

## Mobile OS - High Level Glance

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**Abstract** - A Mobile operating system is a software platform which is typically designed for mobile devices like phone, tablet, PDAs, Handheld devices, etc. to enables its hardware components and helps to execute various programs and applications. A mobile OS specifically starts when the device switch on and loads with its default configuration. Mobile OS has normally combined the features of the personal computer as well as phone devices. Many Mobile operating systems are available in the market for the last quarter century. Presently Android Mobile OS is using more than 75% of mobile devices. Many other mobile OS also become popular based on various criteria like user-friendly, security, sophistication, etc. Mobile device consumers are aggressively looking forward to a mobile device with a stable and secure operating system to use for a longer duration, at least for 8-10 years. This study targets to give a better visibility to consumers on presently available operating systems in the market. Here analyzed the architecture, capabilities, versions, current status, active duration, etc. for most mobile operating systems launched in the past quarter-century.

**Keywords** - Mobile OS, Mobile Device, Mobile OS architecture, Android, iOS, Windows, Ubuntu, Tizen, webOS, Maemo, Firefox OS, Fire OS, MeeGo, Bada, Symbian, BlackBerry.

### I. INTRODUCTION

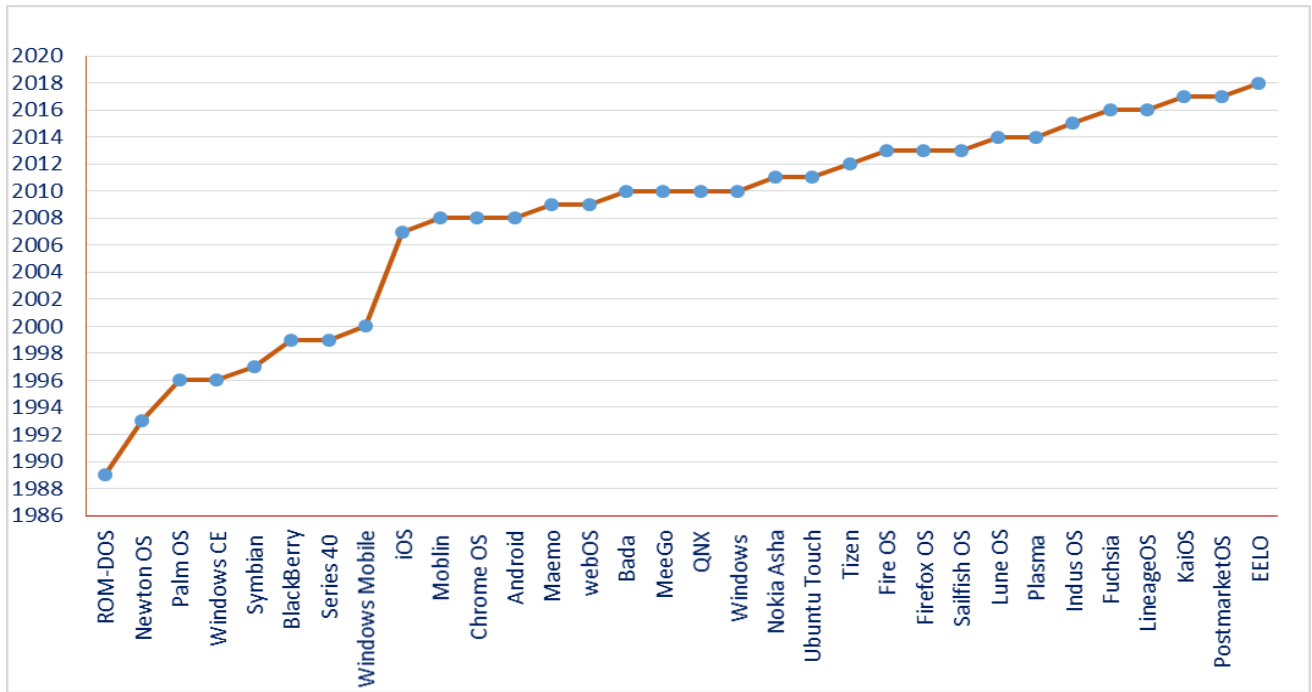
Mobile OS concept become popular in the decade of 1990s. In 1994 IBM introduced first smartphone called IBM Simon, it was designed with a file system from Datalight ROM-DOS. In 2000 the first modern mobile OS introduced by Symbian. In 2007 Apple introduced the popular iOS with a lot of internet related capabilities. In 2008 Google introduced a popular Android mobile OS. Later 2010 various Mobile OS start competing for each other to bring most user friendly features. Past five years mobile OS are trying various features and improving the privacy and security. Many mobile devices are available in the current market. These devices are running with a mobile OS. Few of devices manufactures are using their own operating systems but few others are using the available Mobiles OS from the market with or without modifications. Below are the list operating systems using in the major mobile devices.

