How did we get here? A quick lesson in Apple history

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The path Apple followed all the way from its beginnings in a little garage to a multi-billion dollar enterprise whose shares are worth its weight in gold.

Meet Apple’s current gen hardware
Let’s take a look at the wide range of hardware within the Apple tech ecosystem, from its mobility devices to home entertainment centres

iOS 8 and Yosemite
Will iOS 8 and Yosemite really stand up to all the claims Apple has made? We take a look at Apple’s OS philosophy to gauge whether it will take Apple into the future or fail.

Beyond phones, into mobility
Is the promise of Apple Watch and Apple Pay all that it’s cracked up to be? Find out here.
Don't panic guide to iOS 8
Just breathe. We hold your hand and walk you through the new world of iOS 8 with all its new features and upgrades.

What we like and don’t like about iOS 8.0.2 and iOS 8.1 Beta
We review and assess the iOS 8.0.2 update patch to see what's fixed and what's still lacking. Are new radical upgrades the only way to get Apple back on track?

Tips and tricks
Now that you're fully committed to the world of iOS 8 let us make your life easier with a host of tweaks, tips and tricks to make your experience epic.

Best apps for iOS 8
With iOS 8 we get Metal. What is it? And how do the best apps on iOS 8 get from it?
Less than a year ago we published the FastTrack to iOS 7. It was the biggest leap Apple had taken in its deployment of the iOS platform for their mobile devices and deserved a thorough look. This year with the release of the highly anticipated iPhone 6 and iPhone 6 Plus models along with the introduction of iOS 8 we thought of something different. This issue of Fast Track is bigger than just the iPhone 6 Plus and iOS 8. In the last year Apple has released a horde of new products from the iPad mini to the Mac Pro. All these innovative gadgets are a sign of the direction Apple is heading in the long term. This issue takes into account the world of Apple technologies and how their ecosystem is tuned towards their consumers.

Of course it isn’t possible to ignore the biggest of Apple’s products today so we devote a sizeable portion of our chapters to the iPhone 6 series and the iOS 8 system. For veteran Apple users this upgrade comes as a leap towards inter-device connectivity while for those new to iDevices the issues of glitchy iOS 8 and “bendgate” presents certain apprehensions. We take you down to the basics of how Apple has evolved to the company it is today and has managed to put to rest the concerns of its customers.

This issue also takes a look at the symbiosis between iOS 8 and the Mac OS X Yosemite that Apple has been working on for a while. We delve through the beta testing data to give you an insight of what to expect with “Handoff”, “Continuity” and much more. We also check out Apple’s foray into wearable tech with the Apple Watch and how it fits into the world of Apple tech today. Finally, we round things off with our ever useful Tips.
and Tricks section and our suggestion of which apps go best with iOS 8's famed Metal framework.

As always we count on this issue of Fast Track to help you make better informed and better equipped decisions in your use of technology. So enjoy the read and do let us know what you think at: editor@digit.in about this issue. ✍️
HOW DID WE GET HERE?

The path Apple followed all the way from its beginnings in a little garage to a multi-billion dollar enterprise whose shares are worth its weight in gold.

All things great and small

It was the summer of 1976. Steve, who had been dabbling in computer design for a while was just about done working out the kinks in his latest project. He powered it up and it worked.

“You know what, Woz?” said his partner. “We should sell this thing.”

On April 1, 1976, the first Apple computer came into being in a little garage in the Silicon Valley and so began the journey for two of the most important people in computing. Steve Jobs and Steve Wozniak were ready to revolutionise the computer industry.
The two Steves were introduced to each other by a mutual friend. While Wozniak was an engineer and single-handedly designed the ‘Apple I’ (and the ‘Apple II’), Jobs was more of a manager. He took their first offering to a local computer shop, The Byte Shop and managed to convince the manager into buying their computer. With a purchase order for 50 machines at $500 a piece, Jobs went straight to local electronics distributor, Cramer Electronics and placed his order.

“How are you going to pay for this?” asked the manager at Cramer Electronics.

“You see this?” asked Jobs, waving the purchase order signed by Paul Terrel, the manager at The Byte Shop. “This is a purchase order for 50 machines, payable on delivery. I’ll pay you when I get paid and believe me, I’m getting paid.”

With the parts ready, Jobs, Wozniak and a friend called Ronald Wayne began production. The Apple I quickly earned Wozniak a good reputation. Even though it was a rather mediocre product, the Apple I used fewer parts and was a design masterpiece.

While Wayne and Wozniak assembled the machines, Jobs managed to ensure that the parts kept coming in.
Almost exactly a year later, Wozniak was ready with a replacement to the Apple I. The outgoing model, due to issues relating to finance, was only a printed circuit board. Users were required to plug in their TV and a keyboard into the rather novel design to use the machine.

**The little wonder**
With the proceeds from the success of Apple I, Apple II enhanced the user friendliness of the machine and included a keyboard and sound neatly packaged in a plastic case. Over the course of its nearly two-decade-long production run, the Apple II offered colour graphics and an upgrade from 8 bits to 16 bits. Millions were sold and during its release at a local computer fare, Jobs met Toshio Mizushima, who became Apple’s first authorised international distributor.

The success of Apple II put Apple Computers on the map and the model was sold despite other releases like the ‘Apple III’, which undid a lot of the good that the Apple II had done.

Always one to choose form over function, Jobs decided that the business-oriented Apple III shouldn’t have a fan. His idea was to design the machine in such a way that the heat would dissipate through the chassis. Sadly, this design wasn’t as efficient as Jobs had hoped. When the Apple III would overheat, the IC Chips would disconnect from the motherboard. Despite recalls and asking users to drop the computers from a height of six inches to knock the ICs back into place, the damage was done.

**The first of many revolutions**
Towards the end of the 70s, Apple had started developing a product to replace the Apple II. It was named ‘Lisa’, after Jobs’ daughter. Around the same time, Xerox had devised a revolutionary way to organise everything on the screen. To replace the use of the keyboard to enter commands in order to get things done, Xerox brought into being the first Graphic User Interface or GUI and used a pointer device to navigate through it. Jobs successfully
managed to secure demonstrations of the research that had been going on at Xerox PARC (Palo Alto Research Center).

With its findings, the Lisa was going to add words such as ‘mouse’, ‘desktop’ and ‘icon’ into the lexicon of computing.

By the year 1980, Apple Computers had grown. Not only was it selling its products in other countries, it had also managed to put the Apple II in schools across the U.S. It had thousands of employees and it was finally time for Apple Computers to go public.

When the IPO was launched, venture capitalists made billions. No other offering had generated so much capital since Ford offered its shares to the public.

As this happened, the development of the Lisa continued in full swing as millions of dollars were being pumped in. But, because Jobs was a rather poor project manager, he was pulled off the project. Jobs quickly took over another project, the ‘Macintosh’, a low end personal computer, and decided to compete with the Lisa.

When IBM entered the market with its PC, Apple looked down upon it and took out a full-page ad that read: “Welcome, IBM. Seriously.” But by 1983, when the Lisa was released, IBM had quickly become top dog and covered over half the business market.

A new sheriff came to town

By now, Jobs had realised that if Apple had to stay relevant, it needed to “grow up”. Jobs met the president of Pepsi-Cola, John Scully and brought him in as the new CEO.

In 1984, ‘Macintosh’ was introduced during a break in the third quarter of the telecast of Super Bowl XVII in the only airing of the iconic ‘1984’ commercial directed by Ridley Scott. Costing a whopping $1.5 million, the commercial alluded to the emancipation of the computer user from the grip of the IBM PC by the new Macintosh. When the Macintosh was released two days later, it was a
product that was too radical and was slow to gain supported software. But despite its initial hiccups, it was popular. But soon, its hardware-related shortcomings were beginning to catch up.

Jobs soon realised that Scully, the newly appointed CEO was not the right man for the job. In his own words, Scully knew nothing about the computer industry and was making a poor effort to learn. Jobs decided that the best course of action was to stage a boardroom coup and enticed Scully into scheduling a meeting abroad.

When Scully was tipped off at the last minute, a confrontation with Jobs led to a heated argument between the duo. The entire episode came to an end with the board taking a vote and unanimously siding with Scully. Jobs resigned a few months later in September 1985, leaving behind the company he had built from scratch.

If you’re wondering where Steve Wozniak was all this time, Woz was never really interested in business and such. After the success of the Apple II, he realised that he was no longer needed as more developers joined the ranks and channelled his energies into other endeavours that he enjoyed better. He’s still an employee and draws a stipend.

The dark days
With Jobs sidelined, Apple went through its darkest days. In May 1985, Scully was forced to lay off one-fifth of Apple’s workforce. Despite two new
products, the Apple II was still its biggest source of sales and the market was still dominated by IBM.

What put an end to Apple's troubles, however, was the introduction of the ‘LaserWriter’, an affordable laser printer and ‘PageMaker’, a desktop publishing program. Together, these two products established Apple as the only choice when it came to publishing. Its hold and identity as a machine meant for design were even more firmly established as Adobe, Quark and other companies began developing design software specifically for the Mac.

Learning from its mistakes, the ‘Macintosh II’ or ‘Mac II’ was launched in 1987. The watchword here was expandability and soon, Apple was rolling out over 50,000 Macs a month. While everybody rooted for Apple overthrowing Microsoft and coming out on top, it wasn’t meant to be.

The many PC clones in the market running Windows made sure that didn’t happen. The bigwigs at Apple considered licensing the OS to other manufacturers, but by then it was already too late and the idea was shelved. Instead, Apple tried to launch a few more variants of the Mac but they didn’t do much to stand up to the competition. They were marketed badly and Apple was being called one of the most worst managed companies in the industry.

**Up and at ‘em**

1991, on the other hand, proved to be much better for Apple. Not let down by the poor performance of the ‘Macintosh Portable’ released in 1989, Apple returned with a sleeker, more ergonomic ‘PowerBook’. What made it revolutionary was the layout of the keyboard. While everything else in the market had the keyboard as close to the user’s wrists as possible, the PowerBook pushed the keyboard towards the screen and dropped a trackball in the middle. The result: a place to rest your wrists and an idea the rest of the world followed.

The following year, Apple released the ‘PowerBook Duo’ – an even sleeker, slimmer PowerBook with stripped down internals. Its USP was the docking station into which it could be plugged that upped specs, making it a portable/desktop hybrid.

While things were looking good for Apple, the CEO, John Scully was slowly losing interest. He was replaced by Michael Spindler, who was Apple’s COO in 1993. While Scully stayed on for a few months as chairman, he resigned several months later. ’93 was also the year the ‘Newton’, Apple’s PDA was released. Scully pushed for the development of this line, but its
unique feature, a handwriting recognition software, never recognised the user’s handwriting spelling disaster for the product.

In 1991, realising that it needs to up the ante Apple decided to form an alliance with two of its major competitors, IBM and Motorola and formed the AIM Alliance. The aim behind this alliance (see what we did there) was to create a computing platform based on IBM and Motorola hardware mated with software designed by Apple. ‘PowerPC’ was the line of processors that were tailor-made for this range and dubbed ‘PReP’ or ‘PowerPC Reference Platform’.

Money is Power

In 1994, ‘Power Macintosh’ was released featuring the PowerPC processor. The Power Mac became Apple’s top offering and easily surpassed Intel’s processors that had sort of become the industry standard by then.

Spindler, who by now had settled in rather well, was worse than Scully when he had just taken over. A lot of not-so-nice things were said about his personality and the same person who had previously axed Apple’s plans of licensing the Mac OS decided to start giving it out. Sure, Apple’s market share rose to 10 percent by 1995, but it was hopeless at meeting demand and had about a billion dollars in backorders.

Misjudging the market, it also pushed the ‘Macintosh Performa’, released as a low end offering in 1992 instead of the Power Mac. Apple suffered losses and Spindler was asked to step down in January 1996.

Spindler was replaced by Gilbert Amelio. As president of National Semiconductor, Amelio had earned a reputation as a turnaround artist. He had successfully taken National Semiconductor, an unreliable tier-three chip manufacturer, right to the top. As Apple’s new CEO, Amelio immediately started turning the frowns on shareholders’ faces upside down. Amelio managed to turn losses exceeding $700 million to about $33 million in just a quarter. The following quarter was even better as Apple posted profits of roughly the same amount.
As Amelio manned the reins at Apple, Microsoft released ‘Windows 95’. Apple had been developing an evolved version of the Mac OS − Mac OS 8, codenamed ‘Copland’. But, because it failed to meet its deadline and a year had passed since the release of Windows 95, Amelio decided to look for a new OS. These events would bring Steve Jobs back into the ranks of the company he created.

The return of the king

After Steve Jobs left Apple in 1985, he did two very significant things. He acquired The Graphics Group from Lucasfilm to create Pixar and he founded NeXT in 1985.

NeXT was a computer company aimed at the education industry. Inspired by his meeting with Nobel laureate Paul Berg, Jobs and a few other employees who were also let go off from Apple began drawing up plans for a machine powerful enough to simulate lab tests, yet cheap enough for college students to afford.

By mid ‘86, NeXT would also begin developing operating systems and by ‘87, NeXT’s factory at Fremont, California began rolling out the NeXT Computer running the NeXTStep OS. By 1996, despite some pretty nifty machines, NeXT decided to stop manufacturing hardware and switched focus to software. When word that Apple was looking for a new OS reached Jobs, he ensured that NeXTStep would be picked over BeOS.

As part of the deal, Apple would acquire NeXT for over $400 million. The events that would lead to Apple’s comeback at Jobs’ hands were beginning to transpire. In 1997, Jobs was appointed as a consultant and NeXTStep was developed as the basis for the next version of the Mac OS.

The comeback king

By July, the quarterly results were out and the $30 million profits Amelio had brought were flipped upside down. Amelio was asked to step down by the board of directors and Jobs was brought on as the interim CEO. He
quickly took efforts to restore Apple to its past glories and started by pulling the plug on its licensing schemes.

