**BACK GROUND:**

Domvic Engineering cc is an Information Communication Technology Company set up, owned and managed by me in South Africa. We sell, install maintain and train clients on various information communication systems and equipment both the Hardware like Laptops and Desktop personal computers, printers, Cameras, scanners etc and Software operating system as well as internet services, with a total of seven employees including myself as the manager and CEO, Accounts and finance Department, Marketing and Logistics Department, Maintenance and Training Department, Warehouse, Security and IT Department.

**CURRENT IT SETUP AT DOMVIC ENGINEERING CC:**

PRINTER5

PRINTER4

PRINTER35

PRINTER2

PRINTER1

PC/LAPTOP1

PC/LAPTOP2

PC/LAPTOP3

PC/LAPTOP4

PC/LAPTOP5

The current IT setup of Domvic Engineering cc includes that we buy, maintain and manage computer hardware equipment, provide the Physical location, software as well as the network involved.

Hardware infrastructure ie desk top personal computers and laptops and printers for each individual employee in his/her department that is interconnected to one another through our Local Area Network (LAN) infrastructure to link and share data and information as well as individual printers for all the departments on the network of the company and overall connected to the internet as well as. All these required and took huge chunk of capital to achieve. However as time went pass and more especially the 2020/2021 Covid19 Pandemic, we could find out that it was a big waste of resources as most of these computing services could be done and achieved remotely through cloud system of computing and what a great savings and operational efficiency

**WITH CLOUD**:

VIRTUAL MACHINE OR HYPERVISOR

SHARED PRINTER

OTHER RESOURCES

PC5

PC4

PC3

PC2

PC1

## **CLOUD VS NON CLOUD SOLUTIONS FOR EACH ASPECT OF THE INFRASTRUCTURE**

**Non cloud is not easily flexible and scalable.**

When services suddenly scale up, you need resources to buy more equipment, Hardware, software as well as Network systems in other to meet up. This often lead to not able to meet up with clients demand and loss of business as it takes more time to add on more units than in a cloud environment which is just a click of a few buttons.. Moreso it is highly flexible and dynamic.

**Collaborative efficiency** is very difficult to achieve as sometimes you need express permission before you may get into the system and most times people connecting from different areas may not even be able to.. unlike in Cloud where it is very easy.

**It is usually a bit difficult to recover data and information after maybe any business disaster**. Unlike in cloud where this could be done in a matter of minutes and seconds..

Non Cloud computing is usually more expensive as we have to buy everything as well as the cost of the maintenance and

**The cloud is flexible and scalable.**

One of the major benefits of using the cloud is its scalability. Cloud services can scale up or down very easily based on user requirements very easily. If you use only on-premises infrastructure, you need to invest heavily in physical servers, networking equipment and software licenses to scale up your growing business.

Cloud services are also exceptionally flexible. They don’t tie down your people to one particular location. Any internet-enabled device, including laptops, smartphones or notebooks, can be used to access and share critical documents for strategic business decision-making. Businesses need this level of flexibility to grow in a crowded market..

**The cloud drives collaboration efficiency.**

Cloud computing can also enable great efficiency in the work processes of various organizations. Cloud technology allows collaboration on a much larger scale among employees within an organization. It allows multiple users from different departments to access the required information.With cloud technology, businesses can overcome geographic restrictions and set up a multiregion infrastructure that can be accessed from anywhere. This drives better collaboration efficiency among overseas teams and contributes to business growth.When businesses combine cloud technology with managed services, they can share information efficiency, prevent a lot of human errors and speed up the decision-making process. This helps them boost productivity by focusing on core tasks that matter.

**The cloud ensures business continuity and disaster recovery.**

Cloud has dramatically changed how businesses store and retrieve data. This comes into play when businesses need to recover quickly following an unforeseen disaster.Cloud backup helps businesses recover their data quickly so they can continue their operations without any downtime. Eliminating downtime is critical for businesses that want to survive and remain competitive following a data loss incident.Even during the ongoing pandemic, the cloud has helped companies stay operational and continue their business from anywhere cost effectively .

**Cloud computing is simple and cost-effective.**

Scaling up using on-premises infrastructure is an expensive affair. It requires additional investment in hardware, network equipment, software licenses and in-house technicians. When you factor in maintenance installation costs, these expenses go through the roof. Also, infrastructure is generally prone to physical damages attributable to disasters such as floods and fire. When you move to the cloud, you can eliminate the investment you make in redundant infrastructure. Although cloud computing involves initial setup costs and training, you can achieve economies of scale at a much faster rate compared to on-premises infrastructure. Cost-effectiveness is one of the major reasons businesses across the globe are choosing the cloud over traditional systems.

