Inside the VM

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MVP
Microsoft®
Most Valuable
Professional

Overview

What you need to think about to be successful

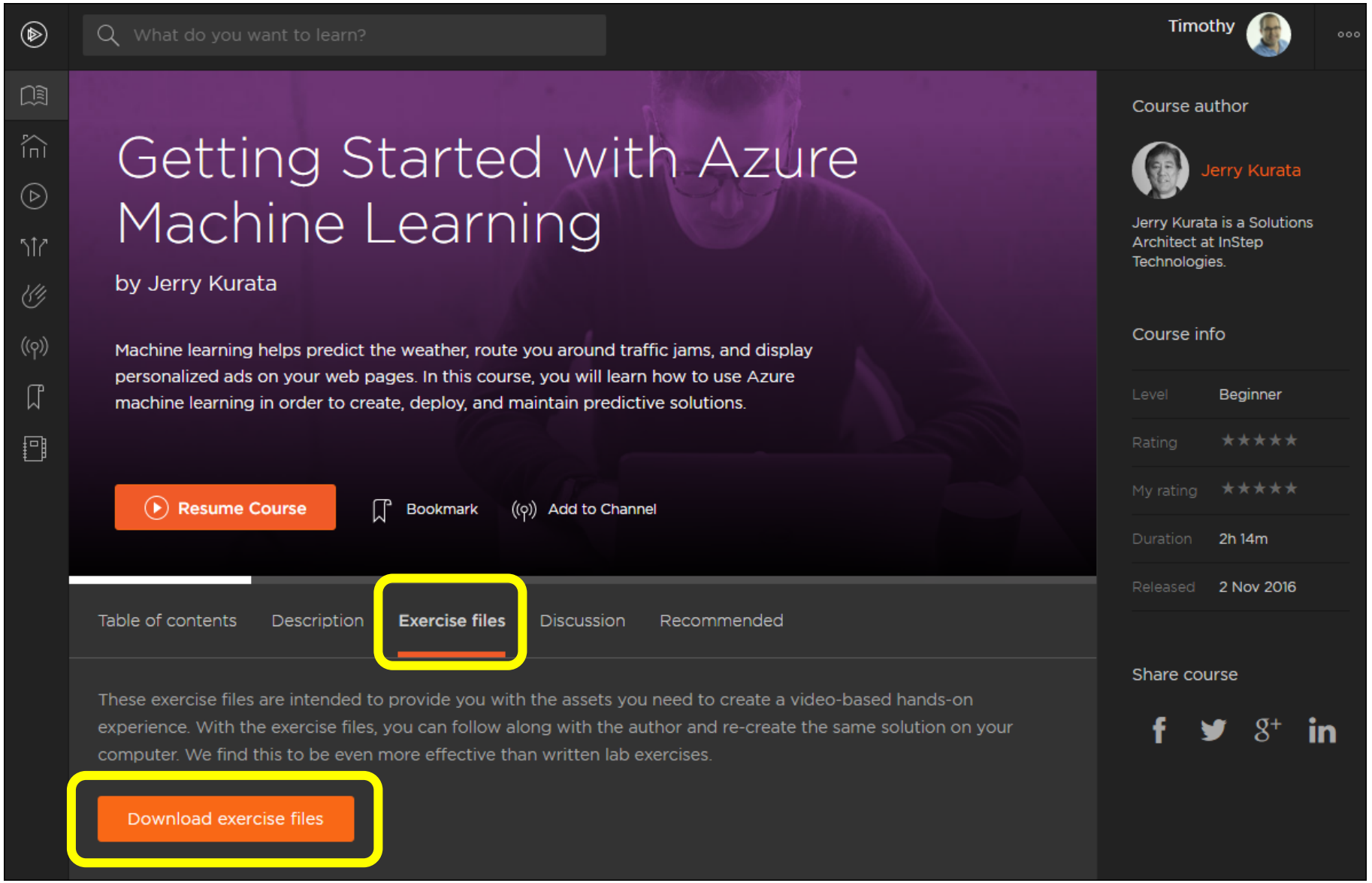
Administering your Azure VMs

- RDP, PowerShell, SSH

Deploying VM extensions

- Antimalware