The next thing he did was announce that Apple would sell directly to the customer, either over the phone or through the Apple Store, its e-commerce portal. The system was a success and the year ended with two more offerings from Apple – the ‘PowerMac G3’ and the ‘PowerBook G3’.

But most significantly, Jobs buried the hatchet between Apple and Microsoft. Jobs said that for Apple to rise, it should become a better company as opposed to wanting Microsoft to fall. He signed a deal with Bill Gates, as part of which Mac versions of Office 98 were rolled out and Microsoft invested $150 million into Apple.

The ‘iMac G3’ introduced that year was a runaway success. Its funky colours and all of its hardware integrated inside a CRT monitor was unique and instrumental in bringing Apple back into the limelight. It also marked the beginning of Apple’s naming convention of prefixing its device names with the letter, ‘i’.

In 1999, the ‘PowerMac G4’ was released as was the ‘PowerBook G3’, which interestingly was the first Macintosh to support WLAN. Incidentally, these machines were also the last to be sold with Mac OS 9, which was based on the old OS.

The following year, Jobs took over as full-time CEO and the Mac OS X, based on the NeXTStep OS was released. The new OS had a completely revamped interface and added the stability, security and reliability of Unix. Rumour has it that the X in OS X is actually a reverence to its Unix-based roots. Others say it points towards NeXT, while it’s plain to see that the ‘X’ is how the Romans wrote 10.

**Up, up and away**

2001 was possibly the year when Apple did the opposite of a nose dive. With Jobs as the new CEO, Apple finally moved from online stores to actual brick-and-mortar establishments, also called Apple Stores. It was a
good move as its dealers were doing a rather shoddy job at making Apple’s products stand out amongst the competition.

The same year also saw the release of the iconic iPod, a music device that would provide Apple immeasurable amounts of brand recognition and change the way we looked at portable music players. It featured a whopping 5 gigabytes of space and could hold up to 1,000 tracks.

While Apple was still known for its funky, colourful design, it decided to put a little distance in between in 2002. When the G4 was released, its design surprised everybody. Mounted on a plastic dome finished in white was an LCD monitor that could be kept at virtually any angle due to it being mounted on an armature.

Apple continued down its path of disruptive innovation and further tightened its grip on the music industry with the announcement of the iTunes Store, where people could purchase individual songs at a throwaway price of 99 cents. The year 2003 also saw the unveiling of the biggest laptop with a 17-inch screen along with Apple’s smallest laptop, the 12-inch PowerBook.

The disruptions continued and the distance between Apple and cute, colourful computers widened further as Apple introduced the PowerMac G5 in mid 2003. Finished in anodised aluminium, this also kicked off Apple’s obsession with simple and minimalistic design. It would also mark...
the beginning of Apple's switch to aluminium as its material of choice for its premium products.

While the G5 processor was being used to build supercomputers at Virginia Tech university, a new iMac was released in 2004. By now, it became obvious that each of Apple's products would receive an overhaul in roughly two years. The ‘iMac G5’ became an all-in-one PC with all the components hidden away behind the screen. It was also the slimmest all-in-one PC measuring about 2 inches in thickness.

**A well oiled machine**

With all its products selling like hot cakes, Apple had the means and funds to develop a whole bunch of products, and 2004 also witnessed the launch of two new versions of the flagship iPod, later named the ‘Classic’ and the now discontinued ‘iPod Mini’. It experimented with materials and added more features.

This continued well into the next year as the iPod Classic came out with video capabilities as opposed to just music and photos in its previous generation. The year 2005 was the year of the iPod as it introduced the first generation ‘iPod Nano’, a replacement to the second generation Mini. Apple also released the first “affordable”’ iPod, the ‘iPod Shuffle’ which was finished in plastic, didn’t have the trademark click wheel or a display of any sort.

It was the same year that Apple Store operations were no longer restricted to the US and more stores opened up in the UK, Japan and Canada.

After fighting Intel tooth and nail, Apple shocked the world in 2006. Rumours had been doing the rounds that secret versions of OS X were being made for Intel processors as well as the regular PowerPC processors. Jobs confirmed these rumours and announced to the world that Apple would be switching over to Intel’s processors. He also announced that all Apple devices running OS X would transition to Intel processors by the end of 2006.

This switch proved advantageous as the PowerPC chips weren’t as good as the ones made by Intel, and for the first time in history a Mac could run Windows. By now, OS X was in its fifth iteration and the sixth was announced. Each upgrade brought with it more features and the operating system only got better.

This was also the case with newer products being rolled out featuring Intel’s chips. The ‘MacBook Pro’, a replacement to the PowerBook G4, looked more or less the same, however, looks were the only thing the two had in common.
In 2007, Apple Computer Inc., now renamed as Apple Inc. launched a product that would put it on the map even in the remotest of countries. It introduced the ‘iPhone’, a smartphone featuring a butter smooth touchscreen. The iPhone combined the design and features of the ‘iPod touch’ – a touchscreen iPod launched earlier that year – with cellular calling capabilities. A new iPhone has been released every year since then.

By 2008, pretty much every single offering by Apple was finished in anodised aluminium. Only the iPhone 3G was made of polycarbonate. The iMacs made the transition in 2007, while the PowerMacs/MacPros and the PowerBooks/MacBook Pros were already made that way. The MacBook was the last to switch.

Another interesting landmark that year was the announcement of the ‘MacBook Air’. The ultra-light, ultra portable laptop featuring solid state drives was launched claiming to be the thinnest laptop in the world.

2009 can only be described as ‘a good year’ for Apple. The iMac was now a unibody and so was the MacBook Pro. The ‘iPhone 3Gs’ came out and started the trend of Apple releasing an ‘S’ version of each iPhone a year after its release featuring roughly the same design. No new OS X was announced that year.

On the other hand, 2010 was a tad more exciting even though the new OS X wasn’t due till the next year. It was the year Apple announced the ‘iPad’, a tablet featuring a 10-inch screen and all the capabilities of the iPhone
except making phone calls. Even though it wasn’t the world’s first or even Apple’s first tablet, the iPad created yet another revolution as in the same year, publishing powerhouses like Condé Nast and the New York Times started publishing content for the iPad.

**My kingdom for a Cook**

In 2011, Steve Jobs announced that he would be stepping down from the post of CEO due to his ill health and Tim Cook, the company’s CFO, would be taking over. Back in 2003, Jobs had been diagnosed with pancreatic cancer and suffered a relapse in 2011 following surgery to remove his tumour and a liver transplant. On October 5th, 2011, Steve Jobs breathed his last.

With Cook at the helm of the world’s most important technology firm, the shoes he had to fill were rather large. Adding to that the fact that Cook was Jobs’ polar opposite made many of Apple’s stakeholders anxious. When ‘Siri’ was launched with the iPhone 4S in 2011, it was well received. But with time, its fatal flaw, the inability to comprehend any accent apart from a ‘clean American’ accent, were glaringly visible. Despite Apple’s assurance that Siri’s capabilities would get better with time, it was widely perceived as a flop.

Apple went on to replace Google Maps with its own Apple Maps. Once again, the product was a failure as entire towns were labelled hospitals and
nurseries were confused with airports. While the product looked good – something that one had grown to expect of a product from Apple's stables – unlike other Apple products, it simply didn't work. Also a flop, it was soon to be joined by the over-priced “budget phone” ‘iPhone 5c’.

The ‘iPhone 6 Plus’ is the latest Apple offering that’s come under the scanner with reports of the 5.5-inch version bending when placed inside users’ pockets. ‘iOS 8’, released with the iPhone 6 was no different. Apps crashed frequently with the initial release, the Touch ID and cell service were disabled with iOS 8.0.1, and despite being officially available for the iPhone 4S, it’s still buggy.

For the first time in almost 15 years, Apple showed a negative return on sales at the end of the 2013 financial year. Even though it was a marginal -0.1 percent, it’s still a big deal considering that this figure was 25 percent in FY 2011 and 27 percent in FY 2012. While net sales were better, the same can’t be said while discussing net profits as revenue has grown by only 9 percent.

Many differences between Cook and Jobs have been pointed out revealing that the duo vastly differed in personality and management style. While Jobs was a free thinking radical, Cook is a disciplined manager who prefers talking numbers. While Jobs was all about Flash, Cook led a life of simplicity. Maybe that’s why Jobs’ Apple was different from Cook’s Apple.

George Colony, CEO of technology research firm Forrester Research said in his blog, “Without the arrival of a new charismatic leader, it [Apple] will move from being a great company to being a good company. Like Sony, Polaroid, Apple circa 1985 and Disney, Apple will coast and then decelerate.”

All we can say is that it’s still too soon to say.
MEET APPLE’S CURRENT GEN HARDWARE

Let’s take a look at the wide range of hardware within the Apple tech ecosystem, from its mobility devices to home entertainment centres
As clear from the previous chapter, each of Apple's products has a long history behind it. Today, Apple might be synonymous with high-end mobile devices, smartphones and music players, but just ten years ago it seemed like a completely different technology company. In 2004, Apple had begun pushing design boundaries again by creating the world's thinnest desktop computer, the iMac G5 that converged the CPU and the whole computing module behind a 2-inch flat screen. And even as Apple was trying to break into the enterprise computing market with the modest success of the world's cheapest supercomputer, the Power Mac G5, it was its phenomenally successful music player – the iPod – that was making the money flow.

Inspired by its immense profits from the iPod series of music players released in 2001, Apple turned its attention to releasing newer and more experimental designs in its computers. Newer materials from new suppliers remarkably cut short the product development cycle at Cupertino. The hit iPod series found newer variations in the iPod Video, iPod Classic and eventually Apple's new flagship product, the iPhone. These successes followed by the release of the Mac OS X Tiger intensified Apple's popularity as a solid computer company – a feat once considered unimaginable.

Apple Stores with the instantly recognisable logo spread across the U.S., Japan, England, Switzerland, Denmark, Norway, Canada and eventually In India iStore's can be found in major cities thanks to Reliance Digital.
India further strengthened awareness of the brand. During the phases of this expansion, Apple started the ‘MobileMe’ service, which went on to be known as ‘iCloud’, and began its rise as the dominant seller of digital content.

Let’s look at the present state of this immense yet interconnected ecosystem of services and products to assess what the current generation of Apple hardware has to offer.

**iPhone 6 and 6 Plus**
In this in-depth analysis, we’ll explain everything that Apple has done differently with the new iPhone 6 series.

**Size matters**
The iPhone 6 and iPhone 6 Plus are the latest in the line of mobile devices from Apple. These models break away from the usual design philosophy imposed by the late Steve Jobs. He considered 4 inches to be the ideal size for phones. The iPhone 6 and 6 Plus are bigger than that – a response to the emerging popularity of large screen smartphones from arch-rivals such as Samsung. And if pre-order figures are any indication, their customers highly approve.

The new series of iPhones aren’t just supersized versions of the iPhone 5S, but unique by themselves. And even as Apple’s foray into large size phones comes at the tail end of the rest of the market, it is no less significant. The positives of the usual Apple design style married with the large form factor has birthed a new look – one that breaks away from earlier iPhone models, not just by size but also shape. Much larger than the humble 4.87-inch iPhone 5 series, the iPhone 6 measures in at 5.44 inches and the iPhone 6 Plus towers at 6.22 inches. Playing around with it in your hands is a strange but ultimately satisfying experience since the hard flat edges of yore have given way to a more organic roundness that’s sturdier than it may appear.

The iPhone 6 and 6 Plus screens bear an elusive boundary that just melts into the sides utilising the full breadth of the device. This unifying feature gives the appearance of a solid single-piece device rather than an assembled product, further enhancing its appeal. The phones are proportionally wider with the iPhone 6 at 2.64 inches and the iPhone 6 Plus at 3.06 inches. The bigger dimensions work ergonomically well in the hands thanks to the rounded edges which wouldn’t be possible in the older flat panel design. This is further helped by the alluring thinness which makes the size even more appealing – with the iPhone 6 at .27 inches and iPhone 6 Plus at .28
Steve Jobs was wrong about big screens as pre-orders have shown.

inches only. But despite its visually striking appearance, there is an oddity in design on the rear panel where two bands form a thin frame around the width of the device and around the camera. These are the antenna bands. The way Apple has chosen to integrate them into the styling of the device is interesting, to say the least, and doesn’t make it stand out on the Space Gray model. However, in pictures of the Gold model, the antenna bands do look out of place.

It’s worth pointing out that given the many controversies surrounding ‘Bendgate’ (which we’ve covered elsewhere in this FastTrack) and the drop-testing phenomenon, its slenderness seems to be at fault. With such a large thin phone in the hands of a klutz (which we all are from time to time) there
will be drops. It’s conceivable that Apple recognised that most, if not all, users prefer to place their phones into distinctive and personalised cases and skins. In our test piece, that added thickness actually made the phone more naturally fitting in the hands and feel more “filled out” as a high tech device worth protecting with your life.

**Sweet HD screens**
The iPhone 6 and 6 Plus screens compose the largest real estate yet on an iPhone device at 4.7 inches and 5.5 inches, respectively. The bottom of the screen is dedicated to the Touch ID Home button and leaves the screen smaller than its Moto X competitor, which provides a 5.2-inch screen on a similarly sized device. This trade off is definitely worth it considering that Touch ID is now open for use by third-party apps, which would make this hardware feature more versatile and useful in the future.

The screen itself in both the models is crystal clear and as impressive as can be imagined. The LED backlit multi-touch IPS display from the earlier phones is found here as well with a significant boost in resolution with a 1334 by 750 pixel display (at 326 ppi) for the iPhone 6 and a full HD 1920 by 1080 pixel display (at 401 ppi) for the iPhone 6 Plus. Both the models nearly
double the contrast ratio from the iPhone 5 series improving the display’s vibrancy and beauty. The continued use of oleophobic screen coating keeps the screen fingerprint-resistant even after hours of use. The difference in resolution between the two devices, although large, doesn’t diminish the user experience in any way, thanks to great pixel viewing angles, vibrant colours and excellent responsiveness.

