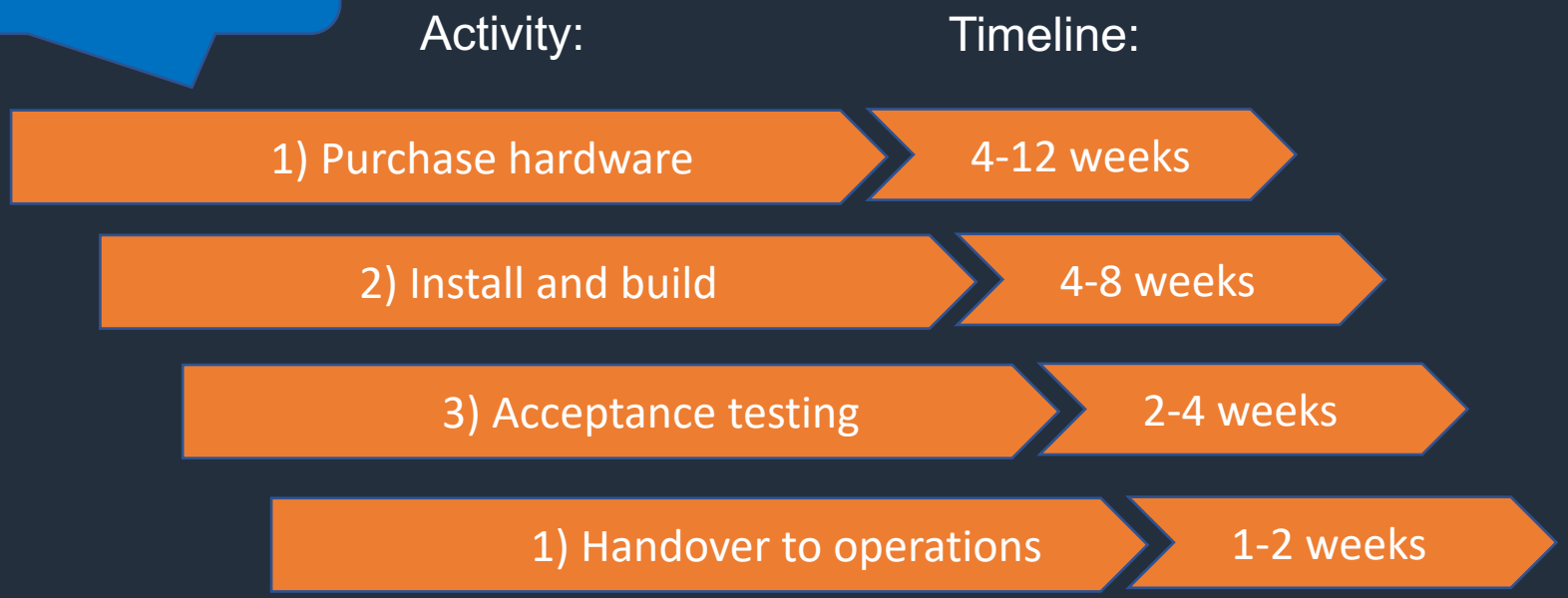
What is Cloud Computing? The Key Characteristics

Name	Description
On-demand, self-service	A user can consume cloud resources, as needed, automatically, and without human interaction
Broad network access	Capabilities are available over the network using standard mechanisms. Can be the Internet or a Wide Area Network (WAN)
Resource pooling	The providers resources are pooled and serve multiple consumers using a multi-tenant model
Rapid elasticity	Capabilities can scale “elastically” based on demand
Measured service	Resource usage is monitored and metered

