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Description automatically generatedCloud deployment

The key distinction between the cloud service models is the amount of management the cloud service provider is responsible for.

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| **Infrastructure as a Service (IaaS)** |  | **Platform as a Service (PaaS)** |  | **Software as a Service (SaaS)** |
| Applications |  | Applications |  | Applications |
| Data |  | Data |  | Data |
| Runtime |  | Runtime |  | Runtime |
| Middleware |  | Middleware |  | Middleware |
| Operating system |  | Operating system |  | Operating system |
| Virtualisation |  | Virtualisation |  | Virtualisation |
| Servers |  | Servers |  | Servers |
| Storage |  | Storage |  | Storage |
| Networking |  | Networking |  | Networking |

You manage

Provider manages



Conduct some research to ensure you understand these characteristics of cloud deployment.

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| **Applications** | An application is computer software that performs a specific function. With IaaS and PaaS, the end user needs to have applications stored locally on their device. With SaaS, the user accesses a version of the application using the internet. An example of this would be using a web-based email service. |
| **Runtime** | Runtime is the execution time of a program. A runtime environment acts as a go-between for the application and operating system. In PaaS, the runtime environment is provided for the user. |
| **Middleware** | Middleware is the software platform that different applications use to communicate with each other. Cloud middleware is accessible to the user in the form of remote software. |
| **Virtualisation** | Virtualisation is technology used to create virtual representations of servers, storage, networks, and other physical machines. Virtualisation allows cloud service providers to create different virtual environments for users. |
| **Storage** | Storage is the process of saving digital data. In cloud storage, data is stored on servers with secondary storage devices that are owned and managed by commercial organisations. |

Explain the differing levels of responsibility the cloud service provider has and explore the benefits of each cloud service model.

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| The different levels of cloud service models have differing levels of responsibility for both the client and the cloud service provider.  With Software as a Service (SaaS) the cloud service provider is responsible for everything. The client just needs to decide on how they will utilise the applications and services.  With Infrastructure as a Service (IaaS) the cloud service provider is only responsible for the key infrastructure such as servers and network storage areas. This can reduce some of the physical hardware costs for the client.  Platform as a Service (PaaS) incorporates all the features of IaaS but also includes software and runtime environments. The cloud provider manages the underlying platform, upon which clients build and deploy applications. |