Benefits of cloud deployment models

Previously, you learned about the different cloud deployment models: public, private, and hybrid. These models describe the different ways an organization can choose to utilize cloud environments. As a cloud data professional, understanding these deployment models will help you adapt to different cloud environments depending on your organization's needs. In this reading, you'll explore the different cloud deployment models in more depth, and consider their uses. You'll also learn about managed cloud services.

Cloud deployment models

Public, private, and hybrid deployment models all have different use-cases, benefits, and challenges you'll need to keep in mind in your role as a cloud data professional. This table provides an overview of each deployment model, along with benefits and example tools.

Deployment model	Definition	Benefits	Example tools
Public	A cloud model that delivers computing, storage, and network resources through the internet, allowing users to share on-demand resources based on their specific business needs and operational goals	- Cost-efficient - Scalable - No maintenance - Reliable - Fast and easy to deploy - Innovative	- Google Cloud Platform - Amazon Web Services - Microsoft Azure
Private	A cloud model in which all cloud resources are dedicated to a single user or organization, and are created, managed, and owned within on-premises data centers	- Secure - Compliant with internal regulations - Consistent and predictable performance	- HPE Greenlake - Amazon Virtual Private Cloud - VMWare

Hybrid	A cloud model that combines public and private models so organizations can enjoy both cloud services and the control features of on-premises cloud models	• Strong computing power • Uses modern innovations • Secure • Compliant with internal regulations • Fast performance • Flexible operations	• Google Anthos • Microsoft Azure Arc • AWS Outposts

Managed cloud services

Sometimes, an organization will outsource their cloud system management. This is called a managed cloud service. In a managed cloud service, a third-party will manage some or sometimes all of an organization's cloud resources and infrastructure to ensure their cloud system is running smoothly. For example, Salesforce, which is a Software as a Service (SaaS) tool that helps retailers manage their online storefronts, is a managed cloud service. These services are also part of a company's larger cloud ecosystem, and need to be considered when taking into account a company's cloud deployment.

Key takeaways

As a cloud data professional, part of your job will be understanding your organization's current cloud systems and how those tools need to be managed. You might also need to know how to set up new cloud environments to address your organization's needs. Recognizing the different cloud deployment systems and how they contribute to a company's larger data ecosystem will be an important part of your day-to-day role.