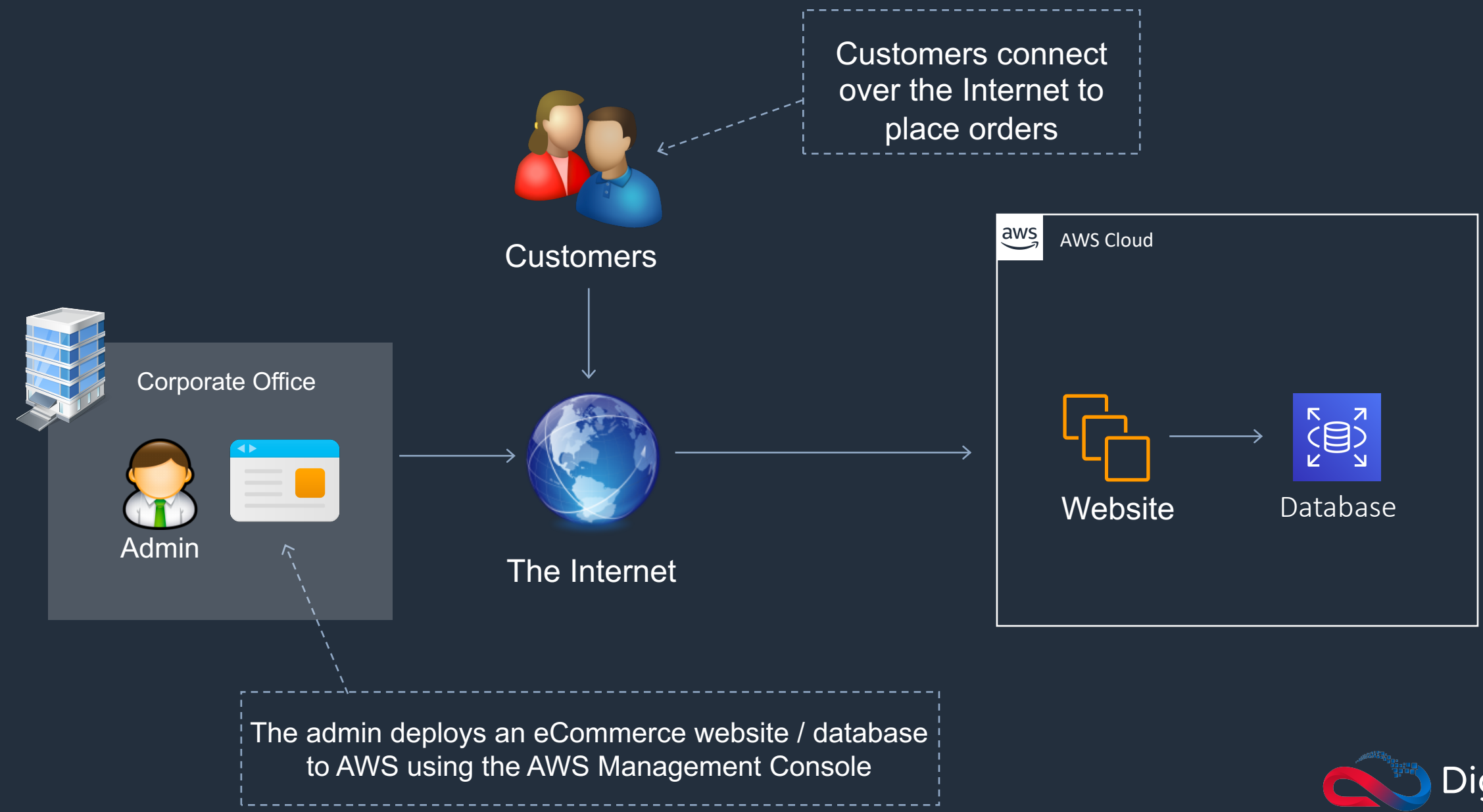
Deploying an eCommerce Website on-premises (aka the old way)

Assumes you don't have a private cloud, or don't have enough capacity



3-6 months

Deploying an eCommerce Website in the Cloud



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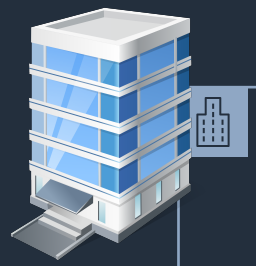
Cloud Computing Deployment Models

Name	Description	Examples
Private Cloud	An enterprise deploys their own infrastructure and applications into their own data center	VMware, Microsoft, RedHat, OpenStack
Public Cloud	The IT services that you consume are hosted and delivered from a third-party and accessed over the Internet	AWS, Microsoft Azure, Google Cloud Platform
Hybrid Cloud	A combination of on-premises, private cloud, and public cloud services are consumed	
Multicloud	Usage of two or more public clouds at a time, and possibly multiple private clouds	

