

# Are you wasting money managing VMs?



Code  
Career  
Academy

# Are you wasting money managing VMs?



- Do you have:
  - MSDN licenses?
  - TFS servers?
  - Build servers?
  - Load testing servers?
  - Project management servers?



# If you answered yes...



- And are NOT using Visual Studio Team Services (VSTS)
  - I guarantee you are spending more than you have too
  - You tell me if it is wasted...



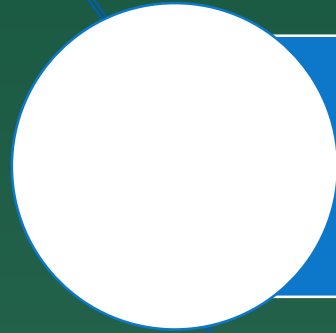
Code  
Career  
Academy



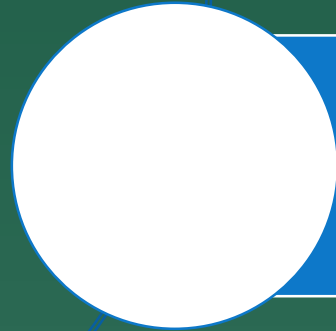
# Stick around to learn:



*Code  
Career  
Academy*



How much money am I wasting?



What are my alternatives?



# I Hate Managing VMs

Web Development with Visual Studio Team Services and Azure App Services

MVPDays Atlanta 2016!!!

Who am I?

Jeff Ammons

Microsoft  
MVP

Pluralsight  
Author

CEO/Chief  
Instructor at  
Code Career  
Academy

25 Years  
Professional  
Experience  
in Software



# What do you need to run a web project?

- Web Server(s)
- Source control server
- Project management server
- NuGet server (for .Net projects)
- Build server
- Release management server
- Load testing server(s)
- Database server





# One Variation

- TFS
  - Source control
  - Build
  - Project management
  - Release management
- NuGet Server
- Load Test Server(s)
- Web Server(s)
- Database Server(s)



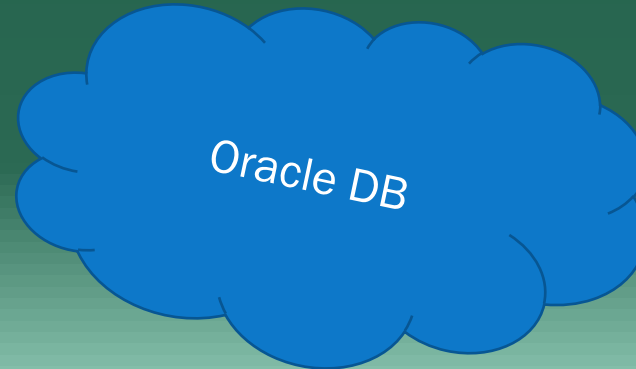
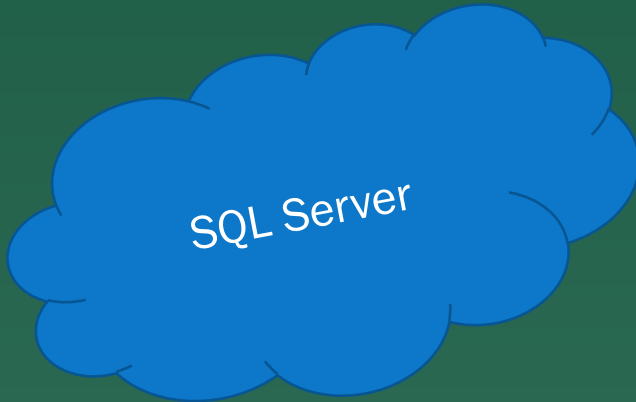
# We'll ignore database for now

- Too many options and variations
  - SQL
  - NoSQL



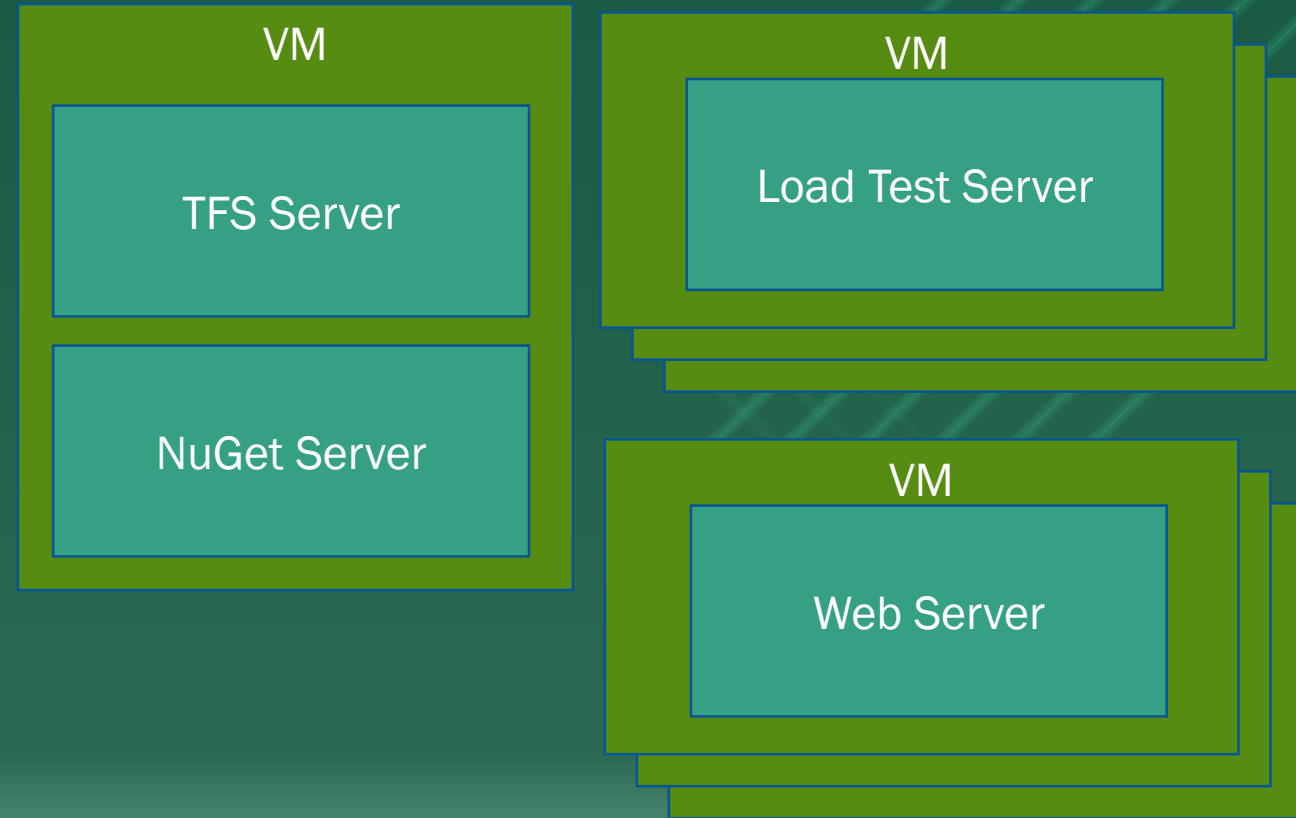
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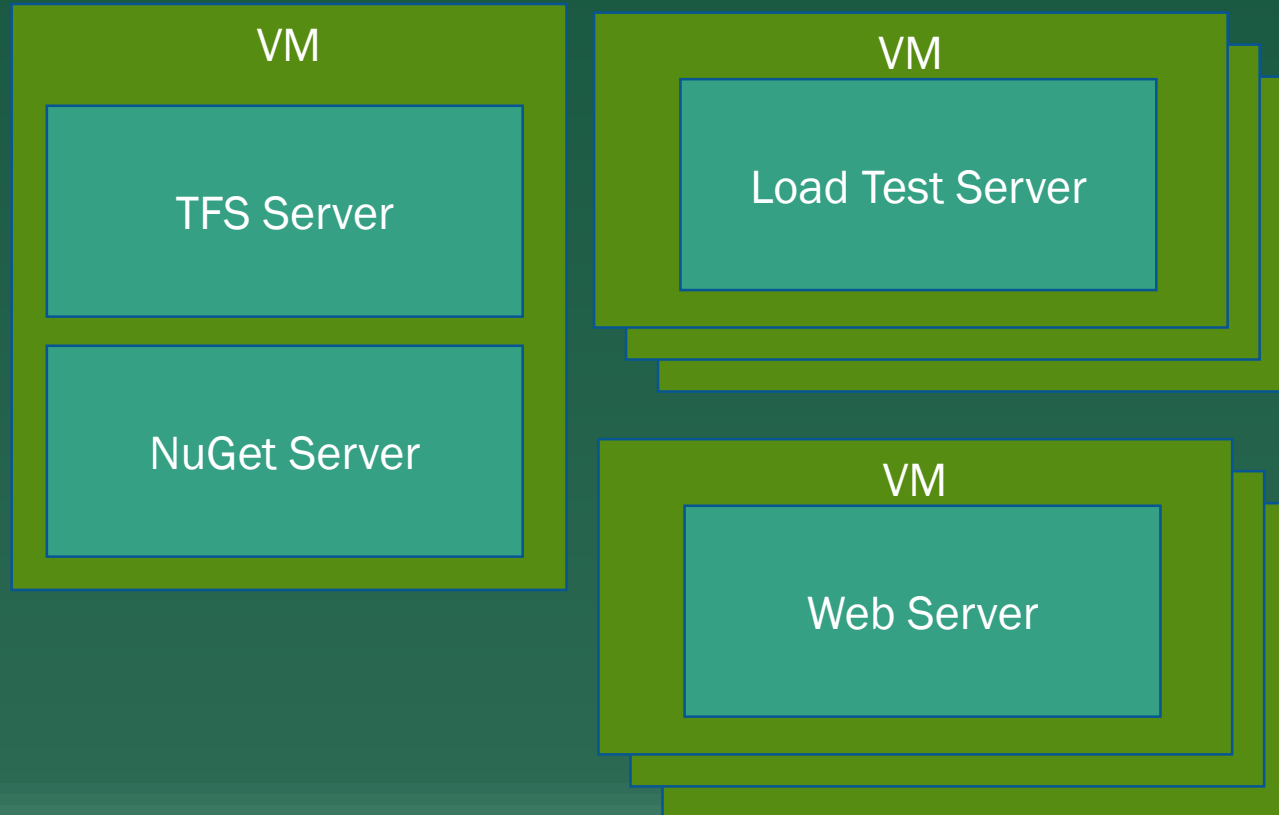


