**Basic of Cloud Computing**

As part of this week’s memo thought of writing about clouding computing. Cloud computing is nothing but instead of having in premise hardware all of them are moved into cloud. Cloud computing is when it is done on demand for usage it could vary from application to storage and processing power.

There are 3 components of cloud computing available IaaS (Infrastructure as a Service), PaaS (Platform as a Service) and SaaS (Software as a Service). IaaS are at the building blocks of cloud computing. This is most useful for organization which have technical knowledge in house and want to do thing from scratch. Basic is when the infrastructure like computing power, virtual machines or space is provided. PaaS is the second layer where along with the hardware provided software is also provided in terms of database, operating systems etc which will be required to create reports, databases, data warehouses etc. SaaS is the most widely used component though the other 2 are also increasing. As the name suggests it provides services as the end user may not be considered with the underlying hardware, operating system and usually charged per seat or per user basis. It is more customizable and widely used by various companies.

Now a days there are different types of cloud computing namely multi cloud, public cloud, private cloud and hybrid cloud. Multi cloud in simple terms is not putting all the eggs in a single basket. The need for multi clouding arose when companies wanted to choose and pick which technology they want from which enterprise. It was also to avoid risk and spread the load across systems. This also helped to overcome inflexibility and costs. Public computing is when the processing power available with the vendor is high and it allows large number of users to typically use it over the internet. It is easily scalable and can increase the power depending on customer needs. This is typically used for less sensitive applications. Private cloud is the opposite of public cloud. What this basically means is that is adds the security that companies need to safeguard their data. Organizations have control on where, what and how but this comes at a higher cost. Hybrid cloud is a mix of public and private cloud. It allows the flexibility of determining which data should be in public cloud or certain projects have to be done within company firewall using private cloud computing.

Major players in cloud computing are AWS, Microsoft and Google. They account for more than 60% of the cloud computing industry. The other emerging players are IBM, Dell and Alibaba cloud. The future lies in cloud computing where more and more organizations are moving from standard structures to clouding computing. Another reason being all organizations are moving towards digitalization and data driven decisions. For this kind of organizations strong computing power is required where data, reports, historical data is available at the tip of fingers. The few issues that one can face with clouding computing is outage, cybersecurity.