OS WAR MOBILE

On October 18, 2010, Apple's boss Steve Jobs, appeared before the media to announce Apple's fourth quarter results, over a conference call. And unlike previous occasions, this time, Jobs spent more time talking about mobile OS platforms and the growing competition in this segment (instead of preaching the usual gospel of profits and toplines, new launches and markets). This time, it was different. "We've now passed RIM. And I don't see them catching up in the foreseeable future. They must move beyond their area of strength and comfort, into the unfamiliar territory of trying to become a software platform company," announced Jobs. There was also a contrasting tone in which he addressed the rise of Android OS compared to BlackBerry OS . He went on to defend Apple's business strategy by stating that Google loves to characterise Android as 'open' and iOS and iPhone as 'closed'. Jobs is a man of few words. And he measures every word he speaks. But the truth is – the story of mobile OS has changed in the past decade. Radically so. Once it was only Symbian, today it is everybody else!

Why do BlackBerry handsets' menu icons look slicker than Nokia's? And what is it that makes iPhone's touchscreen User Interface feather-touch? It's all about the OS that lies under the crust. Till about three years back (Q3, 2008), Symbian was the undisputed leader in smartphones (with a market share of just under 50%). Today, it is fast losing respect; it's an OS talked about for bugs and everything not-so-exciting.

The phenomenal increase in smartphone usage and the increased power required to pump power into every new device that promises to be a playground of the latest in applications, has brought mobile OS into the limelight. Rightly so. A recent report released in Ap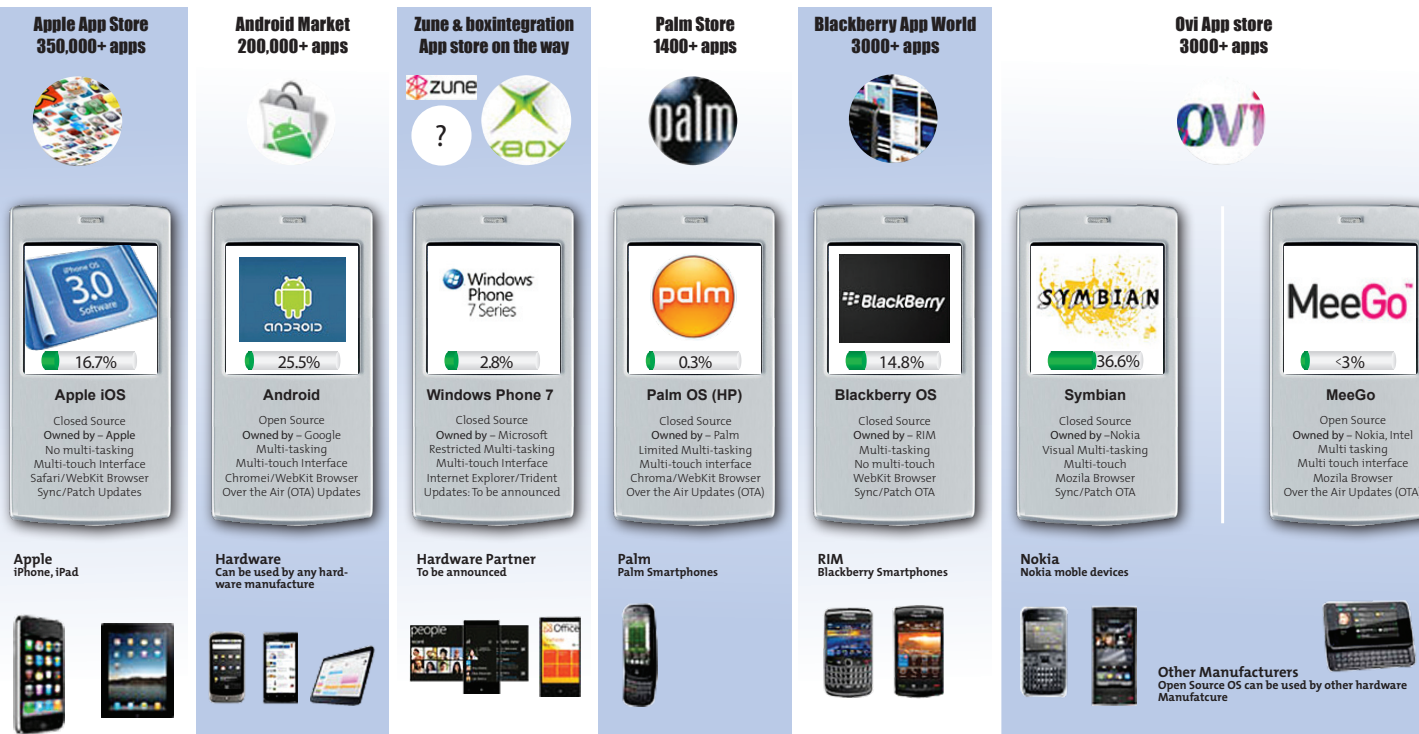ril 2011 by Gartner outlines the bright prospects of the mobile OS wars. According to the report, a record 468 million smartphones would be sold in 2011 – an increase of 57.7% y-o-y. Question is: which OS will consumers choose? Following are the biggest strengths of some leading mobile OS platforms.