# One Variation

- TFS
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- NuGet Server
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- Web Server(s)



# How much does this cost?



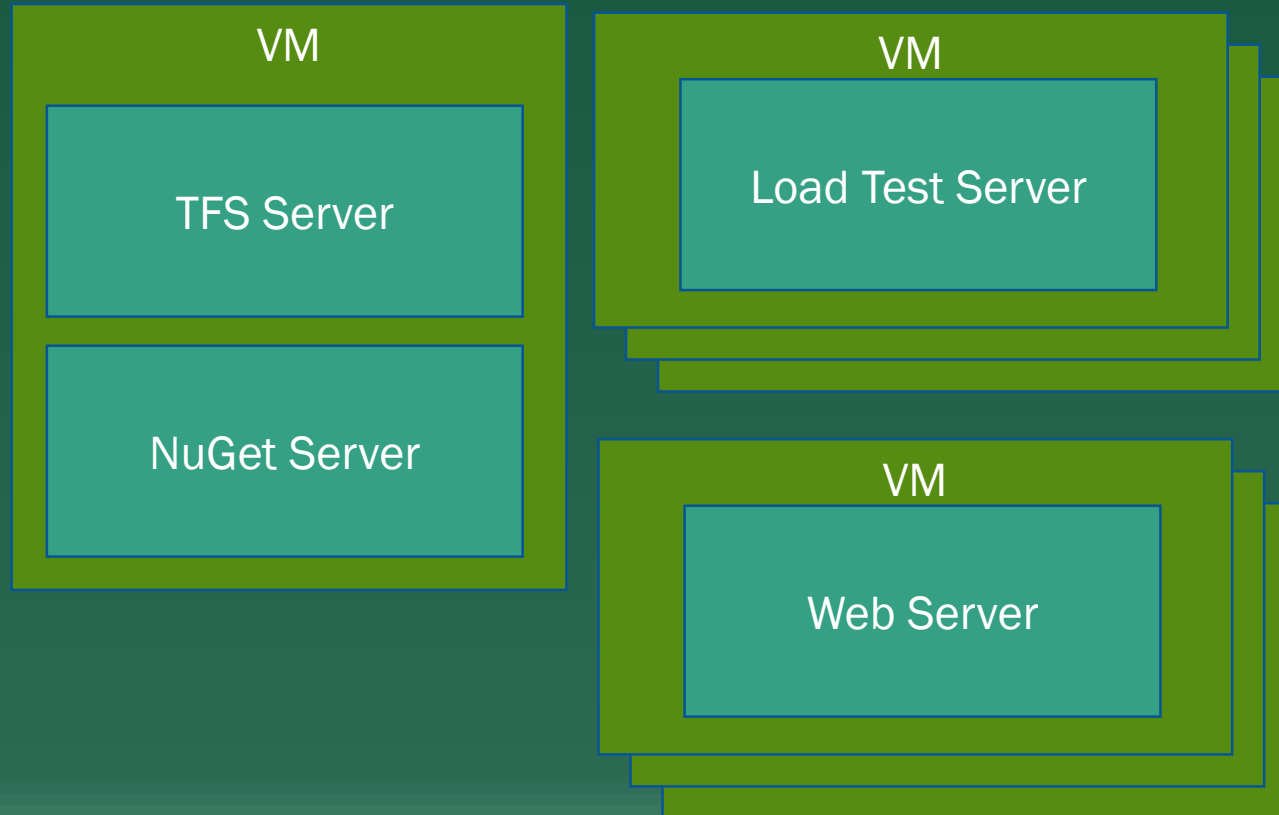
- 3 – n VMs @ \$\_\_\_\_ each
- TFS Server 1 @ \$499
- TFS CALs n @ \$499 each  
OR
- MSDN n @ \$799+
- Admins n @ \$\_\_\_\_ each





# How much does this cost?

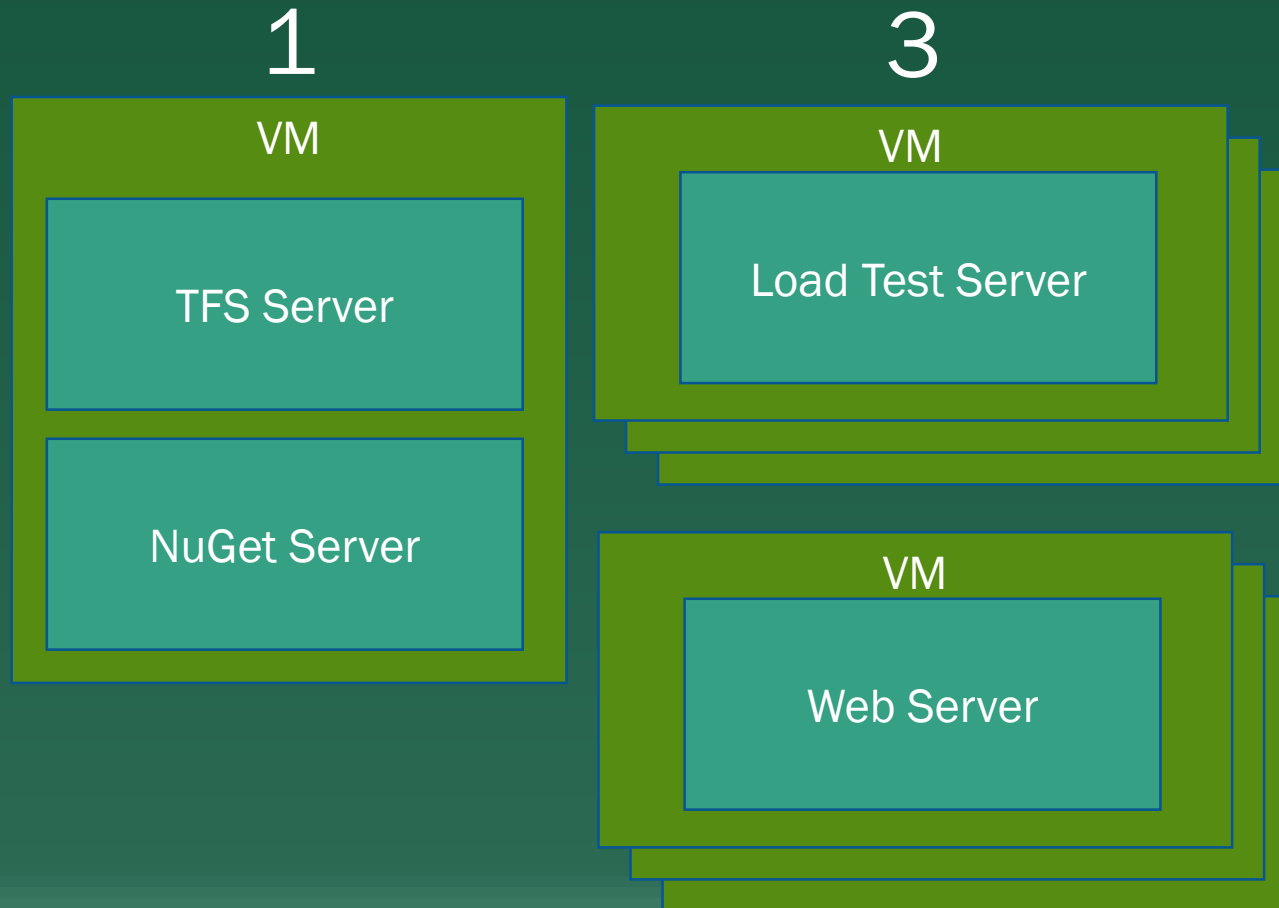
1



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# How much does this cost?