- Backup
- Configuration management

Exercise Files



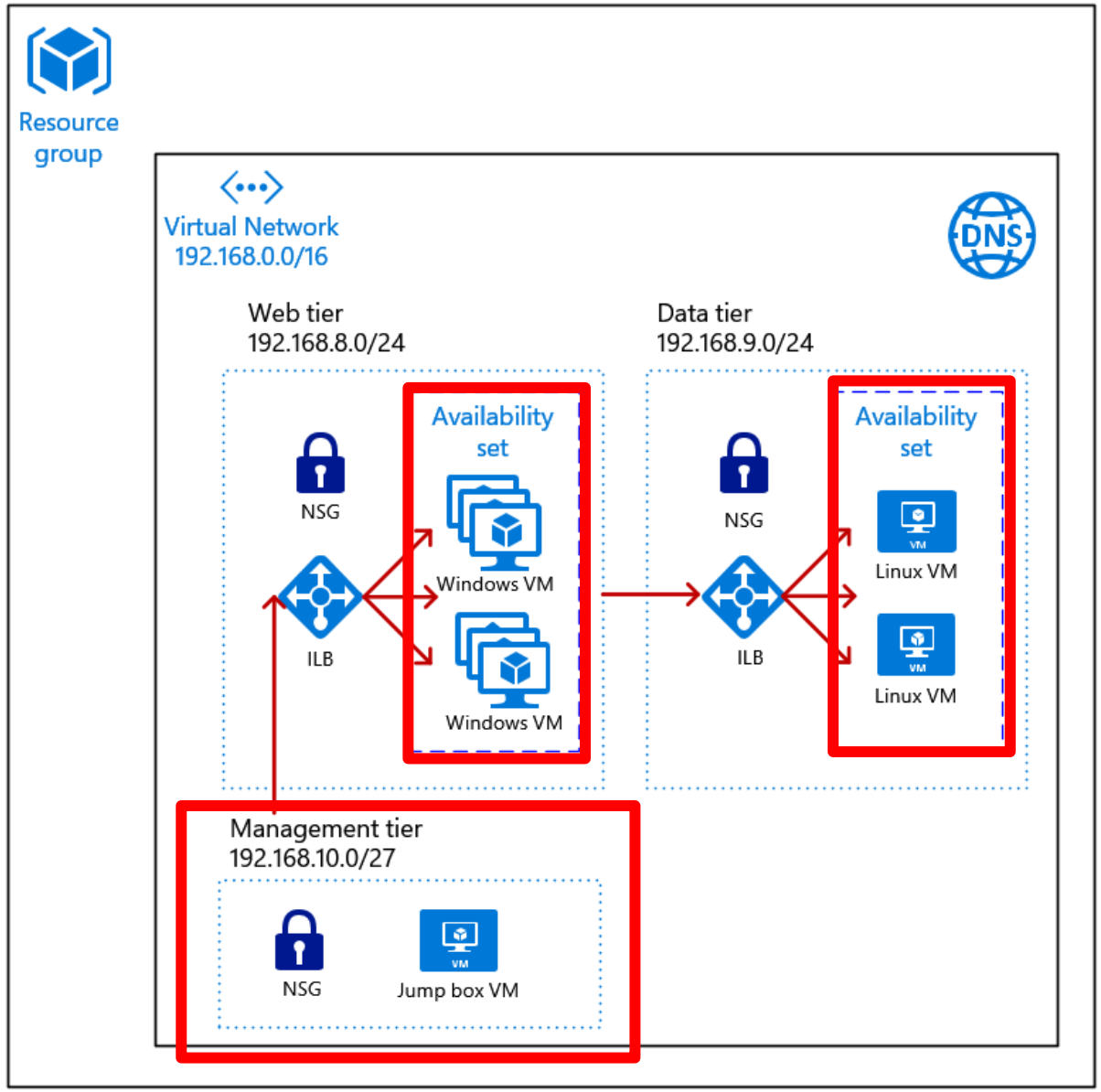
Our Solution

NSG endpoint

P2S VPN

S2S VPN

ExpressRoute



Security

Convenience

Monitoring

What You Need to Think About to Be Successful

Things to Keep in Mind Regarding Azure VM Management

