



**#GlobalAzure**  
**#GlobalAzureMilano**

# WordPress < 3 Azure App Service

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# Agenda

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Home > Marketplace >

## WordPress on App Service

Microsoft



### WordPress on App Service

Microsoft | App Service

★ 4.2 (896 ratings)

Plan

WordPress on App Service

[Overview](#) [Plans](#) [Usage Information + Support](#) [Ratings + Reviews](#)

This template provides an instance of WordPress optimized for App Service with best practices for security and performance. This is an all-in-one deployment that includes WordPress and the necessary Azure resources to host it, including compute (App Service Web App) and database (Azure Database for MySQL). Advanced options let you configure Azure CDN and Azure Storage for even better performance and reliability.

#### WordPress

WordPress is the most popular Content Management System, powering 43.2% of all websites on the internet (Source: W3techs). It is a free and Open-Source software written in PHP and paired with a MySQL database. Originally created as a blogging platform, WordPress has evolved to become a platform that supports portfolio websites, forums, online stores and marketplaces, learning management platforms, social networks, podcast websites, job boards, Wikis, and e-auction platforms, among others.

The capabilities of Azure App Service have been leveraged to provide you with a fully managed, performant, secure and scalable hosting solution for WordPress.

Being a no code tool, WordPress is easy to build and customize. Depending on your requirements, there are thousands of plugins and themes to choose from. For advanced users, WordPress code can be modified to build unique and complex scenarios. WordPress has a search engine friendly permalink structure that makes it a great choice for Digital Marketers.

#### Support

We are committed to support you on your journey of creating and maintaining your WordPress website. Go to [New support request - Microsoft Azure](#) and raise a new support request.



# Configurazione dell'app

<https://github.com/Azure/wordpress-linux-appservice>

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## Project details

Select a subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription \* ⓘ

Resource group \* ⓘ  [Create new](#)

## Hosting details

Select the region for your server and provide a name for Web App. Custom domains can be added later.

Region \*

Name \*  [.azurewebsites.net](#)

## Hosting plans

This hosting plan dictates what resources are available, what features are enabled and how it is priced.

Hosting plan **Standard**  
PremiumV2 App Service, Burstable MySQL database  
[Change plan](#)

## Azure Front Door (Preview)

Azure Front Door (AFD) provides dynamic site acceleration that reduces response times while also allowing content delivery by caching at nearest edge servers for faster media downloads. [Learn More](#)

Enable AFD ⓘ

AFD Profiles \*  [Create new](#)

**i** You can choose to select either Azure CDN or Azure Front Door.

## Azure Blob Storage (Recommended)

Azure Blob Storage allows you to store and access images, videos and other files. This effectively reduces the load on your web server thereby improving performance and user experience. [Learn More](#)

