



TUGA IT 2017

LISBON, PORTUGAL

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PLATINUM



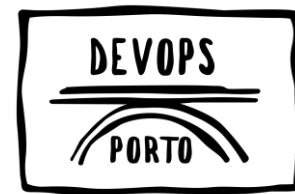
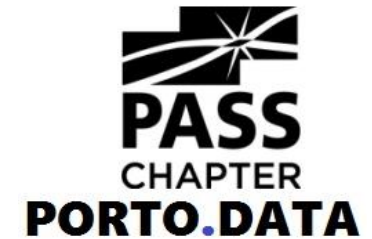
GOLD



SILVER



PARTICIPATING COMMUNITIES





TUGA IT

Web Apps Again...

Wait is in Linux

Ricardo Cabral | blog.en.rramoscabral.com | rramoscabral@gmail.com

Who is this crazy guy

- IT Manager at Globaltemp
- Degree in Computer Engineering
- Actively participating, volunteering and/or speaking Portuguese community meetings (Azure PT, Arduino Day, Cloud Pro PT, IT Pro Portugal, Netponto, O365PT, PowerShell Portugal, PTJUG, SQLPort, SQLSaturday Lisboa & Porto, Tuga IT, etc.)
- Passionate and self-taught in information technology with over 13 years' of experience in IT management, development and projects.
- Loves sharing, living and learning.

Contacts:

- rramoscabral@gmail.com
- <http://blog.rramoscabral.com>
- Follow me @rramoscabral



Microsoft
CERTIFIED

Solutions Expert

Cloud Platform and
Infrastructure



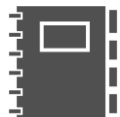
Agenda



What is Azure Web Apps ?



Web App vs Web App On Linux



Conclusions



Questions & Answers

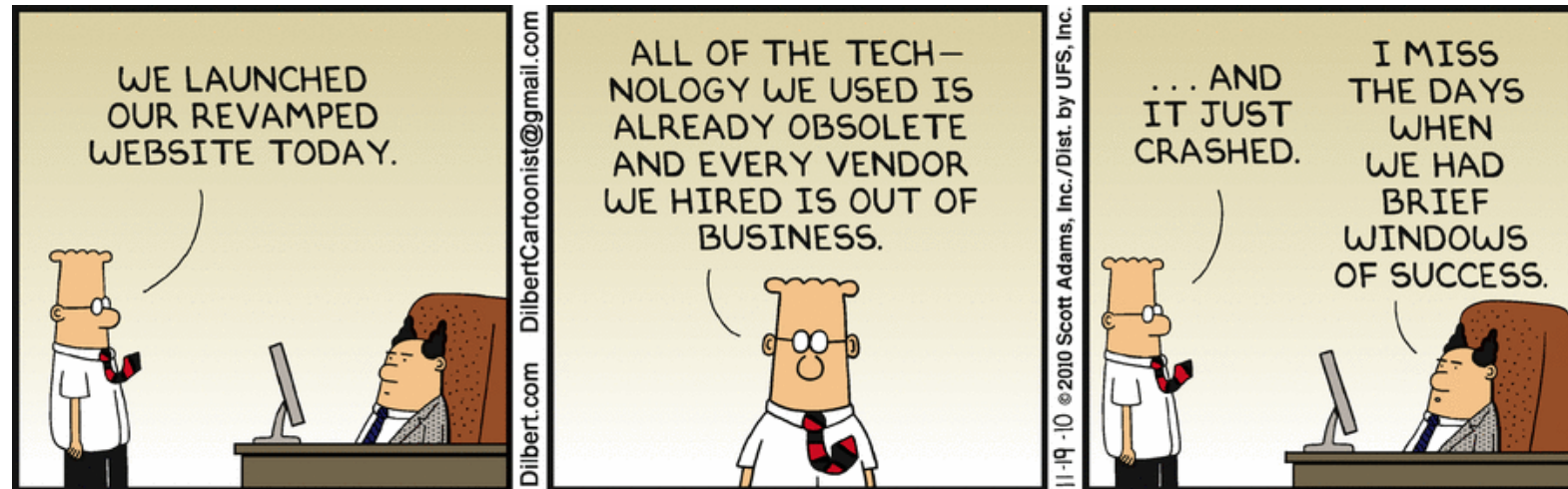


Image source: <http://dilbert.com/strip/2010-11-19>

What is Azure Web Apps ?

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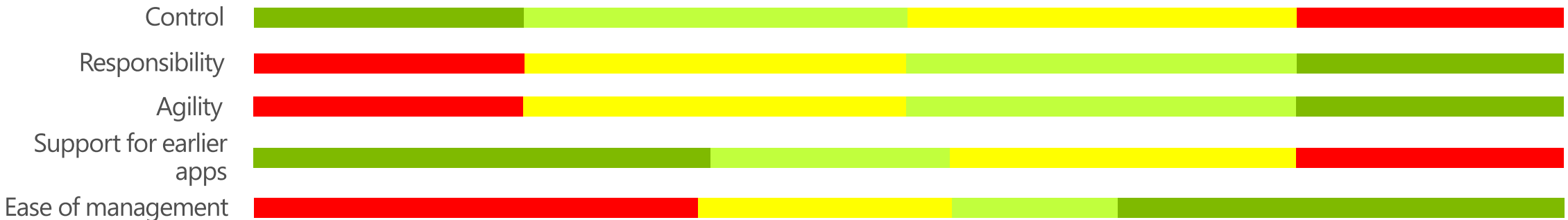
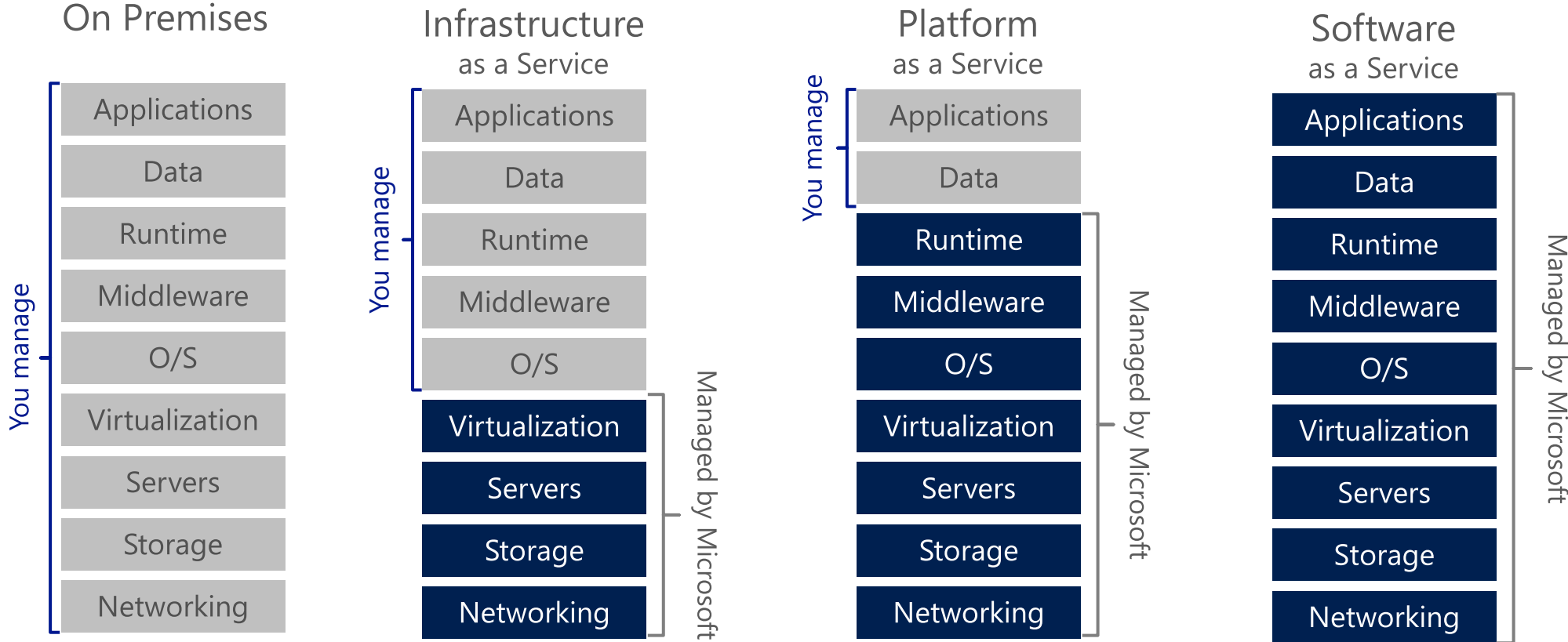
2

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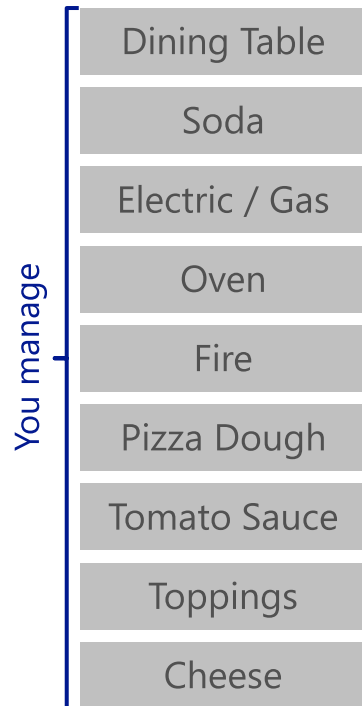
What is Azure Web Apps ?





