ANNQUEST NOVEMBER 2016
ISSN: 2321-3043
www.stannsannquest.com

A study of The Third Platform

P. Uma & T. PushpaLatha
St. Ann's College for Women, Mehdipatnam, Hyderabad

Abstract

"Reskilling" is the buzzword of today's Organizations. It is also a necessity for a smooth cost- effective trans-functionality. One among the solutions for Reskilling is "Third Platform". It is a conglomeration of "Mobile Computing", "Social Media", "Cloud Computing", Information", "Big Data", "Internet Of Things" and a few more… which have interdependencies. It is a Computational Platform. The Third platform is based on Cloud Computing and its interaction with different devices such as Wireless Devices, Smartphones, Smart Machines, and Sensors etc. Its foundations are laid by Social, Mobile, Analytics, IoT and Cloud. Each pillar has a vital role to play within the Third Platform - The cloud provides the infrastructure to access the information, the Social Technology helps in organization of data, also facilitates accessibility, and the Mobile Devices act as means of receiving the data. It helps Businesses to easily connect to Technology. It enables Evolution, Expansion, and Digital Transformation of every Industry. It is designed to give access to Massive/Huge/Big data via mobile devices. Industries are using the 3rd Platform to develop new sources of competitive advantage.

Introduction & Evolution

According to Information Technology Industry, Platform can also be referred to as "a design, a concept, an idea, a pattern or model or something which serves. " It distinguishes the current IT environment of mobile, social and data technologies from earlier eras of computing.

The third platform is based on the online computing "cloud" and its interaction with all devices, including wireless and connected ones such as Smart Phones, Machinery and Sensors.

Third Platform is IT that is built on mobile devices, cloud services, social networks and big data analytics. It enhances Solution development and Business Innovation, which is done through Cloud Services (PaaS). It weaves the Technologies of Mobile, Social, Cloud, Big Data together to create "high value" Industry solutions. It is a new basis for *digital transformation*.

A key aspect of the 3rd Platform is that it ' s not just about mobile, social, cloud, or Big Data taken in isolation, but weaving together two or more of these technologies to create high - value industry solutions.

3rd Platform solutions for the enterprise will focus not only on industry - specific needs but also will target top level industry classifications like retail, financial services, healthcare, sub-industries within those industries and even industry- specific processes, sub processes within each of those sub-industries. It has cloud as its core, and its solutions offer anyplace, anytime access to application functionality. Lightweight mobile apps running on ever-changing classes of mobile devices will be critical access points for these cloud services and solutions.

The evolution of the Third Platform has led IT firms to adjust their business models to align with the needs and demands of consumers more closely. This is in contrast to earlier eras of computing, where development and innovation focused first on the needs of enterprises rather than consumers. Here "Consumer Needs" are focused more rather than "Enterprise".

The First Platform began in the 1950s and Mainframe Computers were in vogue. This was the period where computing was focused, based on terminals. In the 1980s the Second Platform took the charge as PCs were prominent. This era was buzzing with Client/Server model, Ethernet, RDBMSs, and a new class of business applications.

"Transformation", "Connecting everything and everywhere" are the ideologies behind the birth of Third Platform. It came into existence in early 2010, as Enterprises were innovating and accelerating the applications of mobile, social, cloud, and data technologies. This transformation of the technology industry gave way to the third platform. It is not just a technology revolution but also a customer revolution.

In the era of the 2nd Platform, Distributed Systems helped in the development of packaged software applications. Customers acquire software through a legal license, install it themselves, and begin to use the product. Application software in the distributed era was low cost, broadly available, and easy to use. This enabled the development of mass software markets – the main ingredient of third platform. Unlike the 2nd Platform the 3rd Platform applications are designed for the consumer and enhanced for the enterprise.

Each platform is defined not only by the technologies but by the scale and scope of users and applications that the technologies enable. The 1st Platform influenced millions of users, with applications and solutions. The 2nd Platform influenced hundreds of millions of users and tens of thousands of apps. And the 3rd Platform is already influencing billions of users and millions of new applications and solutions.