**The iOS to rule them all**

The iOS 8 interface that comes with the new series of phones has garnered its share of controversy. The growing pains experienced by older models bundled with iOS 8 are not found in iPhone 6 and 6 Plus, which are very stable under iOS 8 and even more so following the later update of iOS 8.0.2. With the expected release of iOS 8.1, which is in beta testing, more features are sure to be found. More importantly, the new OS is a big deal for app developers as it allows them to make the most of the Touch ID hardware. The seamless fingerprint password system is proving to be popular not only amongst password management apps, who are allowed a singular entry point on the phone, but also amongst users, as it takes the hassle of remembering passwords out of the equation.

The new talking point this year with iOS 8 is also the use of third-party keyboards. In addition to such apps are a host of other developer features that make it easy to use on-board Apple apps with third-party add-ons such as editing tools in say the default Photos app. The messaging features incorporated into the OS such as responding without leaving the active application is also very useful. ‘QuickType’ is another welcome feature; it suggests which word to use next while typing a message. Aspects of the iOS environment such as ‘Family Sharing’ and ‘Health’ can be very handy for those who use it. Newer features and enhancements to the old seems to be the mantra for this OS.

The interconnectedness of Apple devices is visible with the iPhone 6 series as it links up with its Yosemite desktop OS to allow users to make calls directly from the computer. The inclusion of widget-like features in the notification centre is also a useful touch, but this is nowhere as advanced as Android. With time, this feature can truly distinguish Apple as there are no widgets cluttering the screen – they’re integrated to provide information in a seamless manner. Apple may decide to move to full-blown widget mode later on, but for now this feature works well within the Apple minimalist interface. There are many more features in iOS 8 that we’ll cover in depth,
but overall it is perfectly suited to the iPhone 6 series making it powerful and effective in its execution of tasks.

**Photo and video**

For most users, the camera is an essential tool on their phone. So when Apple announced that the iPhone 6 series would have the same megapixel camera as its iPhone 5 series, an audible groan was heard the world over.

With competitors of all stripes upping the megapixel count with each of their successive phones, the 8-megapixel standard doesn’t seem to satisfy – that is, until you see the hardware behind it. As most photographers know: the megapixel count in itself isn’t an objective measure of quality. While it’s true that under the same sensor conditions a higher megapixel would give better images, most phone manufacturers don’t bother with a hardware upgrade as consistently as Apple does. The iPhone 6 series comes with a new camera sensor which enhances the fine quality of the 8-megapixel image far above its earlier model. The new feature, ‘Focus Pixels’ assists the camera to deploy a faster and more accurate autofocus when taking images. The only flaw with the camera appears to be the iOS 8.0.2 glitch, which in landscape mode doesn’t consistently give focus control across the screen. This problem is expected to be resolved with the iOS 8.1 release.

The camera app interface remains familiar and based off the iOS 7
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design. Users can swipe through left and right for different camera modes from filters to videos. An added feature is the ability to swipe up and down to adjust your camera’s exposure settings allowing for more manual control over the light captured. The screen is spartan and doesn’t clutter your frame with settings, giving more space to the image being framed.

The camera as such does a satisfactory job and excels under daylight conditions to give sharpness, contrast and colour, especially combined with its great ‘Digital Image Stabilizer’ feature. This also helps in low-light conditions where the “after” image has considerably less noise than the “before” image and greater clarity. By no measure is it the best mobile camera on the market, but it’s definitely devoid of any obvious flaws. The hardware and new user interface features are ripe for enhancement using third-party apps, which can give you the best photography experience.

The high-definition 720p and 1080p screens in the two models makes shooting videos a pleasure. Couple that with a wide screen and great image resolution, and composing videos is a breeze. Shooting takes place on full HD at 60 fps allowing for basic slow motion and image distinction to begin with, but it also pushes the slow motion to 240 fps doubling that of the iPhone 5S. This feature, along with the rest of the hardware, puts the iPhone 6 series at the top of the ranks as far as video capturing is concerned.

**Processor and performance**

Like a frugal aunt, Apple has a way of doing way more with way less. Its use of seemingly low-end hardware specifications to generate powerful

The A8 processor is more powerful and less power hungry than earlier designs.
performance is truly impressive. However, the iPhone 6 series has a brand new A8 chip with second gen 64-bit design architecture, which allows for a smooth user interface. The phones can handle any app or game thrown at them without a glitch. And despite facing off with its demons in the iOS 8 updates, the phones have never succumbed to any glitches while under our use. The perfectly arranged marriage between hardware and software allows the low-end specs to be leveraged smartly to give the smoothest possible results.

The optimised pairing between hardware and software has other benefits as well such as battery life, which is critical in the smartphone market. The iPhone 6 sports an 1810mAh battery allowing it to push through the day. With moderate use, the iPhone 6 still leaves a reported 50 percent power after a 12-hour day when starting with full charge. On heavy multimedia and general use, the camera still survives with about 30 percent battery, whereas with light usage don’t be surprised to go by a couple of days without needing any charge.

**Security and Touch ID**
The inclusion of the Touch ID home button on the former iPhone 5 series wasn’t without its share of problems. This problem has truly been resolved with the iPhone 6 and the upcoming Apple Pay integration. The importance of having a fingerprint reader as a security measure can’t be overstated. With issues such as hacking, lost phones, non-secure financial transaction, mishandling of sensitive data and corporate espionage, and general privacy at stake, the hardware can’t be intermittently functional. And in the iPhone 6, the fingerprint scanner works without a glitch an estimated 90 percent of the time. The 10 percent of the time it comes to a grinding halt is usually due to sweaty fingers or imprecise usage of the sensor.

**Final word**
The question on every non-Apple user’s mind at this point must be: “why bother?” There’s no denying that many (if not all) of iPhone 6's features including size and sensors already exist in the world of Android in some capacity. The non-expandable memory, rigid app system and generally closed operating system work against the phone’s favour. But, Apple ownership is almost a religion where debates of design vs. function vs. cost can go on all night and into next year. The only objective response would come from someone who’s impartial to brands and hype. In which case you
probably don’t care about the iPhone 6 and will buy a Moto X or HTC One M8 without a second thought. But if you own any version of the iPhone, you’ll probably be tempted to splurge on iPhone 6 or 6 Plus, seeing how they’re the best iPhones ever designed with massive improvements on every front. But, don’t expect it to impress true blue Android lovers to any major degree. It’s just an iPhone.

Meet the rest of the family
The iPhone 6 series of phones are just the latest addition to the Apple tech family. Apple, as we know it, has resurged as a technology leader across all dimensions from tablets to computers and even home entertainment. Following is a quick rundown of the current generation of Apple products in these segments to point out how comprehensively broad and interconnected the Apple line of products has become for modern consumers.

iPhone 5, 5S and 5c
As hundreds of thousands of people flock to purchase the new iPhone, there’s no denying that the last generation of Apple’s mobile devices was a fan favourite. The iPhone 5 series, with particular emphasis on the iPhone 5S, has proven itself as a strong product, both - in terms of performance and popularity. And even though the iPhone 5c didn’t garner as many great reviews or appeal as the 5S, it didn’t fail by any stretch of imagination. In terms of sales, the 5c was ranked at the top of the smartphone market at

Will the iPhone 7 be just another incremental improvement?
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the time of its release, reportedly bringing in over 80 percent of premium phone sales in China, 75 percent in Japan and 45 percent in America. Over two of its release quarters in 2013, the iPhone 5c outsold BlackBerry, Nokia’s Windows Phone and Samsung models.

The iPhone 5 and 5S however remain the stars by all perceptions. The higher technical specs along with the performance and style retain its position as the go-to device as the new iPhone proves too expensive for some consumers. And with over 100 million units already sold, the phone has proven its grasp on users over the past year on a global level. The reasons are simple: its screen and build quality more than satisfy anyone who doesn’t fret over large screens and enjoys the palm-sized form factor. The solid 8-megapixel camera with slo-mo capable 120fps video shooting in full-HD makes it a great camera substitute. In addition to this, the widest range of apps and services associated with iOS 7 and Touch ID make it perform just as Apple intends – an appliance which just works.

iPad Air and iPad mini with Retina
With news of the yet-to-be-launched iPad Air 2 with Touch ID and an amped up processor hitting the web, let’s not forget the one that started it all. The iPad Air, as the fifth generation of the iPad tablet, gave users all they could need – light weight, mobility, gorgeous Retina display, the A7 processor chip with desktop architecture, a 10-hour battery life and a great iteration of iOS 8 tying it all together. The tablet works really well as an on-the-go laptop and can be docked with a keyboard to convert it into a touchscreen netbook that truly performs, even if it takes a little getting used to at first. Apple now intends for iPad Air to replace the fourth gen iPad as the standard large tablet device from its stables.
Laying claim to the top spot in the small tablet market is the iPad Mini with its first and second generation models released in 2013 and 2014, respectively. The iPad Mini models compete against tablets from Samsung and Amazon, who’ve been dominating the small tablet market. As a direct reaction to the Amazon Kindle whose USP is easy reading and mobility, Apple brought out the iPad mini, which changes its form factor from the large screen but boasts of the same level of user interface quality. The tablet is becoming the preferred option for people who use Apple products and want a tablet that works as an alternative to the Kindle ecosystem. The added ability to use apps for gaming, music and entertainment also lends the iPad Mini series a certain attraction.

**MacBook Air, MacBook Pro and Mac Pro**

Away from the world of compact computing in tablet and mobile formats, Apple made a surprising comeback into the world of computers. While many feared that the launch of the original iPad would spell doom for its MacBook line of computers, a reverse “halo effect” took place and the sales of various Apple MacBooks actually rose in response. The allure of the Apple ecosystem is so great that once you’re accustomed to it, the ability to move to a more modular system becomes very hard. The complete functionality of the MacBook OS environment spreads across its devices with familiarity within both, mobile devices as well as computing platforms.

The range of products in the Mac series includes the MacBook Air, MacBook Pro, Mac Mini, iMac and Mac Pro Tower. All of which run the OS X Mavericks operating system, at least until Yosemite is released to the public. The MacBook Air has proven to be quite successful in the Indian market due to its relatively lower price. It’s beyond doubt an on-the-go machine with an extremely impressive battery life lasting between 9 to 12 hours in the 11-inch and 13-inch models, respectively. The Air measures about .68 inches and weighs just over a kilogram. And the all-flash storage makes for quick responsiveness, which can handle most apps for the laptop.

The cornerstone of the MacBook system remains the MacBook Pro with Retina display, which is a high-end multimedia laptop. The 13 and 15 inch variants prove functional for both, mobility and desktop replacement based on need. Powered by quad core i5 and i7 Intel processors and supporting up to 16GB of RAM, the machine can handle photo editing and gaming operations with ease. The 15-inch model comes with NVIDIA GeForce GT 750M with 2GB of graphics memory, which makes full-HD video editing,
advanced gaming and photo editing a breeze for long projects due to its 8-hour battery life.

The Mac Pro is, however, the real big daddy of the bunch as it takes performance to a whole new level with its powerful configuration. Coming in at less than 10 inches in height, it barely takes up any space on the table and is easily transportable due to being less than 5 kilograms in weight. Available in variants of quad core and six core Intel Xeon E5 processors with 12 GB or 16 GB base RAM (expandable up to 64 GB), the machine is a true monster of power and speed. Supported by Dual AMD FirePro D300 (configurable to D500s and D700s) graphics cards with 2GB, 3GB and 6GB modules on GDDR5 chips, the Mac Pro is made for high-intensity graphics work such as 4K video editing and advanced CAD programs. A single Mac Pro can connect to three 4K displays and six thunderbolt displays via HDMI 1.4 UltraHD and four USB 3.0 ports, and has built-in speakers. No other machine comes close to the Mac Pro’s performance and speed within the same form factor range.

**Apple TV**

Apple TV hasn’t made as big a splash as the iPhone or Mac Pro, but it’s a device worth keeping an eye out for. It functions as a set-top box of sorts that connects to the internet and gives users the ability to make iTunes
their home entertainment source. Using iTunes to watch movies and TV shows, and download songs and books has already proven to be successful for Apple. By bringing the multimedia aspects to the living room with Apple TV, along with support for Netflix, YouTube and Vimeo, the scope for entertainment is virtually unlimited. Although we have yet to see the spread of Apple TV in India, the numbers are reportedly picking up slowly, and as payment options over the Indian iTunes Store become easier, there’s a realistic chance that more and more users will opt to make the internet their source for all types of entertainment.

**Apple Watch**

The Apple Watch is as of yet a mystery to most. Considered by many as an unnecessary add-on, it remains to be seen how it will integrate into the Apple product family. But, based on our assessment, it will be a make-or-break product for Apple. Either it will be the most complementary gadget for personal tech devices, becoming even closer than the phone as an interface with which we interact with the world, or it will be reduced to a novelty item that executes a rag-tag set of features. We’ll discuss this in more detail in Chapter 4 when talking about how Apple Pay and the Watch come together for the next phase of Apple’s growth.

![Apple Watch](image)

Three styles - Formal, Sporty and Gold.

**The Apple ecosystem**

The Apple Special Event in September 2014 wasn’t just about the newest iPhone or the Apple Watch. It was actually a showcase of how Apple plans to take over your digital world. As we’ve seen, over the past few years, Apple
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has infiltrated the lives of its consumers in many ways – from the way they communicate to the way they shop, all thanks to the small applications that invisibly organise their lives and the many form-factored interfaces that surround them from within their pockets to their desktops. Apple has gradually released the most comprehensive and immersive computing environment onto its users without them realising it.

The Apple ecosystem as it is consists of nearly all of the Apple products in some way or the other. Whether you just have one or all of them, the ecosystem exists all around you, very much like the Matrix. By combining the services and products from Apple and the many thousands of manufacturers and developers from around the world, Apple has created the fragmented computer that inhabits its users’ lives. The convergent user experience that living in this world provides begins with the fact that users are able to use their data and tools in whichever form factor is suited to their needs. There’s Apple TV for movies and the iPad for books, the iPhone for communication and Apple Pay for payments, the HealthKit for
exercising and iBeacon for location services – Apple has its users covered in every aspect of their lives.