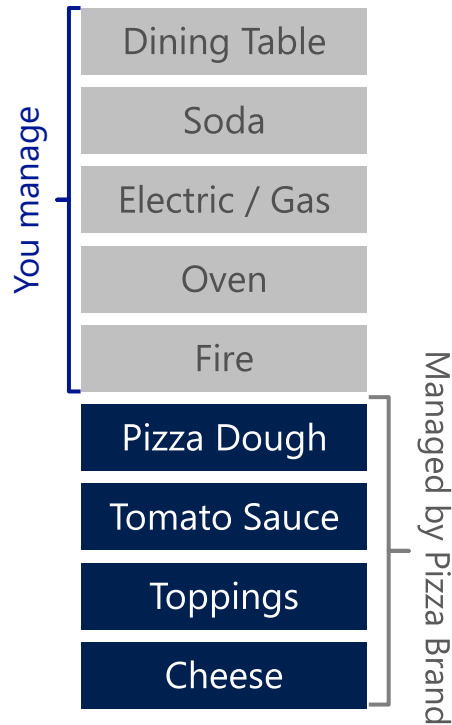
Make your own Pizza

On Premises



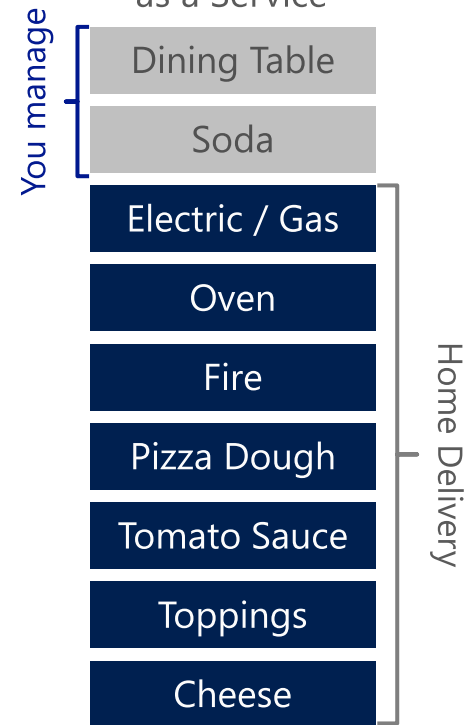
Buy a Frozen Pizza

Infrastructure as a Service



Order a Pizza

Platform as a Service



Eating a Pizza

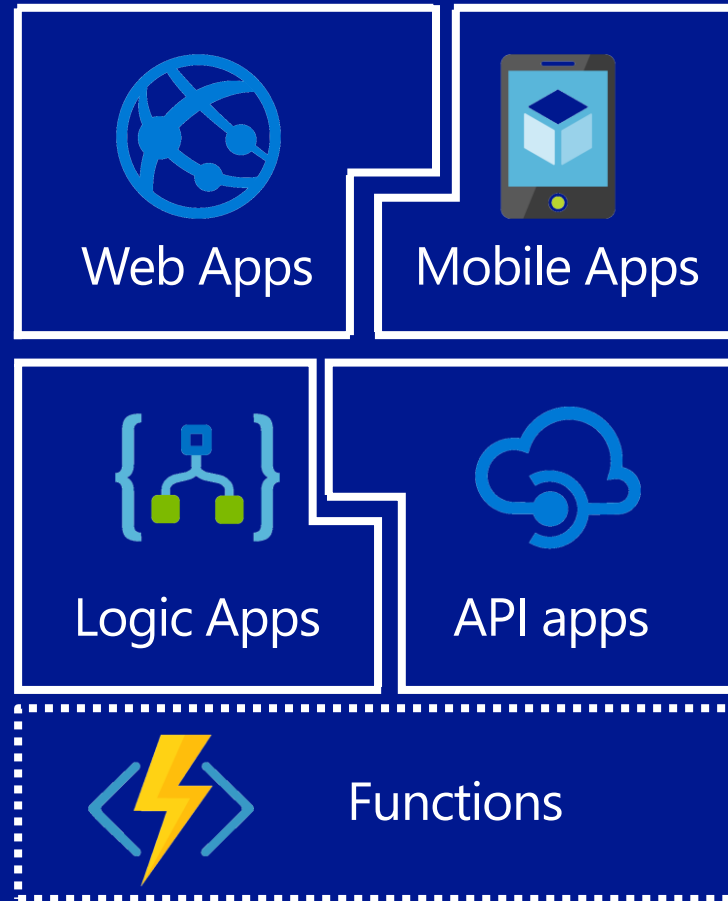
Software as a Service



What is Azure Web Apps ?



Azure App
Service



- Web Apps
For hosting websites and web applications.
- Mobile Apps
For hosting mobile app back ends.
- Logic Apps
For automating business processes and integrating systems and data across clouds without writing code.
- API apps
For hosting RESTful APIs.
- Functions
Easily running small pieces of code, or "functions," in the cloud.

The features are not reserved each service can use the features of the others

Platform Services

Security & Management

- Portal
- Azure Active Directory
- Azure AD B2C
- Multi-Factor Authentication
- Automation
- Scheduler
- Key Vault
- Store/Marketplace
- VM Image Gallery & VM Depot

Services Compute

- Cloud Services
- Service Fabric
- Batch
- RemoteApp

Integration

- Storage Queues
- BizTalk Services
- Hybrid Connections
- Service Bus

Media & CDN

- Media Services
- Content Delivery Network (CDN)

Web and Mobile

- Web Apps
- API Apps
- Mobile Apps
- Logic Apps
- API Management
- Notification Hubs

Developer Services

- Visual Studio
- Azure SDK
- VS Online
- App Insights

Data

- SQL Database
- Data Warehouse
- DocumentDB
- Redis Cache
- Azure Search
- Storage Tables

Analytics & IoT

- HDInsight
- Machine Learning
- Stream Analytics
- Data Lake
- Data Factory
- Event Hubs
- Data Catalog
- IoT Hub
- Mobile Engagement

Hybrid Operations

- Azure AD Health Monitoring
- AD Privileged Identity Management
- Domain Services
- Backup
- Operational Analytics
- Import/Export
- Azure Site Recovery
- StorSimple

Infrastructure Services

OS/Server Compute

- Virtual Machines
- Container Service

Storage

- BLOB Storage
- Azure Files
- Premium Storage

Networking

- Virtual Network
- Load Balancer
- DNS
- Express Route
- Traffic Manager
- VPN Gateway
- App Gateway

Datacenter Infrastructure (40 Regions, 20 Online)