- |                   |                 |
|-------------------|-----------------|
| 1. Android        | 2. iOS          |
| 3. Windows        | 4. Windows CE   |
| 5. Windows Mobile | 6. Ubuntu Touch |
| 7. Tizen          | 8. webOS        |
| 9. Maemo          | 10. Firefox OS  |

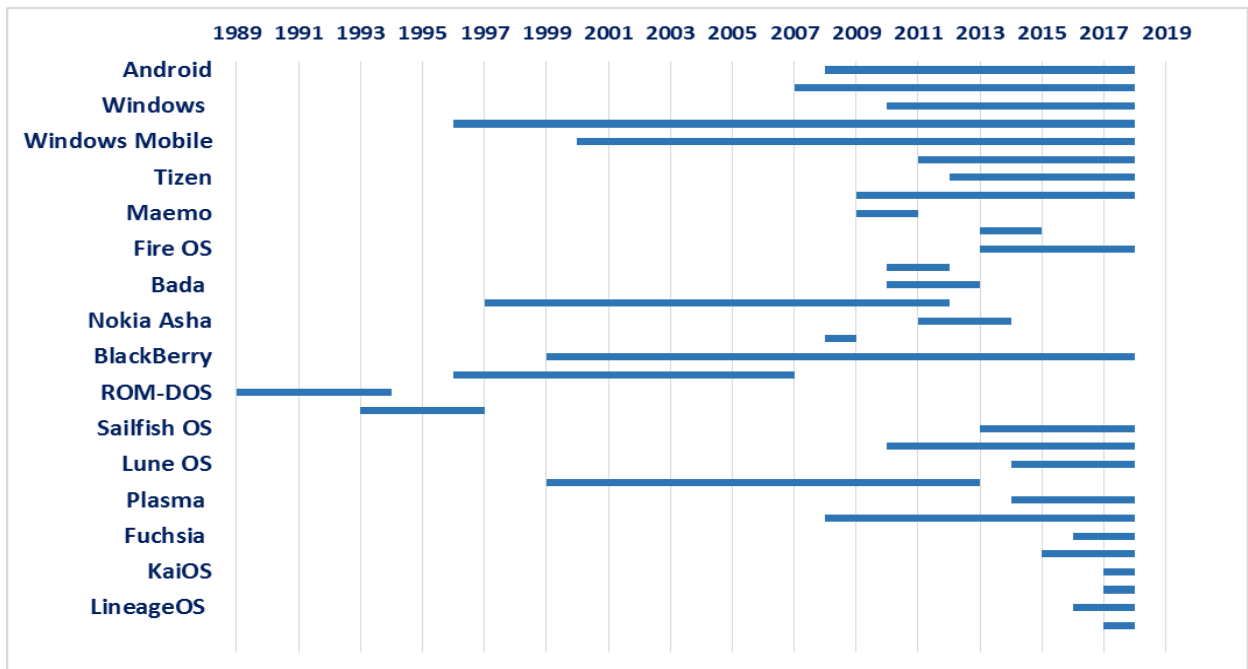
- |                 |                  |
|-----------------|------------------|
| 11. Fire OS     | 12. MeeGo        |
| 13. Bada        | 14. Symbian      |
| 15. Nokia Asha  | 16. BlackBerry   |
| 17. Moblin      | 18. Palm OS      |
| 19. ROM-DOS     | 20. Newton OS    |
| 21. Sailfish OS | 22. QNX          |
| 23. Lune OS     | 24. Series 40    |
| 25. Plasma      | 26. Chrome OS    |
| 27. Fuchsia     | 28. Indus OS     |
| 29. KaiOS       | 30. PostmarketOS |
| 31. LineageOS   | 32. EELO         |