Enable Blob Storage ⓘ

Storage Account ⓘ

## Virtual Network

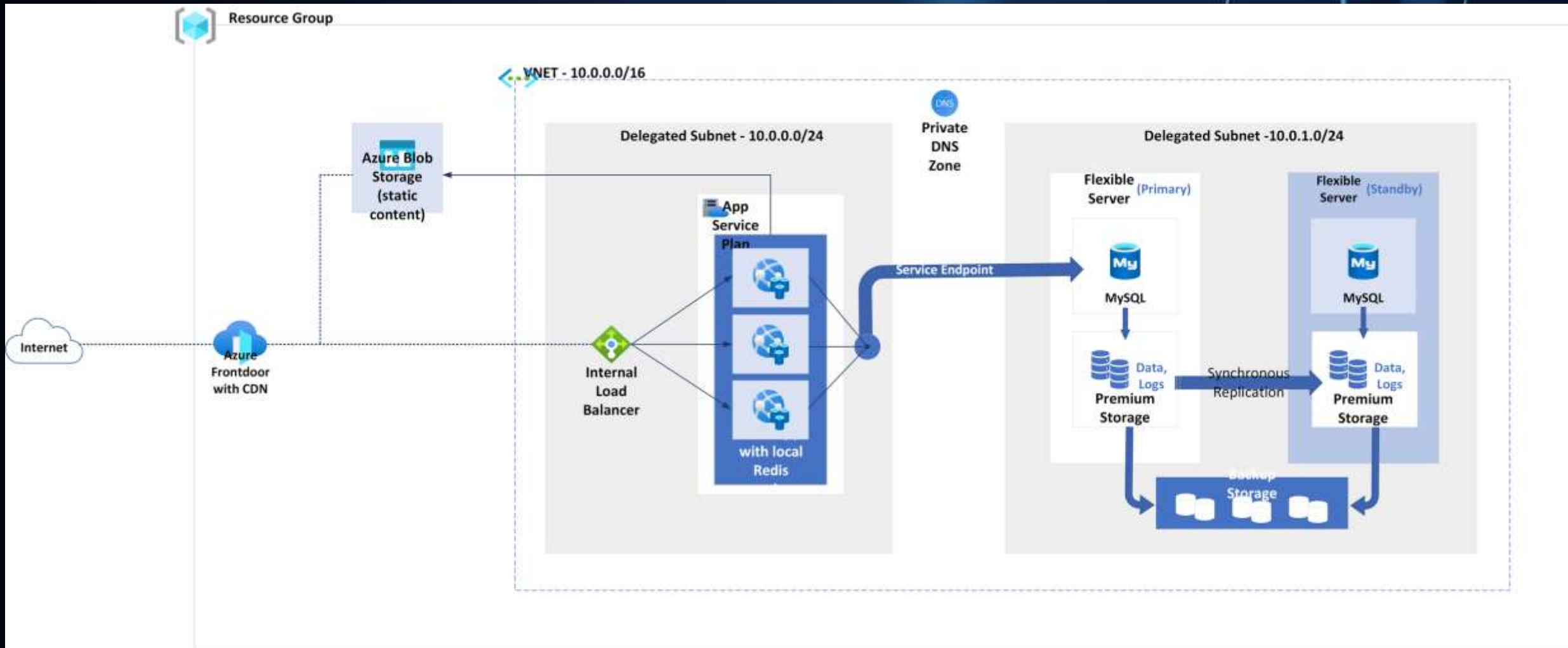
Virtual networks are logically isolated from each other in Azure. You can configure their IP address ranges, subnets, route tables, gateways, and security settings, much like a traditional network in your data center. Virtual machines in the same virtual network can access each other by default. [Learn More](#)

Virtual Network ⓘ



# Infrastruttura

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# WordPress su App Service: Vantaggi 🚀

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- 1) PAAS – Servizio totalmente gestito
- 2) Scalabilità
- 3) Sicurezza



# Scalabilità



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- 1) Verticale (Scale Up)
- 2) Orizzontale (Scale Out)

If you select multiple values for a dimension, autoscale will aggregate the metric across the selected values, not evaluate the metric for each values individually.

CpuPercentage (Average)

4.91 %

Enable metric divide by instance count ⓘ

Operator \*      Metric threshold to trigger scale action \* ⓘ

Less than or equal to      5 %

Duration (minutes) \* ⓘ      Time grain (minutes) ⓘ

10      1

Time grain statistic \* ⓘ      Time aggregation \* ⓘ

Average      Average

Action

Operation \*      Cool down (minutes) \* ⓘ

Decrease count to      5

instance count \*

1



# Azure Front Door

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Cache



WAF



DDoS



# WAF

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## Regole Gestite

Disponibili solo con Front Door Premium / Classic

## Regole personalizzate

- Rate limiting
- Blocco geografico
- Disabilitare accessi a file (esempio: xmlrpc.php)
- Abilita l'accesso a wp-admin e wp-login solo a specifici IP
- Bloccare User Agent Specifici
- Il controllo dei metodi HTTP consentiti
- Validare Payload delle nostre chiamate





