

# Microsoft Azure Fundamentals

## Lesson 04 - Web Apps and Cloud Services



# What's in It for Me

- Creating and configuring web apps
- Deploying and monitoring web apps
- Creating and deploying PaaS cloud services



# Creating and Configuring Web Apps

- Web Apps as a component of Azure App Service
  - Comparing the Web Apps feature, Azure VMs hosting websites, and Azure Cloud Services
  - Creating and maintaining web apps
  - Configuring and scaling web apps
  - Demonstration: Creating and configuring a web app

# Web Apps as a Component of Azure App Service

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## App App Service

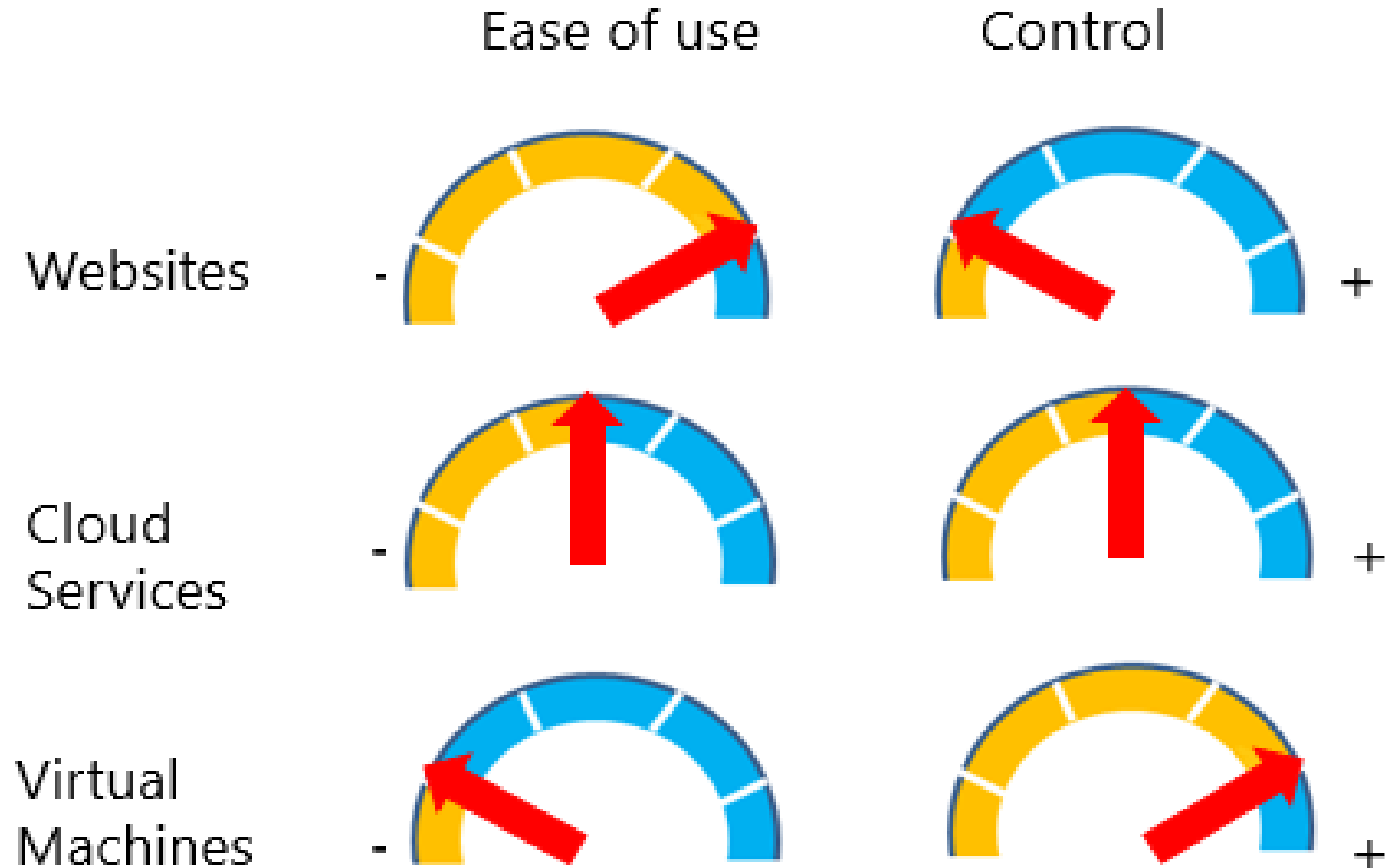
- Web Apps
- Mobile Apps
- API Apps
- Logic Apps