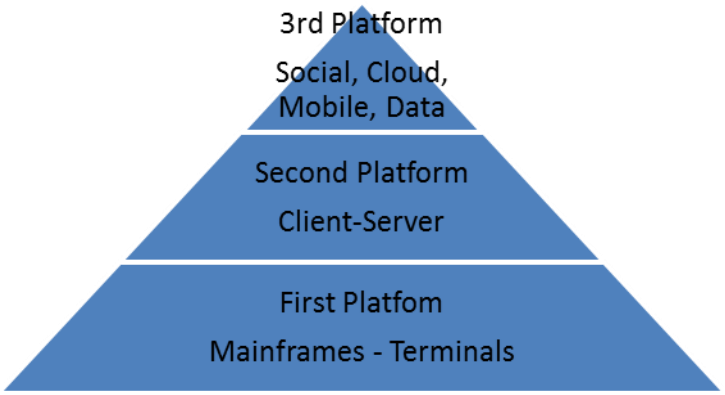


Fig: The three Platforms

Traits of Third Platform

Scalable - It scales out to handle distributed applications, and easily expands to match demand.

Agility-Removes complexity, simplifies operations and automates to provide a dynamic and responsive infrastructure.

Integrated-Compute, storage, network and coordination of apps without friction.

Resilient-Bouncing back when network issues arise.

Secure-Because data is at the center, security is securing the devices as well the data

Architecture

The concept of Third Platform is laid on the foundational stones of "Cloud Technology", "Mobile Technology", "Social Technology", "Big Data Technology". It offers huge potential for growth and innovation across enterprise IT infrastructures, but at the same time creates substantial challenges.

The Pillars of 3rd Platform

There are four pillars Social, Mobile, Analytics and Cloud in the third platform, with IoT as one of its main accelerators.

Social technology

Gartner defined a social technology as, "Any technology that facilitates social interactions and is enabled by a communications capability, such as the Internet or a mobile device." This extends not only to social media but also to all social technologies that make social interaction possible. Eg. VoIP service is a social technology[1].

Companies include a social element into every product and service. The cloud provides the infrastructure that makes the information accessible, the social technology helps to organize the data and facilitate access, and the mobile devices provide the means of receiving the data.

Mobile devices

The third platform gives access to big data via mobile devices. It is this mobility that really defines and adds value to "The third platform". A company representative off-campus will have instant access to data through mobile device with this third platform whenever and wherever they need it[4].

Example of the use of mobile devices in the third platform would be a school which gives Tablets(electronic) to students. These tablets would take the place of textbooks and paper used in assignments, but more importantly, the student will have access to a virtual classroom at additional times.

Analytics (big data)

The concept behind big data is to maximize the utilization of data. An executive at a company who desires to streamline the company's business functions with the third platform would have easy access to all of the data, including sales figures, personnel information, accounting data, financials and so on. This data can then be used to disseminate information horizontally and vertically along the business functional areas of the organization[13]

Analytics can further be used for varied information, which could be voluminous with quick access of data(Variety, Volume, Velocity (VVV)).

Variety indicates the different forms of collected data with formats ranging from audio, video to client log files and Tweets. Volume indicates huge data. Velocity indicates the data collection with utmost speed for maximum effectiveness[10].

In a nutshell Analytics utilizes and collects all forms of data, gathered from both traditional and digital sources, in order to enhance decision-making processes.

Cloud services

Cloud service is the back bone of the third platform. Without the cloud, there will be no way to access this data from outside the organization.

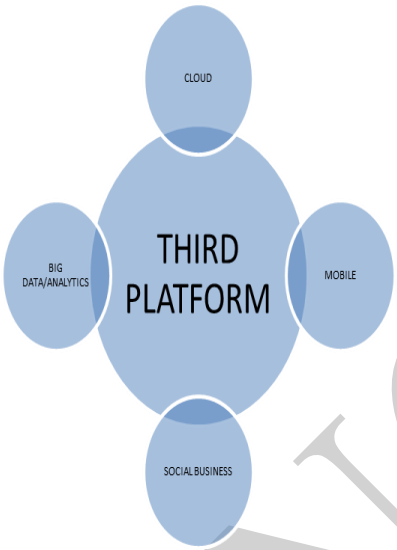
This differs greatly from the first platform. In the first platform where mainframes and terminals were in vogue, all the company's data was accessed by the employees only through their desktop computers. In the second platform, the company's data was accessed from the mainframe as well as outside data, via an Internet connection. Cloud service platforms and market places are key enablers of Third Platform solutions[9].