### II. ELABORATION

Past quarter century various mobile operating systems launched with various capabilities. In each five year durations, the OS architecture and capabilities are keep reaching new milestones. During the drastic mobile revolution, many operating systems were sunset. Here explain the capabilities of most of the major mobile operating systems were used in the past quarter century. Picture-1 give an idea about the various mobile OS releases and Picture-2 give an overview of various Mobile OS live duration.



Picture-1 OS Release



Picture-2 OS Live period



## 1 Android

This is the most popular and widely used open source mobile operating system. It is designed and developed by Google using Linux based kernel. This operating system is allowing the developers to extend the base as per their requirement. It is primarily designed to adapt the touch technology. Most of the major mobile device manufacturers are customizing this Operating system and using their devices. Google preserves an application store called Play Store to maintain their applications.

Developed/Owner	Google
Coding Language	C, C++, Java
OS Family	Unix
Kernel Type	Monolithic Linux
Architecture	ARM, x86, MIPS
Initial Release date	Sep 2008
Latest Release date	Aug 2018
Major Versions	Android 1.0, Android 1.1 Petit Four, Android 1.5 Cupcake , Android 1.6 Donut , Android 2.0 Eclair, Android 2.2 Froyo, Android 2.3 Gingerbread, Android 3.1 Honeycomb, Android 4.0 Ice Cream Sandwich, Android 4.1 Jelly Bean, Android 4.4 KitKat, Android 5.0 Lollipop, Android 6.0 Marshmallow, Android 7.0 Nougat, Android 8.0 Oreo, Android 9.0 Pie
Latest Version	Popsicle 8.0
License Type	Freeware
Source Type	Open source
Support Status	Support is available



## 2 iOS

This mobile operating system is developed and owned by Apple Inc. It is specifically developed for mobile devices based on Mac OS which using for desktops and laptops. This secondly widely used operating system after Android. This OS is designed specifically for Apple's touch mobile devices

iPhone, iPod, iPad, etc. Apple preserves an application store called App Store to maintain their applications.

Developed/Owner	Apple
Coding Language	C, C++, Objective-C
OS Family	Unix
Kernel Type	Hybrid
Architecture	ARM
Initial Release date	Jun 2007
Latest Release date	October 2018
Major Versions	iOS 1 to iOS12.1
Latest Version	iOS 12.1
License Type	Licensed
Source Type	Closed source
Support Status	Support is available



## 3 Windows

Windows mobile operating system is developed by Microsoft. Its latest version is designed to work in the phone, tablet, laptop, and desktops. A single operating system for all type of devices. Microsoft is providing developer tools for converting iOS applications to windows with minimum changes. Windows preserves an application store called windows phone Store to maintain their applications.

Developed/Owner	Microsoft
Coding Language	C, C++, C#
OS Family	Windows
Kernel Type	Hybrid
Architecture	ARM
Initial Release date	Nov 2010
Latest Release date	Nov 2018
Versions	Windows 7, Windows 8, Windows 8.1, Windows 10
Latest Version	Windows 10
License Type	Licensed
Source Type	Closed Source
Support Status	Support is available



#### 4 Windows CE

This is windows based operating system. It is designed for embedding in mobile and other space constrained devices. This is developed by Microsoft similar as windows desktop operating system. This is 32-bit multi-threading and multi-tasking operating system. This OS is used in many handheld computers, TV set-top boxes, industrial controllers, communications hubs, and point-of-sale terminals, etc.