# WordPress – W3Total Cache

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The screenshot shows the W3Total Cache configuration interface within a WordPress dashboard. The browser's address bar indicates the site is 'WordPress on Azure'. The dashboard sidebar on the left shows the 'Performance' menu item is active. The main content area is titled 'TOTAL CACHE' and includes navigation links for 'Dashboard', 'Settings', 'Tools', 'Info', and 'Support', along with an 'Upgrade' button. The current page is 'Configuration: Objects', with sub-links for 'General', 'Configuration (Objects)', 'Advanced', and 'Note(s)'. At the top right of the configuration area are buttons for 'Empty All Caches' and 'Save Settings'. The configuration fields are as follows:

- Account name:** mahizgloba176fb40cfa
- Account key:** [Redacted]
- Container:** blobmahizgloba176fb40cfa (with a 'Create container' button)
- SSL support:** Auto (determine connection type automatically) (with a note: 'Some CDN providers may or may not support SSL, contact your vendor for more information.')
- Replace site's hostname with:** mahizgloba176fb40cfa.blob.core.windows.net or CNAME:  
1. [Redacted] (with an 'Add CNAME' button)

At the bottom of the configuration area is a button labeled 'Test Microsoft Azure Storage upload'. Below this is the 'Advanced' section, which is currently collapsed.



# App Settings

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Microsoft Azure

Home > App Services > mahiz-global-azure-milano-wp

### App Services

Alessandro Scardovi

+ Create

Filter for any field...

Name ↑

- mahiz-global-azure-milano-wp

Tags

- Diagnose and solve problems
- Microsoft Defender for Cloud
- Events (preview)
- Log stream

Deployment

- Deployment slots
- Deployment Center

Performance

- Load Testing (Preview)

Settings

- Environment variables
- Configuration
- Authentication
- Application Insights
- Identity
- Backups
- Custom domains
- Certificates
- Networking
- Scale up (App Service plan)
- Scale out (App Service plan)
- Webjobs
- Container Containers

### mahiz-global-azure-milano-wp | Environment variables

Web App

Search

App settings | Connection strings

Search Refresh Show values Advanced edit Fetch latest values

Name*	Value	Deployment slot setting	Source	Delete
DOCKER_REGISTRY_SERVER_URL	.....	<input type="checkbox"/>	App Service	
WEBSITES_ENABLE_APP_SERVICE_STORAGE	....	<input type="checkbox"/>	App Service	
DATABASE_HOST	.....	<input type="checkbox"/>	App Service	
DATABASE_NAME	.....	<input type="checkbox"/>	App Service	
DATABASE_USERNAME	.....	<input type="checkbox"/>	App Service	
DATABASE_PASSWORD	.....	<input type="checkbox"/>	App Service	
WORDPRESS_ADMIN_EMAIL	.....	<input type="checkbox"/>	App Service	
WORDPRESS_ADMIN_USER	.....	<input type="checkbox"/>	App Service	
WORDPRESS_ADMIN_PASSWORD	.....	<input type="checkbox"/>	App Service	
WORDPRESS_TITLE	.....	<input type="checkbox"/>	App Service	
WEBSITES_CONTAINER_START_TIME_LIMIT	....	<input type="checkbox"/>	App Service	
WORDPRESS_LOCALE_CODE	....	<input type="checkbox"/>	App Service	
SETUP_PHPMYADMIN	....	<input type="checkbox"/>	App Service	
WORDPRESS_LOCAL_STORAGE_CACHE_ENABLED	....	<input type="checkbox"/>	App Service	

Apply Discard

Send us your feedback

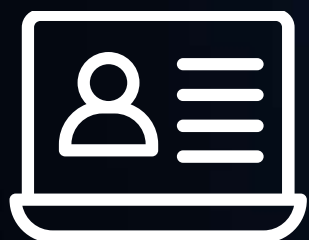
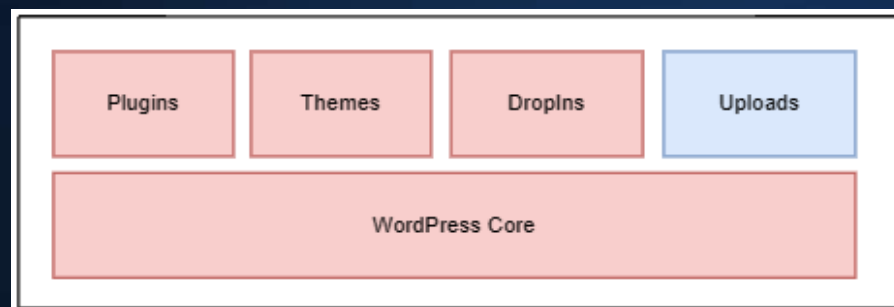


# App Settings

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## WORDPRESS\_LOCAL\_STORAGE\_CACHE\_ENABLED

Richieste vengono ora gestite dallo storage locale.