Open Source – the Android advantage: Android barely existed untill 2009. Being Open Source, today, Original Equipment Manufacturers can't imagine a world without the green mascot logo. Acer, Samsung, Motorola, TCL, Micromax, Dell, HTC, Huawei, Lenovo, Kyocera, Sony Ericsson and more than three dozen other handset makers (which are a part of the Open Handset Alliance, a consortium of 80 hardware, software and telecom companies), have already launched Android OS based phones or are planning so, over the next few quarters. In fact, by Q2, 2011 alone, nine more Android handsets are set to hit market shelves. It has been estimated that by Q4, 2011, Android OS will overtake Symbian as the largest-selling OS in the world (38.5% as compared to Symbian's 19.2%). Android, which is powered by the Linux kernel, is an open, upgradeable system – and this is a huge plus for the buyers. For instance, using Android, mobile users can freely access the full version of documents to go – which is the Linux OS that offers package of Open Office (which can be used for editing and saving, and which has sub-programs like Words to Go, Sheet to Go, Slide show to go, or PDF to go). Four programs that will make any user feel independent of a PC. What's best? Those willing to upgrade their mobile OS to the latest released Android version (to say, the lat-

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MOBILE OS PLATFORMS

Apple App Store 350,000+ apps	Android Market 200,000+ apps	Zune & boxintegration App store on the way	Palm Store 1400+ apps	Blackberry App World 3000+ apps	Ovi App store 3000+ apps	
Apple iOS 16.7%	**Android** 25.5%	**Windows Phone 7** 2.8%	**Palm OS (HP)** 0.3%	**Blackberry OS** 14.8%	**Symbian** 36.6%	**MeeGo** <3%
Closed Source Owned by – Apple No multi-tasking Multi-touch Interface Safari/WebKit Browser Sync/Patch Updates	Open Source Owned by – Google Multi-tasking Multi-touch Interface Chrome/WebKit Browser Over the Air (OTA) Updates	Closed Source Owned by – Microsoft Restricted Multi-tasking Multi-touch Interface Internet Explorer/Trident Updates: To be announced	Closed Source Owned by – Palm Limited Multi-tasking Multi-touch interface Chroma/WebKit Browser Over the Air Updates (OTA)	Closed Source Owned by – RIM Multi-tasking No multi-touch WebKit Browser Sync/Patch OTA	Closed Source Owned by –Nokia Visual Multi-tasking Multi-touch Mozilla Browser Sync/Patch OTA	Open Source Owned by – Nokia, Intel Multi tasking Multi touch interface Mozilla Browser Over the Air Updates (OTA)
Apple iPhone, iPad	**Hardware** Can be used by any hardware manufacture	**Hardware Partner** To be announced	**Palm** Palm Smartphones	**RIM** Blackberry Smartphones	**Nokia** Nokia mobile devices	