Developed/Owner	Microsoft
Coding Language	C
OS Family	Windows
Kernel Type	Hybrid
Architecture	ARM and X86
Initial Release date	Nov1996
Latest Release date	Jun 2013
Versions	Windows CE 1.0 to 6.0, Windows Embedded, CE 6.0, Windows Embedded Compact 7, Windows Embedded Compact 2013
Latest Version	Windows Embedded Compact 2013
License Type	Licensed
Source Type	Shared Source
Support Status	Support is available



#### 5 Windows Mobile

This is windows based operating system mainly targeted for industry handheld devices. This is developed by Microsoft similar as windows desktop operating system. This is 32-bit multi-threading and multi-tasking operating system. This OS is used in many handheld devices which is using in plant floor.

Developed/Owner	Microsoft
Coding Language	C
OS Family	Windows
Kernel Type	Hybrid
Architecture	ARM and X86

Initial Release date	Apr-2000
Latest Release date	Feb-2010
Versions	Windows Mobile 5, Windows Mobile 6, Windows Mobile 6.1, Windows Mobile 6.5
Latest Version	Windows Mobile 6.5
License Type	Licensed
Source Type	Closed Source
Support Status	Support is available



#### 6 Ubuntu Touch

This is a Linux based mobile operating system, it's developed by Canonical Ltd. This operating system primarily designed for touch enabled mobile devices. This OS based phones will be able to connect tablet and can use its interfaces. Also, we can plug in keyboard and mouse to tablet and transform the phone into a desktop

Developed/Owner	Canonical Ltd
Coding Language	C++, Qt
OS Family	Unix
Kernel Type	Monolithic Linux
Architecture	ARM and x86
Initial Release date	Oct-2011
Latest Release date	Sep-2017
Versions	Ubuntu 14.04, Ubuntu 14.10, Ubuntu Touch 1.0, BQ Aquaris E4.5, BQ Aquaris M10, Ubuntu Touch 15.04, Ubuntu Touch 17.04.
Latest Version	Ubuntu Touch 17.04
License Type	Freeware
Source Type	Open Source
Support Status	Support is available



#### 7 Tizen

This operating system developed based on Linux kernel. This OS will work on a wide range of devices other than mobile devices like TV, camera, Blu-ray player, washing machine, etc. This OS is developed by the Linux Foundation team and

controlled by a technical team. This operating system adapted features from other operating systems like Bada, MeeGo, etc. Tizen provides various javascript and jquery based application development tools.

Developed/Owner	Samsung, Intel, Linux Foundation, Tizen Association
Coding Language	C, C++
OS Family	Unix
Kernel Type	Monolithic kernel
Architecture	ARM and x86
Initial Release date	Jan-2012
Latest Release date	Nov-2017
Versions	Tizen 1.0, Tizen 2.0, Tizen 3.0, Tizen 4.0.
Latest Version	Tizen 4.0
License Type	Licensed
Source Type	Open Source
Support Status	Support is available

## 8 WebOS webOS

This is an open source operating system developed by Palm and later owned by LG. Its multi-tasking architecture designed based on the Linux kernel. For the past few years, there was no update released for this operating system.

Developed/Owner	Developed by Palm which was acquired by HP, then sold to LG
Coding Language	C++, Qt
OS Family	Linux
Kernel Type	Linux Monolithic
Architecture	ARM
Initial Release date	Jan-2009
Latest Release date	Jan-2012
Major Versions	webOS 1.0, webOS 2.0, webOS 3.0, webOS 3.0.5
Latest Version	webOS 3.0.5
License Type	Apache License
Source Type	Open source

Support Status	Support is available
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## 9 Maemo

This open source Linux based operating system developed by Nokia and handed over to Hildon Foundation. They have a software development kit (Maemo SDK) which provides an open development environment for applications on top of the Maemo platform. This operating system giving an option to develop a new application using the SDK.

Developed/Owner	Developed by Nokia, Now it's owned by Hildon Foundation.
Coding Language	C, C++, Mono C#
OS Family	Linux
Kernel Type	Linux Monolithic
Architecture	ARM
Initial Release date	Nov 2009
Latest Release date	Nov-2011
Major Versions	OS2005 , OS2006, OS2007, OS2008, Maemo 5.0
Latest Version	Maemo 5.0
License Type	Freeware
Source Type	Open source
Support Status	Stopped further developments, but community support is available



## 10 Firefox OS Firefox OS

This operating system developed by Mozilla mainly for smartphones, tablet, and smart TVs. It is using Linux kernel and Firefox web browser rendering engine. Now Mozilla discontinued the development of this OS.