## Web Apps features

- Marketplace-based solutions
- Autoscaling
- Continuous integration
- Deployment slots
- Azure WebJobs
- Hybrid connections

# Comparing the Web Apps Feature

If you want to host a web application in Microsoft Azure, you can choose to use virtual machines, web apps, or cloud services.



# Creating and Maintaining Web Apps

Tier	Free	Shared	Basic	Standard	Premium
Web apps	10	100	Unlimited	Unlimited	Unlimited
Storage	1 GB	1 GB	10 GB	50 GB	500 GB
Compute instance	Shared	Shared	Dedicated	Dedicated	Dedicated
Custom domains	No	Yes	Yes	Yes	Yes
SSL for custom domains	No	No	Yes	Yes	Yes
Integrated load balancer	No	No	Yes	Yes	Yes
SLA	None	None	99.95%	99.95%	99.95%
Staged publishing	No	No	No	Yes	Yes

# Configuring and Scaling Web Apps

- General (frameworks, managed pipeline, platform, web sockets, Always On)
- Auto swap
- Debugging (VS 2012, VS 2013, VS 2015)
- App settings
- Connection strings
- Default documents
- Handler mappings
- Virtual applications and directories
- WebJobs
- Scaling
  - Free and Shared – not supported
  - Basic – instance size, instance count
  - Standard and Premium – instance size, instance count, **autoscaling**



# Demonstration: Creating and Configuring a Web App

In this demonstration, you will see how to:

- Create a new Web app in Azure by using the Azure portal
- Browse the new Web app
- View scaling and configuration options in the Azure portal



# Deploying and Monitoring Web Apps

- Options for creating and publishing web app content
- Publishing a web app from Visual Studio
- Performing staged deployments
- Monitoring web apps

