan: St. James Press (Gale, Cengage Learning group): 465-466. ISBN 978-1-55862-640-9. "Bob Metcalfe: Serial Innovator". The Henry Ford. Archived from the original on 2024-10-07. Retrieved 2016-09-25. ^ a b "HP Completes Acquisition of 3Com Corporation, Accelerates Converged Infrastructure Strategy", News release, Hewlett-Packard, April 12, 2010, Archived from the original on June 28, 2010, Retrieved August 27, 2011, ^ a b Pelkev 2007, 6.7, ^ Cuff. Daniel F. 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Retrieved 17 May 2021. ^ This article is based on material taken from 3Com at the Free On-line Dictionary of Computing prior to 1 November 2008 and incorporated under the "relicensing" terms of the GFDL, version 1.3 or later. ^ "3Com acquires U.S. Robotics". news.cnet.com. ^ 3Com Corporation Acquires Leading Unified Messaging Vendor, Call Technologies; Company Accelerates Delivery of Carrier-Class, CommWorks Architecture. - Business Wire Archived May 16, 2011, at the Wayback Machine ^ "3Com Completes Acquisition of LANSource Technologies, Inc — Company Business and Marketing". Edge: Work-Group Computing Report. 1999. Archived from the original on 2012-06-29. ^ "Qualcomm Press Center- 3COM Corporation, Qualcomm and Unwired Planet Announce Quick Networks". Archived from the original on 2024-10-07. Retrieved 2016-12-10. ^ "Motorola Provides 64Kbps WAP Access On cdmaOne Networks". 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Official website at the Wayback Machine (archived 1996-10-23) Retrieved from " 3Ethernet network card line 3Com 3c509B-Combo card (3C509BC), second generation for the ISA, EISA, MCA and PCMCIA computer buses.[1] It was designed by 3Com and put on the market in 1992, followed by the improved version 3c509B in 1994.[1][2] The 3Com 3c5x9 family of network controllers has various interface combinations of computer bus including ISA, EISA, MCA, and PCMCIA. For network connection, 10BASE-2, AUI and 10BASE-7 are used. Physical card configurations for Etherlink III [1] Adapter number Bus Network Connector 3C509-TPO ISA 10BASE-T 8P8C 3C509B-TPO ISA 10BASE-T 8P8C 3C509B-TPO ISA 10BASE-T, AUI 8P8C, DA-15 3C509B-TPC ISA 10BASE-T, AUI 8P8C 10BASE-T, AUI, 10BASE2 8P8C, DA-15, BNC 3C509B-Combo ISA 10BASE-T, AUI, 10BASE2 BP8C, DA-15, BNC 3C579-TP EISA AUI, 10BASE2 AU, 10BASE2 AU 8P8C 3C589-Combo PCMCIA 10BASE-T, 10BASE2 8P8C, BNC 3C589B-Combo PCMCIA 10BASE size.[1] This means EPROMs of type 64, 128, and 256 kbit (2^10) are compatible, like the 27C256. Boot ROM address is located between 0xC0000 - 0xDE000.[1] The Etherlink III 3C509B-Combo is registered with the FCC ID DF63C509B. The main components on the card are Y1: crystal oscillator 20 MHz, U50: coaxial transceiver interface DP8392, U4: main controller 3Com 9513S (or 9545S etc.), U6: 8 kB 70 ns CMOS static RAM, U1: DIP-28 27C256 style EPROM for boot code, U3: 1024 bit 5V CMOS Serial EEPROM (configuration). Detailed teardown 3C509B-Combo 1994 ASSY 03-0021-001 REV-A 3C509B-Combo 1996 ASSY 03-0021-004 REV-B Label: Etherlink III (C) 1994 3C509B-C ALL RIGHTS RESERVED ASSY 03-0021-001 REV-A FCC ID: DF63C509B Barcode: EA=0020AFDCC34C SN=6AHDCC34C HIPOTTED Y1: 20 MHz crystal 20.000M 652DA U50: P9512BR DP8392CN Coaxial Transceiver Interface T50: Pulse transformer, pinout: 2x8 VALOR ST7033 x00: Pulse transformer, pinout: 2x8 VALOR function: 40-0130-003 9545S 48324401 AT&T 40-01303 U6: 8192 x 8-bit 70 ns CMOS static RAM HY 6264A LJ-70 9509B KOREA Another chip with the same function: CY6264-70OSC (photo) U1: Boot ROM DIP-28 EPROM 8, 16, or 32 KB (27/28C256) for boot code. U3: 256 Bit/1K 5.0V CMOS Serial EEPROM B 52AH 93C46 M8 Q41: N-Channel Logic level Power MOSFET 60V. 11A. 107 mΩ (using ASSY 03-0021-004 due to obscured view) F3055L 96 45 (H)H VR41: 3-Terminal 0.5 A Negative Voltage Regulator (-5V) in D2PAK KA79 M05 ASSY 03-0021-004 REV-B has written on it: U.S. Patents: U.S. Pate (8P8C), AUI (DA-15), 10BASE2 (BNC) Some of the possible ISA I/O bases are 0x280, 0x300, 0x310, 0x320, 0x330, 0x340, 0x320, 0x330, 0x340, 0x320, 0x30, 0x310, 0x320, 0x30, 0x30, 0x310, 0x320, 0x30, 0x patent describes a method where a data transfer counter triggers a threshold logic that generates an early indication or interrupt signal before the transfer is completed. The adapter also writes timing information into status registers such that a device driver can optimize for any latency.[8] PC/TCP Packet Driver for use with MS-DOS or PC DOS on X86 Amiga networking (Miami Network Interface MNI, gq2-3c509.mni) AMD Lance Am7990 - 1985, AMD Am7990 network chip ^ a b c d e f "EtherLink III Parallel Tasking ISA, EISA, Micro Channel, and PCMCIA, Adapter Drivers Technical Reference, Members of the 3Com EtherLink III family of adapters" (PDF) (published 2011-08-29). August 1994. Retrieved 2016-04-06. (HTML) ^ "import from mindrot · kirei/flashboot@32e5b6b". GitHub. Retrieved 3 August 2017. ^ "FreeBSD 4.11-RELEASE #1" (TXT). Berklix.com. 2006-12-17. Retrieved 2017-08-04. ^ "cpu0: Intel 486DX (486-class)" (TXT). Fml.org. Retrieved 3 August 2017. ^ U.S. patent 5,307,459 jaapsch.net - 27C256 256K (32K x 8) CMOS EPROM PIC18F452 and 3COM 3C509B Ethernet ISA card, Controlling an ISA 16-bit network card with a PIC18F452 Workaround to install NE2000 / 3C509 Non Plug&Play ISA Network Adapters (2002) Retrieved from " 4 The following pages link to 3Com 3c509 External tools (link count transclusion count sorted list) · See help page for transcluding these entries Showing 11 items. View (previous 50 | next 50) (20 | 50 | 100 | 250 | 500)3Com (links | edit) Amiga software (links | edit) Amiga software (links | edit) Amiga software (links | edit) Talk: Com 3c509 (transclusion) (links | edit) Talk:Ethernet/Archive 5 (links | edit) User:Bytesock/RTL8139 (links | edit) User:Tule-hog/All Computing articles (links | edit) View (previous 50 | next 50) (20 | 50 | 100 | 250 | 500) Retrieved from "WhatLinksHere/3Com 3c509"