1

3

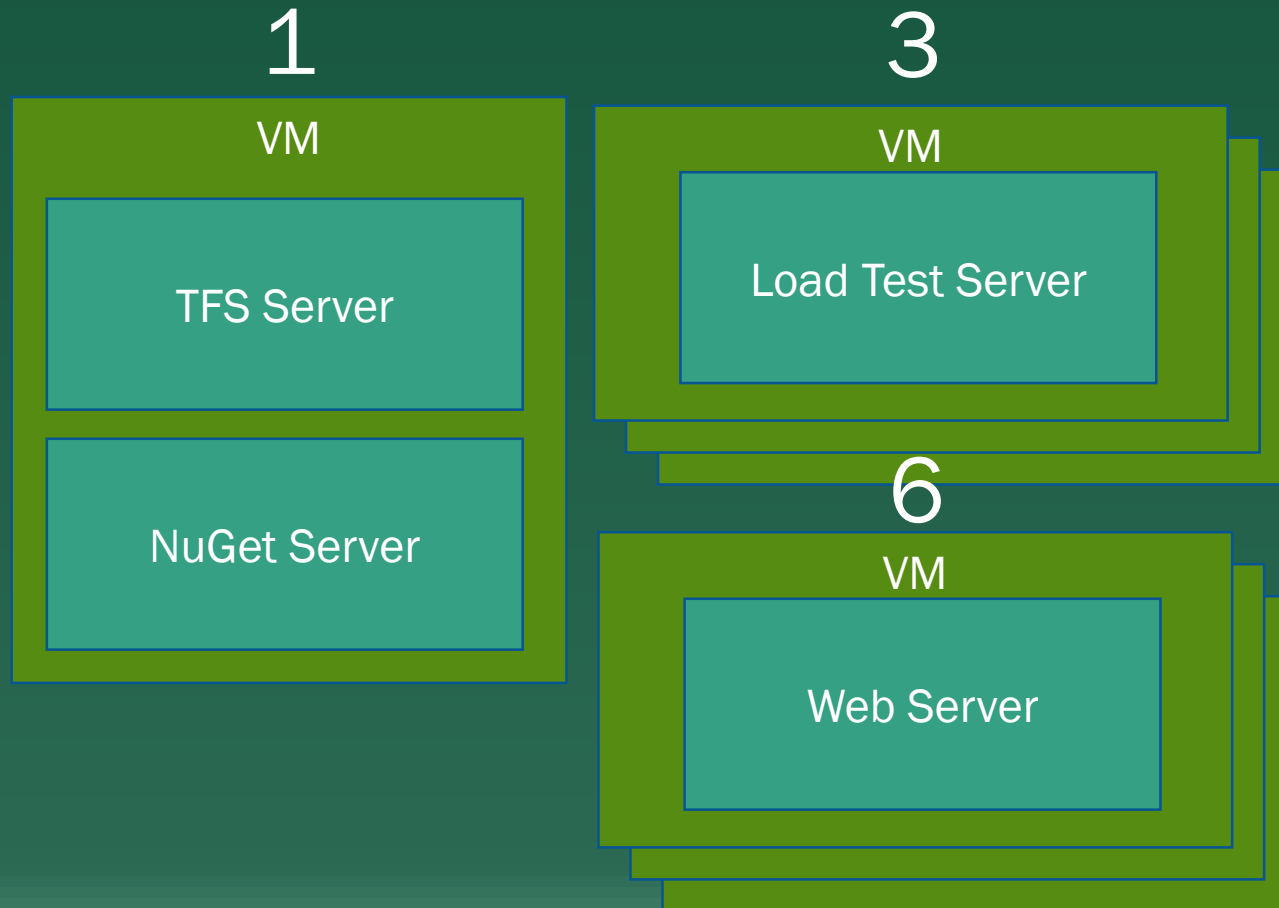
## Web Servers

|   |             |
|---|-------------|
| 1 | Dev         |
| 1 | QA          |
| 1 | RC/UAT/Test |
| 3 | Prod        |

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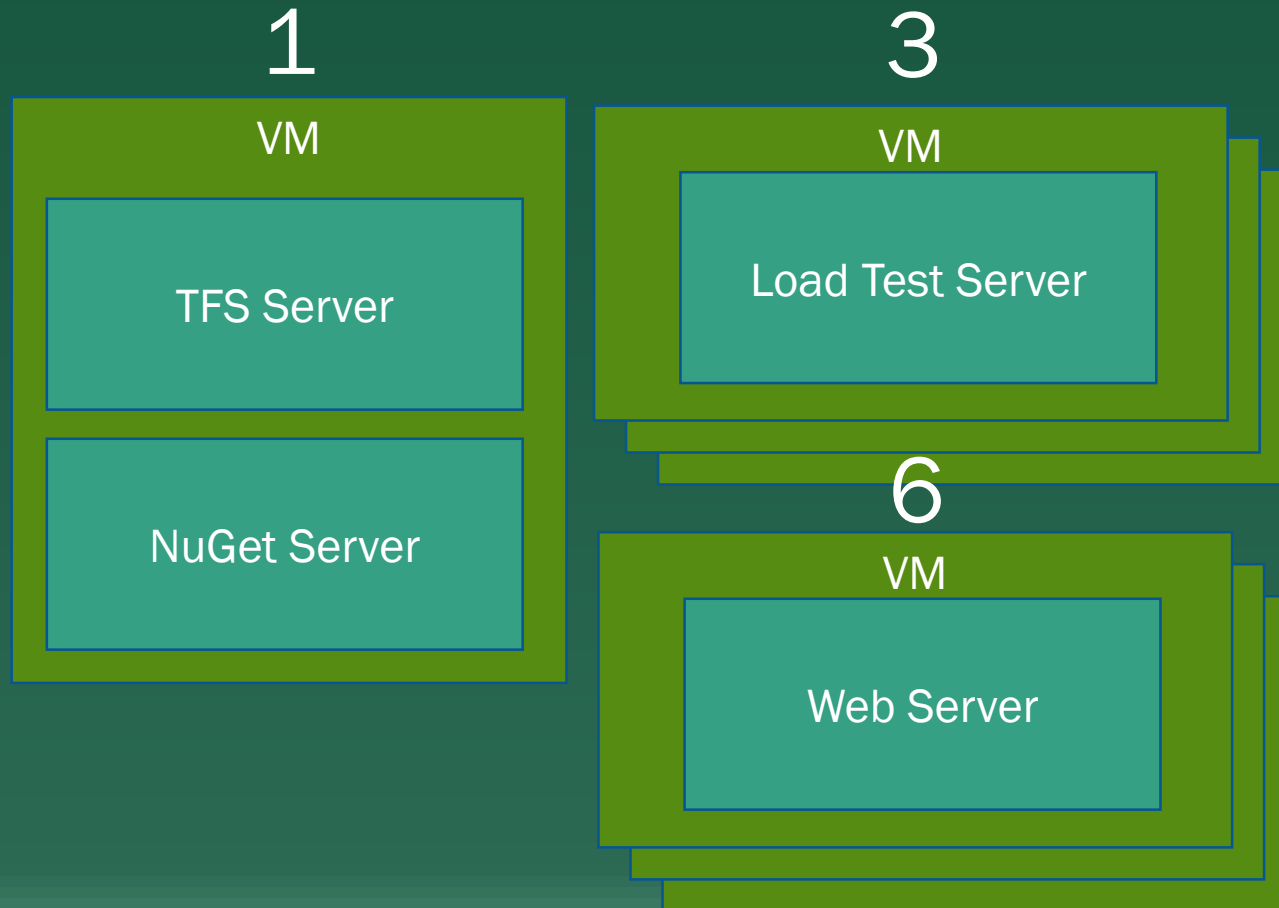
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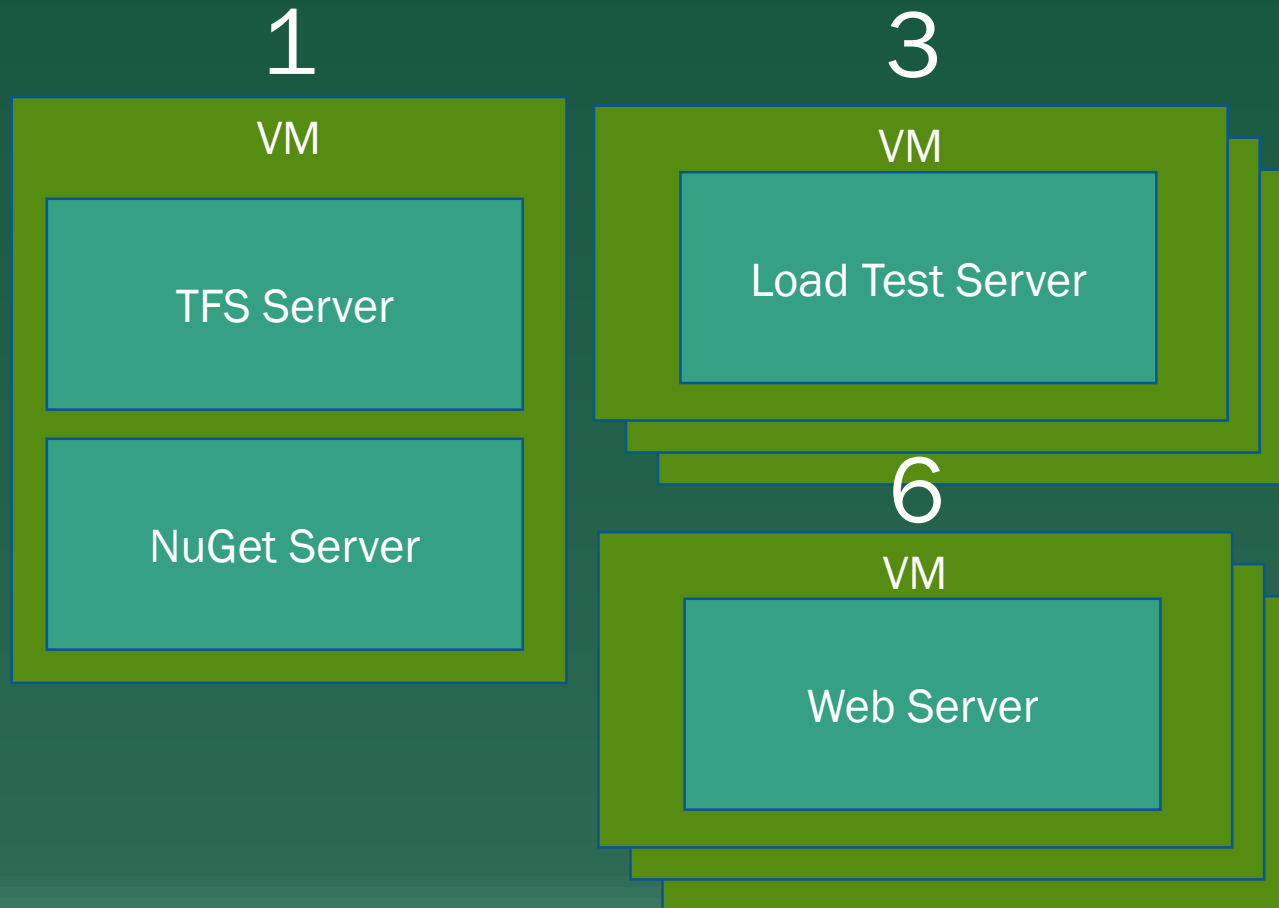