NSG rules

Premium storage offers 99.9% for single VMs

Combine Azure Load Balancer with Avail. Sets

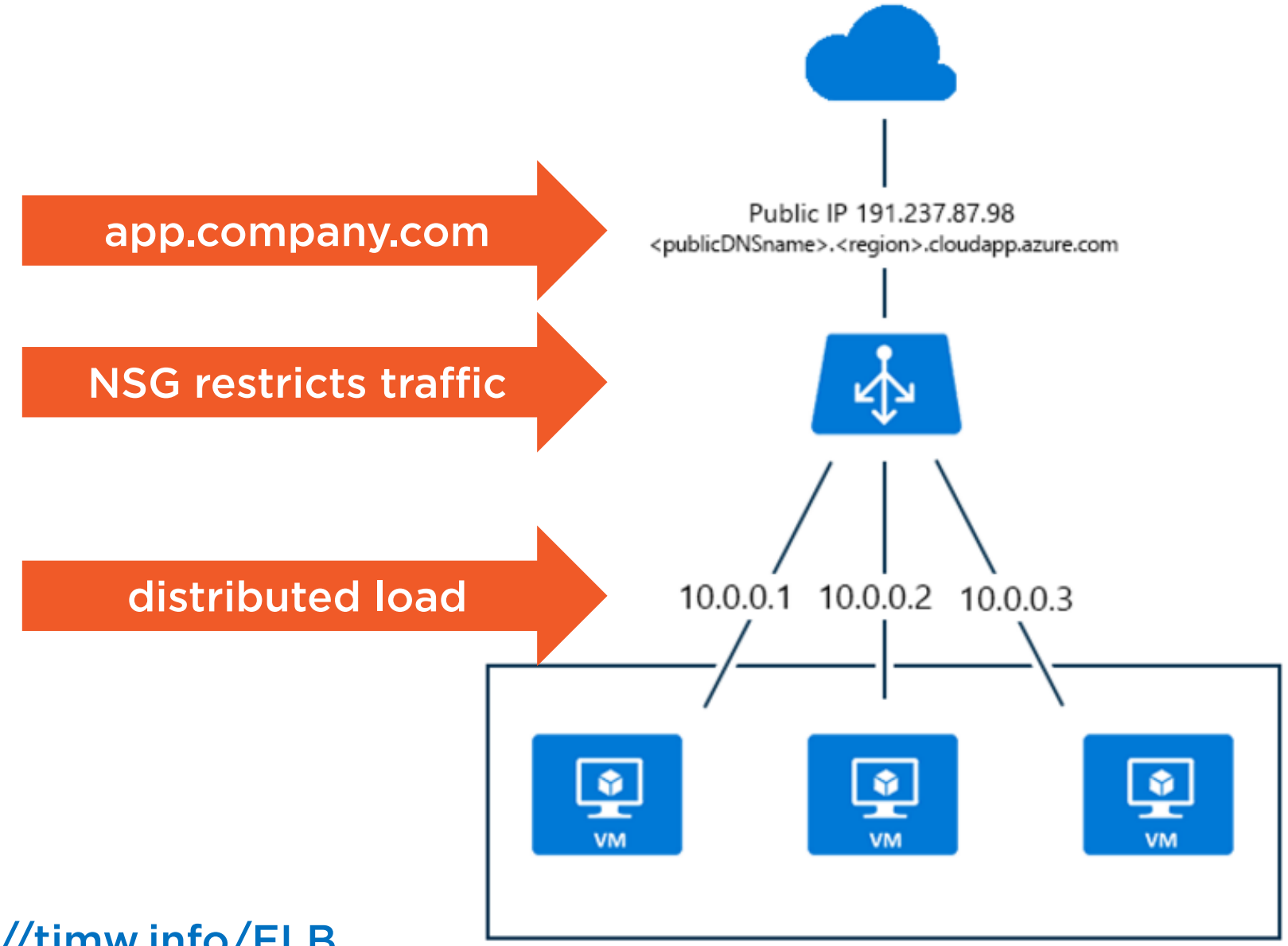
Need availability sets for 99.95% SLA

Shared responsibility model

Use separate storage accounts for each VM

Administering Your Azure VMs

