This is demo pdf.

Android (operating system)

Android is a mobile operating system developed by Google, based on the Linux kernel and designed primarily for touchscreenmobile devices such as smartphones and tablets. Android's user interface is mainly based on direct manipulation, using touch gestures that loosely correspond to real-world actions, such as swiping, tapping and pinching, to manipulate on-screen objects, along with a virtual keyboard for text input. In addition to touchscreen devices, Google has further developed Android TV for televisions, Android Auto for cars, and Android Wear for wrist watches, each with a specialized user interface. Variants of Android are also used on notebooks, game consoles, digital cameras, and other electronics.

Initially developed by Android Inc., which Google bought in 2005, Android was unveiled in 2007, along with the founding of the Open Handset Alliance – a consortium of hardware, software, and telecommunication companies devoted to advancing open standards for mobile devices. Beginning with the first commercial Android device in September 2008, the operating system has gone through multiple major releases, with the current version being 7.0 "Nougat", released in August 2016. Android applications ("apps") can be downloaded from the Google Play store, which features over 2.7 million apps as of February 2017. Android has been the best-selling OS on tablets since 2013, and runs on the vast majority[a] of smartphones. As of May 2017, Android has two billion monthly active users, and it has the largest installed base of any operating system.

Android's source code is released by Google under an open source license, although most Android devices ultimately ship with a combination of free and open source and proprietary software, including proprietary software required for accessing Google services. Android is popular with technology companies that require a ready-made, low-cost and customizable operating system for high-tech devices. Its open nature has encouraged a large community of developers and enthusiasts to use the open-source code as a foundation for community-driven projects, which deliver updates to older devices, add new features for advanced users or bring Android to devices originally shipped with other operating systems. The extensive variation of hardware in Android devices causes significant delays for software upgrades, with new versions of the operating system and security patches typically taking months before reaching consumers, or sometimes not at all. The success of Android has made it a target for patent and copyright litigation between technology companies.

History

See also: Android version history

Former Android logo wordmark (2007-2014)

Android Inc. was founded in Palo Alto, California in October 2003 by Andy Rubin, Rich Miner, Nick Sears, and Chris White.[12][13] Rubin described the Android project as "tremendous potential in developing smarter mobile devices that are more aware of its owner's location and preferences".[13] The early intentions of the company were to develop an advanced operating system for digital cameras, and this was the basis of its pitch to investors in April 2004.[14] The company then decided that the market for cameras was not large enough for its goals, and by five months later it had diverted its efforts and was pitching Android as a handset operating system that would rival Symbian and Microsoft Windows Mobile.[14][15]

Rubin had difficulty attracting investors early on, and Android was facing eviction from its office space. Steve Perlman, a close friend of Rubin, brought him $10,000 in cash in an envelope, and shortly thereafter wired an undisclosed amount as seed funding. Perlman refused a stake in the company, and has stated "I did it because I believed in the thing, and I wanted to help Andy."[16][17]

In July 2005,[13] Google acquired Android Inc. for at least $50 million.[18] Its key employees, including Rubin, Miner and White, joined Google as part of the acquisition.[13] Not much was known about the secretive Android at the time, with the company having provided few details other than that it was making software for mobile phones.[13] At Google, the team led by Rubin developed a mobile device platform powered by the Linux kernel. Google marketed the platform to handset makers and carriers on the promise of providing a flexible, upgradeable system.[19] Google had "lined up a series of hardware components and software partners and signaled to carriers that it was open to various degrees of cooperation".[20]

Speculation about Google's intention to enter the mobile communications market continued to build through December 2006.[21] An early prototype had a close resemblance to a BlackBerry phone, with no touchscreen and a physical QWERTY keyboard, but the arrival of 2007's Apple iPhone meant that Android "had to go back to the drawing board".[22][23]Google later changed its Android specification documents to state that "Touchscreens will be supported", although "the Product was designed with the presence of discrete physical buttons as an assumption, therefore a touchscreen cannot completely replace physical buttons".[24] In September 2007, *InformationWeek* covered an Evalueserve study reporting that Google had filed several patent applications in the area of mobile telephony.[25][26]