Deployment Models – Private Cloud



Data center

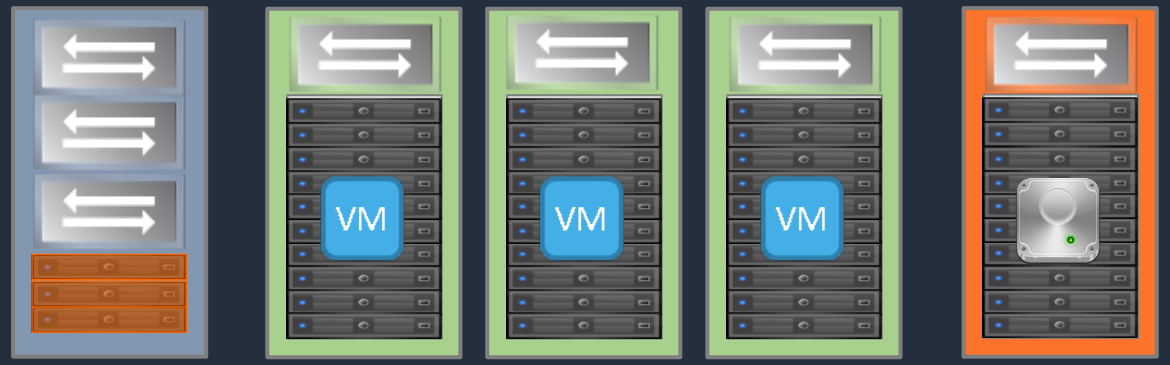
Self Service Portal / Service Catalog

Automation and Configuration Management

Billing and Reporting

Multi-tenancy controller

Cloud management software layer



Network & Firewall

Virtualization Cluster

Storage & Backup

Benefits

- Complete control of the entire stack
- Security – in a few cases, organizations may need to keep all or some of their applications and data in house

You build and manage the cloud deployment

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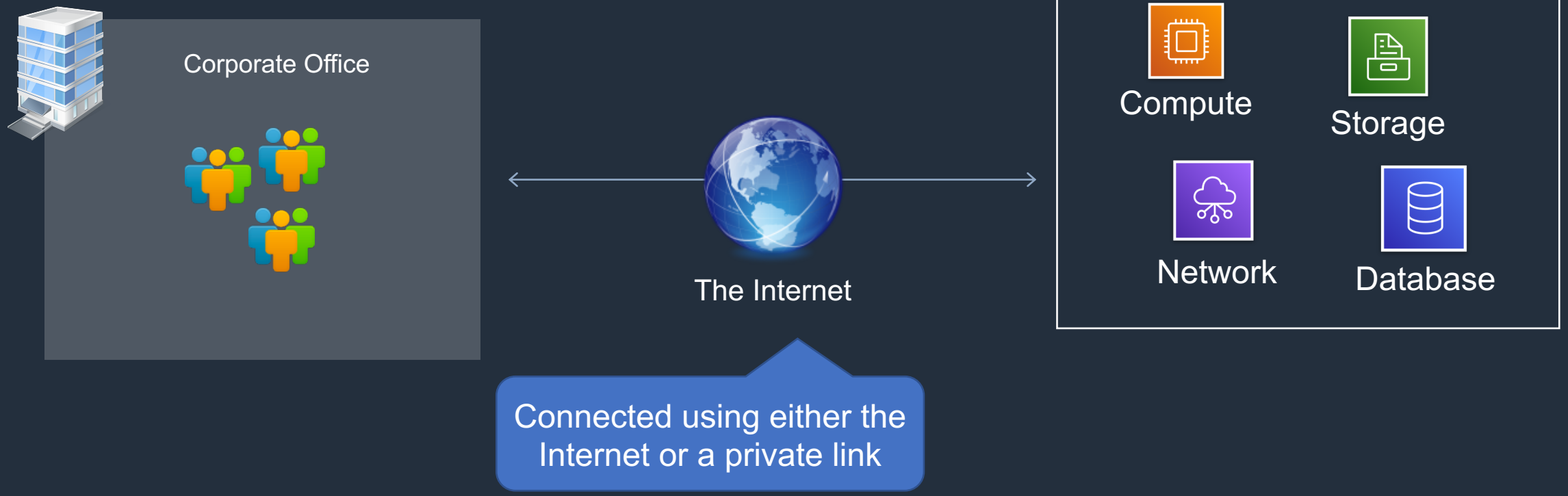
Deployment Models – Public Cloud

Benefits:

- Variable expense, instead of capital expense
- Economies of scale
- Massive elasticity



Deployment Models – Hybrid Cloud

Benefits:

- Allows companies to keep the critical applications and sensitive data in a traditional data center environment or private cloud
- Take advantage of public cloud resources like SaaS, for the latest applications, and IaaS, for elastic virtual resources
- Facilitates portability of data, apps and services and more choices for deployment models