# Options for Creating and Publishing Web App Content

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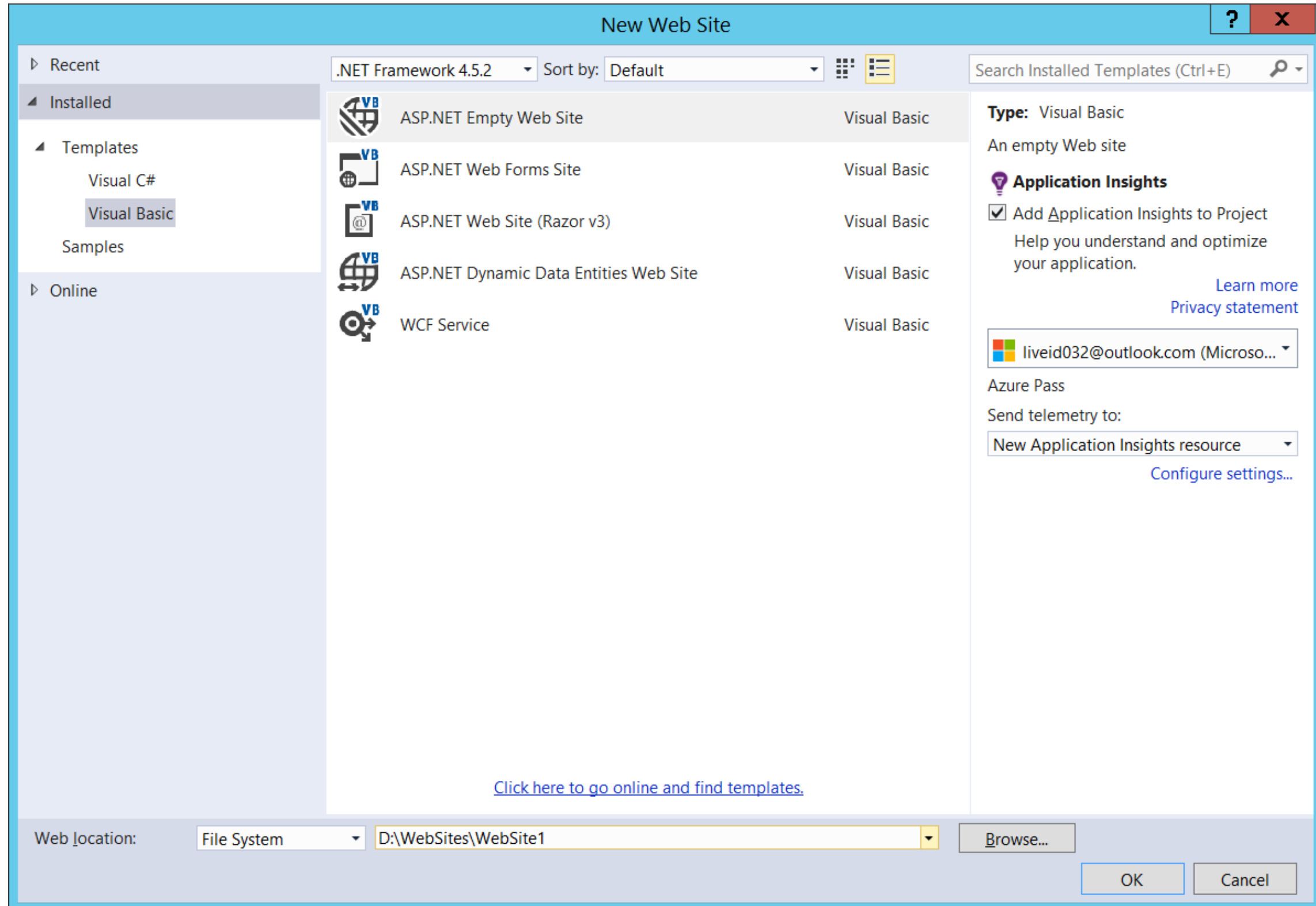
To create and publish a web app, you can use:

- Microsoft Visual Studio
- Visual Studio Team Services
- Microsoft WebMatrix
- Azure Marketplace

To deploy a web app, you can use:

- Web Deploy
  - Visual Studio
  - MSDeploy.exe
  - WebMatrix
  - New-AzureRmResourceGroupDeployment
- FTP
  - No support for advanced features

# Publishing a Web App from Visual Studio



# Performing Staged Deployments

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Deploy updates by using:

- FTP
- Web Deploy

Continuous deployment:

- Connect a project to a web app in Azure
- Check in the changes
- Build and deploy automatically to a staging slot
- Swap to the production slot
- Adjust (if needed)
  - Connection strings
  - Handler mappings
  - Monitoring and diagnostic settings