Eric Schmidt, Andy Rubin and Hugo Barra at a 2012 press conference announcing Google's Nexus 7 tablet

On November 5, 2007, the Open Handset Alliance, a consortium of technology companies including Google, device manufacturers such as HTC, Motorola and Samsung, wireless carriers such as Sprint and T-Mobile, and chipset makers such as Qualcomm and Texas Instruments, unveiled itself, with a goal to develop "the first truly open and comprehensive platform for mobile devices".[27][28][29] The first commercially available smartphone running Android was the HTC Dream, also known as T-Mobile G1, announced on September 23, 2008.[30][31]

Since 2008, Android has seen numerous updates which have incrementally improved the operating system, adding new features and fixing bugs in previous releases. Each major release is named in alphabetical order after a dessert or sugary treat, with the first few Android versions being called "Cupcake", "Donut", "Eclair", and "Froyo", respectively. During its announcement of Android KitKat in 2013, Google explained that "Since these devices make our lives so sweet, each Android version is named after a dessert", although a Google spokesperson told CNN in an interview that "It's kind of like an internal team thing, and we prefer to be a little bit — how should I say — a bit inscrutable in the matter, I'll say".[32]

In 2010, Google launched its Nexus series of devices, a lineup in which Google partnered with different device manufacturers to produce new devices and introduce new Android versions. The series was described as having "played a pivotal role in Android's history by introducing new software iterations and hardware standards across the board", and became known for its "bloat-free" software with "timely [...] updates".[33] At its developer conference in May 2013, Google announced a special version of the Samsung Galaxy S4, where, instead of using Samsung's own Android customization, the phone ran "stock Android" and was promised to receive new system updates fast.[34] The device would become the start of the Google Play edition program, and was followed by other devices, including the HTC One Google Play edition,[35] and Moto G Google Play edition.[36] In 2015, *Ars Technica* wrote that "Earlier this week, the last of the Google Play edition Android phones in Google's online storefront were listed as "no longer available for sale"" and that "Now they're all gone, and it looks a whole lot like the program has wrapped up".[37][38]

From 2008 to 2013, Hugo Barra served as product spokesperson, representing Android at press conferences and Google I/O, Google's annual developer-focused conference. He left Google in August 2013 to join Chinese phone maker Xiaomi.[39][40] Less than six months earlier, Google's then-CEO Larry Page announced in a blog post that Andy Rubin had moved from the Android division to take on new projects at Google, and that Sundar Pichai would become the new Android lead.[41][42] Pichai himself would eventually switch positions, becoming the new CEO of Google in August 2015 following the company's restructure into the Alphabet conglomerate,[43][44] making Hiroshi Lockheimer the new head of Android.[45][46]

In June 2014, Google announced Android One, a set of "hardware reference models" that would "allow [device makers] to easily create high-quality phones at low costs", designed for consumers in developing countries.[47][48][49] In September, Google announced the first set of Android One phones for release in India.[50][51] However, *Recode* reported in June 2015 that the project was "a disappointment", citing "reluctant consumers and manufacturing partners" and "misfires from the search company that has never quite cracked hardware".[52] Plans to relaunch Android One surfaced in August 2015,[53] with Africa announced as the next location for the program a week later.[54][55] A report from *The Information* in January 2017 stated that Google was "expanding its "Android One" program for low-cost smartphones to the U.S. in coming months".[56][57]

Google introduced the Pixel and Pixel XL smartphones in October 2016, marketed as being the first phones made by Google,[58][59] and exclusively featured certain software features, such as the Google Assistant, before wider rollout.[60][61] The Pixel phones replaced the Nexus series,[62] and Rick Osterloh, Google's senior vice president of hardware, confirmed in March 2017 that a successor to the Pixel is coming later in 2017.[63]

Thank you for reading….