



# Introduction

2 minutes

Suppose you work for a company doing medical research and you're responsible for managing the on-premises servers. The servers you administer run all the company infrastructure, from web servers to databases. However, the hardware is aging and starting to struggle to keep up with some of the new data analysis applications being deployed to it.

You could upgrade all the hardware, but that's not appealing for several reasons:

1. The servers are physically scattered all around the world with minimal staff in each location. We'd like to centralize the upgrade to our home office.
2. The company runs custom data analysis software on several versions and flavors of Windows and Linux, sometimes set up with odd configurations that aren't entirely understood. We need a way to test our deployments completely and try different configurations to make sure everything is working before we transition the work.
3. Business is booming, and the company is growing fast. It's likely that the load on the internal servers, particularly the databases, will continue to grow, requiring us to either buy for the future or come up with a scaling plan to handle the growth.

For these reasons, you decide that it's time to explore the cloud to see if it can help solve the load and scale problem. Since you have a bunch of mixed servers and custom software, it makes sense to look at trying to move servers one at a time into Azure using Azure Virtual Machines (VMs).

Azure VMs are one of several types of on-demand, scalable computing resources that Azure offers. With VMs, you have total control over the configuration and can install anything you need to perform the work. You don't need to purchase physical hardware when you need to scale or extend your datacenter. Finally, Azure provides additional services to monitor, secure, and manage updates and patches to the OS.

We're going to look at the decisions made before creating a VM, the options to create and manage the VM, and the extensions and services you use to manage your VM.

## Learning objectives

In this module, you will:

- Compile a checklist for creating a virtual machine
  - Describe the options to create and manage virtual machines
  - Describe the additional services available to administer virtual machines
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**Next unit: Compile a checklist for creating an Azure Virtual Machine**

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