Imagining such a reality isn’t that hard if you’re an Apple user - a phone in your pocket, a tablet in your bag, a watch on your wrist, a laptop at work and a desktop at home – all of which exist on the same plane of utility connected via the cloud. Every device a computer that connects you to what you need, where you need it, and when you need it. These are actually not separate computers, but one single computer adapted to different aspects of your life. So, whether you’re jogging and need a health monitor or just chilling listening to music, Apple has created a product range so precise that it fits into most of the needs you will have from technology.

This is the reason that the company has gone from being Apple Computers Inc. to simply Apple Inc. implying a deep and wide ranging expansion of its identity. From being a stylish computer manufacturer to being the one-stop-shop for a digital lifestyle, Apple now exists as the most desirable brand to own as well as a well-renowned representation of performance and function.
Chapter #03

**iOS 8 and Yosemite**

Will iOS 8 and Yosemite really stand up to all the claims Apple has made? We take a look at Apple’s OS philosophy to gauge whether it will take Apple into the future or fail.

The third quarter of 2014, particularly the September-October stretch is when Apple generally reveals the next big thing. With the September launch of iOS 8 and the iPhone 6 series we finally got to see the next wave of Apple tech. And the expected October release of the new iPad, iOS 8.1 update and the OS X Yosemite is just as important for the big picture for Apple. With the announcement of the Apple Watch, the Apple ecosystem has taken the next step.
The two big support systems of this networked device ecosystem are the operating system that run the devices - namely iOS 8 for mobile devices and the new OS X Yosemite for the laptop and desktop systems. Both these operating systems bring new and enhanced features for their respective form factors. We take a look at these two systems, how they relate and what Apple intends to do with them for the foreseeable future of computing.

**The New Continuity Philosophy**

Whatever the cost, Apple believes that the methods with which it crafts its individual products creates the most efficient and engaging relationship with the user. This idea has led to the evolution of individual products for specific tasks - phones for communication, tablets for productivity, laptops for moderate mobile computing and desktops for heavy duty output. Apple may hint that this means that to truly make the most of the system you have to buy each product, it also means that at some point these products have to connect together. This method of connectivity between Apple devices now finally has a name - Continuity.

Continuity is all about how you switch between your iPhones, iPads and Macs without any hindrance as one seamless interface. In this respect, the iOS 8 iteration for mobile devices and the upcoming OS X Yosemite (which we only have in beta testing) are the manifestation of Continuity philosophy.
Long standing followers of Apple will truly feel at home in this environment where they can simply keep connected across their devices thanks to a unified iCloud account. And although the bridge between iOS and OS X has been in place since 2011 in one form or another, now it truly has a framework powering its best features. The Continuity system then is more than just syncing of data, its a whole new means of experiencing computing. The following pages will elaborate as to how this happens.

**How iCloud and Continuity Work**

Even though the new iOS 8 offers up a host of new features and enhancements over iOS 7 the true revolution is in its pairing with OS X Yosemite. We take a look at the breadth of iOS 8 features in a later chapter, and for now only discuss its relationship with OS X Yosemite and how they work together to enhance productivity for an Apple user.

![Image of Apple devices showing iCloud and Continuity features](image)

The Handoff icon is accessible from any application and screen.

To begin understanding all of this, we first have to see how iCloud is changing the way we synchronize our data. The need to enhance security and reliability of communication between devices of one account are more prominent than ever. The backbone of the Continuity functionality is built on the iCloud system and after the recent iCloud hacks Apple has started...
strengthening its security measures. The process of interconnecting between Apple devices to machines is now called Handoff and it is supported by Bluetooth authentication which helps ensure that your device data ends up on the right computer i.e. the one same iCloud signed in on the device matches with your iCloud account on the computer.

The Apple ID that controls all the users data has also been broadened to include more features. The addition of Family Sharing enhancements allows users to share apps and media content to numerous mobile devices that each have their own Apple ID. This unifies the Apple ID needed to operate the App Store and the ID needed to login to iCloud, iMessage, FaceTime and other services. This unifies your Apple identity across all formats and ensures that your apps, data and settings are easily configurable irrespective of machine used.

Relay communication between Devices
One of the most useful features to be integrated between iOS 8 and OS X Yosemite is the ability to make and receive phone calls from your Mac machine or iPad via your iPhone. The only requirement for this to work is that they all need to be on the same Wi-Fi network without any Bluetooth involvement. It even circumvents the limitations of AirDrop as it doesn’t demand that your device support P2P Wi-Fi networks. This means that once it goes live for the public we should be able to even connect an iPhone 4S with an older generation iMac and MacBook that supports OS X Yosemite.

The communication extends to the use of VoIP based relays between Mac and iPad, effectively allowing users to just call anyone from their Mac or iPad which is connected to their iPhone. This is similar to the iOS 7 support found between FaceTime Audio and OS X Maverick 10.9.2 update. By using the local network between the two devices the system circumvents the internet completely. The calls also appear as pop up notifications similar to the FaceTime Audio on OS X Mavericks.

Harmony between Devices
The new framework between the iOS system and the Mac OS X systems for Apple therefore is all about the ability to use the different forms of the Apple user experience on different devices as needed under a common account. This approach has been a long time coming for Apple as many Android users have already moved on to Google and phone synchronously using a multitude of apps. But for Apple the delay comes with the guarantee that
user experience isn’t hampered by third-party app developers who bloat the system or drop a service.

The integration of multiple connectivity technologies such as Wi-Fi, Bluetooth 4 and NFC amongst Apple’s device range ensures that a single Apple account holder can feel at home with all their devices as a unified computer. The former user experience was already proving tiresome since users on their iDevices had to switch apps even for related content such as image editing. In addition, the ability for any one device to do all of the functions that Apple segments in its product range was tedious. The iPhone was too cramped for typing long documents and the iPad was ineffectual when a message dropped in while using another app.

In the evolved ecosystem of OSes we find that, at least in the beta stages, iOS 8 and Yosemite complement each other in these very gaps. This attempt by Apple to ease the limitations posed by different devices by assigning them their appropriate tool is sure to make user experience better and productivity higher. In practice this means that any attachment such as a Document file received on your iPhone can seamlessly be passed on to your Mac machine using Handoff provided that it is within range. So if you only need a large area to read the attachment on your iPhone then Handoff can send it to your iPad, and if a comfortable editing platform is required then pass it on to your iMac or MacBook.
This works the other way around so that any work being done on Mac machines can be passed onto your tablet for on the go work if you step outside. The ability to receive phone calls on your iPad or Mac when the phone is physically out of reach is also a useful convenience that people can very quickly become accustomed to as a part of their everyday existence.

**App Communication**

The limited communication permitted to apps between Mac usage and iDevice has been the cause of much of the frustration that the consumers had to face. On a Mac, users are accustomed to seamlessly applying app utilities across each other such as using 1Password app on your Safari browser while on the iOS system each app had to be managed and opened separately. But now with the addition of the iOS 8’s app extensions, the usage of different apps on iDevices is more seamless and productive. These processes are still in the early stages with a limited number of apps having been updated to leverage this add-on but we can already see signs of how this would greatly enhance productivity of iDevices in the long run. This same functionality is found in iOS 8’s Quick Reply feature where the Messages app doesn’t need to be separately opened to reply to a message.

**iCloud Drive and Family Sharing**

Another major obstacle for users in the past has been the ability to share media content across different devices. Unless all the devices were under the same Apple ID this was not possible but now this has changed thanks to Family Sharing. Within the iCloud framework, Family Sharing allows one account to access and deploy shared content to multiple accounts and devices. The process isn’t as seamless as what we see in open systems like Android but it is a step in the right direction for Apple which is working to make interconnectedness of process as well as content a reality for its
consumers. The new iCloud Drive available on Mac OS X Yosemite is the counterpart to this feature as it allows all apps access. By opening the access to iCloud to all the different apps Apple is further able to unify its user experience by making trips to DropBox or Google Drive unnecessary for high level users.

**Where Is Apple Taking Us?**

There are a few questions that still remain unanswered given these radical new updates to the iOS and Mac OS systems - is it necessary? And - is it enough? The simplest pair of answers is Yes and No, respectively. The era of technology convergence began nearly ten years ago with the dream of the seamless computer interface. Moving from your kitchen to your living room and even out in the real world was supposed to make access to data, the internet and interface a singular experience. In this sense, Apple was poised to be the one company that could do it right and do it stylishly. However, this hasn’t proven to be the case.

The coming year is a make or break year for Apple.

Apple prides itself on product segmentation - one device for every use but given the exorbitant cost and various user limitations - the dream of an Apple laden user is a rare sight, especially in a financially conservative country like India. Even as we acknowledge that having a multitude of devices for all our needs would be great - with a Watch on our wrist for immediate tasks and execution, an iPhone in our pocket for quick messages and calls, an iPad for work and leisure, MacBook for high intensity productivity and Apple TV for home entertainment - the cost barrier will always hold us back. In response to this closed off existence we can see
Apple taking baby steps towards opening up its system to developers so we can enjoy inter-relational apps, multiple device synchronicity and an easier more secure way of utilising our devices within each other.

Unfortunately, this change comes at the tail end of things that Apple’s competitors have been doing for years. The ability to sync data from different applications on the phone to your CPU machines is a reality for many Android users, while being relatively affordable. The edge that Apple provides is that it packages its services in a neat, hassle free bundle, that although limiting does a small job exceptionally well. So while millions of Apple users will rejoice with the new direction of Apple’s functionality philosophy, for the billion or so others it will prove to be too little, too late for too much money.

The biggest mystery remaining will be how far Apple and Tim Cook let go of Apple’s boxed-in legacy and trust its customers to use its hardware in an open and secure manner.
Is the promise of Apple Watch and Apple Pay all that it’s cracked up to be? Find out here.

With iOS 8 many things have changed and a lot has fallen by the wayside. We assess these disparate pieces of facts and present the most cohesive picture of what to expect from the new form factors that Apple is including in its product mix. In this chapter we’ll also look at device compatibility for iOS 8. Will people have to kick their old gadgets to the curb and buy new ones? And how will Apple Pay fit into the mix of things? There are too many new facets of Apple that don’t immediately fit together in an intuitive way.
What works, what doesn’t

A lot of what Apple is now trying to offer its customers in terms of security with the Touch ID is based on advanced hardware which means that without hardware support, Touch ID is going to make a lot of the older technology obsolete. While one of the cornerstones of Apple’s product pitch is the long lasting durability of their products, if users want to benefit from the new wave of iOS 8 and Yosemite powered utilities, then it appears they will have to upgrade their devices.

The list of devices capable of handling iOS 8 can be listed as follows: iPhone 4S, iPhone 5, iPhone 5S, iPhone 5c, iPhone 6, iPhone 6 Plus, iPad 2, iPad 3, iPad 4, iPad Air, iPad Mini, iPad Mini 2 and iPod Touch 5G. The list is comprehensive enough to cover most of the current generation of users. However, those with the iPhone 4 and iPhone 3GS will be left out. Thankfully even as the iPad 2 goes out of production, users can benefit from low prices in clearance sales to procure themselves an iPad 2 at an affordable cost knowing that it will fit into the future of what Apple has planned.

For anyone with the above sanctioned list of iDevices compatible with iOS 8, there shouldn’t be any problems. Although the current version update of 8.0.2 has resolved most of the early bugs, our recommendation would be wait until the iOS 8.1 update is released. This update is expected to resolve all known bugs and optimise a wide range of devices for use with the new Apple ecosystem. The means to upgrade your devices to iOS 8 is fairly

![Devices supported by iOS 8.](image)
Beyond phones, into mobility automated as it shows up in your settings as a notification alert. But it is highly recommended that users install this upgrade via iTunes connected to their computers instead of doing it over the air. The computer connected upgrade ensures that your phone back up is reliable and that the installation is a clean boot on your device making sure any lingering performance glitches or cache files are no longer weighing down the device.

Apple Watch: What is it for? Really?
The September Special Event by Apple was about many things, the centerpiece being the iPhone 6 and iPhone 6 Plus, but it also teased at a host of new releases in the works. One of the most talked about releases was the Apple Watch which had been rumored for months. Since other competitors have already released their smart watches in the form of Samsung’s Gear, Moto 360, LG G Watch and the Pebble, it was just a matter of time that Apple also stepped into the game. Apple’s adage of “coming late but doing it right”, is surely going to be tested with the Apple Watch.

The Apple Watch is currently slated for release early in 2015 missing out the lucrative Christmas shopping season. But when compared to the currently available digital watches on the market we have to really scratch our heads and wonder what Apple’s game plan is for this device. The Watch is priced well above its competitors and runs on the “Watch OS” operating system with very little else known about it. The one singular point to note is that unlike its competitors, it is priced higher but comes with the additional connectivity feature of Wi-Fi 802.11b/g along with the usual Bluetooth 4 functionality. This seems like a critical addition as we have seen how Apple’s device ecosystem relies heavily on localised networking.

As the first major product initiative since Steve Jobs’ death it is slated to make or break Tim Cook’s reputation as the leader of Apple innovation.
After three years in development it wouldn’t be wrong to expect the Watch to truly enhance the iPhone experience rather than diminish it. The Watch is expected to be realised in two sizes – with 1.5 inch or 1.65 inch screens that will feature a high resolution display and interchangeable styles and straps. The bells and whistles surrounding the Watch make for more than just a style statement, Apple claims. However since the Watch has been declared as being available in multiple styles the thought does occur.

The Watch will be available in three variants - stainless steel, aluminium sports version and a luxury 18 karat gold version. The current unknown is the battery life of the Watch but what is known is that it can charge wirelessly. Reportedly the Watch is not as thin as most people imagined. Coming in thicker than the iPhone 6 with a flat curved square design, its “Digital Crown” dial is far more seamlessly placed and is easy to work with despite its smaller than expected size.