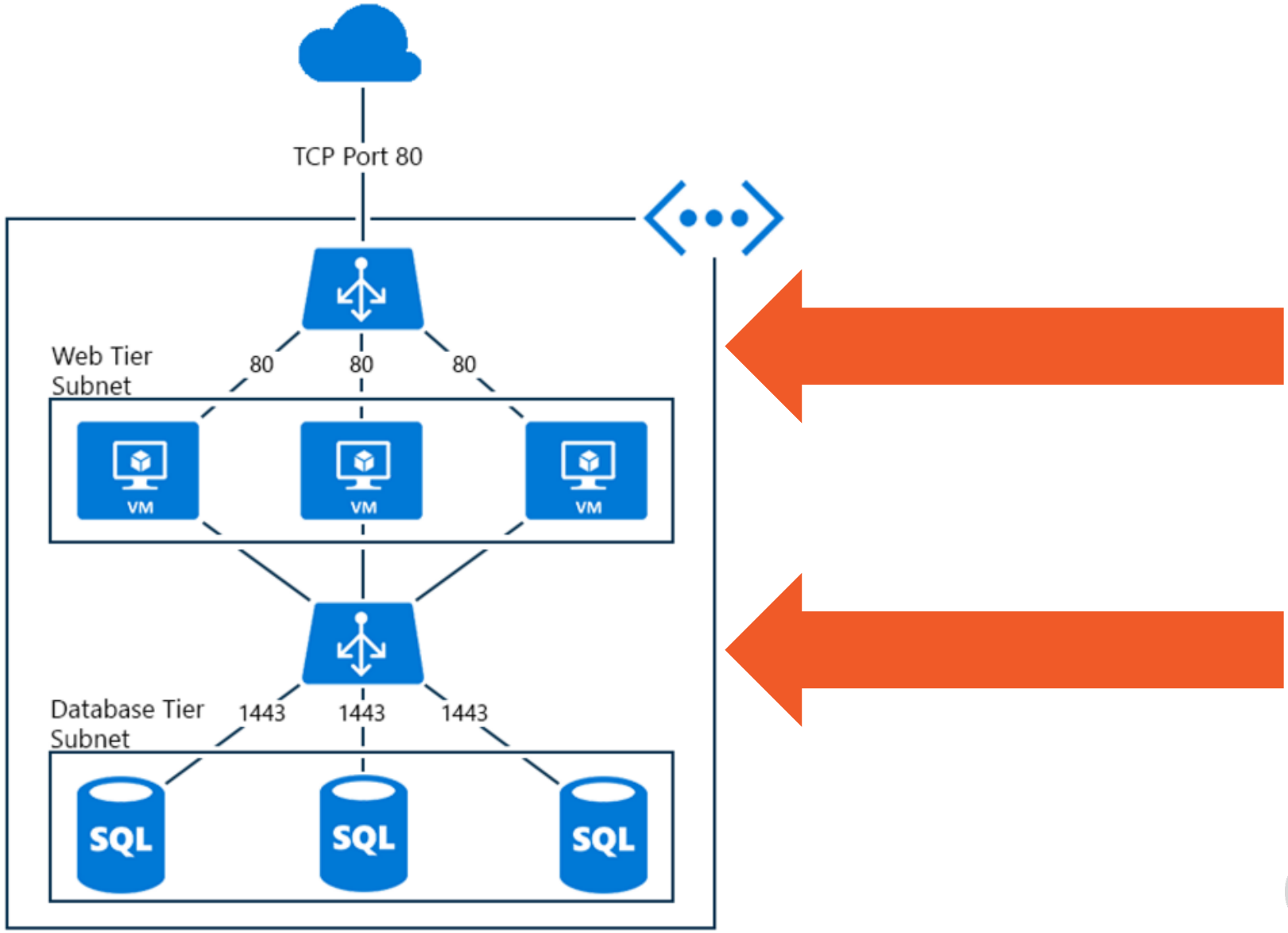
Azure External Load Balancer



http://timw.info/ELB

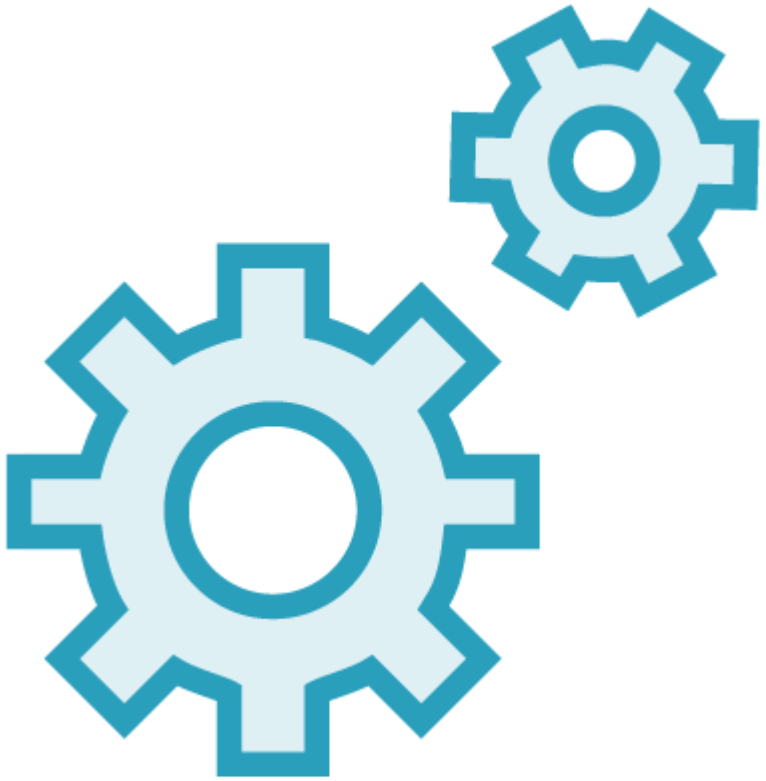
Azure Internal Load Balancer

We'll learn how to use deploy ELBs and ILBs in Module 5, Scaling and High Availability



http://timw.info/ILB

Azure VM Configuration Options



Touching each machine individually

- Pets vs. cattle metaphor

Azure Automation DSC

- Part of Operations Management Suite (OMS)

System Center Configuration Manager

Third-party CM platforms

- Chef
- Puppet

Azure VM extensions

Demo

1

Work from Azure jumpbox (mention Don's article)