App service



File sync



Server remoto



# Local Storage: Performance a confronto

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## Local storage disabilitato

GET https://mahiz-global-azure-milano-wp.azurewebsites.net/wp-json/mahiz/v1/prodotti

Status: 200 OK Time: 1828 ms Size: 16.46 KB

```
1 [
2   {
3     "id": 138,
4     "title": "WordPress Pennant",
5     "description": "Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis
6     egestas. Vestibulum tortor quam, feugiat vitae, ultricies eget, tempor sit amet, ante. Donec eu libero
7     sit amet quam egestas semper. Aenean ultricies mi vitae est. Mauris placerat eleifend leo.",
8     "image": "/wp-content/uploads/2024/04/pennant-1.jpg",
9     "product_type": "external",
10    "price": "11.05",
11    "variations": []
12  },
13  {
14    "id": 137,
15    "title": "Logo Collection",
16    "description": "Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis
17    egestas. Vestibulum tortor quam, feugiat vitae, ultricies eget, tempor sit amet, ante. Donec eu libero
18    sit amet quam egestas semper. Aenean ultricies mi vitae est. Mauris placerat eleifend leo.",
19    "image": "/wp-content/uploads/2024/04/logo-1.jpg",
```

## Local storage Abilitato

GET https://mahiz-global-azure-milano-wp-staging.azurewebsites.net/wp-json/mahiz/v1/prodotti

Status: 200 OK Time: 686 ms Size: 16.46 KB

```
1 [
2   {
3     "id": 134,
4     "title": "WordPress Pennant",
5     "description": "Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac
6     egestas. Vestibulum tortor quam, feugiat vitae, ultricies eget, tempor sit amet, ante. Do
7     sit amet quam egestas semper. Aenean ultricies mi vitae est. Mauris placerat eleifend leo
8     "image": "/wp-content/uploads/2024/04/pennant-1.jpg",
9     "product_type": "external",
10    "price": "11.05",
11    "variations": []
12  },
13  {
14    "id": 133,
15    "title": "Logo Collection",
16    "description": "Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac
17    egestas. Vestibulum tortor quam, feugiat vitae, ultricies eget, tempor sit amet, ante. Do
18    sit amet quam egestas semper. Aenean ultricies mi vitae est. Mauris placerat eleifend leo
19    "image": "/wp-content/uploads/2024/04/logo-1.jpg",
```



# Limitazioni Local storage

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- 1) Non è possibile scalare orizzontalmente le istanze (scale out)
- 2) Tempo di attesa per il sync dei file
- 3) Sito web inferiore a 10GB (esclusa cartella wp-content/uploads/)
- 4) Riavvio dell'app nel caso di modifiche tramite FTP