Other Manufacturers Open Source OS can be used by other hardware Manufatcure

RELATIVE STOCK MOVEMENTS

Like Symbian, even Nokia's stock has taken a beating

■ MSFT ■ RIMM ■ GOOG ■ AAPL ■ NOK   13 APR, 2011

+60%
+40%
+20%
0%
-20%
-40%
-60%

SYMBIAN IS
ALREADY ON
ITS WAY DOWN
THE PIPE,
AFTER NOKIA'S
PARTNERSHIP
WITH MICROSOFT

THE NEW RULES OF THE
MOBILE ECOLOGY

JOHNNY RYAN

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est Android 3.0, the Honeycomb) can do so, free of charge. Speaking about Android's increased penetration into lower-priced smartphones, Roberta Cozza, Principal Analyst, Gartner, says, "Android's position at the high-end of the market will remain strong, but its greatest volume opportunity will be in the mid to low-cost smartphones."

Applications – the Apple iOS edge: Though the Android platform can today boast about 'Android marketplace' app-store, which can be downloaded free of cost, and which has over 200,000 third-party apps, the fact that Android does not use established Java standards (Java SE and ME), makes many of the apps incompatible on various Android platforms. This is where Apple iOS has a lead. Apple's app-store gives you a choice of more than 350,000 iOS apps (as of April 13, 2011), which are all compatible on all iPhone versions. And to give you an idea of how popular the iOS is due to the sheer power of applications, about 9.13 million apps are download-ed from the app-store every single day. No surprise that iPhone users today account for 59% of mobile web consumption in US & Canada. If it's media, it's iOS. Make no mistake.

PROJECTEDMARKETSHARES

	2010	2011	2012	2015
SYMBIAN OS	37.6	19.2	5.2	0.1
ANDROID OS	22.7	38.5	49.2	48.8
BLACKBERRY OS	16	13.4	12.6	11.1
IOS	15.7	19.4	18.9	17.2
MICROSOFT	4.2	5.6	10.8	19.5
OTHER	3.8	3.9	3.4	3.3

Source: Gartner report

Multi-tasking smartphone – the BlackBerry trick: For a fixed rental, which allows you access to free, secure messenger service, push mail and unlimited data access over the Internet, for office goers, there is no better choice than RIM's Black-Berry. While we can ignore the universal appeal of BlackBerry (the handset can be used on almost every carrier in the world, about 500), what is amaz-ing about the BlackBerry is its multi-tasking capability (the OS allows users to launch multiple apps in the back-ground and quickly switch between them). This is one area where any 32 MB model of BlackBerry (released in and after the year 2005) scores heavily over the iPhone (which only grants limited multi-tasking, and every time the user wants to return to the homepage, the running app must be closed). So, while you are answering a given email on a BlackBerry, you can simultaneously chat on your Yahoo! messenger & Gchat, without having to close the email app. In other words, you can comfortably run a SSH application simultaneously with the web browser, while using more than one live running chat application and browsing the Internet. What's better, the BlackBerry device can be synchronized to multiple computers simultaneously, unlike other devices.

As far as the Symbian OS is concerned, it is suited for those looking for average quality of 'everything' in a non-smartphone OS – including software bugs. Truth be told, Symbian is al-ready on its way down the pipe, after Nokia's partnership with Microsoft to use Windows Phone 7 as its main smart-phone platform. On one hand, while this partnership with Nokia is expected to boost Windows based smartphones market share to 11% in 2011 (which will fall, given Microsoft's failure to deliver on the mobile OS platform in the past seven-eight years), on the other hand, this will allow Nokia to fully concentrate to turn MeeGo into an OS for the ultra low-end devices. Surely, with OS development for smartphones (which is really the future of mobility) being handled by Microsoft, Nokia can perhaps concentrate on even making an optimal 'Symbian+MeeGo' OS for low-end offerings. So all in all, allow us to say that Symbian OS should be a choice, only if you are looking for non-smartphones. For everything else, there are other superior options available in the market. [And if low-price be the sole criteria, there are adequate number of of-ferings in the Indian market that will fit your bill.] **TN**

