

Evolution of Android and Retina scan

Shivam Shrivastava

Dr. Shakuntala Misra National Rehabilitation University, Mohan Road, Lucknow.

1. ABSTRACT

Android System is enlargement for mobile phones. Android is the used by everyone today. Here we describe about the evolution and Retina scan system in android. Android is form in Linux kernel and launched by Google. In its all versions what will be done and what are lacks of its systems. Android system methods of developing applications form on Android apps. Android is development kit supports many standard packages. Retinal scanning is automatic procedure of biometric on the smartphones which is use the some mathematical pattern – recognition techniques for mobile security.

Keywords- Android, Versions History, Security, Retina scan.

2. INTRODUCTION

Android- is software package and Linux based operating system. This is launched by the Google and OHA (Open Handset Alliance). Android is introduce by a California's company Palo Alto United States in 2003. Android is established by Andy Rubin. It is a free downloadable operating system.



Google purchased Android developers in 2005. Google launched the Android as open-source operating system use the Apache License. Android is in the bulk used technology which required a high-tech device. Android adds newly features for advanced users to devices which were officially released.

3. LITERATURE REVIEW

Android was made for their camera which made a new evolution in the life of the mobile phones. Smart phones later because of low market for camera. In 2008, Google worked for the succeeded of android and, HTC start the android mobile. The company decided that market growth for cameras, which was not enough for its overall expands.

A. Applications history

Android is renovate day by day from first release. This modernize to the initial operating system mainly focus on besides adding new features to provide more comfortable environment.

1.0 (Big Bear): This the first type android operating system. It is let go in 23 September 2008. We can do access the Email, Google contacts, google calendars, google maps and provide the zooming and pan also media player like as video and audio and also support the Wi-Fi and Bluetooth. Google search ,google sync , google talk , instant messages folder is allow to number of software icon change in to single folder which is show on the screen.



1.1(Petit Four): This version is released in February 9, 2009. It's provide the describe and analysis for

business or maps. Longer call screen time out and also save the attachment. We can add the marquee in the layouts.



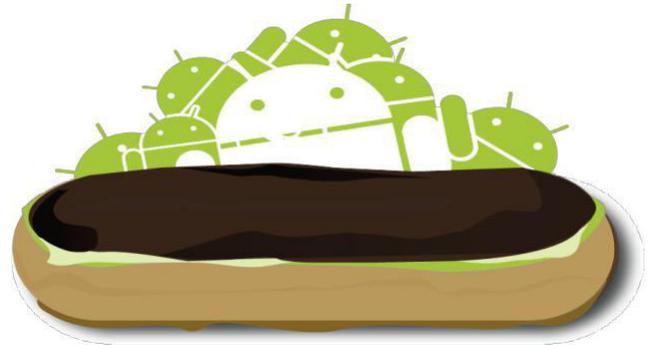
1.5(Cupcake): This version is released in April 27,

2009. It's provide the virtual keyboard with text prediction, support the Widgets. In this version main service is video recording and playback & copy paste inn web browser and also Auto rotation upload videos on YouTube. Auto pairing and stereo support for Bluetooth. We can set the pictures in favourites contacts. Use the Picasa for uploading the images



1.6 (Donut): This version is launched in 15 September 2009. This is provide the voice search which is include contacts, bookmark, and web. Speech synthesis in multi-lingual for string a text of "Speak". Access the camera very fast for gallery, camera and camcorder. It is support the high resolution for WVGA. Improvement the speed for observe and camera .Provide the Gesture constructor development tool and also expand it.

2.0(Eclairs): This version was released in 26 October, 2009. It support the Bluetooth 2.1 and new camera features, like the flash light with the camera and the torch, digital zoom white balance, colour effects and macro focus. Using virtually keyboard for fast typing with smart dictionary. It supported the double tap zoom, multi touch, Added the live wallpaper, animation to home screen also the background images.



2.1.1(Eclairs): This version is released in December 3, 2009. This version change the minor API and framework behavioural changes bug files.

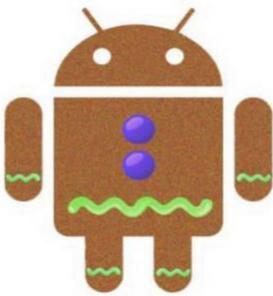
2.1(Eclairs): This version is released in January 12, 2010. This is also change bug fixes and minor amendments API.

2.2(Froyo); that version is released in May 20, 2010. In this version integrate chrome JavaScript engine. Allow to android cloud to device massaging and enable the notification. Disable the data on mobile network. Expand the memory for installing the application. Support the adobe flash also support Bluetooth.



2.2.1 to 2.2.3 (Froyo): These versions are released January 18, 22 and November 21 in 2011. This version surely updates and upgrade the performance affected the Nexus one and two security updates.

2.3(Gingerbread): This version is released December 6, 2010. In version update user associated design with speed. Enhance copy-paste function. Audio graphical interface, added the download manager. Concurrent the garbage collection.



3.0(Honeycomb): This version released in 22 February, 2011. It was released mainly of the tablets that days which was highly in the fashion those days, which supports larger screen devices and multiform processors hardware acceleration and good graphics facility.