Developed/Owner	Mozilla
Coding Language	C++
OS Family	Linux
Kernel Type	Linux Monolithic
Architecture	ARM and x86
Initial Release date	Feb-2013
Latest Release date	Apr-2015

Major Versions	Firefox OS 1.0, Firefox OS 2.0, Firefox OS 2.2.0, Spark v0.1
Latest Version	Firefox OS 2.2.0
License Type	Freeware
Source Type	Open source
Support Status	Stopped the support

## 11 Fire OS

This operating system was developed by online marketing giant Amazon. This is almost a customized Android OS. Fire OS is mainly using the Amazon services to execute most of the features. Fire OS based apps are available from Amazon App store.

Developed/Owner	Amazon
Coding Language	C, C++, Jav0061
OS Family	Unix
Kernel Type	Linux Monolithic
Architecture	ARM
Initial Release date	Sep-2013
Latest Release date	Sep-2017
Major Versions	Fire OS 3.0, Fire OS 4.0, Fire OS 5.0, Fire OS 5.4
Latest Version	Fire OS 5.4
License Type	Proprietary License
Source Type	Open source
Support Status	Support is available

## 12 MeeGo

This is a Linux based open source operating system developed by Nokia and Intel for smartphone and tablets. Now Nokia discontinued the support of this OS. Linux Foundation and Intel was used for this some time to run in different hardware platforms.

Developed/Owner	Nokia and Intel
Coding Language	C++, Qt
OS Family	Linux

Kernel Type	Linux Monolithic
Architecture	ARM and x86
Initial Release date	May-2010
Latest Release date	Jul-2012
Major Versions	Meego 1.0, Meego 1.1, Meego 1.2
Latest Version	Meego 1.2
License Type	Licensed
Source Type	Open Source
Support Status	Stopped the support

## 13 Bada

This operating system developed by Samsung. They maintained a configurable kernel for this operating system. They were using this for mid-range and higher range mobile devices. Later some time they released this operating system for open source. Now Samsung discontinued the support of this operating system.

Developed/Owner	Samsung
Coding Language	C++
OS Family	POSIX
Kernel Type	Linux or RTOS
Architecture	ARM
Initial Release date	Jun-2010
Latest Release date	Feb-2013
Major Versions	Bada 1.x, Bada 2.0
Latest Version	Bada 2.0.6
License Type	Proprietary
Source Type	Open source
Support Status	Stopped the support

## 14 Symbian

This is one of the famous operating systems from Nokia. It was a pioneer OS that established the smartphone industry. Symbian was the top-selling smartphone OS worldwide until late 2010, but its support is discontinued. Rise of Android and iOS drastically reduced its popularity.

Developed/Owner	Nokia
Coding Language	C++
OS Family	RTOS
Kernel Type	EKA2
Architecture	Microkernel, ARM, x86
Initial Release date	Jun-1997
Latest Release date	Oct-2012
Major Versions	EPOC32, Symbian OS 6.0, Symbian OS 7.0, Symbian OS 8.0, Symbian OS 9.0, Symbian OS 9.5, Symbian OS 10.1
Latest Version	Symbian OS 10.1
License Type	Licensed
Source Type	Closed Source
Support Status	Stopped the support

## 15 Nokia Asha

This operating system was developed by Nokia for lower end borderline smartphones. It inherits few of features from Symbian, Maemo and MeeGo operating systems. This OS only having the limited feature of multi-tasking.

Developed/Owner	Nokia
Coding Language	C++, Java API, Nokia API
OS Family	RTOS
Kernel Type	Linux
Architecture	ARM
Initial Release date	Oct-2011
Latest Release date	Feb-2014
Major Versions	Asha 1.0, Asha 1.1, Asha 1.2, Asha 1.4
Latest Version	Asha 1.4
License Type	Licensed
Source Type	Closed source
Support Status	Stopped the support

## 16 BlackBerry

This operating system is developed by BlackBerry Ltd. Sometimes back this OS was the best one for support corporate emails. This OS designed for smartphone environment. They are providing API classes for external developers but it's restricting to use the application through digital signature.