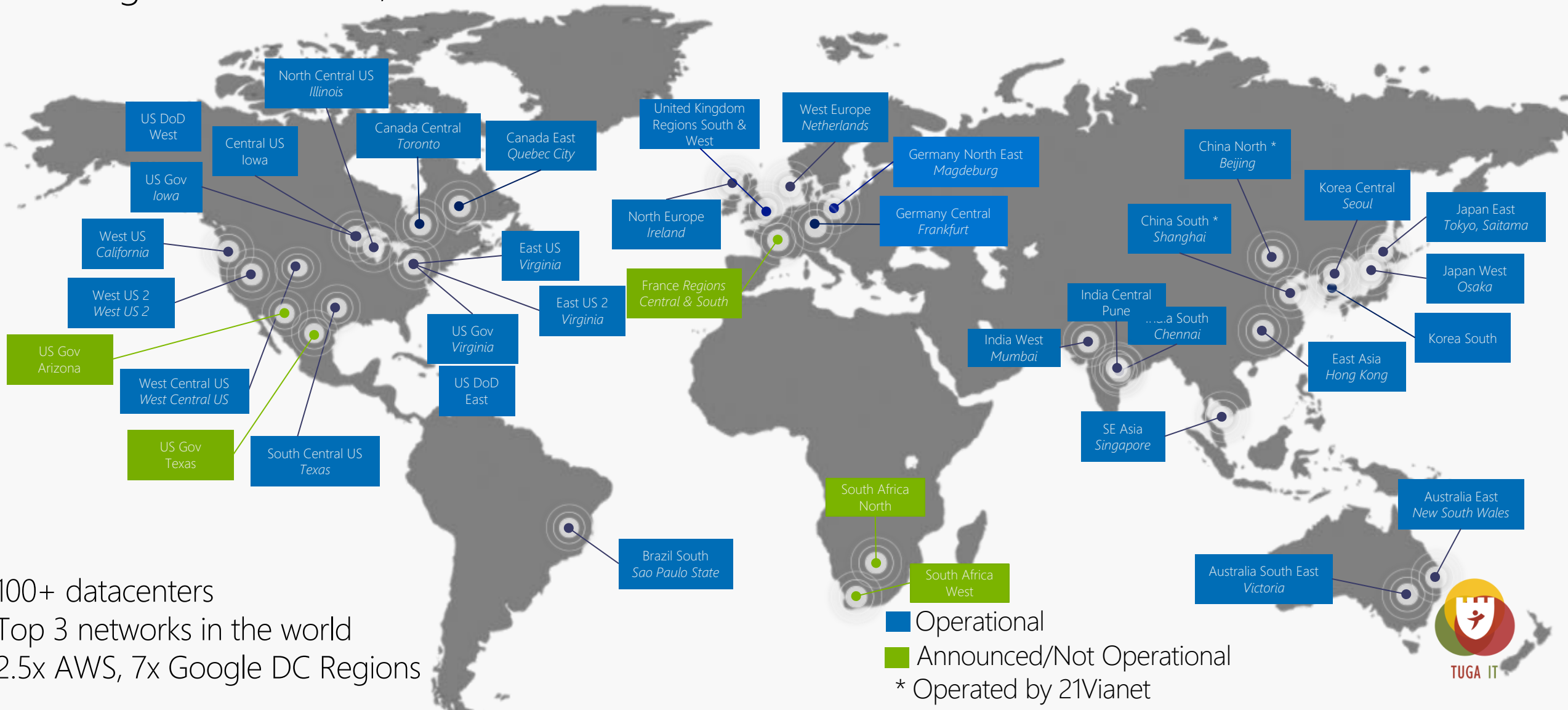


What we can do with Web Apps

- Always On (keep the Web App active) since Standard tier.
- Application Settings and Connection Strings (Environment variables and Key/Value).
- Audit Logs (Log File Targets, Web Server Log, Detailed Error Messages & Failed Request Tracing).
- Backups (Manual and Schedules).
- Command-Line Management (Azure PowerShell & CLI).
- Deployment (Visual Studio Team Services, OneDrive, Local Git Repository, GitHub, Bitbucket, Dropbox, External Repository).
- Monitor and Diagnostics.
- Multiple Framework (.NET, PHP, Java, Python and Node.js).
- Performance Tests.
- Remote Debug and Debug Console.
- Role-Based Access Control (RBAC).
- Scaling (Up, Out, Auto scale).
- Set the platform (32 or 64 bit).
- Site extensions like "Let's Encrypt" since Basic tier require SNI (Server Name Indication).
- Site Slots for staged deployments.
- SSL Certificates.
- WebJobs (run jobs on manual, schedule, trigger or continuous).
- And much more.

Where can you deploy?

40 Regions Worldwide, 30 online



- 100+ datacenters
- Top 3 networks in the world
- 2.5x AWS, 7x Google DC Regions

■ Operational
■ Announced/Not Operational
* Operated by 21Vianet



Web App Available

Americas



Europe



Asia Pacific



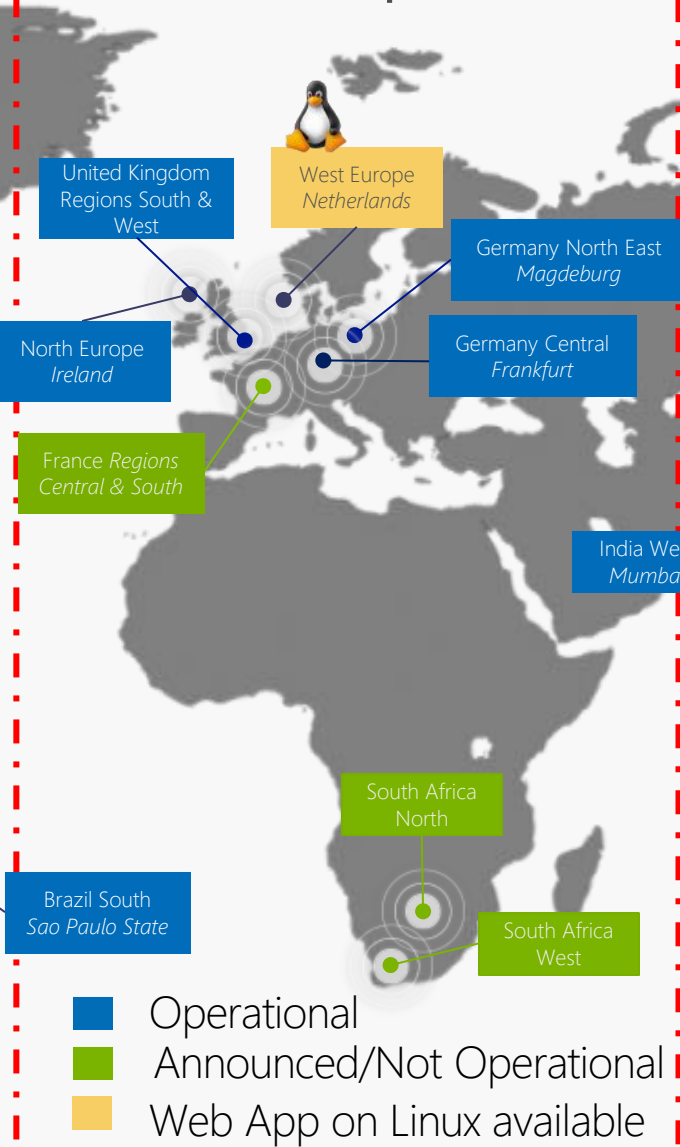
- Operational
- Announced/Not Operational
- Web Apps available

Web App on Linux Preview Available

Americas



Europe



Asia Pacific



- Operational
- Announced/Not Operational
- Web App on Linux available



What is Azure Web Apps ?

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Questions & Answers

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Why Web Apps on Linux

- Linux for PaaS has been one of the top customer asks on the Azure feedback site.
- Docker is now the very popular way to build microservices and DevOps.

[Home](#) [Management Portal](#) [Feedback Forums](#)

How can we improve Azure Web Apps?

[← Web Apps](#)

231

votes

Vote

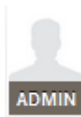
Support Linux for PaaS

Currently when I start up a PaaS web site, it runs on Windows. This isn't necessarily ideal and would be better if I could choose between Windows or Linux for the actual environment.

Would be nice if this Linux environment used nginx and php-fpm instead of Apache too.



[Alexander Trauzzi](#) shared this idea · June 11, 2015 · [Flag idea as inappropriate...](#)



ADMIN

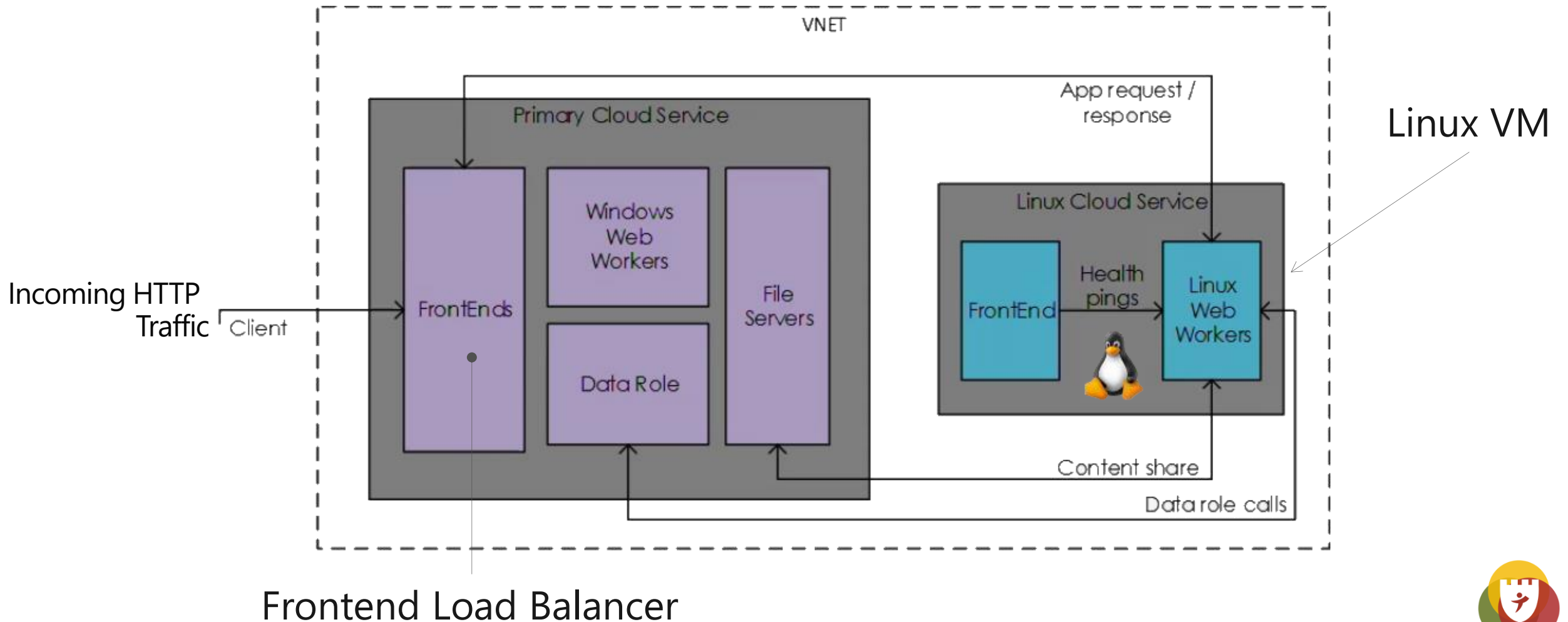
COMPLETED · [Azure App Service Team](#) (Admin, Microsoft Azure) responded · October 10, 2016