Accelerator – IoT

The Internet of Things (IoT) is the network of physical objects like devices, data vehicles, and other items which are embedded with electronics, software, sensors, and network connectivity. It enables these objects to collect and exchange data. It is one of the most important Innovation Accelerators for growth and expansion of IT-based

value in the 3rd Platform era. It allows objects to be sensed and controlled remotely across existing network infrastructure, and resulting in improved efficiency, accuracy and economic benefit. It allows previously unconnectable devices to connect to the internet. It links smart objects to the Internet.

The third platform will allow all the company's IT solutions to be available through the cloud, accessible via a variety of "Mobile devices". Data storage, servers and many IT solutions, which are on-site, can now be cloud-based[5].



Influence of Third Platform

The Third Platform is Technology cum Customer revolution, where applications, content, and services residing within it will be accessed by billions of users. It is more than just end-user access via smart devices. In addition to being data consumers, these devices also serve as the hub for social networking.

With the third Platform, applications become much more quick, agile and open than they have been in the past, acting more like a service that can be deployed where and when needed. This is the culmination of "Anytime, Anywhere", access[1].

Third Platform solutions are the primary growth drivers of the ICT industry. It has massive scale, reaching several IP-addressable "things" such as devices, monitors, and sensors, and trillions of users through millions of new applications and services with a potentially global user base and unlimited hardware resources.

Third-platform apps tend to be written in newer programming languages, are run in the cloud and provide users with access to data in real-time from any device regardless of where they are[3].

Third Platform gives rise of new business models that align more closely with business outcomes and customers' experiences. Datacenters are undergoing a fundamental transformation in the 3rd Platform era as the raw compute capacity and raw storage capacity moves to cloud-, mobile, and big data.

The 3rdPlatform is also having a profound impact on the financial services industry.
A good example is the payments sub industry.

The 3rd Platform is the new core of IT market growth which influences

- Robotics
- Internet of Things (IoT)
- Natural Interfaces
- Cognitive Systems
- 3D Printing
- Next Generation Security, to mention a few.

Statistics

According to IDC the 3rd Platform solutions will be the primary growth driver of the ICT industry over the next decade, responsible for 75% of the growth. IDC opines that packaged software applications are being slowly re-platformed for virtualized use on converged systems in datacenters.

The new online commercial applications are being built specifically for cloud delivery in 2013. By 2016, nearly $1 of every $6 spent on packaged software and $1 of every $5 spent on applications

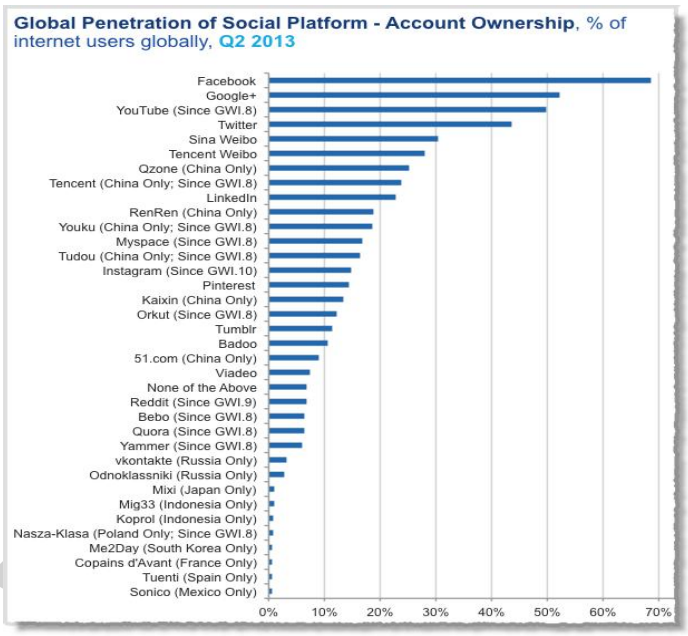
will be consumed via the software-as-a-service (SaaS) model[11].