Developed/Owner	BlackBerry
Coding Language	C, C++, Qt
OS Family	QNX
Kernel Type	JVM
Architecture	ARM
Initial Release date	Jan-1999
Latest Release date	Apr-2018
Major Versions	BlackBerry OS 1.0, BlackBerry OS 3.6, BlackBerry OS 5.0, BlackBerry OS 6.0, BlackBerry OS 7.0, BlackBerry OS 7.1, BlackBerry 10, BlackBerry 10.3
Latest Version	BlackBerry 10.3.3
License Type	Licensed
Source Type	Closed source
Support Status	Support is available

## 17 Moblin

Moblin operating system is developed by Intel and later its handover to Linux Foundation. The name Moblin originated from 'Mobile Linux'. This OS is developed to support multiple platforms like mobile, desktop, etc. In 2010 this OS got disconnected and merged with Maemo.

Developed/Owner	Intel
Coding Language	C++
OS Family	Unix
Kernel Type	Linux kernel
Architecture	ARM
Initial Release date	Apr 2008



Latest Release date	Nov 2009
Major Versions	Moblin OS 1.0, Moblin OS 2.1
Latest Version	Moblin OS 2.1
License Type	Licensed
Source Type	Open Source
Support Status	Support not available

### 18 Palm



This operating system is developed by Palm Inc. Palm OS is also known as Garnet OS. This OS mainly targeted for personal digital assistants (PDA). It is mainly targeted touch based devices. This OS using in few of handheld devices using in the industry area.

Developed/Owner	Palm Computing Inc
Coding Language	C++
OS Family	Linux
Kernel Type	AMX
Architecture	ARM
Initial Release date	Mar-1996
Latest Release date	Oct-2007
Major Versions	Palm OS 1.0, Palm OS 2.0, Palm OS 3.0, Palm OS 4.0, Palm OS 5.0, Palm OS Cobalt
Latest Version	Palm OS 5.0
License Type	Licensed
Source Type	Closed source
Support Status	Stopped the support

### 19 ROM-DOS

This operating system developed by Datalight in 1989. It is alternatively known as Datalight DOS. In 1994 IBM introduced the first smartphone called IBM Simson using this operating system. They developed a specific touchscreen UI for this device.

Developed/Owner	Datalight
Coding Language	C, C++
OS Family	DOS
Initial Release date	1989

Latest Release date	1994
Major Versions	ROM-DOS 6.22, ROM-DOS 7.1
Latest Version	ROM-DOS 7.1
License Type	Licensed
Source Type	Closed Source
Support Status	Support not available

### 20 Newton OS



This operating system developed by Apple in 1993. This OS mainly targeted personal digital assistants (PDA). It brought many new mobile features at that time like handwriting recognition, screen rotation, wireless document sending, etc. For making the quick device booting it was installed many applications in ROM. RAM and flash memory were used for user specific application.

Developed/Owner	Apple
Coding Language	C++
OS Family	Mac
Kernel Type	Microkernel
Initial Release date	Aug 1993
Latest Release date	Mar 1997
Major Versions	Newton 1.0, Newton 2.0, Newton 2.1
Latest Version	Newton 2.1
License Type	Licensed
Source Type	Closed source
Support Status	Support not available

### 21 Sailfish OS



This operating system is developed by Finnish mobile company Jolla Ltd and Sailfish OS community. This OS has strong multi-tasking, privacy and personalization capability. This OS has modern user interfaces. The later versions of this OS have Android application compatibility.

Developed/Owner	Jolla Ltd and Sailfish OS community
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Coding Language	C++, Qt/QML
OS Family	Linux
Kernel Type	Linux Monolithic
Architecture	ARM and x86
Initial Release date	Nov-2013
Latest Release date	Mar-2018
Major Versions	Saifish OS 1.0, Saifish OS 2.0, Saifish OS 2.1.0.14
Latest Version	Saifish OS 2.1.0.14
License Type	Licensed
Source Type	Open source
Support Status	Support is available

## 22 QNX

This operating system is developed Quantum Software Systems (QNX), later it was acquired by Blackberry. This is a micro kernel based operating system, it means programs and elements of OS are run as tasks. This OS size is comparatively small. This OS initially launched in 1982 and mainly targeted the embedded system devices. From 2010 onwards this OS started support Mobiles devices.