We have just announced Public Preview for Web Apps on Linux

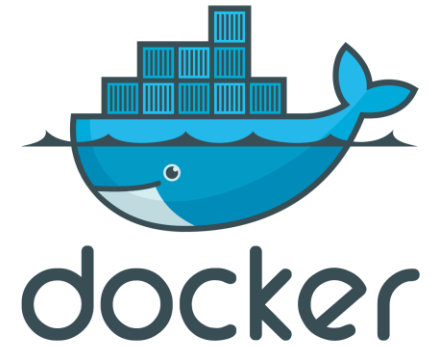
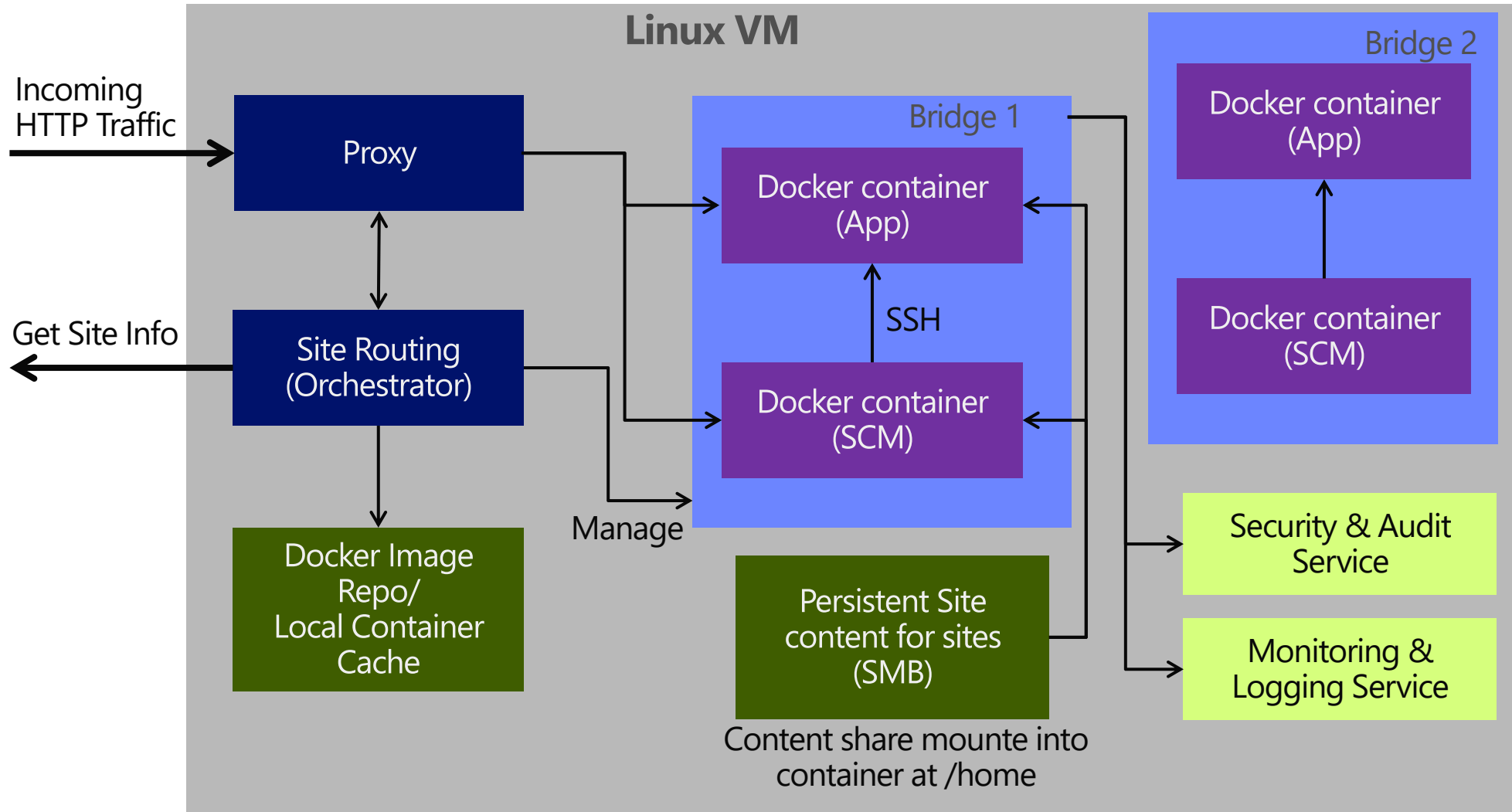
<https://azure.microsoft.com/en-us/documentation/articles/app-service-linux-readme/>

Show previous admin responses (1)

Service Architecture



Linux Worker Architecture



Built-in Containers:

- Node.js
- PHP
- .NET Core

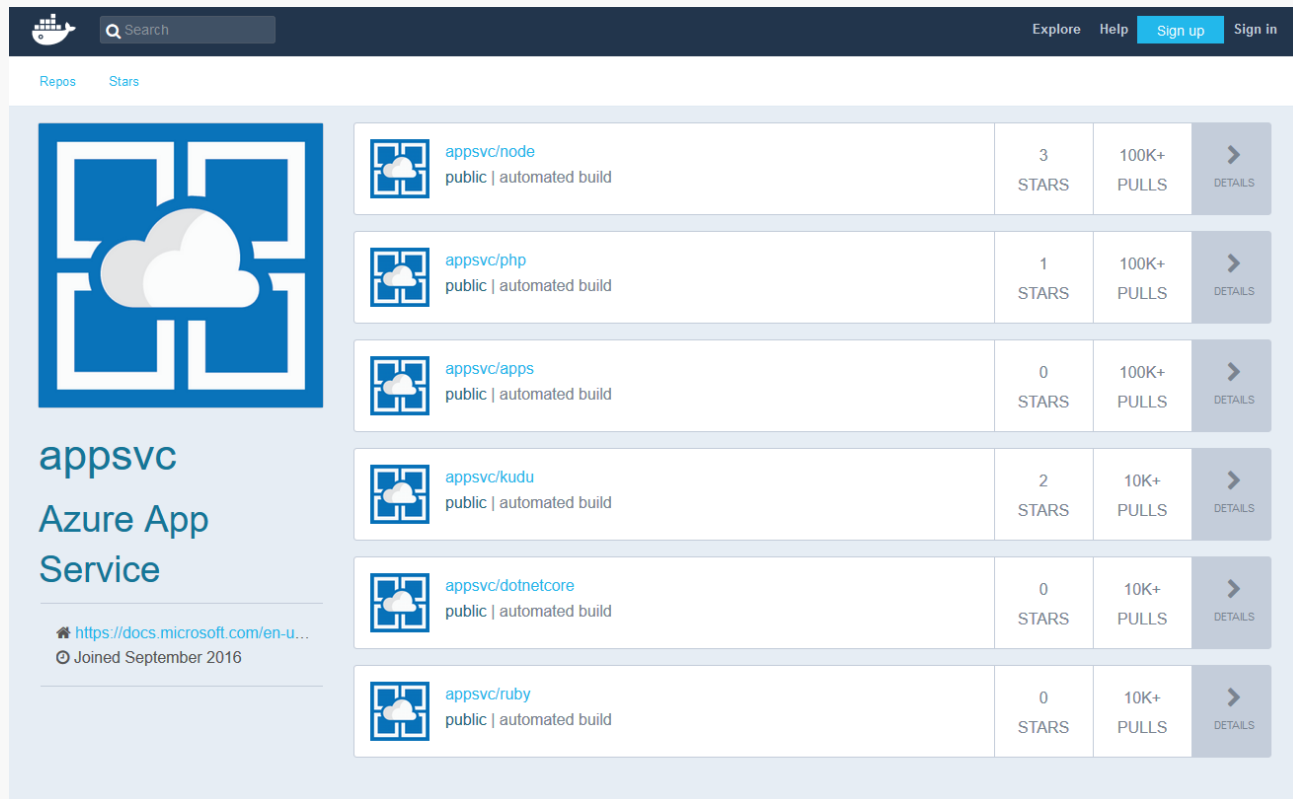
Any Docker Container

- Docker Hub
- Private Registry



Azure App Service Docker images

Docker containers on Docker Hub

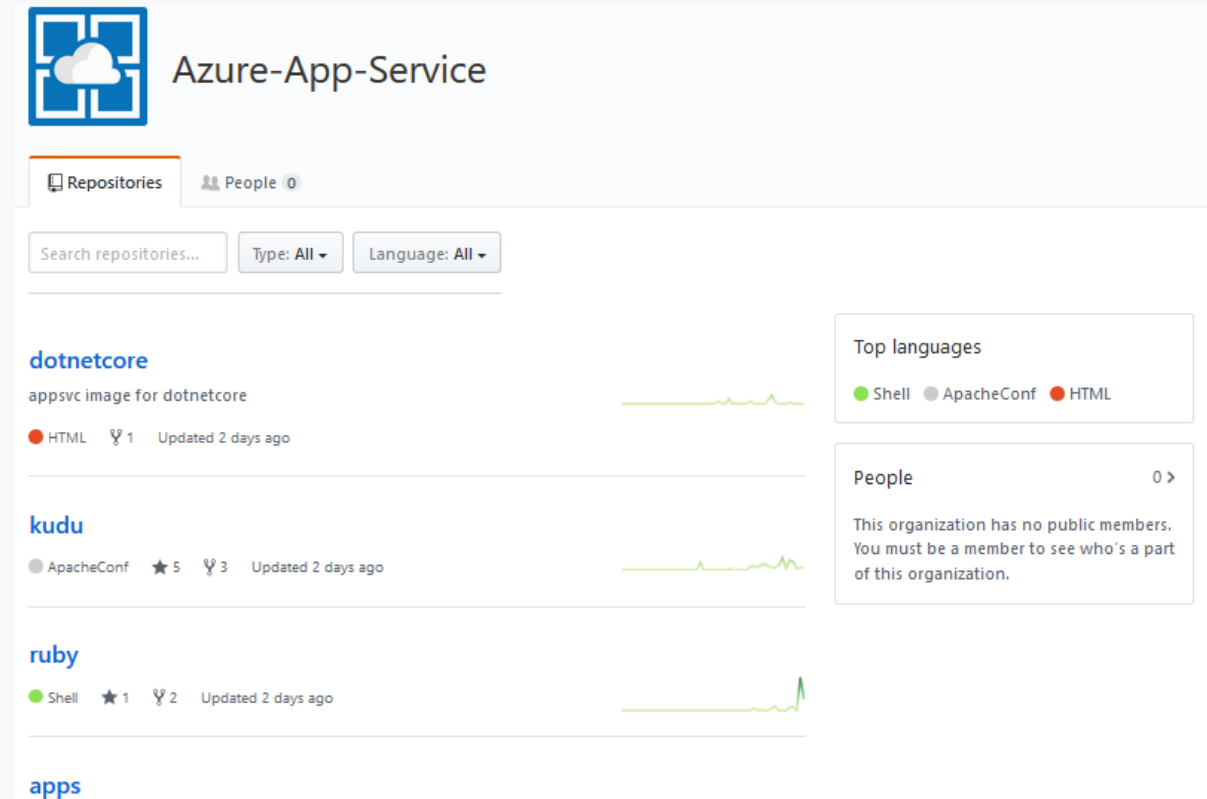


The screenshot shows the Docker Hub profile for the organization 'appsvc'. The profile includes a search bar, navigation links for 'Repos' and 'Stars', and a list of Docker images. The organization's name 'appsvc' and 'Azure App Service' are displayed on the left, along with a link to the documentation and the date 'Joined September 2016'.

Image Name	Stars	Pulls
appsvc/node	3	100K+
appsvc/php	1	100K+
appsvc/apps	0	100K+
appsvc/kudu	2	10K+
appsvc/dotnetcore	0	10K+
appsvc/ruby	0	10K+

<https://hub.docker.com/u/appsvc/>

Docker files on GitHub



The screenshot shows the GitHub organization page for 'Azure-App-Service'. It features a search bar, filters for 'Repositories' and 'People', and a list of repositories. The organization's name 'Azure-App-Service' is displayed at the top. The 'Top languages' section shows 'Shell', 'ApacheConf', and 'HTML'. The 'People' section indicates that the organization has no public members.

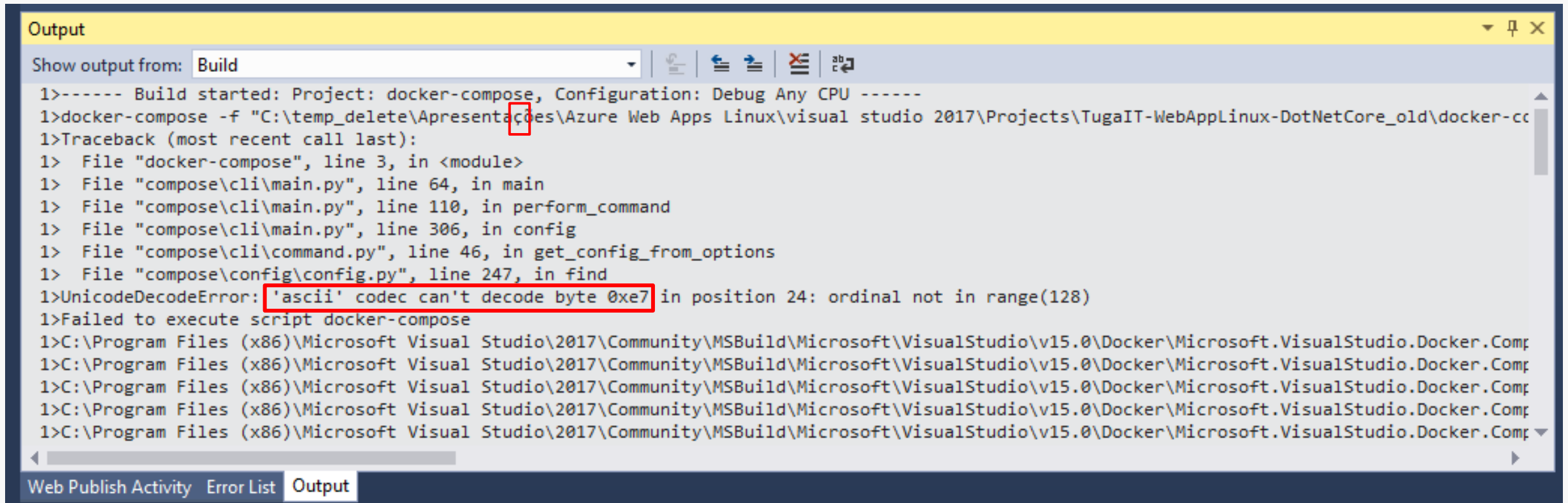
Repository Name	Stars	Pulls
dotnetcore	0	100K+
kudu	5	3
ruby	1	2
apps	0	10K+

<https://github.com/Azure-App-Service>



Avoid this errors in Visual Studio 2017

- In the full path of the project don't use special characters like 'ç'



```
Output
Show output from: Build
1>----- Build started: Project: docker-compose, Configuration: Debug Any CPU -----
1>docker-compose -f "C:\temp_delete\Apresentações\Azure Web Apps Linux\visual studio 2017\Projects\TugaIT-WebAppLinux-DotNetCore_old\docker-cc
1>Traceback (most recent call last):
1> File "docker-compose", line 3, in <module>
1> File "compose\cli\main.py", line 64, in main
1> File "compose\cli\main.py", line 110, in perform_command
1> File "compose\cli\main.py", line 306, in config
1> File "compose\cli\command.py", line 46, in get_config_from_options
1> File "compose\config\config.py", line 247, in find
1>UnicodeDecodeError: 'ascii' codec can't decode byte 0xe7 in position 24: ordinal not in range(128)
1>Failed to execute script docker-compose
1>C:\Program Files (x86)\Microsoft Visual Studio\2017\Community\MSBuild\Microsoft\VisualStudio\v15.0\Docker\Microsoft.VisualStudio.Docker.Comp
1>C:\Program Files (x86)\Microsoft Visual Studio\2017\Community\MSBuild\Microsoft\VisualStudio\v15.0\Docker\Microsoft.VisualStudio.Docker.Comp
1>C:\Program Files (x86)\Microsoft Visual Studio\2017\Community\MSBuild\Microsoft\VisualStudio\v15.0\Docker\Microsoft.VisualStudio.Docker.Comp
1>C:\Program Files (x86)\Microsoft Visual Studio\2017\Community\MSBuild\Microsoft\VisualStudio\v15.0\Docker\Microsoft.VisualStudio.Docker.Comp
1>C:\Program Files (x86)\Microsoft Visual Studio\2017\Community\MSBuild\Microsoft\VisualStudio\v15.0\Docker\Microsoft.VisualStudio.Docker.Comp
```

Avoid this errors in Visual Studio 2017

- Data generator from Docker

The screenshot displays the Visual Studio 2017 interface. On the left, the Error List window shows a single error: "The 'PrepareForLaunch' task failed unexpectedly. Microsoft.DotNet.Docker.CommandLineClientException: Creating network 'dockercompose350736718_default' with the default driver". Below this, a red box highlights a more detailed error message: "ERROR: for webapplication1 Cannot create container for service webapplication1: C: drive is not shared. Please share it in Docker for Windows Settings Encountered errors while bringing up the project.".