Try Test-Connection

Work with DNS server addresses

PowerShell remoting / DSC push

Linux: SSH

- install mysql

Deploying VM Extensions

What are **VM Extensions?**

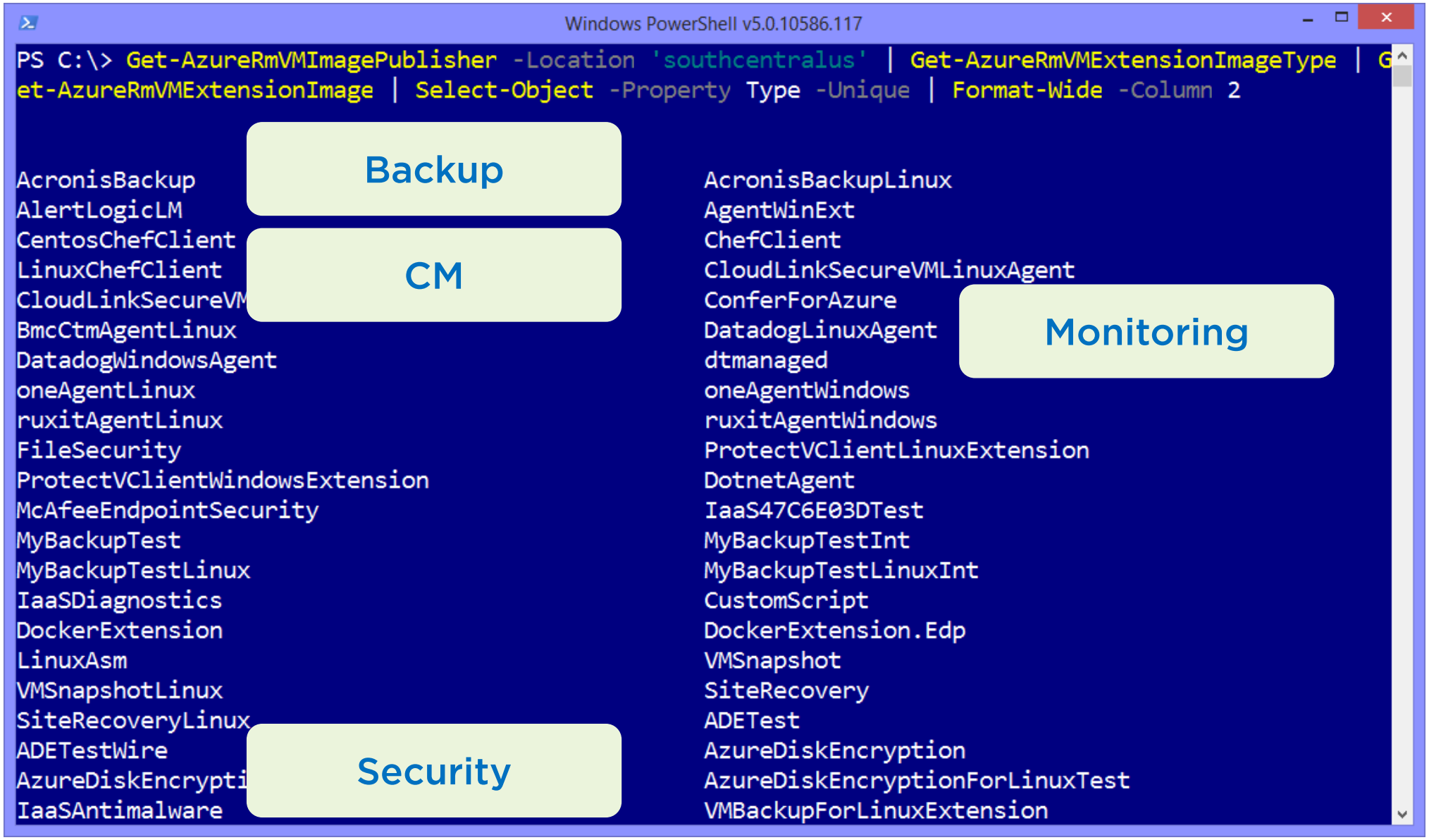
Windows and Linux Azure agents are automatically installed

