### **Android Versions**







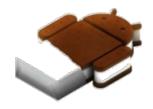




Platform Version

Android 1.5	Android 1.6	Android 2.1	Android 2.2	Android 2.3
Cupcake	Donut	Eclair	Froyo	Gingerbread











Android 3.0	Android 4.0	Android 4.1	Android 4.4	Android 5.0
Honeycomb	Ice Cream Sandwich	Jelly Bean	KitKat	Lollipop









android 10

Android 6.0	Android 7.0	Android 8.0	Android 9.0	Android 10
Marshmallow	Nougat	Oreo	Pie	Android10

### Android 1.5 Cupcake

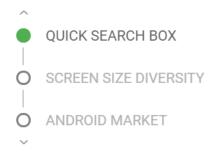
On-screen keyboard
Bluetooth support

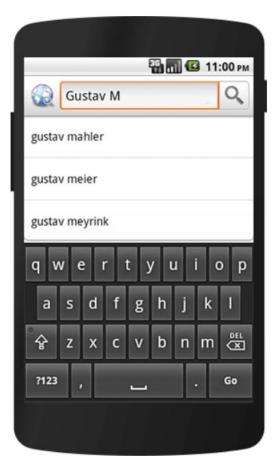
No Longer Supported





#### Android 1.6 Donut





#### Quick Search Box

Android's ubiquitous Quick Search Box was introduced way back with Donut. Get search results from the web and from your phone's local content all at once from a single box on the home screen.



#### Android 1.6 Donut

- O QUICK SEARCH BOX
- SCREEN SIZE DIVERSITY
- ANDROID MARKET



#### Screen size diversity

Android comes in all shapes and sizes thanks to capabilities launched with Donut which allowed Android to run on a variety of screen resolutions and aspect ratios. This opened the door for phones featuring displays other than 320 x 480 portrait.



### Android 1.6 Donut

- O QUICK SEARCH BOX
- SCREEN SIZE DIVERSITY
  - ANDROID MARKET



#### Android Market

Before there was Google Play, there was Android Market. Launched in 2008, Android Market was redesigned with Donut to expose top free apps and paid apps just as Android's third-party app catalog started to explode.



#### Android 2.1 Eclair

- GOOGLE MAPS NAVIGATION
- ) HOME SCREEN CUSTOMIZATION
- O SPEECH-TO-TEXT



#### Google Maps Navigation

Google Maps Navigation gave new meaning to the definition of a smartphone. Turn-by-turn directions using Google Maps data included many features found in a typical in-car navigation system: a forward-looking 3D view, voice guidance, and traffic information - all for free.



### Android 2.1 Eclair

- GOOGLE MAPS NAVIGATION
  - HOME SCREEN CUSTOMIZATION
- O SPEECH-TO-TEXT



# Home screen customization

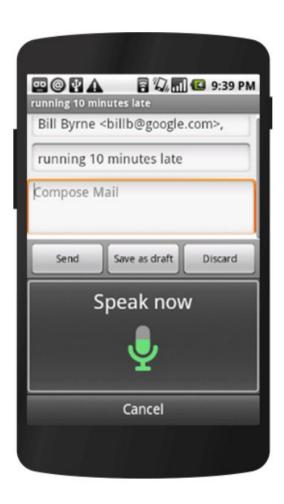
Android has always let you make your home screen just how you want it with custom ringtones, wallpapers, and the ability to arrange apps and widgets across multiple screens and in folders. Eclair introduced live wallpapers that came to life on an unheard-of 854 x 480 display.



### Android 2.1 Eclair

O GOOGLE MAPS NAVIGATION
HOME SCREEN CUSTOMIZATION

SPEECH-TO-TEXT



#### Speech-to-text

Well before the days of "Ok Google" voice actions, you could tap the microphone icon to dictate right to your phone. Eclair replaced the comma key on the soft keyboard with a microphone; with a simple tap, your spoken words appear right on your screen.



## Android 2.2 Froyo

- VOICE ACTIONS
- PORTABLE HOTSPOT
- O PERFORMANCE

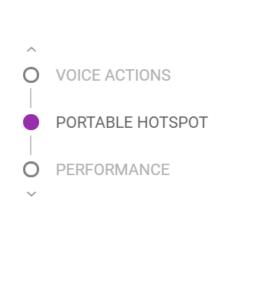


#### Voice actions

Froyo took Android voice capabilities to the next level with Voice Actions which let you perform key functions on your phonesearching, getting directions, making notes, setting alarms, and more - with just the sound of your voice.



