SMAC in IT-BPO

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Abstract: SMAC - Social, Mobile, analytics and Cloud Computing is a new IT Enterprise model which is the confluence of 4 ground breaking and disruptive technologies. The cluster of four coherent technologies for the production of software will bring the turnover of the IT-BPO companies at the zenith. However despite of the fact that the use of SMAC stack almost doubles the productivity, the ease to use them all together as whole is a fallacy. In this paper we present a survey on SMAC stack and compare it with the existing scenario in the IT Companies to reveal the productivity gap. The aim of this paper is to better understand the SMAC methodology and use its 4 pillars collectively for the rise of the industry revenue.

Keywords—Social Media, Business Analytics, Mobility, Cloud Computing

I. Introduction

With the continuous stream of huge, fast and changing data arise the need of Real-time data processing. Smart machines, cognitive computing and internet of things are narrowing the divide between humans and machines. With the help of Artificial Intelligence and Machine Learning gadgets are now capable of taking decision based on the historical data and preferences. While the industries target to achieve exponential growth in production. SMAC- Social, Mobile, Analytics and Cloud computing is an individual technologies which if integrated as a whole, there are immense growth in the outcome. In all the IT-BPO Industries SMAC is eradicating the century-old blueprint of value chains and releasing new highly distributed, virtualized business models. IT-Industry is betting BIG on SMAC in future. SMAC stack is making up the integral part of new technologies. The 4 pillars of SMAC are treating it as a stack for step by step multiplying the growth of production in IT-BPO companies and the thus effect on business success.

II. Overview of SMAC

With the convergence of these technologies industries could get rid of the traditional business strategies. Many other sector such as Ecommerce, Financial service and Telecom have started to adopt these technologies as a integration to solve the acquisition of Big Data as well as creating business advantage from the everlasting data records. No longer it is required to keep the business information on the same location and access form there only which in turn may arise security as well as communication problem. SMAC based solution make use of SAAS, PAAS and IAAS cloud services to step up the business opportunity. SMAC stack have given the enterprise the real opportunity to reshape the working strategies of IT-BPO industries. Indian IT-BPO (Information technology-Business
Process Outsourcing) industry grows from strength to strength taking advantage of the vast pool of highly skilled resources available at low cost. The implementation of SMAC stack in some MNCs like WIPRO, Tech-Mahindra and Amazon have resulted in higher revenue productivity per employee and improved margins for companies. Therefore SMAC have dominated the IT-BPO market. Indeed SMAC provide various compelling features that make it accepted by all the enterprises as shown below:

A. Social

Social Technologies are poised to unlock up to $1.3 trillion, through improved productivity across the value chain. Social Business is the efficient way in which employee of companies can interact with clients by the following:

1. Google effect: Search Engine with Information Gathering
2. Skype Effect: Free interaction over IP, demise of separation
3. Facebook Effect: Connect people across globe
4. LinkedIn Effect: Reflection of discipline knowledge
5. Amazon Effect: Realization of customer needs

- Social Media have overtaken the traditional model of business and lead to drastic increase in marketing and selling.
- More than over 1 billion of social media subscriber visit globally on Facebook, Twitter, Google+ and other social networking sites.
- Fundamental need of social network is brand awareness of the manufactured products. Companies can attract the visitors of social media in various ways such as by providing special offers and discounts, frequently asked questions and conducting polls, suggestions in the form of comments, displaying industry related news and important updates. Thus it is the cheapest mode of increasing the brand awareness as compared to mainstream media.
- Every small as well as large scale company creates their page on social sites to strengthen relationships with their customers.
- People value the recommendations of their immediate social circle than what the companies tell them in their advertisements therefore it makes sense to have a presence on social networking sites. Spread via word of mouth publicity gets viral on such sites.
- Customized solutions tailor made to match the specific requirements during the requirement elicitation phase via better interaction model. Connecting 24*7 with customers can better lead to brand building and powerful business etiquettes.
- During short intervals every next person trigger their account on Facebook and check the chat apps for any updates. Social networking is the essence of youth in India as it is the most soluble way to convey messages and be connected to your near and dear ones.
- Social media plays a crucial role in uplifting of enterprise revenue and could lead to almost double the productivity of IT-BPO Company. It plays a vital role and thus became imperative to lead the production of a company to zenith.