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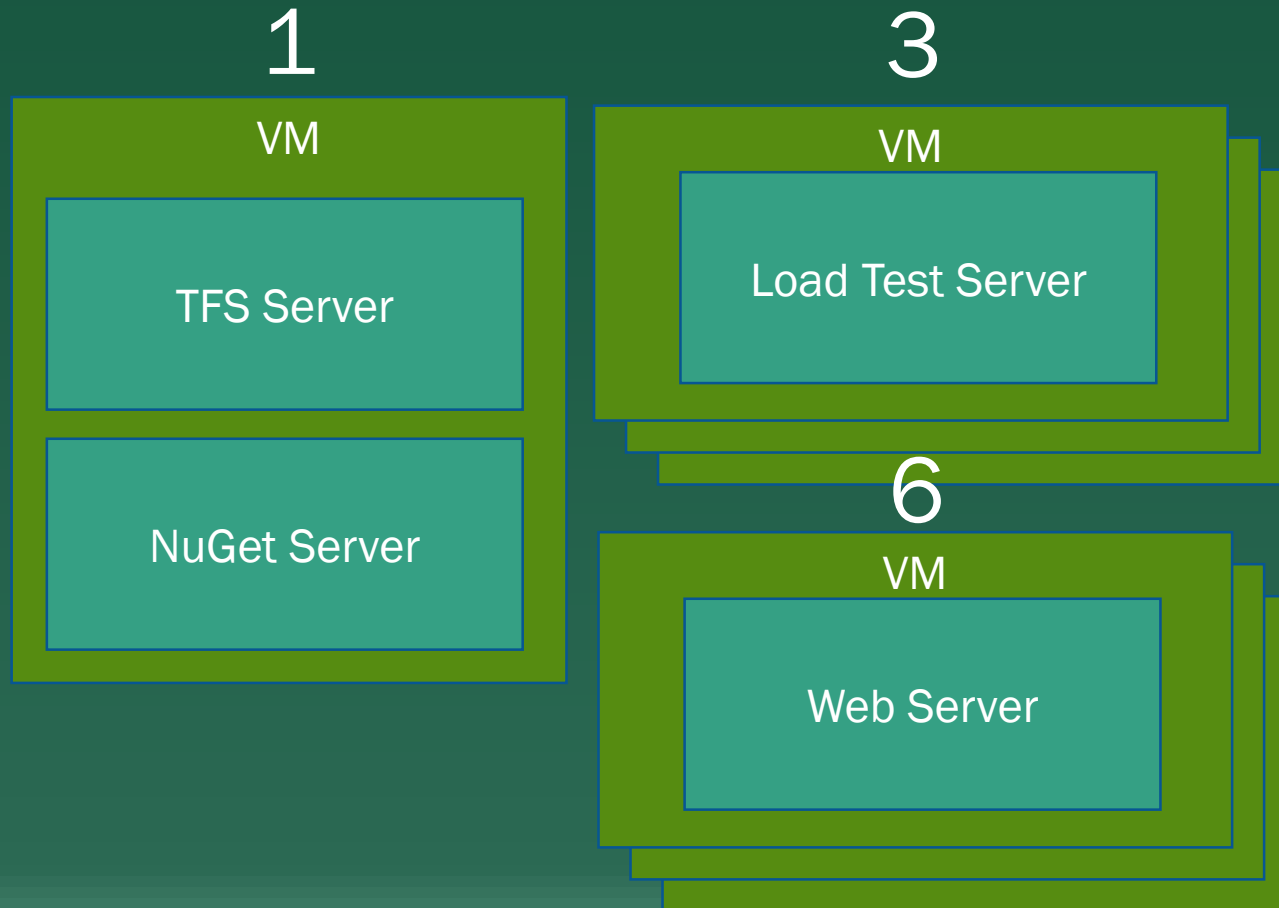
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# How much does this cost?

- 10 VMs @ \$50 each
- TFS Server 1 @ \$499
- TFS CALs 7 @ \$499 each  
OR
- MSDN 7 @ \$799+
- Admins 1 @ \$\_\_\_\_ each



# How much does this cost?

- 10 VMs @ \$50 each
- TFS Server 1 @ \$499
- TFS CALs 7 @ \$499 each  
OR
- MSDN 7 @ \$799+
- Admins 1 @ \$3,000 each



# How much does this cost?

- 10 VMs @ \$50/month
- TFS Server 1 @ \$499/year
- TFS CALs 7 @ \$499/year
- OR
- MSDN 7 @ \$799+
- Admins 1 @ \$3,000