## Android 2.2 Froyo

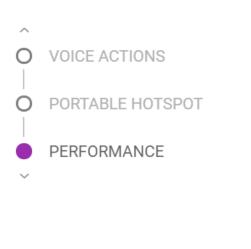




#### Portable Hotspot

With tethering, Froyo let you turn your phone into a portable Wi-Fi hotspot so you could stay connected even when on the go.

### Android 2.2 Froyo



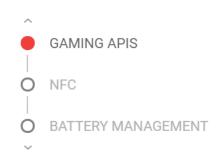


#### Performance

Froyo introduced the Dalvik JIT compiler which delivered up to 5X performance improvement in CPU-bound code. It also brought the V8 JavaScript engine to the Android browser resulting in 2-3X improvement in JavaScript performance.



# Android 2.3 Gingerbread



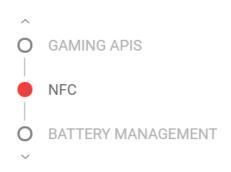


#### Gaming APIs

Gingerbread catapulted Android gaming to new heights. App developers were able to build rich, graphics-intensive 3D games thanks to new lower level access to audio, device controls, graphics and storage.



# Android 2.2 Gingerbread



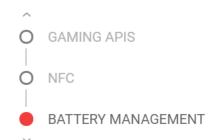


#### **NFC**

Several years before in store mobile payments took off, Android launched Near Field Communication ("NFC") support which let you transmit information between devices just by bringing them close together. With NFC, Gingerbread launched a slew of possibilities for delivering services with the simple tap of a device.



# Android 2.2 Gingerbread





#### Battery management

Gingerbread helped you get the most life out of your battery by knowing exactly how your device uses it; find out how much battery each aspect of your device consumes, from screen brightness to any active app.



# Android 3.0 Honeycomb

- TABLET-FRIENDLY DESIGN
- SYSTEM BAR
- QUICK SETTINGS



#### Tablet-friendly design

Honeycomb made the most of your tablet's on-screen real estate. With a larger layout pattern, it enhanced the experience of reading books, watching videos, exploring maps, and more.



## Android 3.0 Honeycomb





#### System Bar

Gone are the days of a physical Home, Back, and Menu button. With Honeycomb, a new system bar enabled on-screen navigation controls on your Android device.



## Android 3.0 Honeycomb

O TABLET-FRIENDLY DESIGN
O SYSTEM BAR
O QUICK SETTINGS



#### **Quick Settings**

The new Quick Settings let you access essential information more easily: see the time, date, battery life, and connection status of your device all in one place.



# Sandwich

- CUSTOM HOME SCREEN
- O DATA USAGE CONTROL
- O ANDROID BEAM



#### Custom home screen

Ice Cream Sandwich introduced app folders and a favorites tray. Widgets, which embed live app content directly on your home screen, became more flexible: expand your widget to show more content or shrink to save space.



# Sandwich

O CUSTOM HOME SCREEN

DATA USAGE CONTROL

ANDROID BEAM



#### Data usage control

Manage your network data usage to keep mobile costs under control. Track how much data you use, set warning levels and hard limits, and disable your service if you reach the limit.



# Sandwich

CUSTOM HOME SCREEN

DATA USAGE CONTROL

ANDROID BEAM

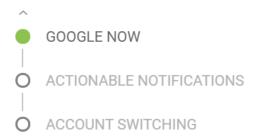


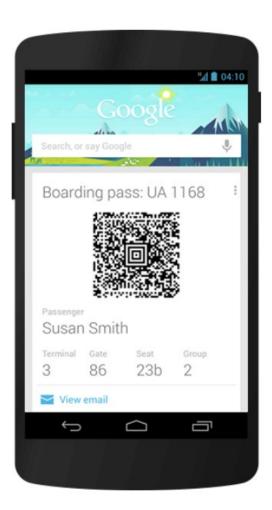
#### Android Beam

Futuristic at the time, Android Beam allowed two phones to instantly share content via NFC by simply touching them together. Share apps, contacts, music, and videos with someone else - all without needing to open a menu, an app, or pair a phone.