## As a recommendation, I will recommend the adoption of cloud against non-cloud computing system due to the great advantages as outlined above i will gladly go for Infrastructure as a service in Public Cloud system this is due to the reasons below as it suits all my requirement to source and procure my stock. Lias and collaborate with other suppliers from all other parts of the world effectively, deliver the required services and sales to my customers and easily scale up my business as well as ensure more flexibility in terms of taking business decisions all these at a very low cost and at the rate of pay as I use bases. As well as upgrade my software and operating system safely securely store my data without the headache of buying lager servers and maintenance operating costs.

## **Public cloud**

In a public cloud, the entire computing infrastructure is located on the premises of the cloud provider, and the provider delivers services to the customer over the internet. Customers do not have to maintain their own IT and can quickly add more users or computing power as needed. In this model, multiple tenants share the cloud provider’s IT infrastructure.

**Cloud computing services**

There are three main types of cloud services: software as a service (SaaS), platform as a service (PaaS), and infrastructure as a service (IaaS). There’s no one-size-fits-all approach to cloud; it’s more about finding the right solution to support your business requirements.

**SaaS**

[SaaS](https://www.oracle.com/ie/applications/what-is-saas/) is a software delivery model in which the cloud provider hosts the customer’s applications at the cloud provider’s location. The customer accesses those applications over the internet. Rather than paying for and maintaining their own computing infrastructure, SaaS customers take advantage of subscription to the service on a pay-as-you-go basis.

Many businesses find SaaS to be the ideal solution because it enables them to get up and running quickly with the most innovative technology available. Automatic updates reduce the burden on in-house resources. Customers can scale services to support fluctuating workloads, adding more services or features they grow. A modern cloud suite provides complete software for every business need, including [customer experience](https://www.oracle.com/ie/cx/what-is-cx/), [customer relationship management](https://www.oracle.com/ie/cx/what-is-crm/), [customer service](https://www.oracle.com/ie/cx/service/what-is-customer-service/), [enterprise resource planning](https://www.oracle.com/ie/erp/what-is-erp/), [procurement](https://www.oracle.com/ie/erp/procurement/what-is-procurement/), [financial management](https://www.oracle.com/ie/erp/financials/what-is-financial-management-system/), [human capital management](https://www.oracle.com/ie/human-capital-management/what-is-hcm/), [talent management](https://www.oracle.com/ie/human-capital-management/talent-management/what-is-talent-management/), [payroll](https://www.oracle.com/ie/human-capital-management/payroll/what-is-payroll-software/), [supply chain management](https://www.oracle.com/ie/scm/what-is-supply-chain-management/), [enterprise planning](https://www.oracle.com/ie/scm/what-is-supply-chain-management/), and more.

**PaaS**

[PaaS](https://www.oracle.com/ie/cloud/what-is-paas/)gives customers the advantage of accessing the developer tools they need to build and manage mobile and web applications without investing in—or maintaining—the underlying infrastructure. The provider hosts the infrastructure and middleware components, and the customer accesses those services via a web browser. To aid productivity, PaaS solutions need to have ready-to-use programming components that allow developers to build new capabilities into their applications, including innovative technologies such as [artificial intelligence (AI)](https://www.oracle.com/ie/artificial-intelligence/what-is-ai/), [chatbots](https://www.oracle.com/ie/chatbots/what-is-a-chatbot/), [blockchain](https://www.oracle.com/ie/blockchain/what-is-blockchain/), and the [Internet of Things (IoT)](https://www.oracle.com/ie/internet-of-things/what-is-iot/). The right PaaS offering also should include solutions for analysts, end users, and professional IT administrators, including [big data](https://www.oracle.com/ie/big-data/what-is-big-data/) analytics, content management, [database management](https://www.oracle.com/ie/database/what-is-a-cloud-database/), systems management, and [security](https://www.oracle.com/ie/security/cloud-security/what-is-cloud-security/).

**IaaS**

[IaaS](https://www.oracle.com/ie/cloud/what-is-iaas/) enables customers to access infrastructure services on an on-demand basis via the internet. The key advantage is that the cloud provider hosts the infrastructure components that provide compute, [storage](https://www.oracle.com/ie/cloud/storage/what-is-cloud-storage/), and [network](https://www.oracle.com/ie/cloud/networking/what-is-cloud-networking/) capacity so that subscribers can run their workloads in the cloud. The cloud subscriber is usually responsible for installing, configuring, securing, and maintaining any software on the [cloud native](https://www.oracle.com/ie/cloud/cloud-native/what-is-cloud-native/) solutions, such as database, middleware, and application software.

**Justification for each final recommendation**

From an end-user perspective, cloud consumption means either using a cloud application or consuming cloud infrastructure. Regardless of resource location or base, however, understanding infrastructure resource usage and consumption remains critical, because it represents an organization’s ability to serve my customers better, be innovate in terms of adding services that help improve customers satisfaction and business efficiency, and lower operational expenses.

Consumption is defined as the act of using a resource. This concept seems simple enough when applied to the cloud, but implementation differs by service providers. Understanding what exactly it means to consume a resource adds to the complexity. The best cloud providers will help their customers clearly understand the cost of their cloud services and what they can expect to pay for consuming those services.