

You Know it Can Benefit Your Organization, but **WHAT IS THE CLOUD?**

Cloud is a big topic, with a scope that can be daunting. But really it's just working smarter, by shifting to a virtual environment for data storage, servers, databases, applications, and networks. With cloud computing, most services are now available and serviced by the cloud. The obvious advantage is being able to securely access a vast network of remote up-to-date servers around the globe, not tied to one physical point, or one inflexible budget. The ability to scale up or down and pay for only the resources needed offers huge flexibility. The additional security, typically available by utilizing the frameworks available from large cloud compute providers, helps protect organizational assets, and ensures businesses keep running. There are a few different ways to look at the cloud, as well as how it's offered, deployed, and interacted with.

TYPES OF CLOUD SERVICES



Infrastructure as a Service (IaaS), a virtualized platform to support an organization's operations – often paired with Hardware as a Service (HaaS) which encompasses the hardware, software, storage, data center, servers, and network space requirements.



Software as a Service (SaaS), purchasing access to applications that are owned and managed by a vendor, hosted in the cloud, and accessed with web-based technology via a browser or smartphone app.



Platform as a Service (PaaS), between IaaS and SaaS is PaaS, often reserved for application development, it contains the database management systems, and programming language libraries technical teams require to develop, run, and manage applications.



Software Defined Networking (SDN), Software Defined Networking (SDN), often referred to as SD-WAN (Software Defined Wide-Area Network), is frequently used with cloud since it gives redundancy, quality of experience, etc.



Desktop as a Service (DaaS), securely delivers virtual apps and desktops, often by subscription, from the cloud to any device. The provider takes care of backend management to reduce expense and minimize resource expenditure.



Disaster Recovery as a Service (DRaaS), backup data and IT infrastructure to a third-party cloud computing environment with protocols in place should the main system be compromised. If an event occurs, the data is protected, ready to be restored with limited downtime.

FOUR METHODS OF CLOUD DEPLOYMENT



Private Cloud, (Single Tenant) is one organization all on the same hardware. There are many options for off premise solutions, and on-premise deployment is also possible. Providers who excel in this space are Tierpoint, Flexential, and Rackspace.



Hybrid Cloud, in today's world, organizations often take a very dynamic approach, with some aspects kept on the premises or in a colocation facility, while others are running on a public cloud infrastructure. There can be crossover, redundancy, or dedicated processes. Flexibility is always a function of the cloud. Datacenter providers often tie to one of the hyperscalers, with AWS, Azure, and GCP again being excellent choices.



Public Cloud, shares resources and offers services to the public over the Internet. Typically they are very scalable horizontally, with the ability to take things up and down very quickly, and add resources on demand. You can think of this method as "Hyperscalers" due to this flexibility – great examples include AWS, Azure, and GCP.



Multi-Tenant Cloud, typically based on vmware or hyper-v platforms, gives organizations access to best of breed CPU, RAM, and storage on well-known hypervisors (the software that creates and runs virtual machines). This cloud network is still private, but, like a condominium, lets each tenant enjoy shared elements without assuming the full budgetary burden. Great providers include Tierpoint, Rapidscale, EvolveIP, Flexential, and Effortless Office.

The Two Layers of Cloud Technology Work

Front End, is the portion that you, the customer (or end user), actually sees and interacts with through a digital device via browser or standalone app. It's this GUI (Graphical User Interface) that is clicked on to navigate through information, and actionable commands...like what's seen when browsing Facebook. Think of it as the access point, connected via the internet, that receives and works with the resources. The front end will often include digital device, network, and browser/app.

Back End, is the database and other logic that sits behind your customer/user experience (front end). This includes the data storage systems, cloud-based applications, logic, workflow design, and shared/dedicated servers that are the backbone of the cloud. The back end is ultimately responsible for cloud performance, and the interaction experience.

Older Systems Can't Match Today's Providers

With cloud, providers offer organizations additional services that address application management, security, compliancy needs, patching, and updates. Organizations can also benefit from advanced services including load balancing, disaster recovery, and business continuity.

LET'S TALK, NO MATTER WHAT STAGE YOU'RE IN.

There's a lot going on with cloud. The benefits an organization can realize from a cloud deployment are exciting. Redundancy, scalability, the manageable monthly cost of computing/storage needs as opposed to being tied to large capital expenditures even after they become outdated. Don't worry if you don't know everything, we're here to help. As your trusted technology experts, we can work with you to delve into the intricacies, select the right solution or combination of solutions, and advocate for your best options. Also, with the cloud you have an almost infinite ability to grow into your future!