Functions and functionality

Apple has always been known for its design prowess and it shows with the Apple Watch. Instead of incorporating a multi-touch screen display for zooming and pinching as would normally be expected, Apple avoids the fad and goes old school with a mechanical approach analogous to the iPod’s Wheel. Since pinch zooming is problematic on a screen as small as a Watch, the Digital Crown dial is used to zoom the display. Pressing the dial takes you back to the home screen. This intuitive approach to design is supposed to make the Watch feel more natural and easy to work with, fitting into how users naturally approach their wrist wear.

The Watch remains primarily linked to the iPhone and serves as a notification and call shortcut device. It allows users to read messages, accept calls and display alerts and notifications in a clear and simple display. Users can also invoke Siri’s voice commands for search and other functions. In addition to these features there is a Digital Touch button, which allows you to bring up thumbnails of your regular contacts and send them a voice message.
taps, doodles and your heart rate using the heartbeat monitor. The Watch also comes with its own quirky aspects such as the ability to communicate with other Watch wearers nearby using a walkie-talkie system.

Above all the Apple Watch works to track your activity for healthcare apps and shows you how much you’ve walked, calories burnt and duration of activity as well on the Fitness and Workout apps on the Watch itself beyond the many apps found on the iPhone. However, the view of analysts and insiders surprisingly is that the biggest threat to the Apple Watch may be the Apple iPhone. Since the Watch is being touted mostly for its Healthkit related features it is hard to say if it isn’t just an accessory and not an essential. While the ability to enhance biometric and health activities via the Watch and iPhone connection is useful it is definitely not worth the exorbitant price when compared to major competitors like the Pebble. And with no news of any revolutionary health app that might excite and attract likely users the Watch seems to lack any direct appeal for the most part.

The future of the Internet of Things comes at a time where the changing paradigm is most likely to disrupt Apple’s dominance with the iPhone as a cornerstone product. The Apple Watch is therefore a key foray into the wearable tech category which hopes to take Apple into the next as-of-yet unknown wave of personalised computing. But with the Watch being pitched as a subservient peripheral of the iPhone there is some doubt as to whether Apple is truly giving the Watch the seriousness it deserves.

**Apple Pay and How The Watch May Grow**

Apple Pay is the most highly publicised of all the apps and features available on the Apple Watch. It’s worth remembering that Apple Pay is device independent and can also be used just on the iPhone but Apple believes the form functionality of the wrist access point to make on the go payments will prove highly successful in the market. Apple Pay is a service on the iOS framework that uses Near Field Communication or NFC antenna to access the invoice from a retail contactless payment reader. Users just need to confirm the payment with the Touch ID and payments are executed. The security is via fingerprint recognition which can also be used within different apps to confirm payment for any purchases.

The system works in conjunction with Apple’s Passbook app which stores your credit and debit card information. Apple has worked with retailers and finance providers to build the linkages for this service to ensure security and ease of use. Card information can be imported from the iTunes account.
or added by photographing the card with the iSight camera or by manually entering it. Passbook can store up to eight cards with one set as your default card. All financial information is stored locally on a special Secure Element chip on the iPhone and never passed over to Apple servers further ensuring security. The card information is encrypted and tied to layers of dynamic authentication codes which makes your identity and financial information secure even from merchants. And since Apple has already struck deals with the major credit and debit card services like Visa, MasterCard and American Express and banks like Citibank and Chase, there is no shortage of coverage for users. For now all these deals are only taking place in America and will take some time to transition over to other parts of the world.

In conjunction with Apple Watch we can see the futuristic feel that Apple Pay might provide. Payments with just a tap to the screen or a slide of the finger. It seems pretty nifty but again doesn’t seem worth the hefty price tag of the Apple Watch. But something worth noting is that until the Software Development Kit comes out for Watch based apps we can only guess the degree to which the device will be used - either just dependent on iPhone or with any autonomy of its own.

There is a lot of nay-saying as far as the Watch is concerned. Yes, the dependency on the iPhone is problematic. Yes, the limited aspects of healthcare don’t really warrant the cost. And yes, the Apple Pay system can be used over iPhone as well, so why bother with the Watch? The answers to all these are not entirely clear but the questions do deserve the attention they’re gathering.

The likely scenario is that the initial release of the Apple Watch will count on the fandom and high initial sales to acclimatise the user base to the form factor and ease of use. In a short enough time when the device has been assimilated a newer model will be released that will feature far more functionality and perhaps even autonomy from the iPhone. The ability of a digital watch to be more than just a health accessory or a payment button or a style...
Beyond phones, into mobility

statement to truly become an integral part of the wearable technology sphere which is practically useful in everyday life may still take some time. With improvements in apps, wireless autonomous connectivity and sensor design the Apple Watch 2 may be the iWatch we really need.

However, it is too early to say for sure if Apple is sneaking up on the competition and is just setting up the baseline for what its wearable technology is truly capable off. One thing that is for certain is that when the Apple Watch is launched it will lead to millions in sale given Apple's rabid following. Will it be anything more than that only time will tell.
DON’T PANIC GUIDE TO IOS 8

Just breathe. We hold your hand and walk you through the new world of iOS 8 with all its new features and upgrades.

It’s that time of the year again. The air is getting just a bit colder, the sun setting just a bit earlier and Apple unnerving its fans with one major release after another. Even as iOS completes its seventh anniversary of existence – thanks no less to its slow and steady progression of
updates – we have come to its most ambitious avatar yet. The iOS 8 and its 8.0.1 and 8.0.2 updates in themselves have created a lot of news, mostly bad, for Apple but with public opinion stabilizing thanks to the saving grace of iOS 8.0.2 we can being to take Apple’s iOS – and its myriad new tweaks and features – seriously again.

**Good & Bad News**

One of the most admirable aspects of the latest iOS version is that it is by far the most inclusive of all operating systems Apple has released – purely on the mobile platform. When measured up against all currently active iDevices, iOS 8 is found to support every single one with the exception of iPhone 4. The current generation of Apple hardware supported by iOS 8 includes iPhone 4S and newer iPhones, iPad 2 and newer iPads and the latest iPod Touch. Although, it’s important to note that iOS 8 on iPhone 4S has faced some complaints on performance, because of the fact that the new features were designed with a taller phone in mind.

Another point of concern has been the issues relating to retroactive compatibility of the Continuity feature for other Mac computers. If you don’t have any device other than an iPhone or iPad or iTouch then this doesn’t affect you. But if you were hoping to use the new Continuity feature to streamline the interaction and improve functionality between your device and Mac then you may want to hold off the party for now. The compatibility of Continuity feature isn’t as diverse as iOS 8 and the model of your Mac will determine its functionality, which is limited to only a few. Since the feature requires Bluetooth 4.0 and the Mac OS X Yosemite system, the options are reduced to only the most recent of Macintosh computer systems. Tough luck, older Mac users.

The performance of the iOS 8 system can radically differ for users of any device other than iPhone 5S and the new iPhone 6 and 6 Plus. Older phones such as the iPhone 4S and the iPad 2 have proven to struggle with the new iOS 8 update, at times, but do manage to give most of the functionality without
major issues. The reports gathered from a variety of users doesn’t help us pin-point any consistent variable but suffice to say that older models tend to suffer more often than not. However as of time of writing this chapter Apple announced the release date for their iOS 8.1 public release as 20 October. So if you haven’t upgraded to iOS 8 yet you can feel safer doing so now as this version is expected to ease some of the strain the older hardware is facing.

**The User Interface**
The iOS updates have always managed to keep things the same but also different somehow. With iOS 7 radically changing the stylings to a more flat and pastel base design, the new iOS 8 works off the same look but with a far more polished and detailed graphical interface. The Home Screen remains just as identical as before with minor design changes. The system does come with a wide range of new wallpapers but with no dynamic theme designs to offer. The only big noticeable change is that the separate Podcasts and iBooks app which previously required to be downloaded through the App Store now come pre-installed.

**Notifications**
Apple has listened to popular demand by adding something new and sorely desired to the notification system in the new iOS 8 upgrade. This addition

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A bolder and more distinct design for the control center.
was that users could now reply to messages directly from the notifications instead of moving to the Messages app. Another option is to delete emails from the notifications menu directly as well. This functionality is built into the OS’ core systems and opens up the options to other app developers as well. The Twitter app, for instance, could enable users to directly respond to a tweet from the notifications panel, or Facebook could allow users to like an update on their posts within a pop-up notification. The ability to use the notifications to respond without having to switch between apps makes the new iOS far more open than ever before. Definitely a lot more convenient, too.

The Today view in the Notification Centre adds more to the functionality of this feature. Real time app updates can be used via widgets in the Today view such as those from weather apps or stock quotes. The layout is simplified to “Today” and “Notifications” with the removal of the “Missed” tab.

**The Control Center**

The Control Center was a new addition with the iOS 7 and has proven to be a major feature in terms of popularity and usage. In iOS 8 however this panel remains pretty much the same with only a few cosmetic changes here and there. The design has improved a bit with clearer icons, distinct on/off styles for buttons and a contrasted colour scheme. The only noticeable change is that when we adjust screen brightness the Control Center adjusts its luminance to let us get a clearer picture of the changes made.

The secondary changes to Control Center are related to active or related apps. The most significant among which is the iTunes Radio’s “Buy” option. This option shows up at the right of the track playing information and lets users buy the track from the store with a touch. The panel display also shows how many skips are remaining on the iTunes Radio play but beyond which it remains pretty much the same.

**Spotlight Search**

It’s hard to find stuff when you have a large amount of content synced to your phone and this is where Spotlight Search has always come in handy within the confines of the device. But with the new iOS 8 system it has been boosted both in the range of its coverage as well as the speed of its results. Although most of the features on Spotlight search are restricted to the United States region, it is no less powerful to help you search and navigate
websites, items on the iTunes Stores and iBookstore, as well as access local news and entertainment options.

The service is positioned the same as before and appears when sliding down anywhere on the home screen. The visual animation is noticeably slow on older devices, as expected. The search begins as we start typing pulling up results from both the web as well as our device. There is no spell check feature in there, so accurate spelling is very important to the results you’d get. The web searches take more time to load compared to local searches and re-searching may occasionally be necessary.

**Safari**

The Safari browser is just over ten years old and has evolved into a powerful and elegant web browser in Apple’s ecosystem, both for iMacs, iMac minis and MacBooks as well as mobile devices like iPads and iPhones. In iOS 8 the search options are linked to Safari, so you can easily replace your default search engine and use Wikipedia or Maps results under Spotlight to get going. The iPad version rivals the Mac desktop version and has transformed in some significant ways. For instance, the Reading list, Bookmarks and Shared Links have all been placed on a sidebar to the left which makes using them a lot more easier. And similar to Google’s Chrome Remote Desktop tweak, Safari presents a remote view feature of all the tabs open on your other devices connected via iCloud. The new Safari also helps integrate back with RSS feeds since it has a RSS reader built in for users to work with. The way to add feeds is simple - tap the sharing icon and select “Add to Shared Links” and confirm.

**Messages**

For the longest time it felt as if the Messages app on iOS devices hadn’t changed forever (or since iOS 5) and that was true. But the feeling was intensified due to the rise of numerous messaging services like Whatsapp.
and Snapchat. The latter, especially, has become a hit since people don’t seem to be interested in keeping all their shared photos and sent messages forever, and prefer to have it be deleted off into oblivion. The Message app in iOS 8 takes this to heart and gives a similar option. The method to do this is as follows - in the new app the Send button is replaced with a small microphone icon unless some text has been inputted. On the opposite side is the familiar Camera icon, which if held down presents users with a photo selection circular menu with multiple option icons for sending Snapchat like messages in audio, video or photo form. We can select our option and simply flick the icon up to execute the action. Be warned that the iPhone shoots these videos at full HD resolution and a ten second clip can easily be up to 20 MB in size.

**Media Files on Messages**
The photo selection options in iOS 8’s messages have also improved with a new “Last Photo Taken” option being added to the menu. The images appear in order taken and can be selected one at a time. Touching the Send “x” Photos, dispatches the number of photos selected. Text messages can be added to the photos with the “Add Comment” option before sending the photos.

**Details View**
The Details View is a new addition to iOS 8 and it provides a lot of useful features. Under the Details View of a contact you can see if the contact has
activated the Find My Friends option which shows people where their contacts are on a map. The view has the option of “Share My Location” which makes it easy for groups of people to find each other via the group chat options. The “Share My Location” makes the user visible on the map of his contract so that they can be tracked non-stop (creepy, isn’t it?). Another handy option in the Details View is the “Do Not Disturb” toggle which silences a particular contacts notifications while allowing others to get through.

**Group Chat**

The Details View is especially useful in Group Chats as it integrates location information of people within the chat. So if you’re making meetup plans with friends on the group chat then the location sharing will help everyone in the group chat find each other near the meetup location. The new Group Chat also makes it possible to delete a person off a group and exit an active group.

**Maps**

Maps has always been touted as one of the greatest failures on the iOS systems, from the minute it was introduced. However over the past few years Apple has attempted to rectify and improve its operations as much as possible. And while Maps still attempts to match up to the features and functionality of Google Maps it does offer some unique features of its own such as Flyover tours. The Flyover option is a fun way to explore major cities around the world on your device. Any map that has a 3D icon behind it can start a Flyover tour which covers the major landmarks of the region. With the use of automatically generated 3D rendered mapping. The imagery’s appearance isn’t realistic but it’s definitely worth checking out.

**Camera and Photos**

Apple doesn’t think its customers need to be professional photographers to take good photos and tries its best to compensate with a simple interface and powerful features. This trick however has alienated those interested in a more manual control over their image taking leading to the proliferation of numerous photography apps. In the new version Apple tries to blend the features of manual control with the simplicity of the interface that it is known for already.

The option to focus by tapping the screen is still retained but the new feature of sliding the finger up and down the screen allows for the exposure bar
to show up. The lock focus feature is activated by holding down on the spot you wish and letting it lock the focus. In addition to this a timer option has been added for moments where you need to take the group shot and set the device out of your hand. The timer photos take a burst of ten photos on supported devices to ensure that at least one captures everyone paying attention.