B. Media

Mobile computing provides the flexibility to access data anytime and anywhere. Now-a-days companies are free from strain to secure the professional data in small gadget. Enterprise mobility bridge the gap between “people and process” to work at real time. With increasing technology companies prefer to switch on smart phones and tablets to do cost effective work in an efficient manner. Move and stay connected as well as mobility with instant transfer of information is transforming the workplace as a whole. Nearly 75% of world population click-through access on mobile devices. With enterprise mobility production of IT-BPO companies has grown beyond expectations.

- Mobile enterprise creates a sole, reliable and rapid platform on which companies in collaboration could achieve their business target.
- With mobile device it is easy back end processing of any project as on the spot interaction with client and real-time video conferencing adds value to the project.
- E-commerce via mobile application can also benefit the organization.
- Net-banking for money transfer and other banking related work provision have also become easy through Internet-connected mobile device.
- On one click group messaging and team communication is possible easily. Social media manager as time saver where u can keep all accounts in one place on your smart phones.
- There are lots of mobile apps which help to keep in touch with clients and benefit the organization in some or other way. Companies can make their own mobile apps to brand their business. Mobile app provides immediate access to general financial information, LPL research resource and ultimately to advisor accounts. The app will allow advisors to access information to a client account while on the go.
- Mobile to Mobile activity can be performed in low budget and further more voice communication can also be done in case of unsolved issues.
- Mobility provide fast communication channel for exchange of information aids to real time discussion while working on projects which in turn leads to powerful decision making.
- Data Security is another advantage which is leveraging the growth of the enterprises.
- Same time chat and Trip planner apps are enhancing the employee experience. Mail organizers apps scan your mail from outbox so that the employee could read in the digital form from the web through tablets or smart phones.

C. Analytics
Big Data Analytics is a survey of large datasets to unveil the additional information and effective decision making. With increasing population massive amount of data is produced rapidly every day. The data may be generated from social media, e-commerce, web, credit-card/Bank transactions and retail market. These data may be in the unstructured, semi-structured or structured form. Tremendous amount of data collected from user are mined and warehoused. Most organization use only 1% of data available to them.

- Analytics has its root necessity to analyze the lot many data generated from social media/web, Mobile Apps and the click stream of every individual and companies per second.
- MapReduce (highly trendy infrastructure as well as programming model platform for parallelized distributed cloud computing) was unable to manage the load of data Google want to analyze. Thus Google has abandoned mapReduce for running data analytics job and offered a new service for developers using cloud analytics system known as Cloud Dataflow. It is completely managed service which provide automatically optimized, deployed, managed and scaled data by using unified programming for both batch and streaming services.
- Indian companies by spending on big data are growing rapidly. Predictive analysis often done with big data to detect the rise and fall in the production rates of companies.
- With increasing bytes and bytes of data IT-BPO companies now-a-days are paying heavy amount to find hidden trends to ascertain the customers like or dislike the particular area of work. Real time customer analysis of behavior and demand patterns leads to insight the high-level decision making.
- Work optimization and planning on the basis of previous dataset analysis. By the previous analysis the companies could estimate whether the work is in fruitful direction or not. In this way companies embrace big data analytics can retain their customers by transforming their business. With business analytics it is said that “Start small and get big results”.
- Failure in system as well as fraud detection can be done by cluster analysis. Analytics is using insights to discover value through patterns and predictions to reinforce the business area.
- Using big data, you can mine valuable information which enhances customer engagement with your brands, products or services and in this way companies can obtain better insights for them. You can use data as business values to work on using analytics to acquire significant guide in marketing decisions. Using the analytics report, business can create a marketing model that will tend to specifically address customer needs and preference using a SMAC based business solutions.

D. Cloud Computing

Cloud computing is the platform which provides the flexibility to store and manipulate data and applications, which is easily accessible anytime, anywhere and with no space-time constraints. It is just like virtual personal PCs on the server which provides same services as computer system through internet. With vast increasing rates of data and the urgency to access them on the spot have raised the demand of cloud computing. It provides the shared pool of resources to every employee of the company which in turn prevents the chances of data loss. There are lots of reasons which ensure that the cloud computing step up the revenue of IT-BPO companies to the pinnacle. Almost 75% of LOB leaders say cloud will be extremely important to their business success by 2016.

