# Data Center vs. Cloud Computing

The major difference between a cloud and a data center is that the former is an off-premise type of computing that stores data on the internet, whereas a data center is on-premise hardware that stores data in a local network of an organization. Therefore, a data center can be referred to as a facility that comprises of components such as servers, communication media as and data storage facilities. Other components of a data centre include security devices, back up and power supply systems. It is important to note that data center connects resources that are made locally available at access which is mainly run and controlled by in-house. Cloud is a virtual type of infrastructure accessed or delivered via a local network. Thus, its services are accessed upon demand where the user may require storage, networking services or computing resources without necessarily involving infrastructure (Makhija, 2017).

Since cloud is an external approach to computing, it means that the system may be less secure or possibly involve extra attention to ensure security compared to a data center. At least with data centers, the system administrator is responsible for his or her own security whereas in cloud the administrator is entrusting valuable data to a third-party provider that probably may or not have needed the up-to-date security certifications (Priscilla, 2017).

Cloud computing has a unique and most advantageous feature because it can convert capital expenses into manageable operational expenses. This is a significant benefit particularly for companies or consumers staying in an economy affected by heavy-laden impact of debt as well as lack of investment capital. Using cloud computing, therefore, this is a great benefit to a number of companies despite the differences in long-term costs (Clark, 2012). In terms of costs, it is notable that a dedicated server involves spending a consistent amount of money regardless of whether or not huge amount of the server is used. On the other hand, the expense of cloud server is charged based on the hourly rate, and thus spent only for those resources consumed. By considering scalability, it can be noted that a dedicated server or data center requires a minimum of two scaling system that only involves migration and hardware upgrades. With cloud server, it is more advantageous and adaptable because it offers a fast and convenient server upgrade and downgrade. For security purposes, it important to mention that a dedicated server or data center is much better because of its one level up feature compared to cloud server (Makhija, 2017).

Based on the ideal solution for business and projects, a cloud framework is perceived to be adaptable to most business needs because it is not bound limit in terms of merchant’s services as well as administration designs. However, the major challenge with using cloud is that one will not have full control, as it would be the case with a server or data center (Priscilla, 2017).

## Conclusion

Based on the above discussions and consideration for future performance, it would be relevant to point out that cloud computing services is increasingly becoming attractive and adapted with a cost-effective and convenient service. It is quite apparent that cloud computing is the advanced way to facilitate collaboration as well as information access and sharing across the various geographic distances at a minimized costs. By comparing the traditional center, therefore, it is relevant to mention that the future performance of cloud computing is definitely much appealing.

**References**

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