Developed/Owner	Developed by Quantum Software Systems(QNX) and acquired by BlackBerry Ltd
Coding Language	C++, Qt/QML
OS Family	Unix
Kernel Type	RTOS
Architecture	ARM and x86
Initial Release date	Jun-1982. Mobile device version in 2010
Latest Release date	Mar-2017
Major Versions	QUNIX, QNX 1.0, QNX 2.0, QNX 4.0, QNX Neutrino 1.0 , QNX RTP 6.0, QNX Neutrino 6.3.0, QNX 7.0
Latest Version	QNX 7.0
License Type	Freeware
Source Type	Shared source
Support Status	Support is available

## 23 Lune OS

This operating system is developed by WebOS ports community. This OS mainly targeted for touchscreen based mobiles and tablets. It accepts the touch based inputs like swiping, tagging, pinching, etc.

Developed/Owner	WebOS Ports community
Coding Language	C, C++
OS Family	Unix
Kernel Type	Monolithic Linux
Architecture	ARM
Initial Release date	Sep-2014
Latest Release date	May-2017
Major Versions	Affogato, Antoccino, Black Eye, Americano Cafe au lait, Cafe Bombón, Cafe Cubano Caffe Crema, Cafe de Olla, , Caffe Medici, Cafe Miel, Cafe Mocha, Caffe Tobio, Cappuccino, Chai Latte, Cold Brew
Latest Version	Cold Brew
License Type	Licensed
Source Type	Open source
Support Status	Support is available

## 24 Series 40

Series 40 operating system is developed by Nokia. This OS mainly target the High Dimension games, multi-tasking, etc. This OS running in Java background. These OS compatible applications are available in OVI store.

Developed/Owner	Nokia
Coding Language	C++, Java
OS Family	Unix
Kernel Type	RTOS
Architecture	ARM and x86
Initial Release date	Jun-1999
Latest Release date	Jun-2013

Major Versions	Series 40 v1, Series 40 v2, Series 40 v3
Latest Version	Series 40 v3
License Type	Licensed
Source Type	Shared source
Support Status	Support is not available



## 25 Plasma

This operating system developed by KDE. It is providing user friendly and faster user interfaces. This OS supports desktops, netbooks, smart TVs and smartphones. Presently many experiments are happening in this Operating system.

Developed/Owner	KDE
Coding Language	C++, QML
OS Family	Linux
Kernel Type	RTOS
Architecture	ARM and x86
Initial Release date	July-2014
Latest Release date	Mar-2018
Major Versions	Plasma 4, Plasma 5
Latest Version	Plasma 5.12
License Type	General Public license
Source Type	Open source
Support Status	Support is available

## 26 Chrome OS

Chrome OS predominantly developed for web based application and the main target is Chrome book. This operating system uses in tablets. Many of Google's 2-in-1 (can use as a laptop as well as a tablet) devices are uses this OS. Chrome OS version 64 had released many tablet oriented features. As Android and Chrome OS are owned by Google many of Android apps are compatible on Chrome OS.

Developed/Owner	Google
Coding Language	C, C++
OS Family	Linux
Kernel Type	Monolithic Linux

Architecture	ARM, x86 and x64
Initial Release date	Sep 2008
Latest Release date	May 2018
Major Versions	Chrome OS – V1 to V66
Latest Version	Chrome V64
License Type	Licensed
Source Type	Open Source
Support Status	Support is available

## 27 Fuchsia

Fuchsia is small, scalable and modular OS from Google. It is developed from scratch with Zircon kernel. It is capable to run with low powered devices with minimal resources. The reason behind to develop this OS was Android fragmentation problem, where many devices are running in older Android version and unable to upgrade to latest versions. This OS is not fully furnished, it's under development.