## Android 4.1 Jelly Bean





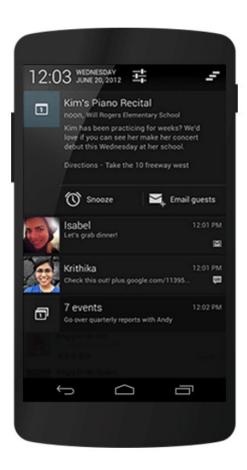
#### Google Now

Get the information you need at just the right time with Google Now. Pioneering a new level of mobile assistance, Google Now gives you today's weather as you're getting dressed and commute times before you walk out the door.



# Android 4.1 Jelly Bean

O GOOGLE NOW
ACTIONABLE NOTIFICATIONS
ACCOUNT SWITCHING



#### Actionable notifications

With Jelly Bean, notifications expand to show more information and let you respond in the moment; take action directly from the notification.



# Android 4.1 Jelly Bean

**GOOGLE NOW** 

**ACTIONABLE NOTIFICATIONS** 

ACCOUNT SWITCHING



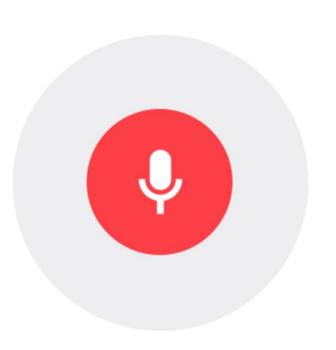
#### Account switching

Jelly Bean enabled multiple users on one device. Each account has its own customized space from home screen to wallpaper, widgets and apps so you can share a device and not your info. Multi-user launched with tablets and later rolled out to phones with Lollipop.



### Android 4.4 KitKat





#### Voice: Ok Google

Get things done without touching your screen. Just say "Ok Google" to launch voice search, send a text, get directions or even play a song.



### Android 4.4 KitKat





#### Immersive design

Immerse yourself in what you're doing. Whether you're reading a book, playing a game, or watching a movie, KitKat's immersive design hides everything except what you really want to see.



### Android 4.4 KitKat





#### Smart dialer

KitKat prioritizes the contacts you talk to most and you can search for nearby places directly from the dialer. Whenever you get a call from an unknown phone number, your phone will look for matches from local listings on Google Maps. Learn more



### Android 5.0 Lollipop

MATERIAL DESIGN

MULTISCREEN

NOTIFICATIONS



#### Material Design

Android gets an entirely new look and feel that makes it easier to navigate your device. Based on shadows and motion, Material Design unites the classic principles of good design with the innovation of what's possible through technology.



### Android 5.0 Lollipop



NOTIFICATIONS



#### Multiscreen

With Lollipop you can seamlessly move from your phone to your tablet, Android Wear watch, or Android TV. Since Lollipop works on all your devices, you can pick up where you left off with songs, apps, photos, and even recent searches.



### Android 5.0 Lollipop

O MATERIAL DESIGN
O MULTISCREEN
NOTIFICATIONS

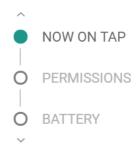


#### **Notifications**

Notifications move to the lock screen where they appear in neatly segmented cards. Catch up at a glance, or even view and respond to messages directly from your lock screen. Granular controls let you customize the content appearing on your lock screen.



### Android 6.0 Marshmallow



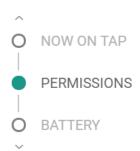


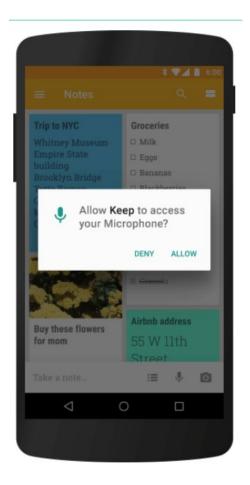
#### Now On Tap

Get assistance without having to leave what you're doing—whether you're in an app or on a website. Just tap and hold the home button.



#### Android 6.0 Marshmallow





#### Permissions

Define what you want to share with apps on your device and when. Turn permissions off at any time, too.