# Monitoring Web Apps

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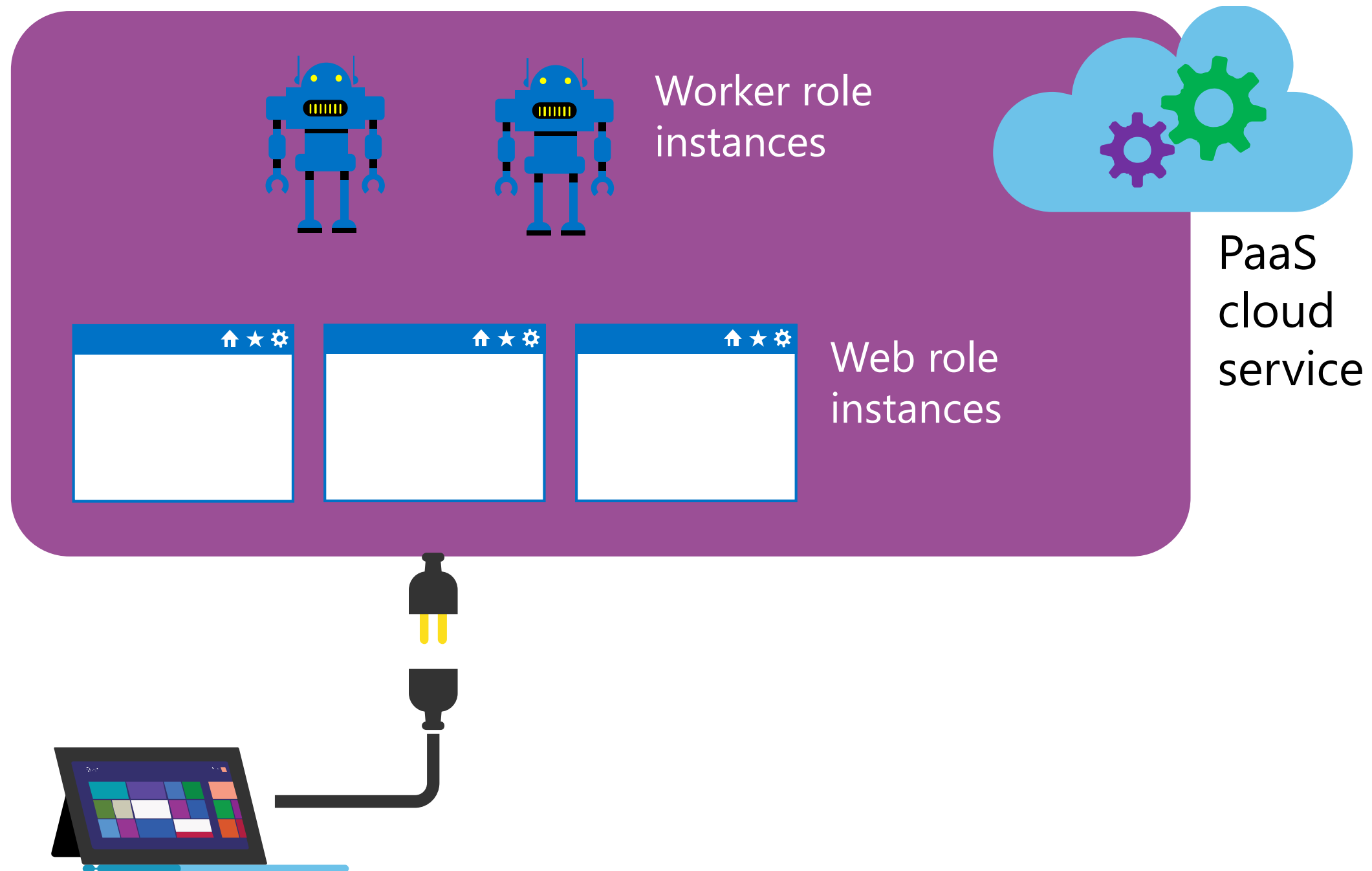
- Monitor Azure web apps:
  - Adding metrics
  - Configuring alerts
- Configure diagnostics:
  - Web server logging
  - Detailed error messages
  - Failed request tracing
  - Application logging
- Store logs:
  - File system
  - Azure storage