# App Settings

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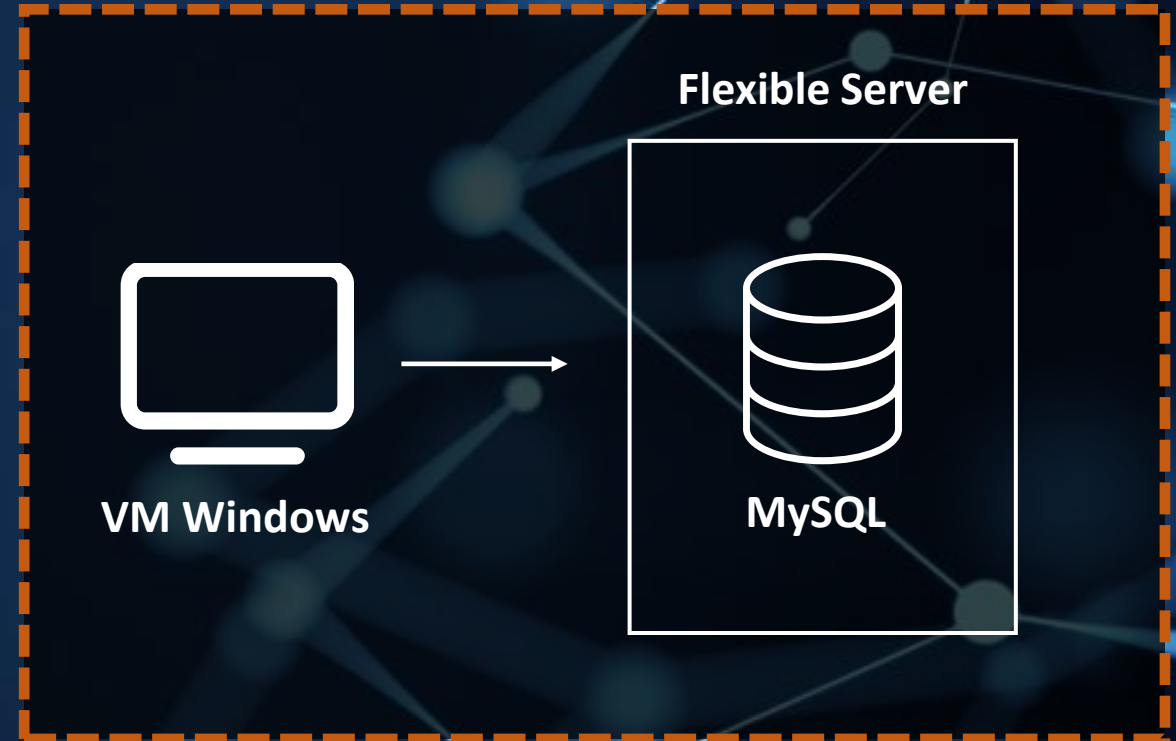
**Produzione** →

SETUP\_PHPMYADMIN = false

**Setup e test enviroment**

SETUP\_PHPMYADMIN = true

VNET





# KUDU

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Utile per:

- File manager
- SSH
- Bash
- Log

The screenshot shows the Azure App Service File Manager interface. The left sidebar contains navigation options: Home, Environment, WebSSH, Bash, File Manager (selected), and Log stream. The main area displays a file manager view with a table of files and folders. Above the table, there are instructions: "Drag a File/Folder here to upload, or click to select one" and "Drag a Zip File here to extract & upload, or click to select one".

Name	Size	Modified Time
glltconfig	1 KB	16/4/2024, 14:48:31
50x.html	1 KB	15/4/2024, 18:20:05
ASP.NET		15/4/2024, 18:09:14
bak		15/4/2024, 18:16:41
changes		17/4/2024, 14:19:28
dev		15/4/2024, 18:20:10
LogFiles		17/4/2024, 05:09:43
phpmyadmin		16/4/2024, 15:00:59
site		15/4/2024, 18:16:41
wp-locks		15/4/2024, 18:16:09



# Gestire più ambienti

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- 1) Creare nuove risorse in un nuovo resource group dedicato all'ambiente di stage
- 2) Utilizzare gli SLOT di Distribuzione





# Slot di distribuzione

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1) Crea un nuovo db staging e copiamo i dati da quello di prod

Search

+ Add Delete Refresh Feedback

You can create, view and delete MySQL databases on this server. Note that you cannot delete any system schemas such as mysql,sys,information\_schema,performance\_schema. You can connect to the database using MySQL client tools.