#### Android 6.0 Marshmallow



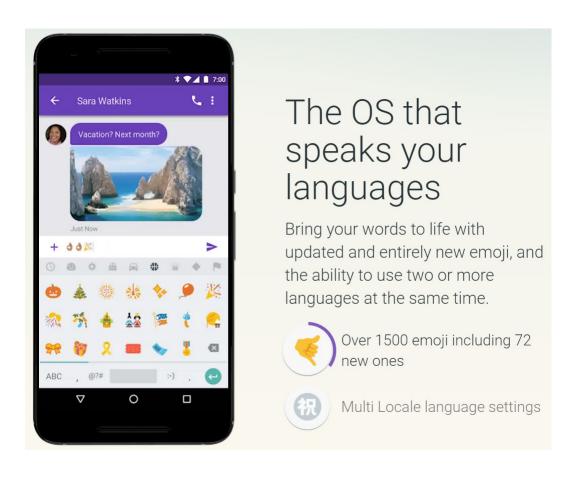


#### Battery

Enjoy a battery that works smarter, not harder. Marshmallow optimizes your juice for what matters most with features like Doze and App Standby.



# Android 7.0 Nougat



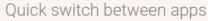


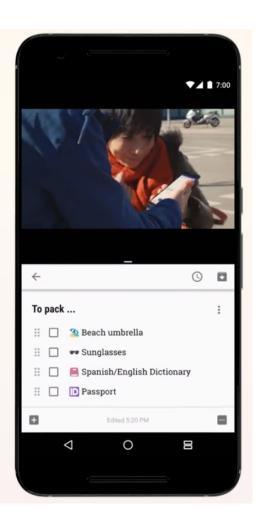
# Android 7.0 Nougat

# Be in two places at once

Now you can switch between apps with a double tap, and run two apps side by side. So go ahead and watch a movie while texting, or read a recipe with your timer open.