# How much does this cost?

|                |  | Each         | Month | Year |
|----------------|--|--------------|-------|------|
| • 10 VMs       |  | @ \$50/month |       |      |
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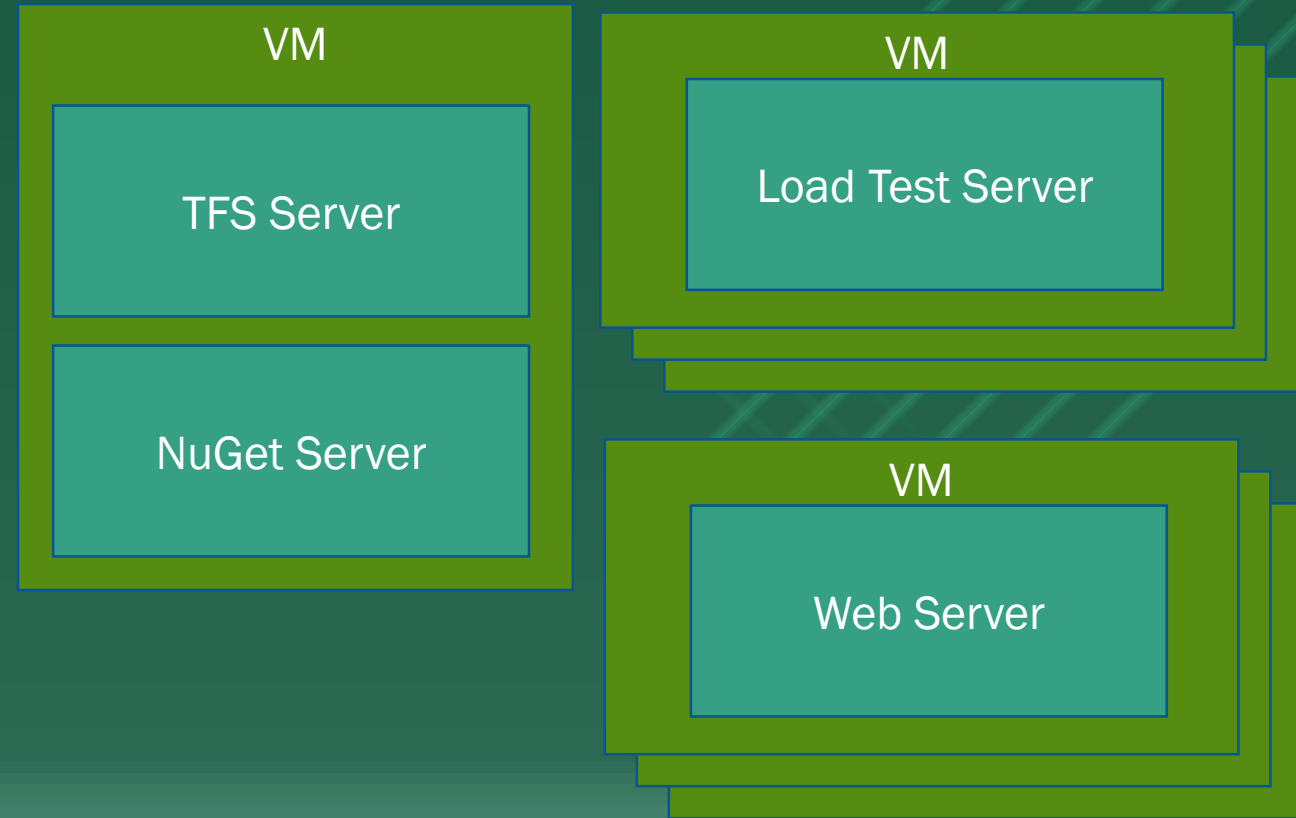
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| • MSDN 7       |  | @ \$799+     |       | \$5,593  |
| • Admins 1     |  | @ \$3,000    |       | \$3,000  |
|                |  |              |       | \$15,092 |





# How do we cut costs?

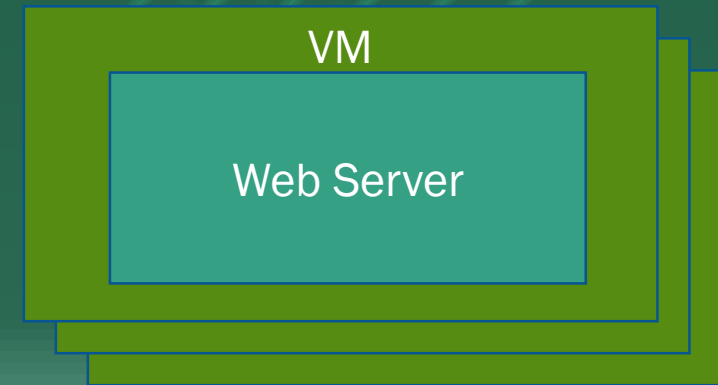
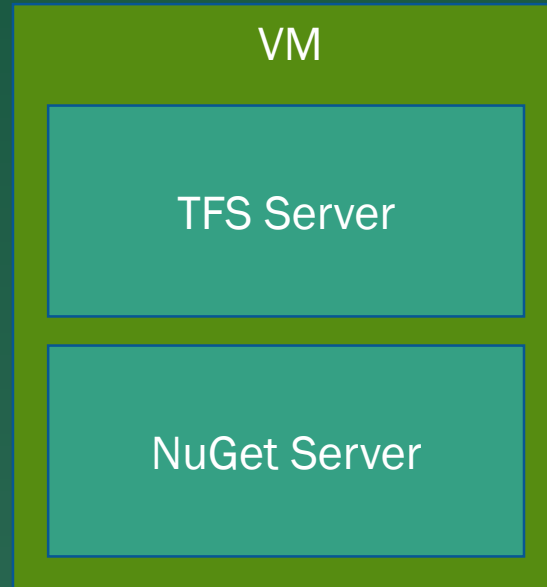
- TFS
  - Source control
  - Build
  - Project management
  - Release management
- NuGet Server
- Load Test Server(s)
- Web Server(s)





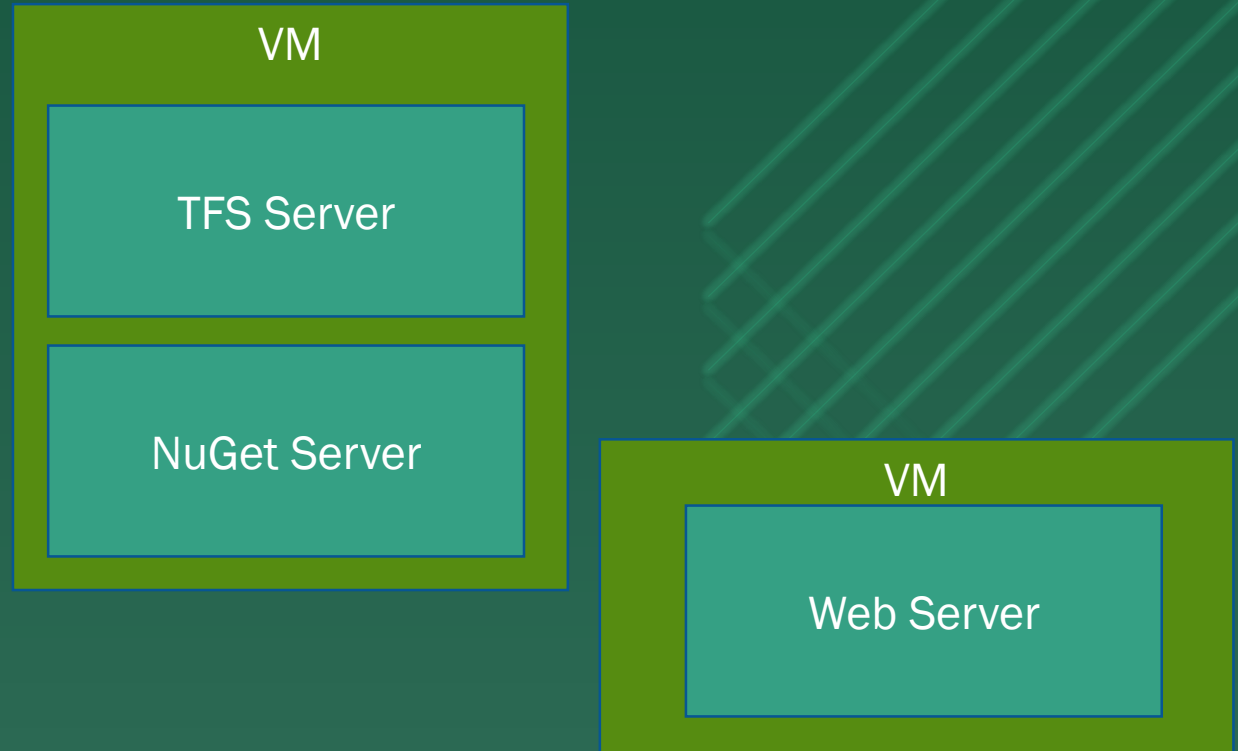
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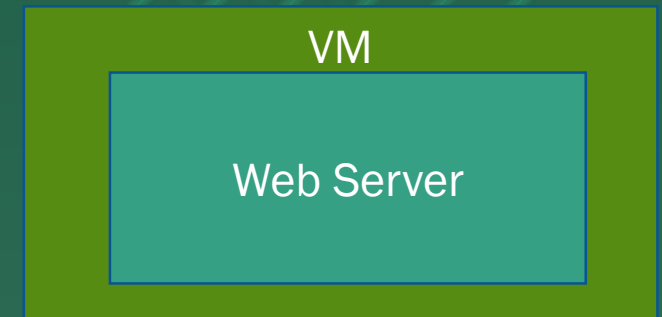
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# How much does this cost?