- Four new services on Google cloud platform are cloud save, cloud debugging, cloud tracing and cloud monitoring.
- Cloud computing provide the flexibility to have accessibility on any of the data which is located on the remote server. It makes available to any data anywhere quickly to meet enterprise demands but requires high bandwidth to have access on large data.
- Companies could get rid of disaster recovery plans as hardware or software damage does not result in the loss of files. As long as employees are connected to network, they could easily work online on the applications. As a result this technology individually saves lots of money of the organization.
- Employees in SMEs previously work on independent hardware using application software to accomplish their task. By using cloud simultaneous write operation can be performed on same file but saved changes will be reflected to all the employees. Employees can keep all the files at one central location and can work on one central copy only and thus documentation control is achieved.
- Cloud computing is a compelling paradigm that manages and deliver services by the web on server. Cloud providers such as AmazonEC2 which is OS level virtual machine, Microsoft windows Azure which is a platform for common language runtime and Google App Engine which provide online framework for web applications, provide better services by online software updates than ancient work models.
- It is more scalable, secure and environment friendly as with cloud services companies have to no longer rely on complex disaster recovery plans. Graph shows that the companies using cloud services were able to solve the contention almost four times faster than the companies that didn’t prefer it.
- In terms of competitiveness SMEs using cloud technology can elevate work strategies and thus challenge the large enterprises. Cloud computing allows small organization to act quicker than the large, well established enterprises.
- With the hardware independence, security is the topmost concern which is provided to cloud based documents. Despite of loss of laptops, everything is safely stored on cloud and employees can easily access to it.

III. Companies using SMAC.
Indian IT-Industries are expected to scrape up the revenue over $225 billion dollar by 2020. According to NASSCOM, traditional IT companies that focus on managing infrastructure in low cost, will move to greater margin projects by using SMAC. These emerging technologies offer companies opportunities to grow business exponentially by offering solutions instead of deducting margin for typical IT service contracts. Some of the IT Companies using SMAC services are as follows:

A. Cognizant was first inherent organization to look SMAC stack as a wave of such a strong technology which improved the business pattern.

B. TCS (Tata Consultancy Services) Ltd. India’s largest software services exporter has set a digital enterprise unit in Silicon Valley to combine SMAC stack technologies under a single arena. It is a first step to that helped organization to exceed its capitalization to $100 billion in market. TCS has bridge the gap between four pillars of SMAC. The SMAC framework helps to create an environment that build up proprietary revenue stream. TCS also focused on building intellectual property to help many insurance companies.

C. HCL Technologies is leveraging big data capabilities to increase its revenue from SMAC within upcoming five years and make the business strategies quicker and smarter.

D. In new era of SMAC, Capgemini in partnership with Google is leading Multinational Corporation powered by IT Enterprise with Google App for business. By Capgemini’s pioneering digital transformation, business realize full strength in their organization by using SMAC pillars.

E. Wipro companies have made various dissections of employee and grouped it on the basis of their skills to focus big data in data analytics.

F. Infosys is the second largest IT Company, plays a vital role in emerging new disruptive technology. At Infosys, the ambition is to get one-third revenue from the product and services to account almost 6% of new business solution.

IV. Conclusions

SMAC-Social Media, Mobility, Business Analytics and Cloud computing presents an opportunity for IT-BMP players in order to develop their discipline expertise and also create geographical presence. The domestic market of Mobile, Cloud & Analytics in India is also at a relatively critical stage as compared to developed countries. Hence the opportunity lies in providing high end outsourcing services such as developed countries and at the same time educating the domestic clients about the benefits of adopting SMAC solutions. The four individual technologies of SMAC stack are in great demand in last few years. In this paper we have focused on the demand of SMAC stack and clubbed the four immense technologies. We have covered all the essential concepts and key characteristics which are required by every IT-BMP companies to raise its revenue in short interval of time. Still there are some of the companies those who are not aware of the significance of SMAC stack. The advancement of using these technologies will dramatically change the horizon of IT Companies in India. This research paper is to spread blot of awareness in SMEs and also a bit contribution to make India a developed Nation.

V. REFERENCES

*All are white papers or articles.