Name ↑	Character set	Collation	Schema type	
mysql	utf8mb4	utf8mb4_0900_...	System	
information_schema	utf8mb3	utf8mb3_gener...	System	
performance_schema	utf8mb4	utf8mb4_0900_...	System	
sys	utf8mb4	utf8mb4_0900_...	System	
mahizgloba_2515105b3...	utf8mb3	utf8mb3_gener...	User	Open in Power BI
mahizgloba_staging	utf8mb3	utf8mb3_gener...	User	Open in Power BI



# Slot di distribuzione

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2) Creiamo un nuovo contenitore nel nostro account storage

Home > mahizgloba176fb40cfa

mahizgloba176fb40cfa | Containers

Storage account

Search

+ Container | Change access level | Restore containers | Refresh | Delete | Give feedback

Search containers by prefix

Show deleted containers

Name	Last modified	Anonymous access level	Lease state
<input checked="" type="checkbox"/> \$logs	4/15/2024, 5:49:41 PM	Private	Available
<input type="checkbox"/> blobmahizgloba176fb40cfa	4/15/2024, 5:49:42 PM	Blob	Available
<input type="checkbox"/> staging	4/16/2024, 4:10:35 PM	Blob	Available

Overview

Activity log

Tags

Diagnose and solve problems

Access Control (IAM)

Data migration

Events

Storage browser

Storage Mover

Data storage

Containers

File shares



# Slot di distribuzione

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3) Creiamo un nuovo endpoint, origin group e rule set personalizzato per lo slot di staging

The screenshot displays the Azure Front Door manager interface for 'AFDMahizGlobalAzure'. It shows two slots with their respective configurations:

- Slot: mahizglobe-cd673bfea7-a7hqa2gabueda8bq.z03...**
  - Routes:** 1 selected route: 'default-route' with domain 'mahizglobe-cd673b...', origin group 'mahizglobe-origin-gro...', status 'Enabled', and provisioning state 'Succeeded'.
  - Security policy:** 1 associated policy: 'SP-WF' with domain state 'Enabled'.
- Slot: staging-mahizglobe-d9f0c5dbf9maggv.z03.azuref...**
  - Routes:** 1 selected route: 'default-route' with domain 'staging-mahizglobe-or...', origin group 'staging-mahizglobe-or...', status 'Enabled', and provisioning state 'Succeeded'.
  - Security policy:** No results.



# Slot di distribuzione

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4) Aggiorniamo il database con il nuovo endpoint di Front Door

✓ Showing rows 0 - 24 (166 total, Query took 0.0010 seconds.)

```
SELECT * FROM `wp_options`
```

Profiling [ [Edit inline](#) ] [ [Edit](#) ] [ [Explain SQL](#) ] [ [Create PHP code](#) ] [ [Refresh](#) ]

1 > >> |  Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	option_id	option_name	option_value	autoload
<input type="checkbox"/> Edit Copy Delete	1	siteurl	https://staging-mahizgloba-d9f0c5dbfvhmajgv.z03.az...	yes
<input type="checkbox"/> Edit Copy Delete	2	home	https://staging-mahizgloba-d9f0c5dbfvhmajgv.z03.az...	yes
<input type="checkbox"/> Edit Copy Delete	3	blogname	WordPress on Azure	yes



# Slot di distribuzione

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5) Aggiorniamo le variabili di configurazione dello slot di staging:

- DATABASE\_NAME
- AFD\_ENDPOINT
- BLOB\_CONTAINER\_NAME



# Deploy

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## Repository Dev Ops

- Azure Pipelines – YML

## Repository Github

- Github actions

Distribuzione continua nel servizio app di Azure

*Possibilità per ogni slot di eseguire il deploy su branch specifico.*

*Possibilità di personalizzare il deploy tramite file `.deployment`*



# Distribuzione continua nel servizio app di Azure

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staging (mahiz-global-azure-milano-wp/staging) | Deployment Center ☆ ...