|                |  | Each         | Month | Year    |
|----------------|--|--------------|-------|---------|
| • 3 VMs        |  | @ \$50/month | \$150 | \$1,800 |
| • TFS Server 1 |  | @ \$499/year |       | \$499   |
| • TFS CALs 7   |  | @ \$499/year |       | \$3,493 |
| OR             |  |              |       |         |
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|              |    | Each         | Month | Year    |
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|              | OR |              |       |         |
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|              |    | Each         | Month | Year    |
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| OR           |   |              |       |         |
| • MSDN       | 7 | @ \$799+     |       | \$5,593 |
| • Admins     | 1 | @ \$1,000    |       | \$1,000 |
|              |   |              |       | \$8,393 |



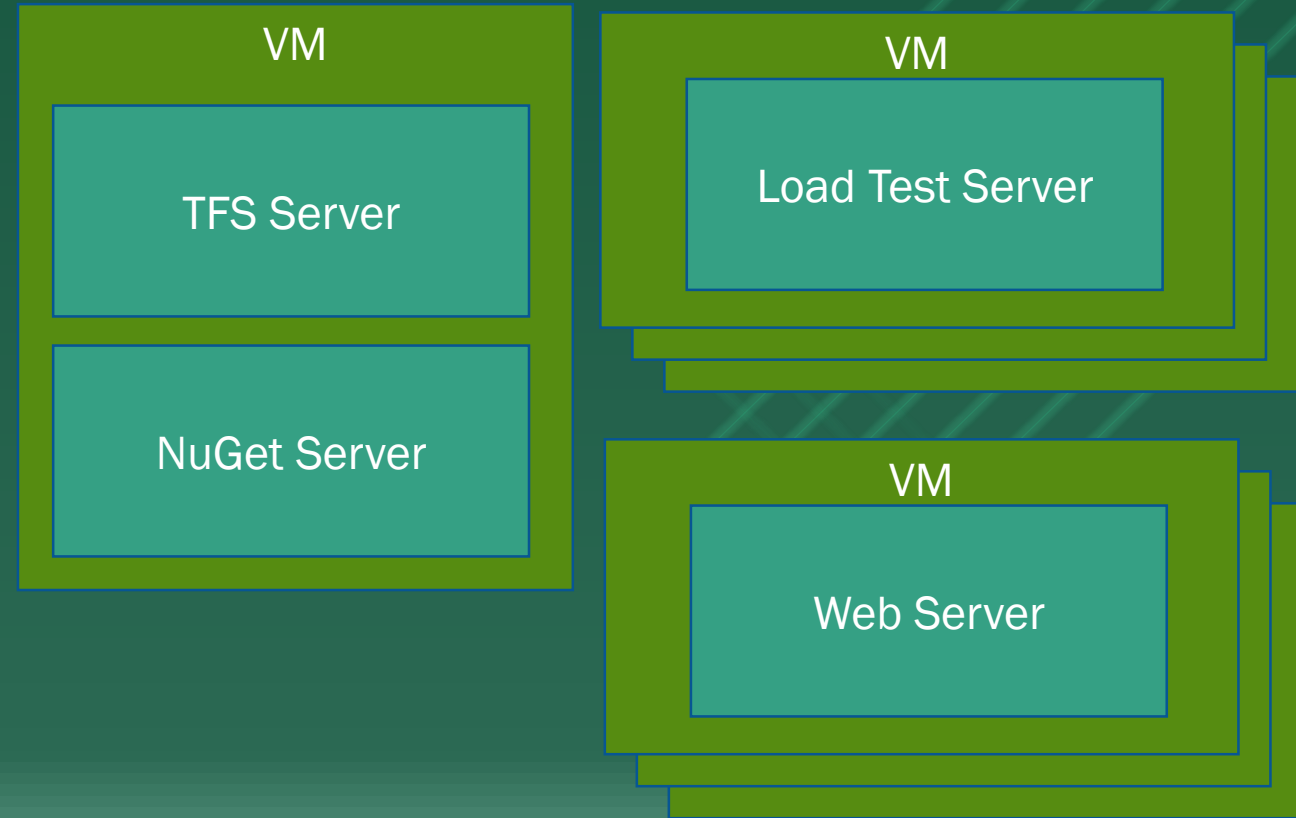






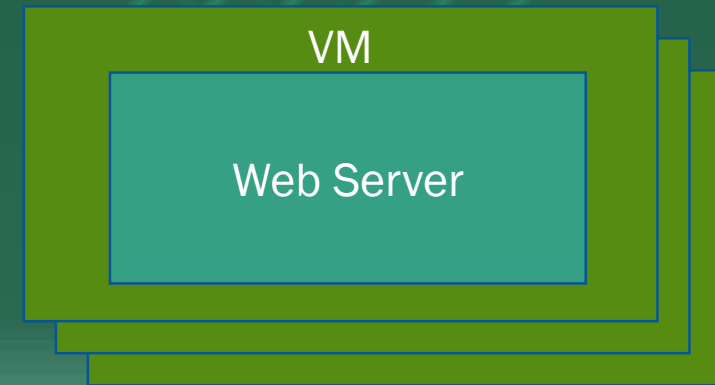
# How do we cut costs in a smarter way?


- TFS
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- NuGet Server
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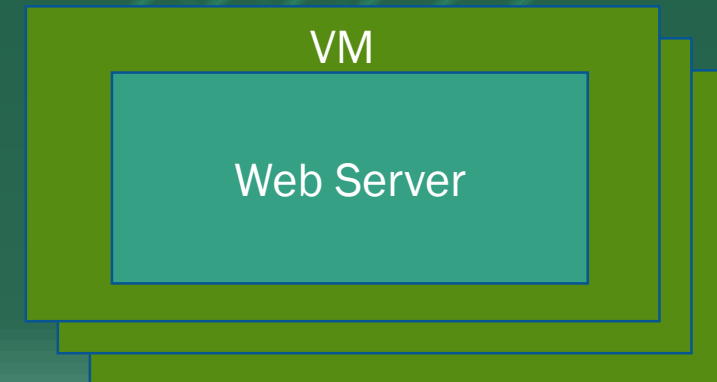
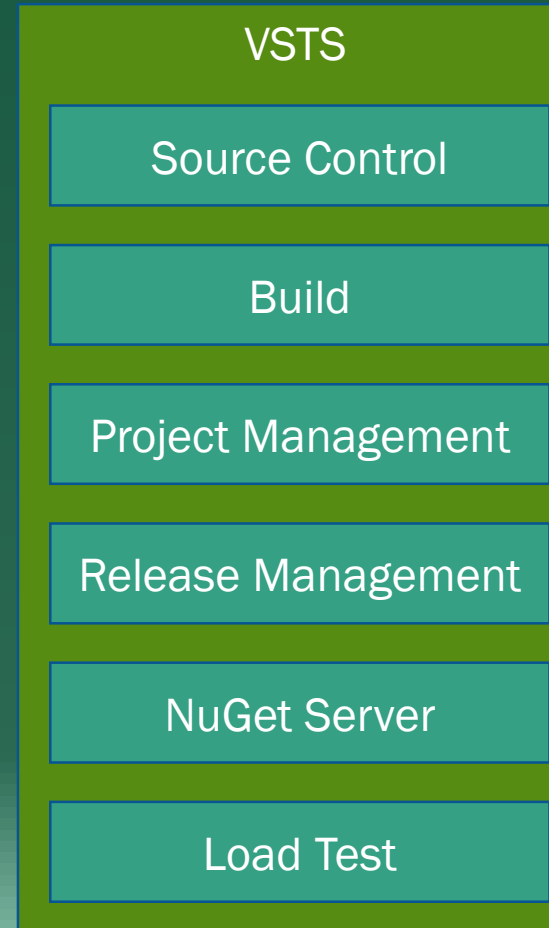
A close-up portrait of Satya Nadella, CEO of Microsoft, speaking at a podium. He is wearing black-rimmed glasses, a blue and white checkered shirt, and a dark suit jacket. The background is a bright blue wall with the Microsoft logo and the word "Microsoft" partially visible in a lighter blue font.