# Creating and Deploying PaaS Cloud Services

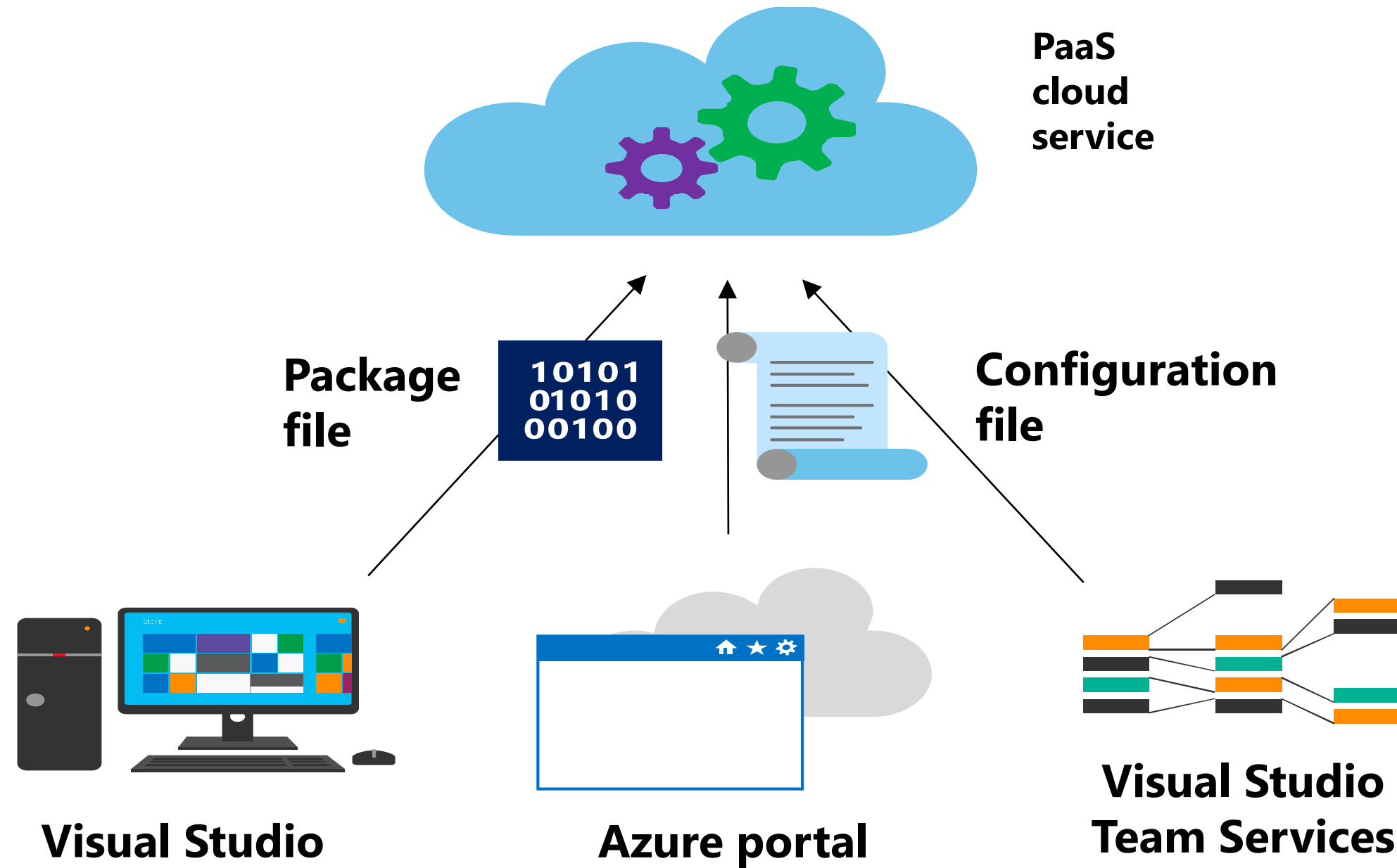
- What are cloud services?
- Creating and deploying a cloud service
- Scaling a cloud service
- Demonstration: Creating, deploying, and scaling a cloud service

# What are Cloud Services?





# Creating and Deploying a Cloud Service



# Scaling a Cloud Service

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- Horizontal scaling:
  - Changing the number of instances of a role
  - Manual or automatic
  - Automatic scaling based on combination of:
    - Schedule
      - Recurring
      - Fixed date
    - Performance
      - Role instance (CPU, network I/O, disk I/O)
      - Other Azure resources (for example. Azure Storage queue)
- Vertical scaling:
  - Changing the size of instances of a role
  - Requires modifying the .cscfg file

# Demonstration: Creating, Deploying, and Scaling a Cloud Service

In this demonstration, you will see how to:

- Create a new cloud service
- Configure the cloud service
- Scale the cloud service





**This concludes “Web Apps and Cloud Services.”**

Next Lesson is “Creating and Configuring Virtual Networks”