The biggest boost of iOS 8 to camera options is in the iPhone 5S and 6 series where slo-mo video is built in to the camera. To enhance this feature Apple has added a time lapse video option which accelerates the footage to about 15 times the real speed and does a good job doing it. The processing for this feature is pretty high and too many videos of this kind in one day can have a drain on the battery. This is natural since these new phones shoot in full HD quality and are demanding by nature. The videos can be shot, edited and uploaded directly from the device in an easy workflow.

The photography options also extend via iOS 8 to the arena of storage and backup as well. Supported by iCloud Drive replacing the Camera Roll for the iOS. The cloud option allows users to easily upload hundred of photographs and videos to the cloud without any issues. Earlier the Photo Stream option would only give users access to the 1000 most recently clicked photographs which eventually proved too limiting for most people. With the addition of the iCloud Photo Library (beta) in the iOS 8.1 update this problem has been solved since every photo is on the cloud it can be directly streamed to any device you have connected to the web through your login credentials. The Library uses the iCloud Drive space and comes with 5
GB of free usage. In addition to this the new update will bring back the Camera Roll which disappeared with the earlier updates. Users will now enjoy both the older file management system of photos and videos locally on their device along with the option of the iCloud Photo Library supported storage without any major effort.

**Continuity**

The concept of the iCloud was executed in 2011 and was intended to be the unifying platform for all Apple devices. No longer would users need to run
to their Macs and PCs to give their devices meaning - now every device was but an autonomous extension of the cloud. The desire to extend this to a real time seamless inter-device existence has however taken its time to become a reality, and with iOS 8 and the Mac OS X Yosemite we can see it finally happening. Continuity is the new feature launched by Apple that connects all supported Apple devices together using localised Wi-Fi and Bluetooth 4 connections. This enables users to receive phone calls and messages on any of their machines as long as the iPhone is within range. This works with more than iMessage and FaceTime, and also extends to standard mobile calls and SMSes. The components of this near invisible set up demand that the hardware devices have Bluetooth 4, mobile device have iOS 8 and the computers be running on Mac OS X Yosemite. As of now Yosemite is still in public beta testing but is expected to be rolled out by October 2014 just in time for the new iPad and Apple Watch.

**Handoff**

Handoff is the name given by Apple to the ability to seamlessly transition your tasks and activities across different Apple machines. For example if you are working on a document on your Mac computer and have to head out, you can just resume working from where you left off on the Mac on your iPad or Macbook. This technology has been optimised for iPhone 5S and 6 series of phones, along with the iPad Mini, iMac and MacBook Air. Using this feature you can “Handoff” an ongoing iMessage chat on your Mac to your iPhone as you leave the house without any interruption in service. Handoff is recognised by a small icon in the lower left corner of the screen. When we slide the icon upwards the device passcode or finger scan is required, which then opens the related application.

**Hotspot, AirDrop and Bluetooth 4**

The necessity of the seamless user experience is very evident in iOS 8 and the current generation of Apple hardware. Something as simple as Mobile Hotspot has also been seamlessly integrated so that users no longer have to go to the Settings menu to activate it. The regularly paired device will automatically see the host network and connect to it when commanded to do so from the “Select Network” option.

Similarly the AirDrop feature from iOS 7 has also been opened up to a fair degree. While previously it wasn’t possible to send photos, videos and other content from your iPad or iPhone to a friends Mac using AirDrop now
it has become more seamless. The ability to send files between any combination of iPads, iPhones and Macs has been opened up making file transfers a breeze. Content sent from iPhones and iPads to a Mac will always be easily opened but it may not work the other way around. Usually the file sent via the Mac to these devices is opened in the default app with no problems. In certain cases if an uncommon file format is set then the iDevice will suggest which app to use to open it. And if the iOS is incapable of opening the file then it will decline the file outright.

A lot of these seamless Continuity, Handoff and AirDrop features are built on the Bluetooth 4.0 hardware, which is essentially a low energy service standard. But it should be noted that this standard of Bluetooth comes with a fairly low limit of possible device links. Somewhere between four to seven devices can be connect at one time with Apple’s own estimates limiting it to four. So if you have a Mac connecting to an iPad, iPhone, a Bluetooth mouse and keyboard then you’ve already reached your limit. This will result in the frequent disconnection or dropping of signal between the devices and will force you to reboot all the devices and turn on their Bluetooth one at the time.

**Touch ID**
The use of the Touch ID in the iPhone 5S was at first just a novelty but with the power of iOS 8 it can do so much more. Since it has been opened
to third-party app developers new and more useful ways of securing and authenticating user ID can be tried out. From data storage services to financial services, all can benefit with the extra layer of security provided by this biometric scanner which assures that the owner of the device and account is in control. And as more and more financial apps, enterprise modules and contactless payment options are introduced by Apple we will find that Touch ID will have an important role to play.

HealthKit and Health
The iPhones are quite remarkable devices and the new series even more so - with advanced A7 and A8 processors with their respective Mx series of co-processors, the devices can really capture and evaluate massive data from their environment. This feature has been put to good use under the leadership of health fanatic CEO Tim Cook with the introduction of the Health app and the HealthKit in iOS 8. And with the expected release of the first Apple wearable device - the Apple Watch - we can see the work that has been put into the technology to persuade its customers to become more active and healthy.

The Health app is a powerful tool that on its own isn’t capable of much without other accessories to support it. The app can theoretically calculate the calorie intake, amount of body fat, distances cycles, number of stumbles, mineral intake and many other similar details, but all of them require an add on to work. In its basics the app is able to work as a step counter - a display that shows how much you’ve walked and run, along with the inclusion of a Medical ID card. The step counter isn’t unlike a pedometer that calculates the number of steps taken over the course of the day with a detailed breakdown of times when they were taken.

As of now there hasn’t been any hardware release that is compatible with the Health app. But the app development kit known as HealthKit is already being used to develop more apps that can help the users exercise and become active. With the introduction of new compatible healthcare hardware for iDevices we can expect this app to provide significant utility to the customers. This would be similar to the use of the Nike+ hardware-app setup that allowed people to measure their statistics and share them using the app on their phone.

The Medical ID is a very intelligent and useful feature for the iPhone health freak. It includes all the necessary medical information like emergency contact person, blood type, height, weight, date of birth and organ
donor data. In case of an accident the Medical ID can be accessed from the emergency button on the passcode screen. The feature also allows the calling of the emergency contact person without needing to unlock the screen. Its the perfect technological solution in case of an emergency.

**Settings**
The background operations center of the iDevices has always been the Settings menu and with iOS 8 it has drastically been upgraded. The two biggest and most important features in the Settings app are to do with individual app control and power monitoring features. This means that every app installed on the device has a Settings menu from which the app can be controlled. Typical function for the app related to notifications, cell data usage, privacy options, location settings and so on can all be individually managed from this menu. The second option of monitoring the power consumption of each app can also help users make smarter decisions on when to use which app based on their remaining charge. Although the results are not in real time, they give a good aggregate reading of the prior 24 hours to

HealthKit allows for clean and effective biometric data visuals.
one week in power consumption records. A bonus feature here is that the readings include the reason for why a particular app consumed more power than other - if it was due to low signal or it was active in the background.

**What's Next?**

It's necessary to point out that iOS 8 is still growing. With the highly anticipated iOS 8.1 update around the corner we expect that many new features will soon be introduced. In addition to which the next few months will see many new apps taking advantage of the new system framework. We encourage you to explore and discover new features that emerge from this wave of innovation.
We review and assess the iOS 8.0.2 update patch to see what’s fixed and what’s still lacking. Are new radical upgrades the only way to get Apple back on track?

As of the time of this publication most Apple users have been divided into one of three categories - those who immediately upgraded their iOS versions, those who cautiously waited to see other people’s experiences and those whose devices were not supported by the latest iOS 8 release. And even as the first group moaned, the second group gloated, the third couldn’t care less, but was intrigued enough to somehow make pre-orders of the iPhone 6 and 6+ newsworthy. We take a break down of how the iOS 8 debacle has left us with 8.0.2 even
As users prepare to get their hands on the iOS 8.1 beta version to solve all their problems.

**If It Ain’t Broke, Fix It**

This has not been a good year for Apple. Its biggest launch to date - of the iPhone 6/6+ and iOS 8 - has seen nothing but bad reviews and catastrophic complaints from customers. Within weeks of its iOS 8 upgrade for all supported Apple devices there has been an onslaught of issues that require constant fixes. And even as Apple attempted to resolve these issues it brought on further misery with the accidental release of an “upgrade patch” in the form of iOS 8.0.1 that was even worse. This new patch resulted in bricked iPhones, killing of cell service and disrupting Touch ID along with a host of other problems. It seemed that Apple just couldn’t get a break. But then the saving grace of iOS 8.0.2 patch upgrade was released and seems to be the bandage holding the Titanic together. But is this update enough? We review and assess what more can be expected with future upgrade patches for the iOS 8.

Many people have heard the rumours. The iOS 8 has so far been documented as presenting a 78 percent higher rate of crashes than the iOS 7. Well, it’s true. And for Indians there remains another factor to the decision - device support. Since the new upgrade doesn’t support the original iPad, iPhone 3G and the iPhone 4 at all many users would see no point in the upgrade unless they’re willing to spend tens of thousands of rupees buying new devices. In light of these results many users have refrained
from risking an upgrade at all. However, for the brave few iOS 8 was worth checking out just because, and if possible getting your hands on the iOS 8.1 beta would be the final step. But things are rarely that easy with Apple. So even as you prepare to jump to the chapter on how to rollback to iOS 7 it’s worth considering that despite all its flaws iOS 8.0.2 does go a long way to making your choice more interesting, if not easier.

Just as not all phones are created equal, neither are all users. Different models of Apple devices respond differently to the “new and improved” update and the effects on dated hardware is fairly predictable. Similarly the usage patterns of different users varies drastically, as more intensive apps that leach data and power are prone to produce different results than on more utilitarian set ups. Having said that, the basics across all phones are fairly similar - the noticeable impact on response times, app loading and other similar aspects is a universal benchmark for measuring the benefits (or lackings) of the new iOS 8.0.2 update.

**Mostly Fixed But Still Incomplete**

**iPhone 6**

Beginning with the most recent and advanced mobile device, it isn't a surprising outcome that the iPhone 6 performs impressively. The update patch fixes all the alarming issues caused by its predecessor and makes iPhone 6 truly worth the Apple brand once again. The universal features of app loading, device processing speeds, app stability and connectivity have all
performed as expected given the “newness” of the device. However beyond these basic aspects there have been some noticeable issues.

The current update still fumbles from time to time with some non-critical but definitely annoying problems. The most noticeable of which is the occasional tendency of being stuck in landscape mode and Bluetooth compatibility issues. The latter problem isn’t a constant and seems to be varying depending on the pairing device. For instance, when paired with a set of Bluetooth speakers and earphones there has been no problems but when attempting to pair the device with car stereos the outcomes are irregular and problematic. Funnily enough this widespread problem was witnessed in only about half of the iPhone 6 and 6+ models known to us exhibited this issue. We know that this Bluetooth issue is a hangover from the original iOS 8 upgrade and remains an unsolved issue from Apple.

**iPhone 6+**

Regrettably in contrast to the relative stability of the iPhone 6, its bigger brother, the iPhone 6+ has continues to disappoint. The problem of a hanged landscape mode carries onto the larger phone as well but does so with greater frequency than the iPhone 6. The larger mobile with iOS 8.0.2 still hasn’t resolved issues of stability and support, with apps frequently jamming or just flat out crashing on use. As far as the prevalence of this problem is concerned not a single app amongst the two dozen tested was spared the occasional crash or freeze. Thankfully, the essential features of mobile data, wireless connectivity, battery life and performance speeds have all stabilized to expected standards with the iOS 8.0.2 update.

**iPhone 5S**

The core problems from iOS 8 carry on to the iPhone 5S. The landscape mode jamming and spotty Bluetooth connectivity make for an annoying experience. But apart from these two issues the mobile device performs beautifully with smooth and stable operations of dozens of apps which
The 5S model has smooth support but the iPhone 5 does slow a bit.

continue to function as expected. The basic features of battery life, connectivity and mobile data is within normal parameters and doesn't negatively affect user experience in any way. There have been some reports of instances where the battery power has suffered with the new update but seems to be limited to those users who installed the update via wi-fi. It is highly recommended that a clean iTunes based install be done with the new update to eliminate this issue.

iPhone 5
The iOS 8.0.2 update has been surprisingly kind to the older and less hardware intensive iPhone 5. With connectivity, stability and speed remaining at prior levels there isn't much to complain about on the iPhone 5 apart from the Bluetooth and landscape mode jamming. In the long run the only major issues to point towards is the slightly slower response of the keyboard as well as the occasional crashing of the Mail app. Some users have also complained that their phone suddenly reboots on its own accord but this wasn't experienced on our testing model.

iPad Air, iPad mini with Retina, iPad 3
The only Apple device to be unscathed under the iOS 8.0.2 update is the iPad Air. With no problems in any department it is perhaps the best performing device under the new update. This is a trend noticeable in most of the newer iPad models which all result in iOS 8.0.2 providing a smooth and enhanced
user experience. For some users however the iPad 3 may seem a bit slower but that barely registers in comparison to the many other problems facing the mobile devices.

**iPhone 4S**
Unlike the iPhone 4 which gets no support from the iOS 8.0.2 update the iPhone 4S is covered. The installation however can’t take place over the air on wifi and needs to be done via iTunes while the devices is connected to the computer. Although the A4 processor in the iPhone 4S isn’t exactly up to muster for the iOS 8.0.2 setup it does a remarkably good job of holding it together. The usual tricks of reducing graphic options like transparency and motion does enough to fix the device to within acceptable norms.