App Service (Slot)

Search << Save Discard Browse Manage publish profile Sync Leave Feedback

Overview  
Activity log  
Access control (IAM)  
Tags  
Diagnose and solve problems  
Microsoft Defender for Cloud  
Log stream

Deployment

Deployment slots  
Deployment Center

Performance

Load Testing (Preview)

Settings

Environment variables  
Configuration  
Authentication  
Application Insights

Settings Logs FTPS credentials

Deploy and build code from your preferred source and build provider. [Learn more](#)

Source Azure Repos  
[Disconnect](#)

**Azure Repos**

Repository `https://AlleDev@dev.azure.com/AlleDev/AzureGlobalDay/_git/AzureGlobalDay`

Branch `dev`



# Esempio di YML

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```
trigger:
- none
variables:
- AzureConectionServiceName: 'SCAZGLOBAL'
- vmImageName: 'ubuntu-latest'

# Environment name
- stagingEnvironmentName: 'staging'
- prodEnvironmentName: 'prod'

stages:
- stage: Build

  jobs:
  - job: Build
    displayName: Build
    pool:
      vmImage: $(vmImageName)

    steps:
    Settings
    - task: CopyFiles@2
      displayName: 'Copy Files to: $(Build.ArtifactStagingDirectory)'
      inputs:
        SourceFolder: '$(Build.SourcesDirectory)'
        TargetFolder: '$(Build.ArtifactStagingDirectory)'
```

```
Settings
- task: ArchiveFiles@2
  inputs:
    rootFolderOrFile: "$(Build.ArtifactStagingDirectory)"
    includeRootFolder: false
    archiveType: "zip"
    archiveFile: "$(Build.ArtifactStagingDirectory)/$(Build.BuildId).zip"
    replaceExistingArchive: true

Settings
- task: PublishBuildArtifacts@1
  inputs:
    PathToPublish: "$(Build.ArtifactStagingDirectory)/$(Build.BuildId).zip"
    ArtifactName: "drop"
```





# Esempio di YML

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```
- stage: DeployToStagingSlot
  displayName: Deploy to staging slot
  dependsOn: Build
  condition: succeeded()

jobs:
- deployment: Deploy
  displayName: Deploy to staging slot
  environment: $(stagingEnvironmentName)
  pool:
    vmImage: $(vmImageName)
  strategy:
    runOnce:
      deploy:
        steps:
          Settings
        - task: AzureRmWebAppDeployment@4
          inputs:
            ConnectionType: 'AzureRM'
            ConnectedServiceName: $(AzureConectionServiceName)
            deployToSlotOrASE: true
            SlotName: staging
            appType: 'webAppLinux'
            WebAppName: 'WebAppName'
            packageForLinux: '$(Build.ArtifactStagingDirectory)/$(Build.BuildId).zip'
```