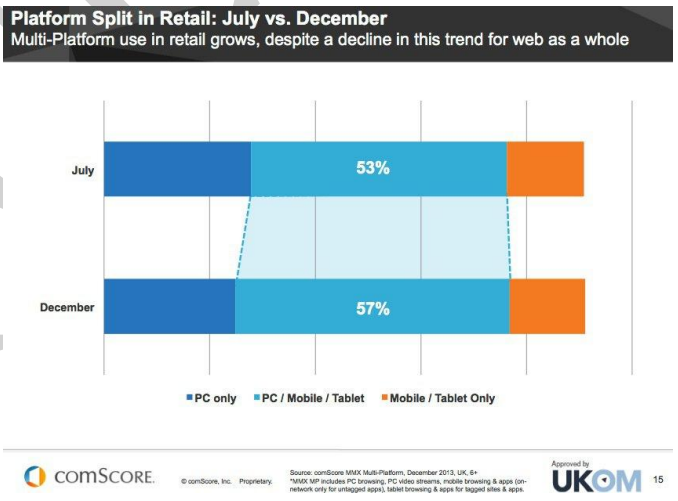
3 - 5% overall IT market growth projection through 2018, there is a significant opportunity, with certain markets growing at an excess of 20%, many of them within the 4 Pillars[12].

By 2016
- More than 5 billion intelligent connected devices will be shipped worldwide.
- More than twice the number of PCs, tablets, and smartphones combined. These devices
include cloud connected cars, CCTV security cameras, Bluetooth based traffic
monitoring systems, thermostats and energy regulators for intelligent buildings,
and networked microscopes.

IDC predicts that by 2020

- 25% of food and consumer packaged goods retail shopping will be conducted in omni-channel commerce marketplaces.
- 40% of security revenues become tied to predictive capabilities[14].
- Additive manufacturing technologies enable "produce on demand" scenarios for over 10% of purchases[6].
- 60% of mobile device interactions are passive as users accept information surfaced from intelligent systems and machine learning[8].
- Emergence of 100+ "Industry Clouds"
- The success rate of new product innovations improve by 70% and planning cycles are cut by 50% on new product development.





Applications

The industry benefits by having a place where innovators can release products and services to their target customers. Industry participants can leverage these innovations to improve their business model. Businesses can extend their leadership and can build an ecosystem that can provide new sources of revenue and competitive advantage.

This makes platform as a service a strategic choice for CIOs and their IT teams. It provides an excellent

point of focus for strategic collaboration between CIOs and their line-of-business colleagues.

Briefing some of the advantages/applications of the third platform

- Turbocharging digital commerce.
- Faster time to insight
- Enables businesses to use customer intelligence on a wider scale
- More granular fashion
- Enable digital transformation
- **Third Platform will drive sustainable business growth**
- Triggers enterprise software evolution
- Financial services payments
- Telecommunications firms use for greater relevance
- Healthcare sector uses it to provide information to patients at key decision points.
- Government agencies can use it to improve services with reduced costs.

Conclusion

Third Platform enhances Solution development and Business Innovation through cloud services, by weaving the technologies of Mobile, Social, Cloud, Big Data together to create “high value” Industry solutions. These solutions offer anyplace, anytime access to application functionality.

References

1. http://www.tcs.com/SiteCollectionDocuments/White-Papers/3rd-Platform-Enabling-Digital-Transformation.pdf
2. http://www.flexerasoftware.com/producer/resources/white-papers/ecm-idm-idc-thirdplatform.html
3. http://italy.emc.com/collateral/whitepaper/cio-emc-hybrid-cloud-whitepaper.pdf
4. http://www.huffingtonpost.com/entry/idc-chief-research-office_b_5529075.html?section=india
5. http://www.webopedia.com/TERM/T/third-platform.html
6. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1265155
7. http://www.plexxi.com/3rd-platform/
8. https://en.wikipedia.org/wiki/Internet_of_Things
9. http://www.cio.com/article/2377568/cloud-computing/as-idc-sees-it-tech-s-third-platform-disrupts-everyone.html?page=2
10. http://www.idc.com/prodserv/3rd-platform/
11. *Hassan, Qusay (2011). "Demystifying Cloud Computing" (PDF). The Journal of Defense Software Engineering (CrossTalk) 2011 (Jan/Feb): 16–21*. Retrieved *11 December* 2014.
12. *Kohavi, Rothleder and Simoudis (2002). "Emerging Trends in Business Analytics". Communications of the ACM 45 (8): 45–48. doi:10.1145/545151.545177.*
13. Henderson, C. R. (1901). The Scope of Social Technology. The American Journal of Sociology, 6(4), 465-486.
14. O. Monnier: *A smarter grid with the Internet of Things.* Texas Instruments, 2013.