“Our mission is to empower every person and every organization on the planet to achieve more – in a mobile first, cloud first world”



# How do we cut costs in a smarter way?

- Visual Studio Team Services
  - Source control
  - Build
  - Project management
  - Release management
  - NuGet Server
  - Load Test
- Web Server(s)



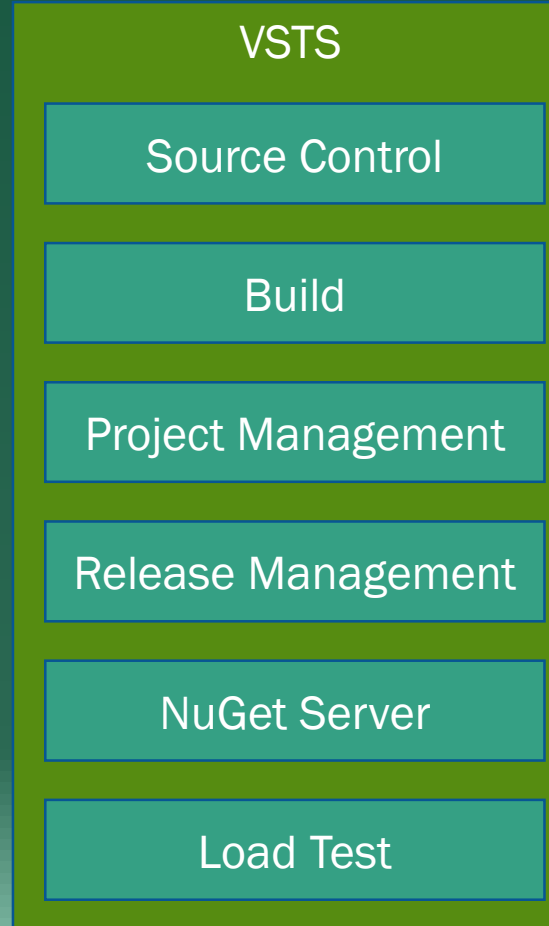
# Visual Studio Team Services Costs

- No server license
- No VMs
- Developer CAL
- Included in MSDN
- 5 free developers



# How do we cut costs in a smarter way?

- Visual Studio Team Services
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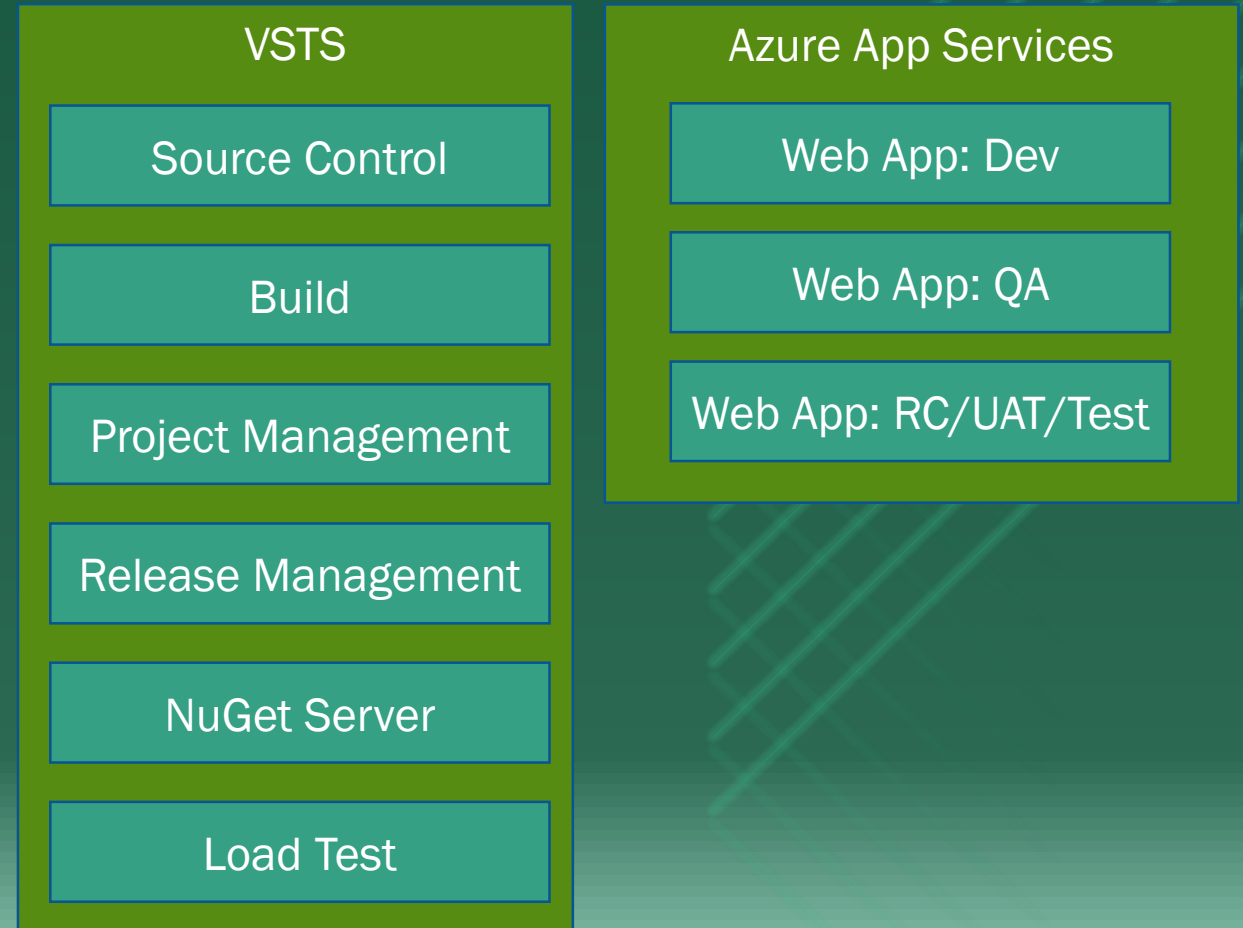


# How do we cut costs in a smarter way?

- Visual Studio Team Services

- Source control
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- Load Test