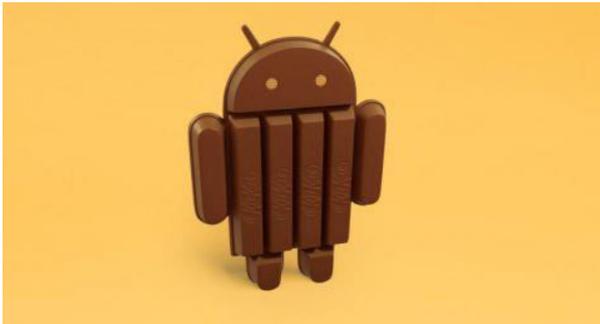
4.0(Ice Cream): This version is released in October 18, 2011. This type of the android was the union of Gingerbread and Honeycomb into. This version had new feature of picture enhancements, offline email searching, network data, and usage monitoring. You record the video in 1080 quality. It is better in text detection for speech.



4.1-4.3(Jellybean): This version is released in July 9, 2012. Jellybean gave multi-user accounts, actionable notifications bar, lock screen functions, quick setting options in the notification bar, Android camera and Google oriented system. It is support the 4k resolution.



4.4(Kit-Kat): This version is launched in October 31, 2013. Kit-Kat provide the wireless printing feature. KitKat brought a more colourful look, SMS integration with Hangouts and faster use all everywhere. It expanded the notification functionalities of the setting options. It also provided the Android Run time environment for the self-designed applications. It support the GPS and offline music player applications, which can download the plugins of the music. It also gave a feature of Android smartwatches.



6.0 (Marshmallow): This version is launched in 2015 October 5. Marshmallow support and provide the many features. No rotate the screen when you touch, support the MIDI. Use the multi window feature. Many feature add in the Linux shell. Automatic restore apps and full data. Described the USB connection features. It provide the double press on the power button you can open the camera.



5.0(Lollipop): This version is released in November 12, 2014. It is released by Google Android. Use the 64-bit CPUs. It provides the notification shortcuts in lock screen. Audio input and output by the USB. Use the flashlight for some time light and for the camera. Uses smart lock added the new updated features. In the 2015 released its new version which is include the many features finger print reader. Multiple pages for larger application

7.0(Nougat): this version released in 22 August, 2016. It is support the file based encryption. We can zoom more to previous version and add the “Clear all” button on the screen. Added the more option in the setting. Improve the touch and display performance and keyboard use the images. Open the Finger sensor gesture to open or close notification. Use the manual storage. We can send the GIFs and application shortcut. In the last feature add the uses the battery alerts.



8.0 (Oreo): this version is released in August 21, 2017. In a version support the Unicode emoji. Improvement the notification and icons. It is faster boot more than Nougat which is test by google. We can download the fonts. We can change the colour and use Wi-Fi assistant. After some time it's released the new version use the neural network, shared memory etc. It is better from normal android with 1 MB to 1 GB RAM. Automatic change the themes. Change the visual from "POWER OFF" and "RESTART" the mobile.



9.0(Pie): This version is released in 6 August 2018.

This is include the "screenshot", use the rounded corner. Clock is move and battery percentage show on screen. It is uses the some experimental feature. Enable the automatic Bluetooth. New feature for gesture based interface. It is use the Android dashboard it is tell the user spending time on the screen or any application. Use the auto brightness and adaptive battery. It is support Vulkan1.1.



4. METHODOLOGY

Earlier versions from the first version to 9.0 version are better the performance and to make a user friendly and its next version is "Android 10". In this version improve more features and its performance for the better communication.

Android 10: This version is launched in September 3, 2019. This version is not completely used by many user mostly user use the android previous version. It is use in less but after some time increase the most user for android 10. Its background app no longer jump. Share the shortcut this allow the sharing contact directly. It is use the floating setting panel which is allow to change the system setting , support the AV1 video coded and HDR10 plus for video format. Now a days provide the foldable phones in the market and also provide many theme from light to dark.



Retinal scan: It introduce by the John Daugman. He is develop the first algorithm to retina recognition, he is provide the live demonstration of this concept. Retina scanner recognition is safer than fingerprint scanner and the face unlock in any device. Fingerprints can be simply copied in many situations which will not make it safe enough to use, but things become safer when that it comes in the term of the Retina Scan system, because it provides a high level of security.

We should not confuse this technology with a retinal scanner, which needs to approach the eye very closely. The iris scan works several inches away from the face,

in a natural situation. You need to make sure to remove your glasses in some cases contact lenses, especially if they are coloured.

5. RESULT

A retina scan is a biometric security which uses special patterns on a human's retina blood vessels. And always have a uniqueness in the identity. This is iris allowed, called an "iris scan", and eye vein conformation it uses scleral veins. Retina scan is more assured in mobile devices because face recognition cannot differ between twin brothers. So increase of the security in android mobile devices use the retina scan.

6. CONCLUSION

There are number of mobile devices which uses android in maximum countries in the world. This is the large amount peoples installed of any mobile devices. It also gave us better look for the initial time and looking for apps, games, and other digital content. Android gives a platform for games and a digital and virtual life and also a feature to store our personal files and contents which needed the security. It gave us various security such as fingerprint scanner, face detector, password and pattern designing. These all

came to be a successful features till date. But now time has come that every solution has its break-down such as password and patterns are cracked anytime. Fingerprints are also recovered due to some forensic process. So overall the retina scan is the only process which provides a secure system for android.

7. REFERENCES

1. https://www.researchgate.net/publication/317377551_Developing_of_Android_Mobile_Application_Using_Java_and_Eclipse_An_Application
2. <https://ijcsmc.com/docs/papers/March2015/V4I3201599a38.pdf>
3. [https://en.wikipedia.org/wiki/Android_\(operating_system\)](https://en.wikipedia.org/wiki/Android_(operating_system))
4. https://en.wikipedia.org/wiki/Android_version_history.
5. https://en.wikipedia.org/wiki/Iris_recognition
6. <https://www.androidpit.com/how-iris-scanner-works>