Software As A Service (SAAS) is a way of delivering the functionality of a software over the internet as a service. SAAS applications run on a SaaS provider’s servers. The provider manages access to the application, including security, availability, and performance.¹ Important aspects such as security, stability and scalability are addressed by the SAAS provider. The concept was fostered by two major developments: (a) Higher bandwidth, greater accessibility and falling rates of internet usage and (b) Open source software movement. Hence SAAS users save on the initial costs, efforts in upscaling and get the service they want at a nominal fee.

Introduction

Today a number of SAAS have proliferated. Developers have integrated multiple functionalities and built in flexibility tools such as coding environments to customise the multiple SAAS across a platform. Functionality on these platforms are restricted only by imagination. These range from ERP software with functionality similar to that being offered by SAP, to GIS software offering functionality similar to products being offered by ESRI ArcGIS, Hexagon Geospatial ERDAS, PCI Geomatica, ENVI, etc. As an exponent of the latter class, I will dwell on it in this write up.

GIS is a collection of people, procedures (rules defined by users), hardware, software and DATA to solve real world problems with geospatial connotations.

Why GIS? Managing resources has gone global. We have to often add the question or dimension “Where” to our considerations owing to a lot of factors such as ease of doing business, cost of labor, resource localisation and much more. It is therefore logical that “Where” be seamlessly integrated into our ability to collate, analyse and disseminate data on the cloud. Other factors bringing GIS to the fore today are increased availability of low cost data sets from an increased number of sources such as more number of satellites, UAVs and our desire to use the paradigm of convergence of evidence to analyse imagery data using non picto graphical data on a GIS platform; after all “a picture is worth a thousand words”. Cloud computing platforms would do well to bring Geospatial analytics as a SAAS with functionalities and intuitiveness offered by specialist software. This will allow for mature GIS analytics capability built into cloud computing platforms.

Why GIS as SAAS? There are a multitude of reasons why traditional GIS has moved onto SAAS platforms.

(a) Growing awareness about things geo spatial has attracted sectors which were hitherto using indirect means to study location based aspects of issues.

(b) Large volumes of data have resulted in decreasing cost in acquisition of data.

(c) Flexible GIS data gathering platforms such as UAVs offer the ability to users to generate data when and where they want (Reference is made to PWC report “Clarity From Above” which brings out that that the UAV industry would be in the region of USD 127 Bn without factoring into it the raison d’etre of UAVs i.e. producing geo spatial data).

Capability to analyse geospatial data is the bottleneck today. The need is to make analysed data available to the end user in the desired format, when and where he wants it with the highest possible confidence levels at costs proportional to the functionality demanded.

Emergent users in this field include academia, start-ups, NGOs, solution providers and a host of independent users. They bring to the table factor diversity, innovativeness and sharing of seemingly unrelated data sets. Stakeholder analysis will dictate trends, developments and drivers of this movement.

(a) Users: A variety and more number of users will migrate onto these platforms thereby adding diversity and greater insights will emerge. New entrants will include NGOs, Academia and start-ups essentially cost conscious users. This will place demands on the software capability for example, integration of geospatial with non-structured social media data. A new concept called geo-social data will emerge. Or consider Geo-social data guiding health programs.
These platforms must facilitate big data analytics inclusive of geospatial data.

**Trends.** Inclusive and insightful data will drive geospatial decisions. Academia, NGOs and the marginalised will have a greater say in decision making which will be modelled and hence likely to be more accurate. Greater emphasis on security of data, privacy and network security will be seen. Black box type geospatial solution providers will develop increasingly modular and customised solutions in order to remain relevant.

Given these considerations, it would make business and indeed functional sense to developing intuitive geo spatial modules that replicate and replace existing geospatial tools to address needs of semi aware users and attract non-traditional users through differentiators like seamless availability, cost arbitrage and integration of non-structured and non-geospatial data for value enhancement. This added functionality will enable SAAS providers of the computing sector to move users from ‘Where?’ to ‘iAWHERE?’ or is it aware?

https://www.salesforce.com/in/saas/

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**Annexure I**

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**Reviewers Comment**

**Review 1:** This study presents an in-depth analysis of the market along with the current & future trends to elucidate imminent investment pockets.

**Review 2:** Information about key drivers, restraints, and opportunities and their impact analysis on the market is provided in this study.

**Review 3:** Artificial Intelligence empowers Robotics and Automation bringing in new opportunities and new ways of being and working.

**Editorial Excerpt**

Initially at the time of submission, this paper had 4% of plagiarism which is accepted percentage for the publication. The finding related to this manuscript “Geospatial Services as SAAS” is of great importance in the present scenario. In this paper it has been observed that the use of SAAS and its impact on initial cost and effort in upscaling the service would be of great use when its application comes into picture. Considering the growing proliferation of number of SAAS the manuscript explains geospatial service (GIS), GIS as SAAS and its trends and devices. Hence the article is earmarked and finalized to be published under category of “Argument Based Credentials”

**Citation**

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Conflict of Interest: Author of a Paper had no conflict neither financially nor academically.