- Azure App Services

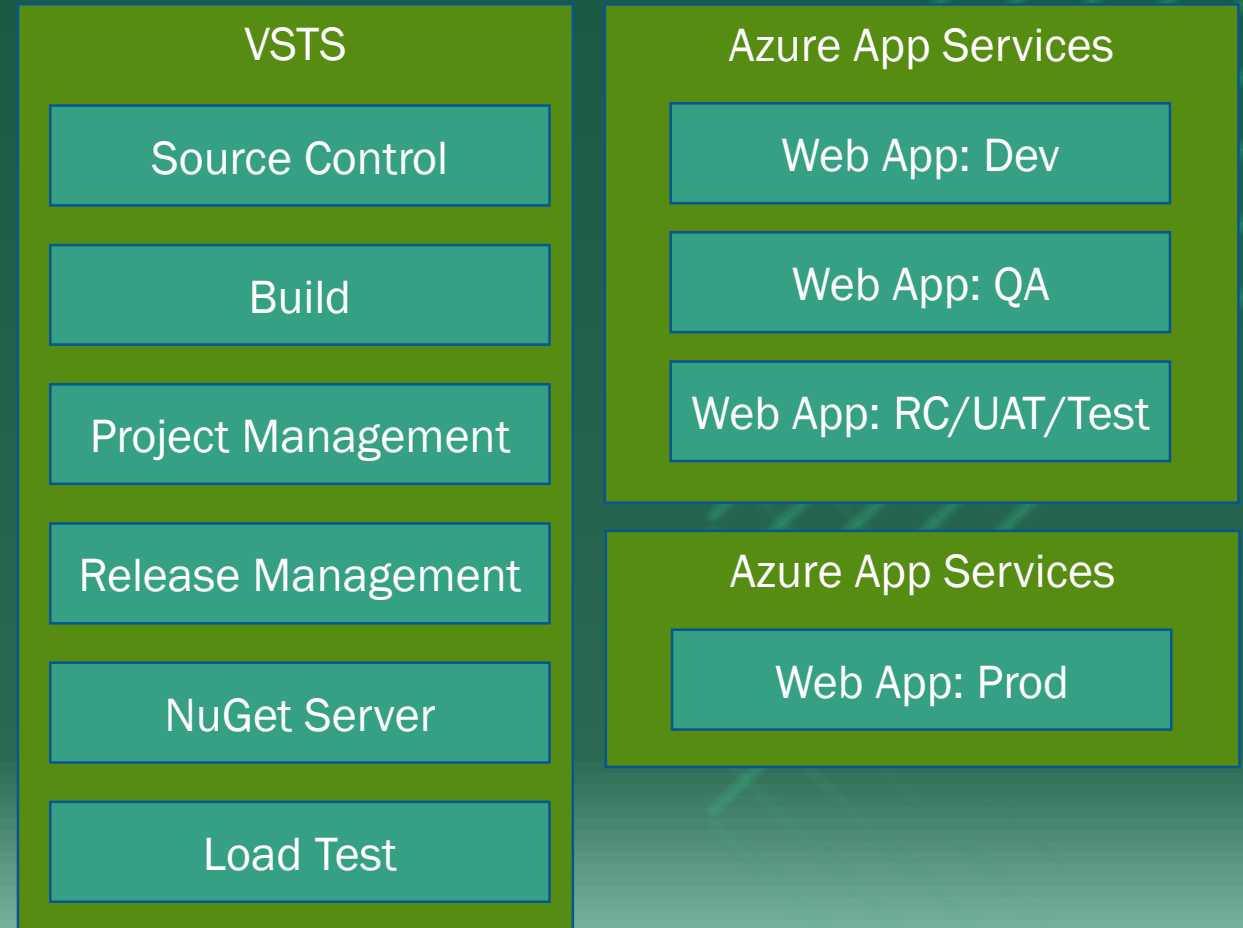


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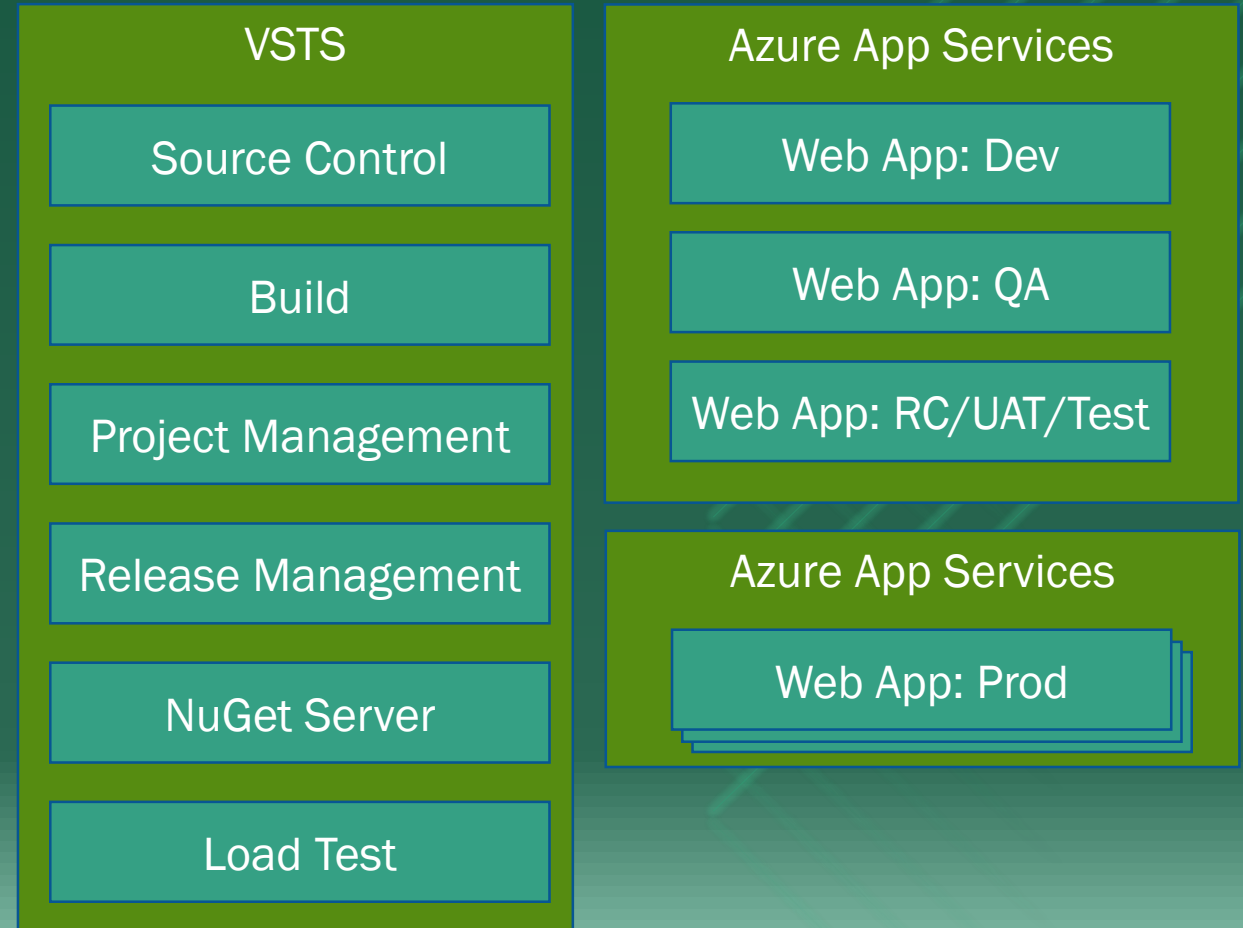


# How do we cut costs in a smarter way?

- Visual Studio Team Services

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- Build
- Project management
- Release management
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- Load Test

- Azure App Services



# How much does this cost?

|                |  | Each         | Month | Year     |
|----------------|--|--------------|-------|----------|
| • 10 VMs       |  | @ \$50/month | \$500 | \$6,000  |
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| • TFS CALs 7   |  | @ \$499/year |       | \$3,493  |
| OR             |  |              |       |          |
| • MSDN 7       |  | @ \$799+     |       | \$5,593  |
| • Admins 1     |  | @ \$3,000    |       | \$3,000  |
|                |  |              |       | \$15,092 |



# How much does this cost?

|                |  | Each         | Month | Year    |
|----------------|--|--------------|-------|---------|
| • 0 VMs        |  | @ \$50/month | \$0   | \$0     |
| • TFS Server 1 |  | @ \$499/year |       | \$499   |
| • TFS CALs 7   |  | @ \$499/year |       | \$3,493 |
| OR             |  |              |       |         |
| • MSDN 7       |  | @ \$799+     |       | \$5,593 |
| • Admins 1     |  | @ \$3,000    |       | \$3,000 |



# How much does this cost?

|                |  | Each         | Month | Year    |
|----------------|--|--------------|-------|---------|
| • 0 VMs        |  | @ \$50/month | \$0   | \$0     |
| • TFS Server 0 |  | @ \$499/year |       | \$0     |
| • TFS CALs 7   |  | @ \$499/year |       | \$3,493 |
| OR             |  |              |       |         |
| • MSDN 7       |  | @ \$799+     |       | \$5,593 |
| • Admins 1     |  | @ \$0        |       | \$0     |





# How much does this cost?

|          |   | Each     | Month | Year    |
|----------|---|----------|-------|---------|
| • MSDN   | 7 | @ \$799+ |       | \$5,593 |
| • Admins | 1 | @ \$0    |       | \$0     |

# Azure App Services Costs

| Service Plan | Cores | RAM     | Storage | Price               |
|--------------|-------|---------|---------|---------------------|
| Standard S1  | 1     | 1.75 GB | 50 GB   | \$0.10/hr (~74/mo)  |
| Standard S2  | 2     | 3.50 GB | 50 GB   | \$0.20/hr (~149/mo) |



# Azure App Services Costs

| Service Plan | Cores | RAM     | Storage | Price               |
|--------------|-------|---------|---------|---------------------|
| Standard S1  | 1     | 1.75 GB | 50 GB   | \$0.10/hr (~74/mo)  |
| Standard S2  | 2     | 3.50 GB | 50 GB   | \$0.20/hr (~149/mo) |

- Autoscale to multiple instances
- Pay ONLY for extra instances while they are running



# How much does this cost?

|                      |   | Each     | Month | Year    |
|----------------------|---|----------|-------|---------|
| • MSDN               | 7 | @ \$799+ |       | \$5,593 |
| • Admins             | 1 | @ \$0    |       | \$0     |
| • Azure App Services | 1 | @ \$74   | \$74  | \$888   |

# How much does this cost?

Production Instance

|                  |              |
|------------------|--------------|
| Base             | \$149        |
| <u>Scale Out</u> | <u>\$ 51</u> |
|                  | \$200        |

| Month | Year    |
|-------|---------|
|       | \$5,593 |
|       | \$0     |
| \$74  | \$888   |

# How much does this cost?

|                      |   | Each     | Month | Year    |
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| • MSDN               | 7 | @ \$799+ |       | \$5,593 |
| • Admins             | 1 | @ \$0    |       | \$0     |
| • Azure App Services | 1 | @ \$74   | \$74  | \$888   |
| • Azure App Services | 1 | @ \$200  | \$200 | \$2,400 |

# How much does this cost?

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| • Azure App Services | 1 | @ \$74   | \$74  | \$888   |
| • Azure App Services | 1 | @ \$200  | \$200 | \$2,400 |
|                      |   |          |       | \$8,881 |



# Savings Achieved

- Capabilities the same or better

\$15,092

- \$8,881

\$6,211 savings



*Code  
Career  
Academy*



# Demo Time!



# What shall we demo?

- Create VSTS Project
- Tour UI
- Add task to first sprint
- Create ASP MVC project
- Add project to Git
- Set up Dev Azure Web App
- Create Build project
- Build and deploy to Dev



# Follow Me on The Web

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- <http://www.meetup.com/Code-Career-Academy-Meetups-Gwinnett/>



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Academy*