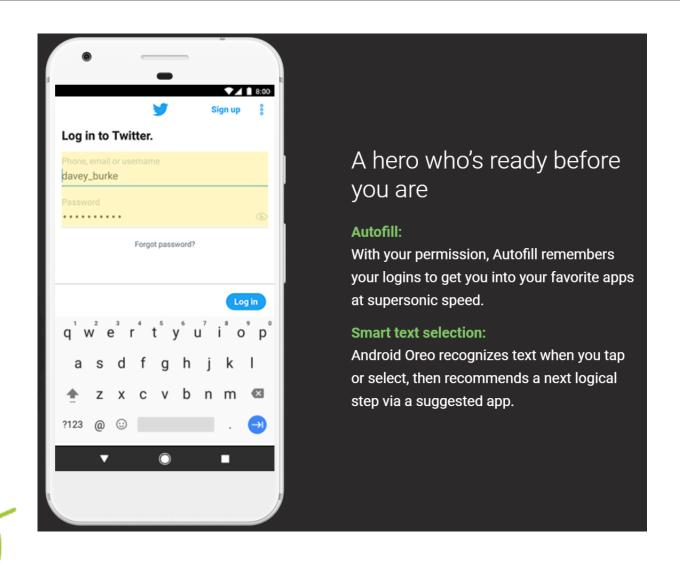




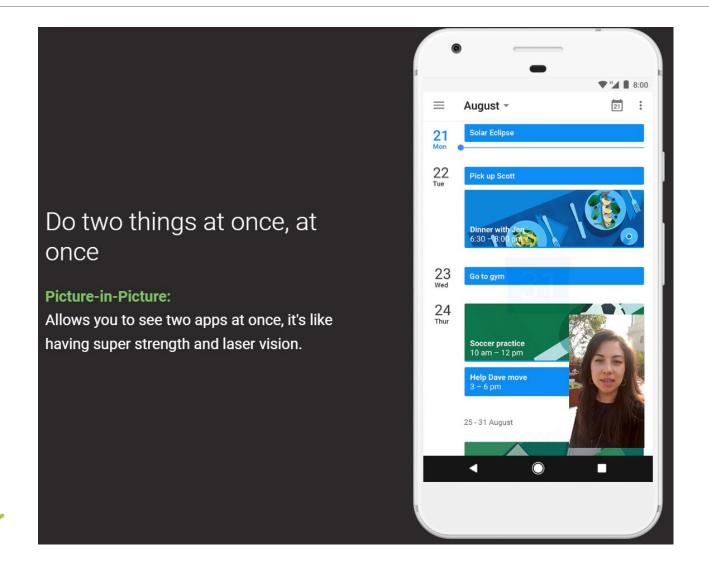




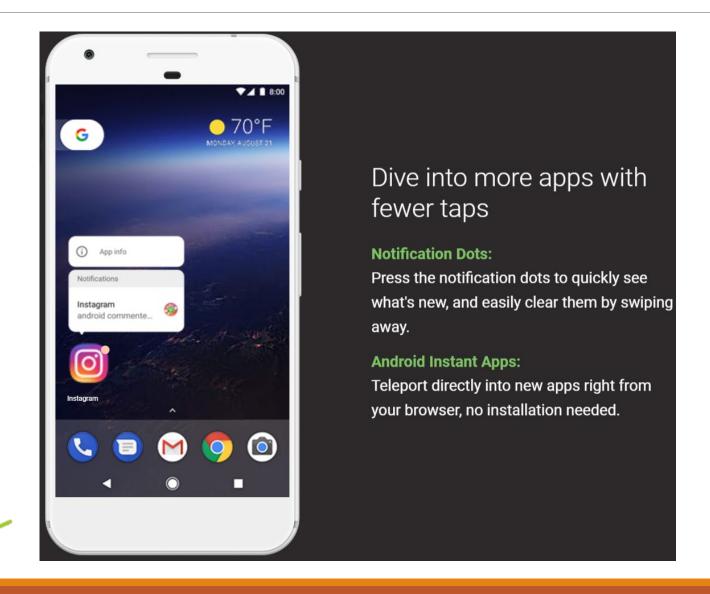
### Android 8.0 Oreo



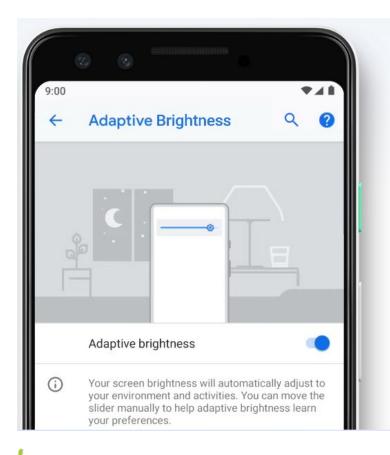
### Android 8.0 Oreo



### Android 8.0 Oreo



#### Android 9.0 Pie





#### **Adaptive Battery**

Go more with a single charge. Adaptive Battery learns how you like to use your phone, so the apps and services you don't use as much aren't a battery drain.



#### Adaptive Brightness

Don't worry about changing your brightness — your phone learns how you like to set it and automatically adjusts. Easy as pie.

### Android 9.0 Pie

**App Actions** 

# Right there, right when you want it

App Actions predicts what you're about to do, so you get to your next task more quickly. If you do something like connect your headphones, the playlist you were listening to earlier is front and center.



Adapts for your morning commute



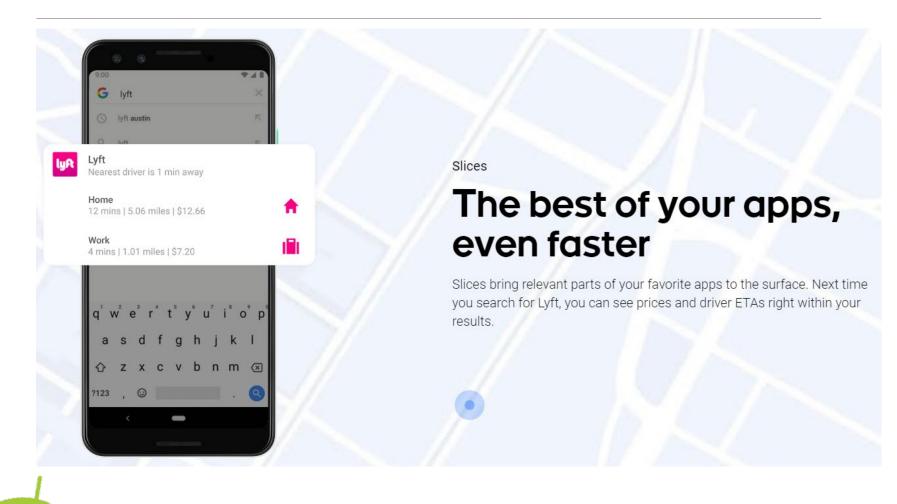
At work



When you use headphones



### Android 9.0 Pie



### Android 10



# Live Caption

Automatically caption media playing on your phone.

With a single tap, Live Caption automatically captions videos, podcasts, and audio messages—even stuff you record yourself.
Without ever needing wifi or cell phone data.



### Android 10