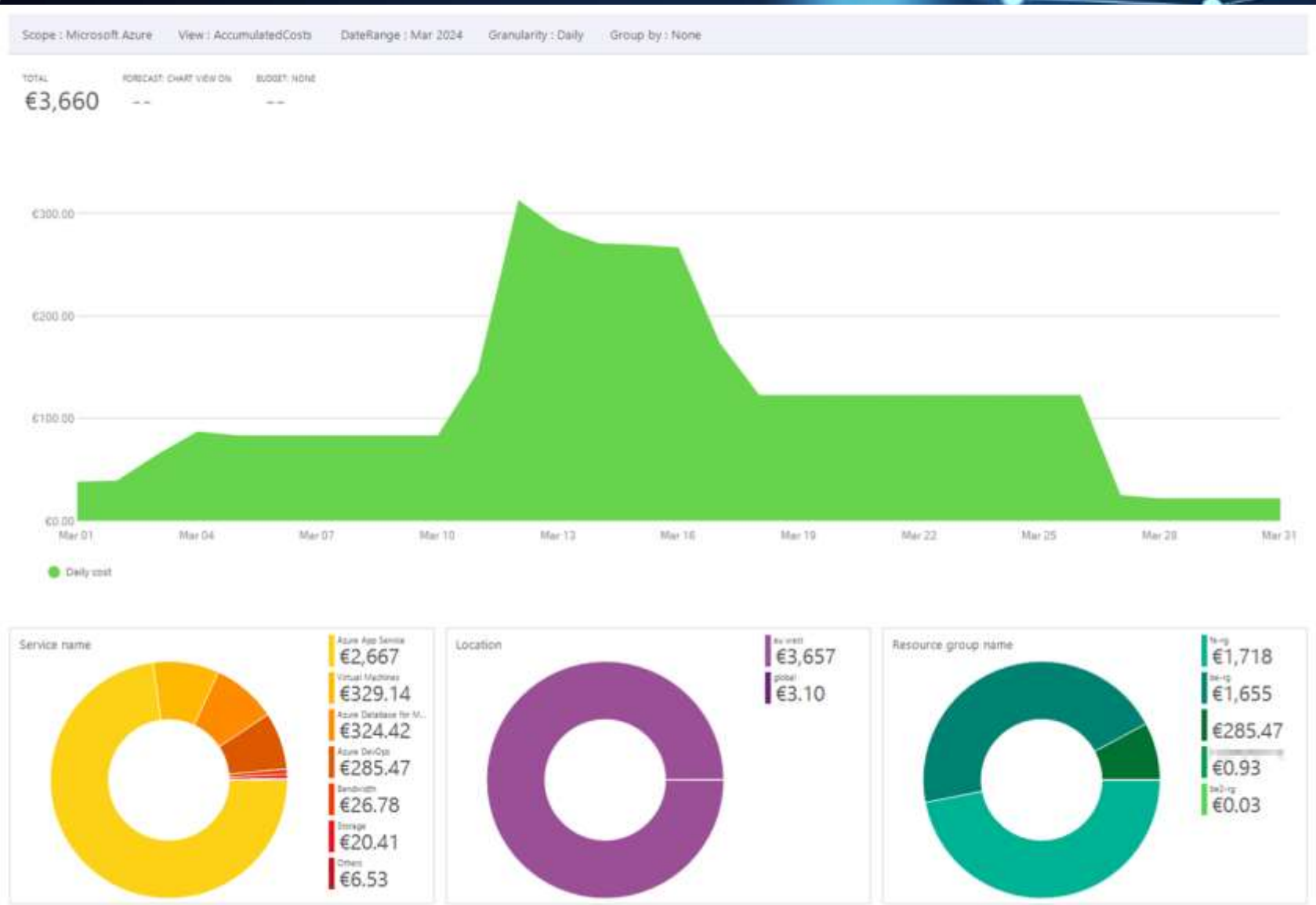
```
- stage: DeployToProductionSlot
  displayName: Deploy to production slot
  dependsOn: Build
  condition: succeeded()

jobs:
- deployment: Deploy
  displayName: Deploy to production slot
  environment: $(prodEnvironmentName)
  pool:
    vmImage: $(vmImageName)
  strategy:
    runOnce:
      deploy:
        steps:
          Settings
        - task: AzureRmWebAppDeployment@4
          inputs:
            ConnectionType: 'AzureRM'
            ConnectedServiceName: $(AzureConectionServiceName)
            deployToSlotOrASE: true
            SlotName: staging
            appType: 'webAppLinux'
            WebAppName: 'WebAppName'
            packageForLinux: '$(Build.ArtifactStagingDirectory)/$(Build.BuildId).zip'
```



# Bello ma quanto costa?

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# Prezzi

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<https://azure.microsoft.com/en-us/pricing/calculator>

- 1) Plan Premium\* V3 da \$2.78 a \$82.02 / day
- 2) Azure DB for MySQL\* da \$4.10 a \$131.33 / day
  - I. Storage \$0,12 per GB / month
- 3) Azure Front Door Premium \$330.00 / month
  - I. Data transfer: \$0,10 per GB;
  - II. Request: \$0,15 x 100,000M;
- 4) Blob Storage:
- 5) VM con Hybrid Benefit: \$4,90 / day

**\* Reserved instances**

-35% (1 year)

-55% (3 year)



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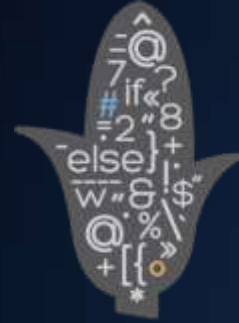
# Domande?

Le slide saranno disponibili sulla pagina  
Global Azure 2024 del sito di Azure Meetup Milano



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**GRAZIE!!!**



# MAHIZ

grow your business

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