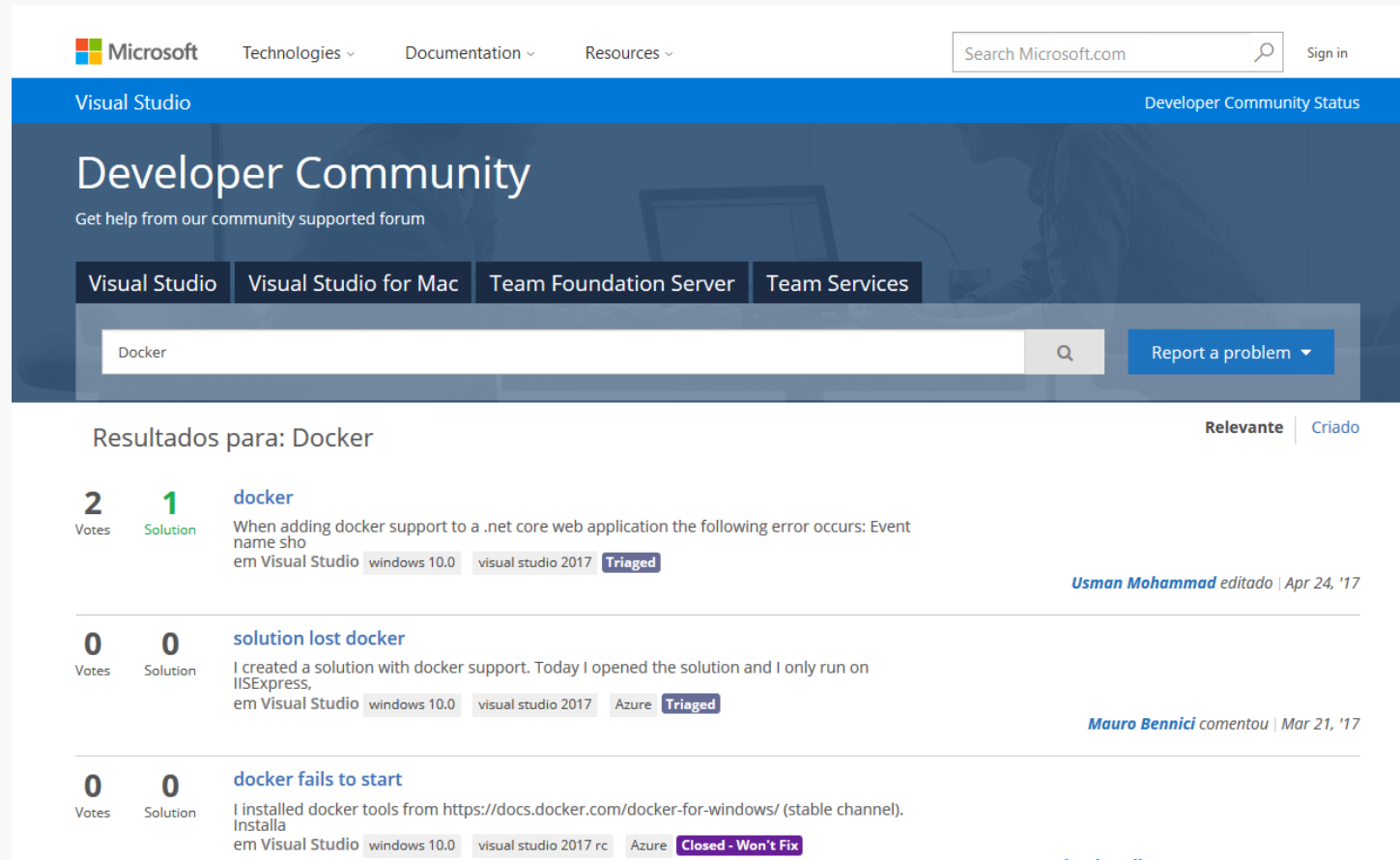
On the right, the Docker Settings window is open to the "Shared Drives" section. A table lists the available drives:

Shared	Drive
<input type="checkbox"/>	C

A red arrow points from the error message in the Error List to the checkbox for the C: drive in the Shared Drives table. Below the table, a PowerShell terminal window shows the command: `> docker run --rm -v c:/Users:/data alpine ls /data`. The "Apply" button is visible at the bottom right of the settings window.

Avoid this errors in Visual Studio 2017

- Visual Studio Developer Community



The screenshot shows the Microsoft Visual Studio Developer Community website. At the top, there is a navigation bar with the Microsoft logo, links for Technologies, Documentation, and Resources, a search bar for Microsoft.com, and a Sign in button. Below this is a blue header with 'Visual Studio' on the left and 'Developer Community Status' on the right. The main heading is 'Developer Community' with the subtext 'Get help from our community supported forum'. There are four tabs: 'Visual Studio', 'Visual Studio for Mac', 'Team Foundation Server', and 'Team Services'. A search bar contains the text 'Docker' and a 'Report a problem' button. Below the search bar, the results are displayed under the heading 'Resultados para: Docker'. There are three search results listed, each with a title, a description, and a status label.

Votes	Solution	Title	Description	Status	Author	Date
2	1	docker	When adding docker support to a .net core web application the following error occurs: Event name sho em Visual Studio	Triaged	Usman Mohammad	Apr 24, '17
0	0	solution lost docker	I created a solution with docker support. Today I opened the solution and I only run on IISExpress, em Visual Studio	Triaged	Mauro Bennici	Mar 21, '17
0	0	docker fails to start	I installed docker tools from https://docs.docker.com/docker-for-windows/ (stable channel). Instala em Visual Studio	Closed - Won't Fix	Visual Studio Team	Mar 21, '17

<https://developercommunity.visualstudio.com>

Roadmap

2016 (Connect() 2016)

DevOPS

- Continuous integration and continuous deployment with Local Git and GitHub
- Traffic routing
- Auto-detect app stack
- Deployment Slots

Management

- Custom domains and SSL
- Performance Test
- RBAC
- REST API (ARM) + NodeJS CLI
- Scale out / up
- Resource Health

Run Time

- PHP, NodeJs, .NET Core
- Custom Docker Image
- Diagnostics and Application Logs
- Ubuntu 16.04 LTS

Built 2017

DevOPS

- Continuous delivery using Visual Studio Team Services
- Continuous integration and continuous deployment with Docker Hub
- Docker SSH
- Site slots & Swap
- WordPress Gallery Template optimized

Management

- Always On
- Auto Port detection
- Auto Scale
- New Region Support – Australia
- Wildcard Domains Support

Calendar Year 2017

DevOPS

- Remote debugging
- Applications Insight Integration

Management

- Audit Logs
- AD / OAuth integration
- Diagnostics & Logging
- VNET integration
- Security Hardening

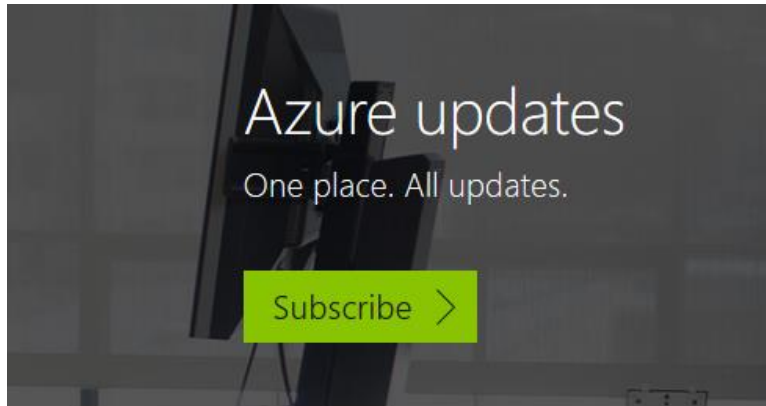
Frameworks

- Java, Go, Rails, Python

App Service on Linux Release Notes: <https://aka.ms/linux-release-notes>



Azure Update



Check out the new Cloud Platform roadmap to see our la

Products:

March 2017

- Mar 30 [Preview: Azure Functions Open AP](#)
- Mar 22 [Create a WordPress application by](#)
- Mar 7 [General availability: MySQL in-app](#)
- Mar 6 [Export your App Service certificate](#)
- Mar 1 [WebJobs SDK 2.0 released](#)

Create a WordPress application by using Web Apps on Linux

Wednesday, March 22, 2017

[Web Apps on Linux \(preview\)](#) allows running web apps natively on Linux. WordPress is popular blogging platform primarily used on Linux distributions. Today we have released [WordPress for App Service on Linux](#) in the Azure Marketplace to help you quickly create a WordPress application on Web Apps (Linux). Azure App Service on Linux lets you bring your own custom image, and this template leverages the same for using a [custom Docker image for WordPress](#) publicly available on [Docker Hub](#).