You need to be a whitelisted extension publisher to appear in the portal

You're always free to install agents directly in the VM

The Linux agent and Microsoft Linux extensions are at GitHub

VM Extensions



Demo

2

Show Linux extensions in portal

Install Custom Script extension on Windows VM

- Log in to make sure it worked

Find, manage, install, uninstall

- PowerShell
- CLI

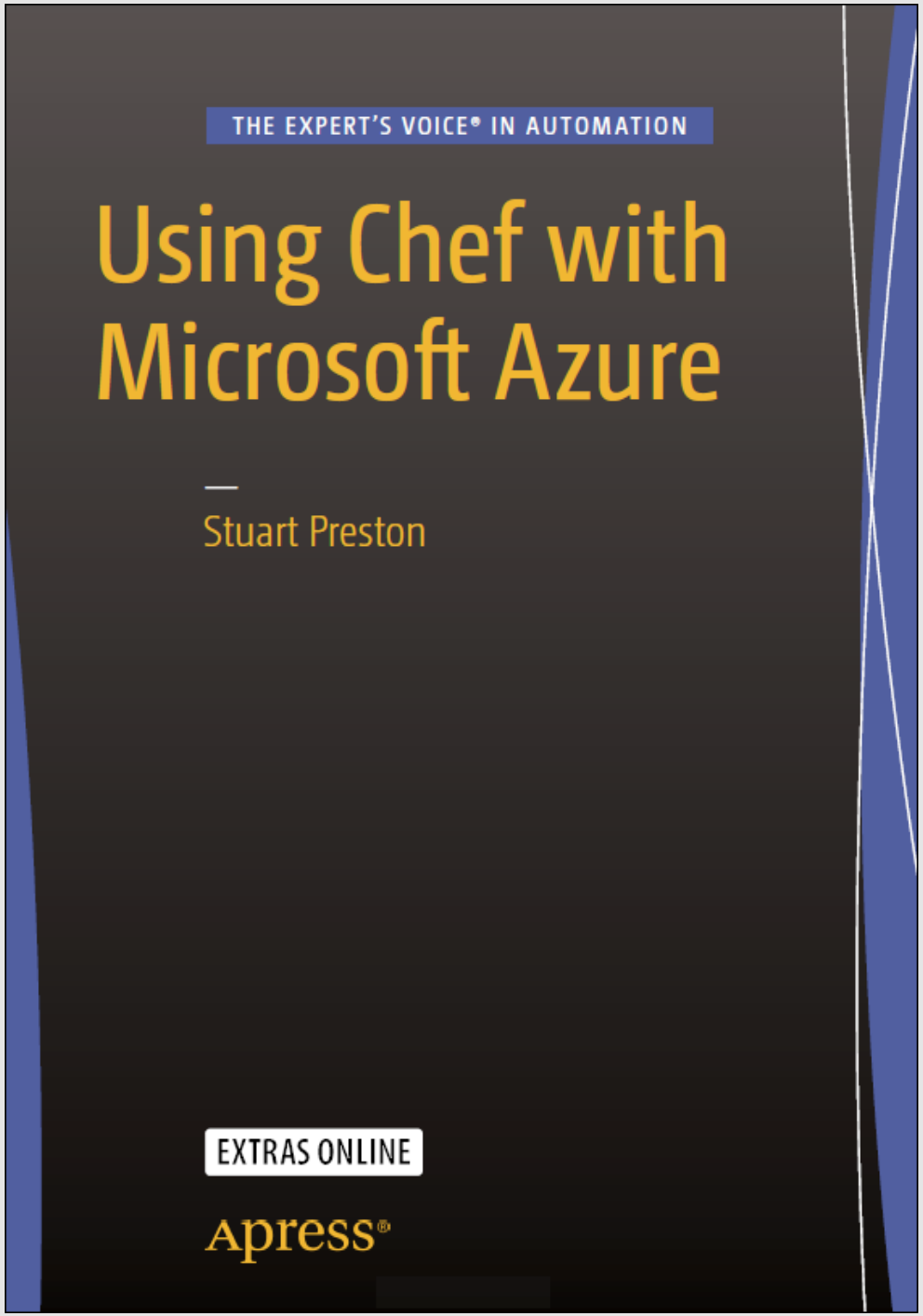
For Further Learning

Windows PowerShell Desired State Configuration Fundamentals (Jeff Hicks)

Excellent DSC primer

Play by Play: Elastic Scale and Consistency with Azure Automation DSC (Jason Helmick and Michael Greene)

Interesting discussion that lays out the business case



Book Reference

Published May 18, 2016

Chef and Microsoft have a close relationship

See Chapter 3, "Chef Azure VM Extensions"

Summary

If you need to wrangle on-premises and cloud herds, consider a VPN or ExpressRoute

You can deploy an entire CM infrastructure in the Azure IaaS cloud

- OMS
- Chef, Puppet virtual servers

Next module: Scaling and High Availability