Indian IT roundup for year 2016

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It is often asked "Does IT matter?" Yes – being the largest creator of jobs in the organized sector for the past 15 years with 4.4 Million direct jobs and annual revenue of $ 220 Billion that accounts for 7.8% of GDP – IT matters a lot for India. A lot has happened in the year 2016 in IT. Here is quick take on what are perhaps the most important developments in IT, particularly from an India perspective. Happy reading!

General: AADHAR enrolment and mobile phone subscriber base crossing 1 Billion mark (in January and March respectively) are truly defining moments for India. The historic **GST legislation** getting 430 (Yes) and 0 (No) in Parliament on September 23, 2016Prime Minister Modi getting recognized (by popular vote) as the **Time Magazine Person of the Year 2**016 in December 2016 and being invited to address both the **US Houses** (Congress & Senate) in May 2016, Modi announcing **de-monetization** on November 8, 2016, India's "**surgical strike**" in Pakistan, Tata Sons sacking Chairman Mistry on Sep 23, 2016 and Brexit (Britain exiting European Union) in June, US Presidential Elections deciding in favour of **Donald Trump** on November 8, 2016 are truly the major events that shaped the world in the year 2016. Many of them including Brexit, de-monetization and US Presidential Elections have direct impact on Indian IT.

Technology: **ISRO** (Indian Space Research Organization) had a spectacular year in 2016; successful launch of 5th, 6th and 7th of the seven-part "**Indian GPS**" (January to April, **re-usable launch vehicle** test (May), launch of **8 weather satellites** (June), launch of **22 multi-country satellites** (July) and **ScramJet** test in (august) are the notable ones. Discovery of "**gravitational waves**" in February may well be the discovery of the century. **Nokia** succeeds in **1 TBPS fiber-optic communication** trial (September). Chinese **TaichuLight** with 93 pets-flops is the new world record in **super computing** (June). **Solar plane** completes the global tour (July). **Hyper Loop** CEO visits Bangalore and talks of such service for commercial deployment in India!

Markets: With **Quess** (Bangalore headquartered IT and HR services), **TeamLease** (Bangalore-based staff augmentation services) IPO getting oversubscribed 144 times and 65 times respectively; **QuickHeal** (Virus software), **InfiBeam** (e-com) having a good IPO, it was an interesting year for Indian **IPO story**.**De-monetization** helping e-wallets companies including **PayTM**, the year 2017 will be even more interesting. **IBM** buying **Sanovi**, **Intel** buying **SoftMachines** and **Nervana**, the Indian tech start-ups and start-ups by Indians in USA continue to excite. Globally, **Microsoft** acquiring **LinkedIn** for $26 Billion, **Softbank** buying **ARM Holdings, –** the global semiconductor leader – for $31 Billion, **Siemens** buying **Mentor Graphics** and **Verizon** buying **Yahoo** for $ 4.8 Billion are the major global acquisitions. **Wipro** creates a record with its acquisition of xxx for $ 500 Million in September 2016

Products: **Microsoft** launching **Surface 4 Notebook** (January) and **Surface All-In-One Desktop** (October), **Google** launching **Pixel** phone targeting Apple iPhones, video-conferencing software **Duo** (September) and AI-based Assistant **Allo** (October), **Apple** launching **iPhone 7** and **7Plus** along with **Apple Watch 2**, **MacBook Pro** and **OS 10** were the major product launches globally. **BlackBerry OS** becomes history. **Samsung** Note 7 crash causes a lot of misery to Samsung in the year 2016.

Indian IT companies: With IT services industry landscape changing in a major way these are difficult times for the Indian IT services majors – TCS, Cognizant, Infosys, Wipro, Tech Mahindra and HCL with recruitment of fresh university graduates significantly down and growth rates and profitability declining; yet, **TCS** with $ 16.54 Billion turnover (on March 31, 2016) did the country proud with declaring TCS as the most valuable IT Services company in the globe (January). **HCL** acquired Volvo's IT Arm (February). E-commerce major **Flipkart** crossed 100-Million user base. Accounting software **TALLY** crossed one million user licenses. Online travel startup **Yatra** got listed on NASDAQ (December). **PayTM** adds 2,00,000 subscribers a day (post November 8, 2016). Reliance thru their **Jio** service creates several world records; acquires 50 million customers in the shortest time (83 days), carries the highest Internet traffic of 16,000 TB in a day. **Jio** announces free voice and data for the first 90 days (extends by another 90 days).