Developed/Owner	Google
Coding Language	C, C++, TypeScript , Dart, Python
OS Family	Zircon
Kernel Type	Microkernel
Architecture	ARM, x86 and x64
Initial Release date	Aug 2016
Latest Release date	May 2018, Under development
License Type	Licensed
Source Type	Open source
Support Status	Support is available

## 28 Indus OS

Indus OS is an Android based operating system specifically developed for Indian market. It supports 12 regional languages other than English. Previously this OS is known as Firstouch. This OS based application are available in App Bazaar.

Developed/Owner	Indus
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Coding Language	C, C++
OS Family	Linux
Kernel Type	Monolithic Linux
Architecture	ARM, x86 and x64
Initial Release date	Dec 2015
Latest Release date	2017
Major Versions	Indus 1.0, Indus 2.0, Indus 3.0
Latest Version	Indus 3.0
License Type	Licensed
Source Type	Open Source
Support Status	Support is available

versions are getting released frequently and old mobile getting out of support in 3 to 5 years. postmarketOS targeting to overcome that scenario and get 10 year life cycle to mobile devices.

Developed/Owner	postmarketOS open source community
Coding Language	C, C++, Python
OS Family	Unix
Kernel Type	Linux Kernel
Architecture	ARM, x86, x64
Initial Release date	May 2017
Latest Release date	2018
Latest Version	Beta version
License Type	Freeware
Source Type	Open source
Used Mobile Devices	Smartphones and mobile devices
Support Status	Support is available

### 29 KaiOS

KaiOS is mainly developed for the feature phone. It brought main capabilities of smartphone (social media access, wide range games, streaming, etc.) into feature phone. It supports HTML5 based applications and gives better battery life.

Developed/Owner	KaiOS Technologies
Coding Language	HTML5
OS Family	Linux
Kernel Type	Monolithic Linux
Architecture	ARM
Initial Release date	Mar 2017
Latest Release date	Feb 2018
Major Versions	KaiOS 1.0, KaiOS 2.0, KaiOS 2.5.
Latest Version	KaiOS 2.5
License Type	Licensed
Source Type	Open Source
Support Status	Support is available

### 31 LineageOS



This operating system developed by Cyanogen. It is an android distribution but it is now operating as a mobile OS. This OS mainly target the firmware replacement for Android mobile devices.

Developed/Owner	Cyanogen Inc
Coding Language	C, C++, Java
OS Family	Unix
Kernel Type	Linux Kernel
Architecture	ARM, x86, x64
Initial Release date	Dec 2016
Latest Release date	Feb 2018
Major Versions	LineageOS 13, LineageOS 14, LineageOS 15
Latest Version	LineageOS 15.1
License Type	Freeware

### 30 PostmarketOS



This operating system developed by the postmarketOS open source community. It is a Linux based operating system. Presently this OS is in the early stage of development and it having related hiccups. Nowadays most of the mobile OS

Source Type	Open source
Used Mobile Devices	Smartphones and Tablets
Support Status	Support is available

### 32 EELO

This operating system is under development stage and planning to launch in the end of 2018. This is an open source operating system developing similar as LineageOS. It is the primary target to emphasize personal data and privacy. Beta version is launched and testing is undergoing with a few mobile devices.

Developed/Owner	EELO
Coding Language	C, C++, Java
OS Family	Unix
Kernel Type	Linux Kernel
Architecture	ARM, x86, x64
Initial Release date	Expecting in end of 2018
License Type	Freeware
Source Type	Open source
Support Status	Support is available

### III. CONCLUSION

This analysis would give an overall picture of various mobile operating systems and its capabilities. Here it is highlighted the owner of the OS, who developed, what are the languages used for OS development, it is aligned to which OS family, what kind of kernel is used, what is the base architecture, when it is launched, what is latest version release, what are the major releases, whether it is freeware or licensed, whether the OS source freely is available, what is the current support status. Also, it gives year by year conventional growth of mobile OS as well as the live duration of each OS. This study gives a comparative analysis of various mobile operating systems. It helps consumers to choose the right mobile device to meet their expectation.

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