**iOS 8.1 Beta**
Early in the first week of October Apple also released iOS 8.1 beta 2 version for testing to developers. It was a quick redevelopment of the iOS 8.1 beta 1 that had just come out a week prior and had barely met expectations. The first beta release was criticised for not making any substantial improvements of fixes and the second version is intended to rectify that oversight. While most customers can look forward to the panacea to all their problems in the iOS 8.1 official upgrade later in October or early November there is no guarantee of success. The anticipated release of iOS 8.1 is expected to not only remove all the earlier bugs but also make enhancements to the systems. While this would certainly be a coup for Apple it may be too little too late, with inevitable expectations for newer bugs unique to iOS 8.1 to emerge. But despite all speculation the current testing indicates that the aforementioned problems will indeed be fixed along with better performance from older devices like the iPhone 4S. And if earlier trends are to be any indication there will be new features in the 8.1 update over iOS 8 as there have been in iOS 7.1 over iOS 7 and the like.

The big changes however will come in conjunction with the new iPad launch in October and the expansion of the Apple Pay system that was
lauded at the release in September. The big event for October is the launch on the new iPad and enhanced features of iOS 8.1 but with no certain date on the calendars yet we can only assume that it will be big.

**To Update or Not To Update**

The bottom line is - should you upgrade? Well, it all depends. If you’ve already suffered though the original iOS 8 and iOS 8.0.1 debacle then moving up to iOS 8.0.2 is the only sane choice. If you’re lucky then by the time you’re reading this the iOS 8.1 update has solved all your problems. But if you’re still hanging onto iOS 7 then the best bet is to remain glued to what works. There is no tangible benefit to upgrading give the current crop of updates available to you. The cautious approach would be to wait a week or two after the launch of iOS 8.1 to see if it is the genuine article and only then to make a decision. For users of iPad Air, iPad mini with retina and the iPhone 4S the iOS 8.0.2 does present an overall net benefit and has proven to be a safe decision. But since the decision is in your hands you just need to ask yourself - why fix what isn’t broken?
Now that you’re fully committed to the world of iOS 8 let us make your life easier with a host of tweaks, tips and tricks to make your experience epic.

It doesn’t matter if you’re just starting out with your first iPhone, or have been a long time user – each iteration of the iOS system brings something new to learn about. In fact, most often the best features of iOS are actually hidden ones. IN this chapter we’ll show you some useful tweaks and tricks that will allow you to get even more out of your iOS device than you already do.
Hidden tweaks, tricks and tips
Below you will find a curated list of the hidden tips and tricks that we feel every iOS user will find indispensable.

Upgraded security for lost/stolen phones
iOS users are used to using the Find My iPhone app to rescue them when they lose their phone or get robbed. Thus far, tracking your iPhone was possible as long as it was powered up. If the phone ran out of charge, the app would not be able to find your iPhone. With iOS 8, your phone will still run out of charge, but thanks to iCloud, you can set the phone to send out its last location just before running out of charge.

  Go to Settings > iCloud > Find my iPhone and turn Send Last Location on. This location information is stored on Apple’s servers for only 24 hours, so you can see where your phone was last before power ran out.

Scan a card in Safari
Entering credit card information on websites for purchases and the like are a common enough task these days. The new and improved Safari app takes this a step further by making the interface more intelligent in its response. When Safari senses that you’re entering credit card numbers, up pops the “Scan A Card” option. Using this feature you can photograph your credit cards right there in Safari, and it will automatically fill in the card number and name on card using character recognition.

Separate private images and videos
You know how you want to show your family some images on your phone, but then wonder if any of the images you don’t want them to see might show in the gallery, such as embarrassing memes or Whatsapp forwards from friends who don’t seem to understand the concept of having a family?
Apple's got a way around that. It saves you any embarrassment by letting you hide individual photographs and videos from the Moments, Years and Collections pages in the Photos app.

All you need to do is tap and hold a photo or video and then select “Hide” from the popup menu. These photos and videos are hidden from general scrolling through the image gallery, but are still visible in an album called “Hidden”, so you still need to be careful about who you give your phone to.

**Track Battery Usage**

You know how irritating it is when you look at your iOS device and see a good amount of battery charge remaining, and then a few hours later you find it dead? Usually this was caused by some rogue app that sucked up battery power even when in the background, and you’d have to do a lot of trial and error before finding out which one it was, or use another app to find that out for you. Now, iOS 8 builds this functionality into the system by tracking how much power each application consumes. Just go to Settings > General > Usage > Battery Usage and find a list of all your apps here, with the amount of battery they have used.
**Recover deleted photos**

iOS 8 has added in a sort of trash bin / recycle bin for photos and videos. Before this, if you deleted a picture or video, that was it, it was gone. Now, there’s a new “Recently Deleted” album in your Photos app which contains all, err, recently deleted photos and videos. Each item also shows up with a number as a badge, and this is the number of days to go before it’s permanently deleted. You can go here and delete a file or many files to free up space, or recover files to make them show up in the Photos app again. Of course, you should also know this if you’re deleting embarrassing photos, because you now need to remember to delete them from here as well.

**Photos in Notes**

Thus far, the iOS Notes app hasn’t been much more than a text input box where you can jot down random things. With iOS 8 you can now also insert photos into the text files – touch and hold to pull up a floating menu that has the Insert Photo option. Choose a photo and it’s stored with the text. Notes also provides rich text editing options now, so you can format. Whee, what fun!

**Manage and sort extensions**

iOS 8 now allows multi-app collaboration, thanks to a feature called Extensibility – basically creating extensions of one app in another. Think of it as a way to apply each app’s functionality to the data that’s in another app. However this could ruin the menus with clutter as the amount of apps grow. While these extensions can save lots of time and allow for versatile interaction between apps, managing them is an integral part of managing your iOS use. Apple has made it easy to arrange the extension shortcuts by going to the “More” options in the “Share” sheet. The More button leads to the extensions sort screen where you can drag the order of the extensions as per your preference to make sure your favourites are just a tap away.
Widgets on Today view
Apple has finally allowed developers to have widget like features for their apps. This is good for us users, because it makes pertinent information just a single tap away. iOS 8 allows you to add or remove widgets made by third-party app developers using the Today View. This allows you to place whatever information you need at the top of your visual frame. In order to do this, you just need to swipe down the screen from the top edge of your device to pull down the “Today” panel. Here you can scroll to the “Edit” option and select which widgets or updates you wish to add or remove from the View. You can also delete the default widgets in place and change the order in which they appear.

App shortcuts
Thanks to the use of a third-party app called Launcher, you can now add shortcuts to different apps in the Today View screen. Not only does Launcher allow you to set up different shortcuts to existing apps but also create a link to different sections of the Settings apps which may prove useful. You can also add shortcut links to execute specific tasks – such as a call to your boss (work boss or spouse). It also allows you to quickly get to your most commonly used settings – such as toggling mobile data on or off, or dialing favourite contacts, etc.

Mail swipe functions
Most iPhone users use the Mail app in order to access various accounts from within a single app. You can now customise what happens when you swipe left or right within this app. To activate this setting, go to Settings > Mail, Contacts Calendars > Swipe Options and toggle the options.

Mail updates
Push notification messages are a good way to get notified when there’s a new mail. Very handy if it’s an urgent mail from your boss, but the problem is that random unimportant emails and spam pop up more often than genuinely important mail. Depending on how much
spam and unimportant email you get a day, this can also affect battery life. Turning it all off is also an injustice to the important conversations you’re having. iOS 8 now allows you to just swipe left on any email thread you wish updates for, select More > “Notify Me” and you will now get notifications when that thread has activity. You can also turn off notifications from subscribed threads from here.

**Grayscale battery**

Some of us heavy phone users are always on the lookout for tweaks that will help us save every extra minute of battery life possible. Under the Accessibility menu you will find a setting called Grayscale. If you’re running low on battery, setting your iPhone screen to Grayscale instead of colour will eke out a few more precious minutes. Toggle it on and off from General > Accessibility > Grayscale.

**Remote Safari tabs**

Thanks to iCloud and Safari, you can easily transition your desktop Safari experience to iOS with shared tabs. You can even close a Safari tab on one device from another device remotely. Thus, if there’s a tab open on your Mac or iPad that you want to close (maybe because you don’t want others to see it), you can remotely close it using Safari on your iPhone. Safari also blocks websites from redirecting you to the iTunes store without first getting confirmation from the user as an added safety measure.

**Calendar upgrades**

The Calendar app has also been upgraded to allow for greater functionality. You can now decline calendar invites with an explanatory comment if needed. If you wish to see the week number on the calendar go to Settings > Mail, Contacts, Calendars > Week Numbers. You can even opt to receive notification alerts and updates regarding upcoming events, based on when you need to leave in order to get to the event on time. You can also view the Calendar day view in more detail by using pinch zoom.

**The Music app**

At first glance, it doesn’t look like much has changed here, but there are a few additions. You can delete entire albums by swiping left on them now, so be careful. You can also add a track from one playlist to another with much more ease now.
Hey Siri
Siri is finally getting the hang of our Indian accents. Well, either that, or we iPhone users have been trying to get her to understand us for so long that we’re talking like Americans now. Either way, she’s being used more than before. You can set Siri to start when the phone is placed to your ear (Raise to Speak), just go to Settings > Siri > Raise to Speak (toggle on/off). You can also set Siri to listen for the term “Hey Siri”. Thus you don’t even need to touch your phone, and just say “Hey Siri”. Go to: Settings > General > Siri > Hey Siri and set this to on or off.

Siri Hound
Siri is also able to detect songs now, thanks to the immense iTunes library. It can listen to the song that’s playing, run a sound recognition check and give you the song and artist name.

Must-know tips and tricks
Some of the following methods may be known to some of the veteran iPhone users but all of them are essential skills to making the most of your iOS experience.

Contacts shortcut
Another minor but useful addition in the iOS 8 landscape is the ability to see your frequent contacts with the double-click of the Home button. While the usual function of the double Home click is the app switcher, the new addition is in the form of circular contact icons at the top edge which are composed of your favourite and most recently used contacts. These settings can be altered at: Settings > Mail, Contacts, Calendars.

Website subscription
The new version of Safari allows you to subscribe to websites. The Shared Links tab in Safari’s Bookmarks section lets you subscribe to a website.
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Go to the website you want to subscribe to, and then go to the Bookmarks section of Safari app. Here look for the “@” icon and select Subscriptions at the end of the list. At the end of the options you will see “Add Current Site”. The same area is used to manage, add and remove websites that you have subscribed to. Now when there’s an update to the website, you will be notified.

Selective notification deletes
Earlier, whenever you wanted to clear notifications, you would tap on the Clear option to the right of the notification section, but the option to delete notifications selectively was still missing. Now you can choose which notification stays and which is cleared by simply swiping individually. The left swipe brings up the delete option for quick execution.

Predictive QuickType
Predictive text isn’t for everyone, especially since some autocorrect mistakes can be hilarious. As you type, new words pop up on a bar above the keyboard, as word suggestions. To turn it off just swipe up or down from the top border of the keyboard, or hold down on the “emoji” button to the left of the audio input button (left of the spacebar). This will bring up a simple on/off toggle for predictive QuickType.

Third-Party keyboards
This new feature on the iOS system is a real boon for people who wish to have a customised keyboard with more features than Apple provides. There are a wide variety of keyboards you can download from the App Store for this purpose and pick the ones that suit your needs. To select from among your keyboards or switch from the default, you need to follow these steps: Settings > General > Keyboard > Keyboards and touch “Add New Keyboard”. You can select more than one keyboard and you’re good to go. You can
Tips and Tricks

switch between these keyboards by touching the Globe icon on any of the keyboards.

**Voice messages**
The new Message app comes with a bundle of new features, of which sending voice messages isn’t the only one. Similar to Whatsapp voice messages, all you need to do is tap the microphone button in the message box and hold it down as it records your message. Once you’re done just release the button to stop the recording. You can then select the “up” arrow to send the voice message or select the “X” icon to delete.

**Do not disturb in messages**
The Message app now also has group chats which can rival Whatsapp in the sense of annoyance. With constant updates and alerts, distraction is the order of the day. Thankfully you can silence Group Chats by going to the “Details” option in the top right corner and sliding down to toggle the “Do Not Disturb” option at the end.

**Location via Messages**
Similar to Whatsapp the iMessage app also allows you to share your location within the message, which links to Apple Maps. If you have Google Maps installed it will also give you the option to open the shared location in Google Maps. This option is located in the “Details” section of the message and can be activated by selecting “Send My Current Location”. An additional feature here is to set up a constant share alert with someone on a message which will last the whole day or for a selected period of time. This allows friends to find each other over the course of the day depending on where and when they have to meet without the hassle of coordinating. Just tell someone to look up where you are at a given time and drop by, without having to update them every moment.

**iCloud Library (Beta)**
The new version also has the option to sync all your photos and videos to
the iCloud after an unspecified period of time. From then on all your data will be stored in the cloud accessible from anywhere on any device. The videos played on your device will be streamed directly from your cloud, but if you wish to store them locally a link will be provided that can download the video. The library will also display the date and time when each photo and video was taken. These features are currently in beta and may change or evolve over a period of time.

**Exposure in Camera**
The typical iPhone Camera app is very bare boned, with no major frills besides zoom, flash and HDR. But with iOS 8, you can now also adjust exposure. Just tap the screen to focus on your subject, drag up or down to see a brightness symbol that increases or decreases exposure.

**Time lapse video**
The default camera app in iOS 8 now comes with the ability to record wonderful videos in a time lapse fashion. Time lapse videos are an interesting video style that condense long periods of time into a short videos – such as the sped up videos of the sun rising or traffic moving in the city. To access this feature on the new camera app just slide along the usual options until it shows up.

**More to come in iOS 8.1**
All the tips, tricks and tweaks we’ve mentioned in this chapter are presumed to be just the tip of the iceberg with iOS 8. As has been the trend we expect the soon to be released iOS 8.1 update to be filled with even more handy hacks that will make the iOS interface more functional and efficient for the user. With enhancements in games, productivity, communications and storage bound into one neat package we just hope it has less bugs than iOS 8 does.
BEST APPS FOR IOS 8

With iOS 8 we get Metal. What is it? And how what do the best apps on iOS 8 get from it?