MNC IT companies in India: **Amazon** starting 6 data centers and 5 fulfilment centres in India, **QUALCOMM** signing up for 500,000 sq-ft space in Bangalore, **Uber** taking up 200,000 sq-ft space in Bangalore, **Apple** announcing tech campuses in Hyderabad and Bangalore, **Wal-Mart Lab** starting Bangalore operations, the Indian IT talent story continues to be exciting from a global perspective in the year 2016. **Netflix** starting their services in India, **Cisco** deciding on Pune for manufacturing and **Huawei**, **LeEco**, **Xiaomi** deciding to manufacture phones in India the Indian market is becoming attractive to global majors too, Make in India, Digital India, Smart Cities and other Mission-mode projects of the government are getting their due global attention too.

Infrastructure: **Auction** for **4G Telecom licenses** concluded in a transparent manner (unlike the scam dominated 2G / 3G spectrum auctions earlier) in 2016, though the yields to the government fell way short (mere 4%) of the target. The new generation telecom operator Reliance **Jio** creating several world records is truly the "talk of the town" globally in the year 2016. **Ooty** became the **100th Railway Station** to get **free Wi-F**i in December 2016; this is through a partnership between Railtel and Google that plan to roll out free Wi-Fi in 400 Railway stations by 2018.

Interesting Applications & Mobile Apps: De-monetization announcement of November 8, 2016 took e-wallet Apps like **PayTM** to dizzy heights; suddenly every Bank started aggressively marketing their mobile App; **PayTM App** could convert any mobile phone into **PoS** too; government launched **AADHAR Pay App** on December 25, 2016 that enabled any merchant with smart phone and finger-pint reader (costing just over Rs 5,000) to accept payments from anyone direct from their bank accounts and authenticated through biometric signature (needing no credit / debit card, phone, password or MPIN). NPCI-designed **UPI** (Unified Payment Interface) launched in September is set to change the landscape of mobile payments. Ola / Uber, SBI, Indian Post and many others are launching many creative solutions too in the payment space. **GSTN** (GST Network) is being built, that too on new architectures, at record speed. Government is giving a major push to make government purchases transparent and efficient through Government's internal e-com platform **GEM** (Government e-Marketplace) that is available for all Central / State Governments / Public Sector corporations. Reliance **Jio** is the most downloaded App in the planet in November 2016. Even telecom regulator TRAI launched an App that helps end users to monitor Internet speed!

Startup scene: Starting with the start-up policy of the Government in January with Rs. 10,000 Crore fund, the year saw many interesting developments! For the first time in India, Apple acquires Hyderabad-based AI Company "**TupleJump**". Companies started by first generation Indians get acquired for large sums by global leaders (Intel acquiring "**Nervana**" for $ 400 Million and "**SoftMachines**" for $ 300 Million, IBM acquiring "**Sanovi**", for example). **FlipKart** reaches 100 Million users. Facebook Founder **Zuckerberg Foundation** invests in tutoring startup "**Baijus**"; **PayTM**, **Freecharge** and other e-Wallet companies making it big. It was truly a Startup year!

People: TCS veteran **Abidali Neemuchwala** moves to Wipro as CEO in 2016; with **Kritika Reddy** of Facebook moving back to US, **Umang Bedi** takes charge as Facebook India **Head;** CEO's of **Apple, Google, IBM, LinkedIn, Microsoft, Oracle** and **Uber** visit India in the year 2016. **India-born Nikesh Arora steps down as President of SoftBank in June 2016. French President Hollande** was the Republic Day Chief guest in Jan 2016. **UK Prime Minister Theresa May** visits India in November.

Some interesting numbers: The year saw many interesting milestones getting crossed; notable among them include Indian mobile phone customer base and **AADHAR** enrolment crossing the billion mark. **TrueCaller** user base in India crossed 100 million. **LinkedIn** Indian user base crossed 100 million. **Flipkart** user base crossed 100 million and its Day 1 of Billion Sales Day crossed Rs. 1,400 Crores on October 4. *Globally*, **Apple** sold its billionth iPhone in this year. **WhatsApp** user base crossed 1 Billion. **Uber** rides crossed 2 billion in the year 2016

Truly, the year 2016 was exciting for India and IT. The next year may well turn out to be a watershed year for India!

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Man takes 9 hours to read Amazon Kindle terms and conditions: Australian consumer advocacy group Choice has released videos that show a hired actor spending 8 hours and 59 minutes to read the complete terms and conditions of Amazon Kindle. The e-reader's terms and conditions are 73,198 words long. The group has encouraged viewers to sign a petition demanding that such contract agreements should be easier for consumers to read.

Startup makes ₹23,000 smart bag to freshen up dirty clothes: A Los Angeles-based startup has developed 'Paqsule' smart bag priced at ₹23,000 which claims to use UV light and activated oxygen to freshen up dirty clothes. The process can be activated through a button or remotely via a connected smartphone app. Paqsule claims a battery life of 72 hours and can also be used to charge smartphones