Related services

A screenshot of the Azure Marketplace interface. The left sidebar shows a navigation menu with categories like Compute, Networking, Storage, and Web + Mobile (which is selected). The main area shows search results for "WordPress on Linux". The first result, "WordPress on Linux (preview)", is highlighted with a red box. Below it are several other results for "Hardened Wordpress" on different Linux distributions, all published by "Cognosys Inc." and categorized as "Media services".

NAME	PUBLISHER	CATEGORY
WordPress on Linux (preview)	WordPress	Web Apps
Hardened Wordpress on Ubuntu 16.04 LTS	Cognosys Inc.	Media services
Hardened Wordpress on CentOS 7.3	Cognosys Inc.	Media services
Hardened Wordpress on CentOS 7.3 - Pro LIC	Cognosys Inc.	Media services
Hardened Wordpress on CentOS 7.3 - Ent LIC	Cognosys Inc.	Media services

<https://azure.microsoft.com/en-us/updates/?product=web-sites>

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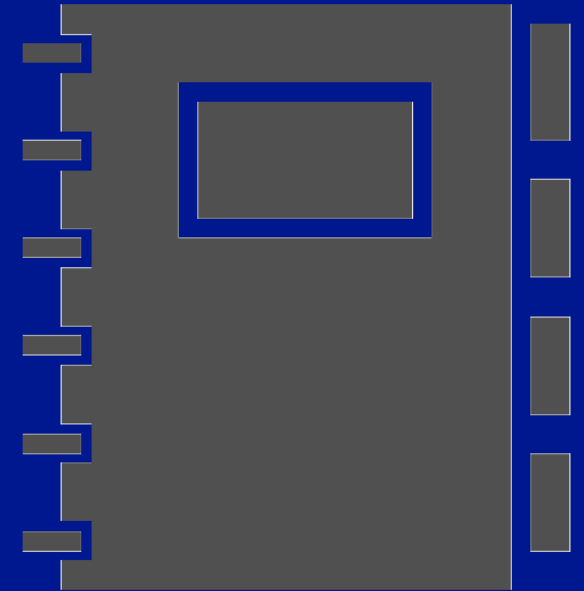
Questions & Answers

1

2

3

4



TUGA IT

My Conclusions

Azure Web Apps On Windows

- Support more frameworks like Java.
- Workloads that work excellent in Windows.
- Free specific pricing tier 😊 (lower features like deployment slots is not available).
- SLA 99.95%.
- Site extensions example "Let's Encrypt" since Basic tier require SNI (Server Name Indication).
- And all the features available.

Azure Web Apps On Linux

- Better tooling and support for PHP, Node.js and Python frameworks. Example Wordpress. Others frameworks will be supported like Java .
- Workloads doesn't works very well in Windows but works very well in Linux
- There is no Free specific pricing tier 😞, 50% of the regular price, and the price is calculated by halving the number of compute-hours consumed by your App Service Plan.
- No SLA is offered during the public preview period
- Docker, support container using Docker hub.
- It is in preview don't use in production.

The Good part

Azure Web Apps On Linux



- Rapidly build and deploy.
- Azure manage all VM/Container infrastructure.
- Azure Market Place gallery Apps pre-build images/products like WordPress and MySQL (Azure Database for MySQL Preview) at the same Linux container.
- Bring your own container.
- Bring your own container to the Docker community (Docker Hub)

Microsoft Azure Feedback

Microsoft Azure
Home Management Portal Feedback Forums

How can we improve Azure Web Apps?

← Web Apps

45

votes

Vote

SSH for Azure App Services for Linux

Support SSH access under the application user with access to the app \$HOME directory.

This would help with troubleshooting, as well as interesting deployment scenarios like Mina or Capistrano.



Sergey Kostrukov shared this idea · December 19, 2016 · [Flag idea as inappropriate...](#)



ADMIN

PLANNED · **Azure App Service Team** (Admin, Microsoft Azure) responded · January 03, 2017

We are planning to have SSH support in the coming months, unfortunately I don't have an ETA yet.

Ahmed
App Service team

Microsoft Azure
Home Management Portal Feedback Forums

How can we improve Azure Web Apps?

← Web Apps

27

votes

Vote

[Linux] Allow to access certicate store within linux app services

It is currently not possible to use certificates in Linux App Services as described in this blog post:

<https://azure.microsoft.com/en-us/blog/using-certificates-in-azure-websites-applications/>

Please add access to the azure certificate store within a linux container.



Steffen shared this idea · March 20, 2017 · [Flag idea as inappropriate...](#)



ADMIN

UNDER REVIEW · **Azure App Service Team** (Admin, Microsoft Azure) responded · March 20, 2017

Thanks for suggesting that, we are reviewing the idea and will be updating the status soon.

Ahmed
App Service Team

<https://feedback.azure.com>



Free Azure for 12 months

\$25 credit for 12 months (\$300 value) no credit card needed

The screenshot shows the 'My Benefits' page on the Visual Studio website. A central modal window titled 'Welcome to Visual Studio Dev Essentials' is open, displaying the following text:

We're glad you're here!
By joining Visual Studio Dev Essentials, you get a wide range of free benefits from development tools to online training to help you build and deploy your apps on any platform.

Here are some of the great benefits:

- \$25 monthly Azure credit for 12 months
- On-demand access to Xamarin University
- 3-month subscription to Pluralsight
- Periodic email communications with latest trends, news, benefit and product announcements

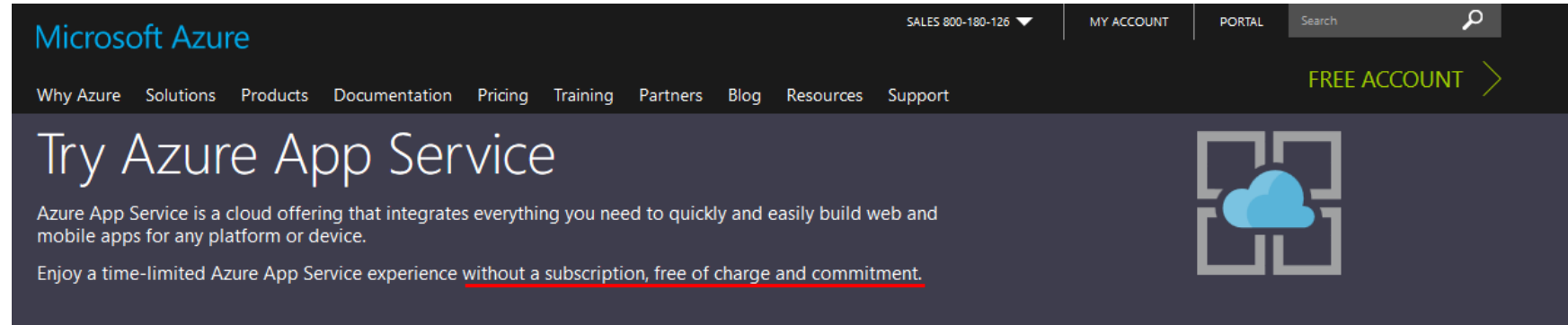
Below the list, it states: **By confirming to join, you accept these Terms & Conditions.** You can leave the program any time to stop receiving communications and access to your benefits by going to the Subscriptions tab. Review our [Privacy Statement](#).

At the bottom of the modal are 'Confirm' and 'Cancel' buttons.

The background page shows a 'Visual Studio 2017 Available now!' banner with a 'Download' button. Below the banner, there are cards for 'Visual Studio Community', 'Visual Studio Code', 'Azure credit for 1 year', 'Personal sandbox for Vs, cloud services, Credit cannot be', and 'Xamarin University Training'.

<https://my.visualstudio.com>

Try Azure App Service free of charge



Microsoft Azure

SALES 800-180-126 | MY ACCOUNT | PORTAL | Search


Why Azure | Solutions | Products | Documentation | Pricing | Training | Partners | Blog | Resources | Support

FREE ACCOUNT >

Try Azure App Service

Azure App Service is a cloud offering that integrates everything you need to quickly and easily build web and mobile apps for any platform or device.