Ecosystem is key. The mobile OS giants have one guiding principle: the OS with the best selection of software applications available for its users will be most attractive to consumers, and will there-fore attract yet more developers to create fur-ther software applications for them. The more devices that are sold, the more widely purchased and used apps are likely to be, which attracts more devel-opers to write apps for the device, which makes the device more useful. This finally results in more devices being sold. The platform functions like an ecology in which the plat-form owner, software developer, and users – all play a part. Except, the rules seem to have changed, and that may not be true any more.

In early April 2011, HTC surpassed both Nokia and RIM in m-cap. HTC's dramatic rise is a sign of the popularity of Google's Android OS. Android's market share has risen from 3.5% in late 2009 to over 25% in a single year. HTC was an early supporter of Android, and worked with Google on the first Android phone, years in advance of its release in October 2008.

However, though sales of Android devices surpassed Ap-ple's in mid-2010, Apple remains the revenue leader. Goog-le does not see significant revenues from its version of the App Store. This may in part be because of the very charac-teristics that make Android so popular: its openness and flexibility, and its ability to present network operators with a cheap iPhone alternative. The Android OS is open source (under the Apache 2 license). Manufacturers have the lati-tude to customise the device, though Google exercises a degree of control by – among other things – imposing a minimum standard of compatibility imposed by Google be-fore they are allowed to use the Android Market app, or other popular Google apps such as Gmail and Maps. The manufacturer's ability to customise means that Android phones range from cheap and slow to high-end, sophisti-cated devices. The user base of the Android OS, though bigger than the iPhone's, is therefore not necessarily as lu-crative. As an example, consider 3D gaming on mobile de-vices. Games are the best-selling apps on the App Store, and the hardware required to run sophisticated games on a mobile handset is expensive. The latest instalment of the

iPhone, the iPhone 4, comes equipped with 3D graphics acceleration hardware, which effectively places it in the bracket of a gaming device. Even high-end Android phones, have not yet defined themselves properly as game devices.

Nokia's latest smartphone also has built in graphics acceleration. In February 2011, Nokia and Microsoft announced a strategic partnership to create a new ecosystem for Windows Mobile Nokia phones. Since Nokia shipped 450 million handsets in 2010, the scale of its supplier network will reduce the costs of Windows phones, giving developers and mobile networks a third option for a touch screen smart phone. Though Microsoft has produced a mobile OS for more than 10 years, Windows Mobile 7 is by far its best effort. Now, with Nokia as strategic partner, it may gain market share. This puts further pressure on the Android ecosystem.
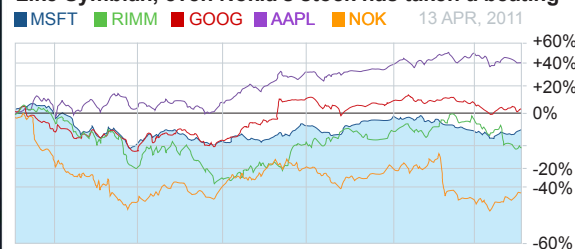
Thus, while Google dominates the mobile OS market, its revenues from mobile app sales are insignificant. Both Google and Apple take a cut of 30% on all apps, but Goog-le's cut is a fraction of Apple's. While sales through Apple's App Store reached $1.78 billion in 2010, according to HIS research, the Android alternative reached only $102 mil-lion.

Thus, Apple, with a smaller percentage of the market is ac-tually making more money on sales of software made through its device. Moreover, Apple announced a books and subscription service in February through which users could subscribe to news papers and magazines – and it will take 30% of revenue here too, adding to app sales and mu-sic sales through iTunes. Google's revenues from the An-droid phone, for the meantime, are focussed on its core business of search advertising and its growing payments business. The implications for the ecological battle may be very significant.

The lesson here is – the strength of a mobile OS ecology is not just about the number of total users. It is all about the number of paying users! **TN**