Mainframes to Cloud - The Evolution or Revolution

M. Jyoti

Abstract: *Information Technology innovation for the past five decades has resulted in lightning fast processor speeds, an almost omnipresent public cloud and cheaper technology.Just as technology has evolved (Intel microchip went from the size of a fingernail to the width of a hair strand in twenty years), technology expertise has evolved along with it. From the mainframe of yesterday to today's cloud centric evolution, there have been physical and technological changes in computing and data storage and they have had tremendous impact on IT decision making.Today, a terabyte of storage isn't much more than a few trips to our local coffee shop. As the technology landscape has become more complex, we're seeing a shi ft from self-managed hardware to managed cloud services that let businesses get back to innovating and growing. Innovation has played a bigger role in the technology evolution.*

Keywords: Cloud, technology, operations, servers, innovation

1. Introduction

The world is round. What goes out again comes back in a new avatar is applicable to IT industry too. Centralised computing was the core idea whether it was mainframes era or IT cloud as on date. Since mainframes were neither cost effective not space efficient, they were replaced by mini mainframes which eventually paved way for the desktops. Later networked PCs came into existence which led to the birth of a common data sata system called "File Server". Subsequently client server model morphed into the server based computing model with centralised Security and administration. Than business went mobile. Miniature computers were created which were highly capable as compared to mainframes. Wireless networking made mobility even easier. This client cloud computing model takes the administrative burden off of the IT personnel, increases the level of Security, offers cost savings and convenience.

In ongoing cloud operations and performance, there is a need to process significant amounts of data from web servers, application servers, databases and external sources. There is a need for real time and near real time visibility for into operations. Cloud brought a new feature multitenancy which was not there in the mainframe era. This achieves the main goal that the internet project was started for in the first place.

However cloud has its owndrawbacks- costs might rise as other alternatives fade, lack of ability to do anything when disconnected from the network, speed and reliability will lag behind that's possible with connections made locally , loss of control over their own data and applications might push users to see new ways of computing. This might culminate in a second PC revolution. Technology is leveraging the best of the past for today and tomorrow. Thus the changing patterns in technology appear to be familiar though they are innovative because there are new usecases that make them more viable solutions. Concepts in technology are purely cyclic. Open source projects have opened doors to many of these technologies gaining in features and adoption. History repeats itself but it also improves with each iteration.

General computation is a fundamental premise that enables us to connect every corner of this world , build virtual worlds inside it and reach out to the stars. Over the years, we have learnt networking, distributed computing, reliability, availability and Security. As the PC once consumed all markets, now mobile device and tablets have re consumed the same markets. When user habits change, where user critical data is produced and stored subsequently shifts as cited below:

1970   Mainframe Centralized
1980   Personal Computer Distributed
1990   Web/Email Centralised
2000   Social Networks Distributed
2010   Cloud Centralized
2020   Internet Ofthings Distributed
2030   Internet of Me Centralized

Thus the amount of air gap between our lives and internet is shrinking daily. This might take us to some strange places. Let's wait and watch.

2. Conclusion

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References

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Author Profile

Jyoti M, B.E, M.S. has got more than 25 years of work experience in IT industry with more than one and a half decade experience in project management. She has worked in various capacities from being a hands on technical person to project manager, program manager, portfolio manager to strategic business unit head mapping her portfolio to the changing trends in IT.