Enjoy a time-limited Azure App Service experience without a subscription, free of charge and commitment.



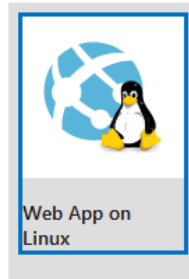
1 Select app type

2 Select template

3 Work with your app



Web App



Web App on Linux



Mobile App



Functions App



API App

Azure Web Apps enable developers to easily deploy and scale enterprise grade web applications written in a variety of languages and integrated with a multitude of services without ever worrying about infrastructure management.

Next

<https://azure.microsoft.com/en-us/try/app-service/>

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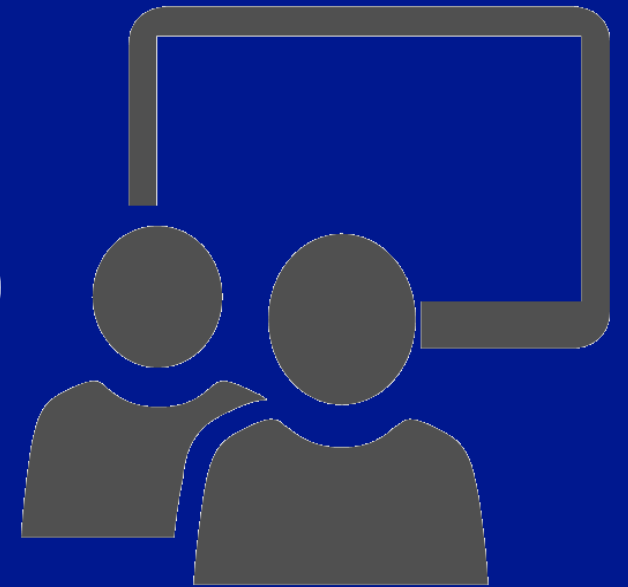
Questions & Answers

1

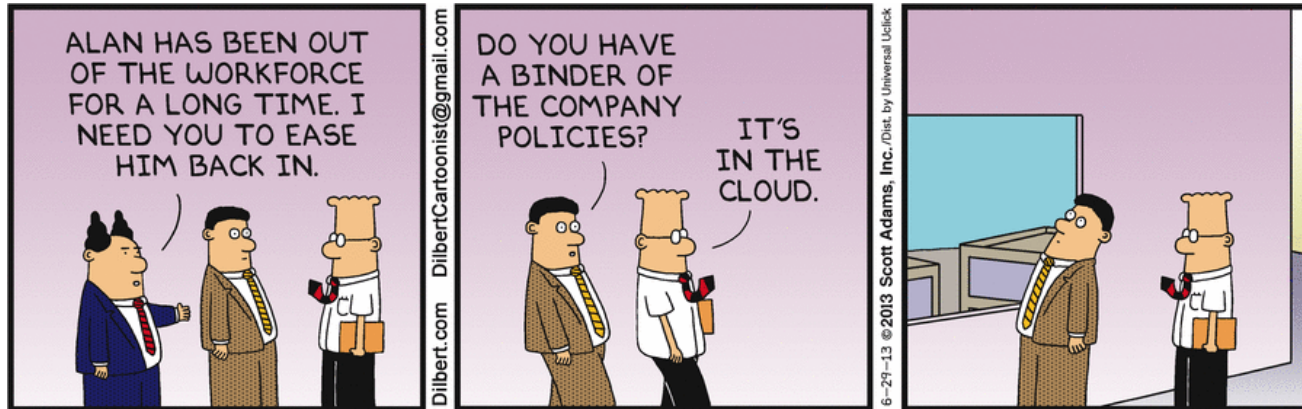
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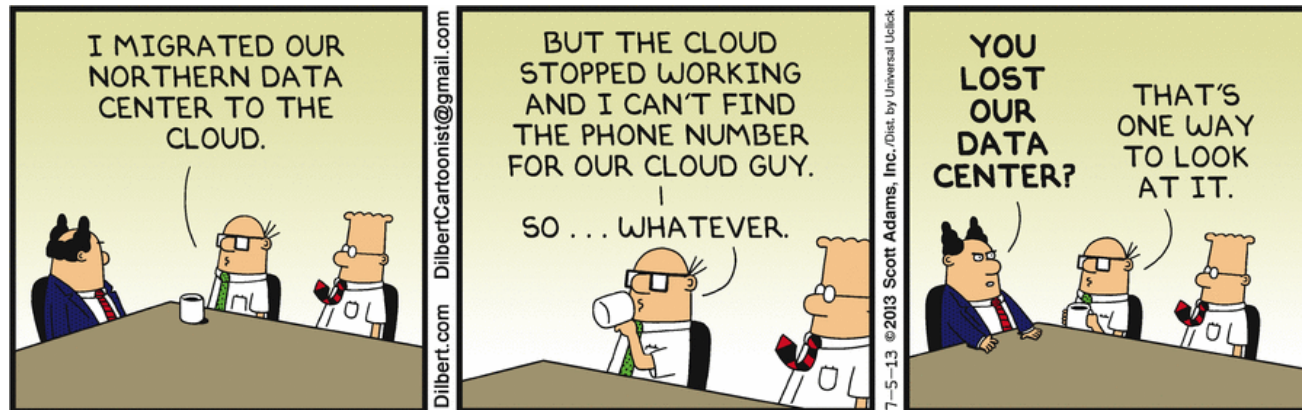
4



Questions & Answers



Source: <http://dilbert.com/strip/2013-06-29>



<http://dilbert.com/strip/2013-07-05>



The Incoming sessions

Taming the DevOps unicorn with Azure
and Visual Studio Team Services

Karl Ots
Microsoft MCT

14:00



Microsoft Azure EventHubs workout
session

Nino Crudele
Microsoft MVP

15:20



Azure Mobile App Service

António Lourenço

16:30

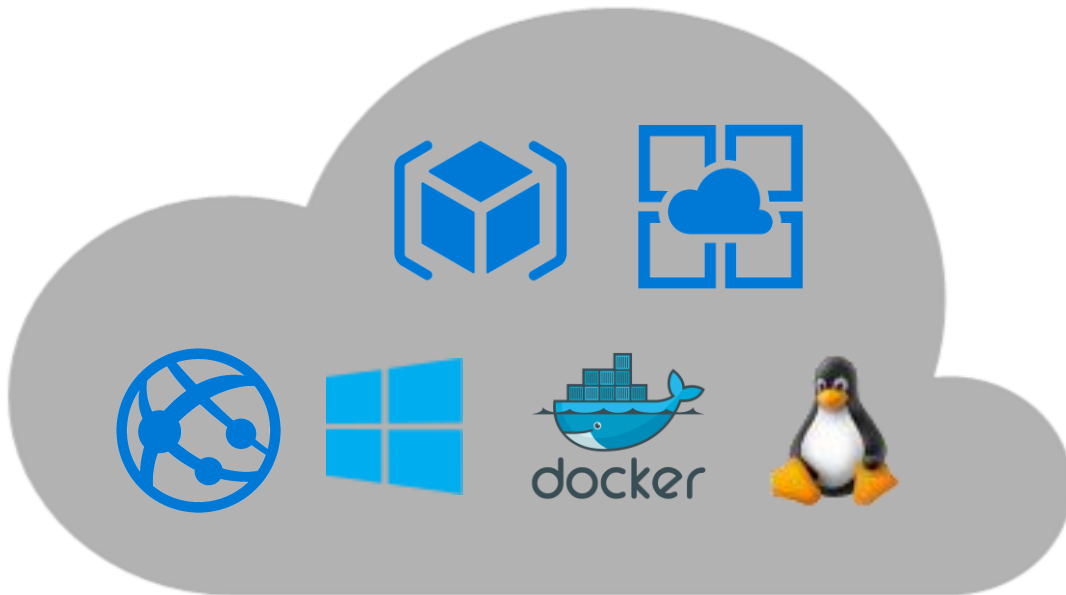


References & Resources

- Try Azure App Service, <https://aka.ms/tryappservice>
- Web App on Linux Documentation, Microsoft Docs, <https://aka.ms/webapp-linux>
- Web App on Linux FAQ , Microsoft Docs, <https://aka.ms/linux-faq>
- Azure forums, <https://azure.microsoft.com/en-us/support/forums>
- Azure solutions, <http://azure.com/solutions>

THANK YOU!

OBRIGADO!



Ricardo Cabral

ramoscabral@gmail.com

<https://blog.rramoscabral.com>

@ramoscabral



PLEASE FILL IN EVALUATION FORMS

FRIDAY, MAY 19th



<https://survs.com/survey/cprwce7pi8>

YOUR OPINION IS IMPORTANT!



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