Finally we arrive at the juicy parts – what does the much hyped up and derided new operating system on Apple’s mobile devices allow power users to do? In this exploration the first new feature we hear about it is Metal – and how it powers developers to leverage the hardware on the new iPhone 6 series to truly give spectacular visual graphics and effects to the apps. But does it just limit itself to the new hardware or is it something more innovative that trickles down its benefits to the older generation hardware as well? We review Metal and present a list of the best iOS 8 apps available right now.
Metal is hardware

The earlier generation of hardware acceleration for graphical output on the iOS 7 systems was called OpenGL ES. In this architecture OpenGL ES was placed between the games being run on the device and Apple’s A7 processing core which powered the game. The function of OpenGL ES was to translate and communicate the command functions into the graphic output commands, which were received by the hardware. This basically made it a middle-man in the system, which negotiated the messages between command and power for optimum graphical output. But it was weighed down with a lot of overhead functions that limited its effectiveness on the iOS 7 system.

With the new iOS 8 systems Apple decided to move things around and Metal was born. The name itself implies how close the “middle-man” is to the hardware. By getting in “close to the metal” or hardware Apple is able to let its devices run graphical commands faster and smoother than OpenGL ES could. As a user however knowing the intricacies of Metal isn’t really that important since it only affects how developers code their apps for maximum visual quality. The system allows game developers to take the performance of iOS 8 and push it to the max to give users a stunning visual experience.

This is good news for owners of the older iOS 7 devices as well since Metal is a software enhancement and is hardware independent. Once an iPhone 5 or 5S is upgraded to iOS 8, Metal takes over from OpenGL ES to manage all graphical displays. This effect is specifically for game developers who can use both the older A7 processors as well as the new A8 processors which come with the new iPhone 6 and 6 Plus. Although casual game makers can use the new SceneKit SDK for smaller games, the big high intensity console-level graphic games are going to come alive with the help of Metal. It is however obvious that Metal will look a whole lot better on the newer 64-bit Apple A8 processors which in any case has
a 60 percent graphics enhancement and 25 percent speed boost over the earlier processors.

The overall effects of Metal are system wide in any device capable of supporting its features. Since it’s a command relay middle-man, we find that Metal drastically improves the responsiveness of the graphics processor and improves image related work. Given the new enhancements to camera sensors in the iPhone 6 and 6 Plus series of phones we find that it drastically improves the functionality of the camera as well, making video and photography very smooth experiences indeed.

The biggest fear we users have is that all this usage of the processor for graphics might dent the already shady battery life of Apple devices. However, Apple has streamlined the processing of this module by allowing Metal to take advantage of using a unified language between the coding and pixel creation. This format eases the power pressure on the GPU and gives great results with low power investment. The functionality of Metal is actually designed for a much larger display, such as those in an home entertainment setup, so it is only a matter of time before Apple upgrades its Apple TV from an A5 processor to something that can truly leverage the power of Metal for stunning graphic rendering.

**Can your device run Metal?**

Metal allows Apple devices to render highly detailed 3D environments, since its draw rate is over ten times faster than the A7 iOS 7 devices. This results in more responsive gaming and faster loading times for high quality games. Due to this boost in speed and performance game developers can make highly detailed console like environments for the large high definition iOS 7 support for Metal is limited only by the A7 hardware on board.
Best apps for iOS 8

Displays offered by the new range of iPhones. The speed affects the loading and refreshing times as well making the gameplay experience more seamless and immersive. The improvements in lighting, shading and colour are all based off console level design and are successfully powered on iOS 8 and the A8 processor thanks to Metal.

Although we know that Metal will work with iOS 7 the range of hardware running iOS 7 that can actually handle this power is fairly limited. The faster and more advanced gaming experience will be limited to mobile devices that are iPhone 5S and beyond, along with the iPad Air and iPad mini 2. This leaves a lot of earlier generation A7 processor devices out in the cold including the iPhone 5, iPhone 5C and iPhone 4S.

**Must-have Metal apps**

Now we get into the fun part of the chapter as we run through the most exciting and visually stunning apps powered by Metal. Ranging from games to photography these apps use the power of your device and Metal to truly give the best mobile entertainment. Enjoy!

**Epic Zen Garden**

Link: [http://dig.in/1DrzlPe](http://dig.in/1DrzlPe)

This app deserves to be on the must have list purely for its stunning display of how much Metal adds to the graphic interface on iOS 8. Epic Zen Garden was first premiered to showcase Metal and meets all expectations of high intensity graphics. As a game it is more similar to a meditation environment where users can explore and interact with the beautifully crafted digital world. Using the backdrop of a wide expansive Zen garden the app allows users to roam about the world filled with koi ponds, sand raking and cherry blossom trees. The environment reacts to touch with swarms of butterflies and more thanks to the power of the Unreal Engine 4 used to design this game. The visuals flow at a steady 30fps with 1440 by 1080 resolution that make the rendering of thousands of butterflies, leaves, flowers, petals, water and sand seem just like the real thing.
Defenders
Link: http://dig.it/1olv9O6
Defenders is a fun and engaging iOS game that makes the most of the Metal enhancements. The game is similar to Smite in that it is a tower defence game which also has elements of collectible cards. These cards represent the weapons, buildings and traps players use. The new version of the game is high on visuals with a great eye for colours, styles and themes that make the process of collecting digital cards to fight evil mutant monsters a pleasure to watch.

Mr. Crab
Link: http://dig.it/1sFiO5z
Mr. Crab is a simple, small and fun game that just happens to look really good. Designed using the Metal system, the game is able to provide users with a sleek and well-crafted visual display despite its very simple gameplay. The objective of the game is simple – to jump all the way to the top, and in the process dodge enemies and save baby crabs. A great time killer that is beautifully designed.

Modern Combat 5: Blackout
Link: http://dig.it/1vTI6AX
We now step into the big leagues of mobile gaming with Modern Combat 5: Blackout. The game is similar to the Modern Warfare style of games, but is designed for mobile devices. The game comes with a solo player campaign in four customisable classes along with a multiplayer mode which can entertain users once they’re done playing solo. The enhancements in the game due to the iOS 8 Metal system is breath-taking at times. While this game wasn’t designed with Metal, it does benefit from the new system. Since the game features great visual graphic quality of the massive destructive war type, the rendering of dust, particles, lighting, explosions, weather, enhanced environments and detailing are something to behold, especially on a mobile device. It’s truly a mobile console gaming level experience and it will only get better with new updates.
Plunder Pirates
Link: http://dgit.in/1wj6EAI
Another one of the casual games that somehow is able to make the most of Metal to give players a great experience. The improvements in water effects, shadows and detailing make the cartoon like environment more immersive and the plundering a lot more fun. The game itself is quite well made, with the simple objective to be the best pirate while gathering the most plunder in skirmishes on the sea. The ill-gotten bounty is then used to build your pirate base and improve your ships and gear. A sort of Clash of Clans, but with pirates instead.

Beach Buggy Racing
Link: http://dgit.in/1rmI78L
Beach Buggy Racing is as the name implies a game where you race beach buggies. A cute cartoony racing game it greatly benefits from Metal by setting itself apart with better graphics. Since it only adapts to Metal and wasn’t built for it, the textures remain limited, but with greater detailing added to shadows, colours and contrast. This makes for a richer and more engaging visual interface which makes the game perform more smoothly at higher frame rates.

Asphalt 8
Link: http://dgit.in/1t28xBT
Another racing game that has been updated for iOS 8 Metal is Asphalt 8 which brings the fun of Fast and Furious or the Need for Speed games into the palm of your hands. The game was already one of the best looking car racing games on the market, but with Metal it goes one step further. With improved details, lighting and frame rates the game gives the car racing experience a gorgeous boost. In addition to which the game now allows three times as many players to race at once, thus making the thrill thrice as much fun.

For now there are only a handful of games that have taken to Metal to enhance their performance. As time progresses’ we
will be seeing impactful, detailed and performance-enhanced games that will make the iPhone or iPad look like handheld consoles. The possibilities in this direction for Apple to provide its users with great, interactive and beautifully designed games could chart a new direction of business for the company, and a whole new world of entertainment for us users.

**Everything else**
Beyond the benefits Metal brings to gaming, iOS 8 also has a distinct impact to other apps in productivity and media. We list the best of these new apps below.

**BuzzFeed**
Link: [http://dgit.in/1tEe1F6](http://dgit.in/1tEe1F6)
BuzzFeed can be considered synonymous with either wasting time reading endless lists or taking quirky quizzes to discover the inner you. Now with the convenience of the widget system in the Notification Centre you can see the latest trending topics and links on BuzzFeed right in the Today View screen in the Notification Centre.

**Pocket**
Link: [http://dgit.in/1tEe7g1](http://dgit.in/1tEe7g1)
The Pocket app has been around for quite a while. As a convenient option to save online articles to read later, it works well between the two systems of PCs and mobile devices. You can use extensions on your desktop browser to save pages for later reading and then access it on the go via the phone app. Now you can also save articles, videos and web links to check out later, even if you don’t have a net connection. With the iOS 8 extensions you can now save items directly from the Safari app without having to jump apps.

**PopKey**
Link: [http://dgit.in/1rWcova](http://dgit.in/1rWcova)
PopKey lies somewhere between an app and a keyboard. It is a quirky keyboard that lets you send thousands of different GIFs directly from the keyboard of your phone. Since iOS 8 compatibility with third-party keyboards is here, you can access a wide range of GIFs using the PopKey keyword search or trending page. The bonus feature being that these GIFs can then be sent to a contact via the Messages app directly with no in-between app hoping or image saving.
Best apps for iOS 8

Litely
Link: http://digit.in/IrWcAKQ
As we mentioned earlier, one of the best results of Metal on iPhones is the enhancements to the camera and graphics. In this regard, Lightly is a great app which works well with the hardware configuration on iOS 8 to give you beautiful renderings of your photographs. The clean and simple interface adds professional styling with the help of unique photo filters. The new updated version also adds new adjustments such as contrast, temperature, highlights and shadows, to generate a near-HDR-like image with photographs taken on your iPhone.

Post-it Plus
Link: http://digit.in/1vTKrux
Rarely does an analogue company make a successful transition to app, or even need to, when its primary product is still popular. But Post-its, the company that makes billions of tiny sticky notes for offices and end users like us has done just that. With the Post-it Plus app from the iTunes Store
you can take a single photograph of up to 50 different Post-its and have them digitized to virtual notes on your devices. These virtual nodes are then easily accessible for sharing and editing as you desire.

**Evernote on iOS 8**

*Link: [http://dig.it/1nwSD1T](http://dig.it/1nwSD1T)*

We’ve often spoken about Evernote as being the definitive productivity app on Apple devices, but with the new enhancements of iOS 8 it truly becomes indispensable. The handy note-taking app is now integrated as a widget to the Notification Centre of your iDevices and lets you quickly jump to take notes, take a picture, access photographs, make reminders, lists and so much more, without ever having to open the Evernote app.

**1Password**

*Link: [http://dig.it/1t1LeZf](http://dig.it/1t1LeZf)*

If you’re like most online users, you have to juggle a number of different passwords for all your online services. From emails to online stores, the number of different passwords required can sometimes lead us to forget which one goes where or risking the use of a single password in multiple places. With iOS 8 and the release of the 1Password app, this is no longer the case. The password manager app uses the extensions feature in iOS 8 to allow you to fill in your passwords directly from Safari and a few other apps. For users of iPhone 5S and above, the Touch ID protection is also integrated to 1Password, making your fingerprints the singular key to all your online gateways.

**Instapaper**

*Link: [http://dig.it/ZCdeGA](http://dig.it/ZCdeGA)*

Instapaper is another “read it later” app like Pocket that has been upgraded to iOS 8. With its own new extension Instapaper can now save content from any other app directly to the your account. In addition to which it also has a “Today” extension which lets you see a list of everything that you have saved over the course of the day, right from the Notification Center itself.
OmniFocus 2
Link: http://dgit.in/1vTLcV1
OmniFocus 2 on the iPhone is a major upgrade in terms of productivity apps which allows you to set up personal task management with ease. The app extends to professional setups with its project management features which incorporate details such as person, place, date and more. From simple home activities like making shopping lists to complex tasks of running a large work meeting, OmniFocus 2 makes the task very easy. And with its iOS 8 widget in the Today section of the Notification Center you can be alerted to daily tasks and to-dos. The app also has a sharing extension that allows you to import content from the web as well as other apps on to the OmniFocus app.

Mint Personal Finance
Link: http://dgit.in/1t1LsQa
The Mint app is an excellent app used for managing your personal finance. The simple and flat user interface along with the various illustrations help you gain a clear understanding of how your money is being allocated. And considering the financial sensitivity of this data, the updated app on the iOS 8 uses the Touch ID biometric protection to safeguard your information.

VSCO Cam
Link: http://dgit.in/ZCdqFT
VSCO Cam does a great job of using all the new Metal features in iOS 8 to give photographers as much control over their images as possible. The app now comes with manual controls over focus, shutter speed, white balance and exposure compensation, all of which are neatly accessible via the Settings gear of the app. Toggling between each option may be slightly annoying for some people as it requires a step-by-step grading of the image, but the end results are terrific and hard to argue against. The automatic setting comes in handy when finding the right balance of settings is hard as it decides the empty factor and gives great results.
iMovie
Link: http://digit.in/1nwSED4

iMovie is a standard on most Mac machines but its mobile version has always been lacking the same ease of use. Thanks to the extension features of the new iOS 8 system, you can begin editing your videos directly from the Camera Roll, without having to open the iMovie app or make any selections. Video clips can be edited to a remarkable degree with the widest assortment of options such as filter changes, layering of voice over, audio files, text overlays and so much more. Thanks to the powerful graphical rendering by Metal you can be assured of great video clips every time you edit on iMovie on iOS.

Is that all?
Well of course not! The release of iOS 8 has just jump-started app developers to update and upgrade the functionality and features on their apps. As time progresses we can expect to see hundreds of more apps that take advantage of the processing power of the new hardware as well as leverage the software changes for older models. Every app division is expected to see a boom in apps that support extensions, widgets and Metal utilities. So keep a look out for these details in any app that you install.
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