

AL06 – Il cloud di Microsoft Azure



Eva Gjeci

Technical Evangelist

eva.gjeci@microsoft.com

 [@eva_gjeci](https://twitter.com/eva_gjeci)

Grazie a



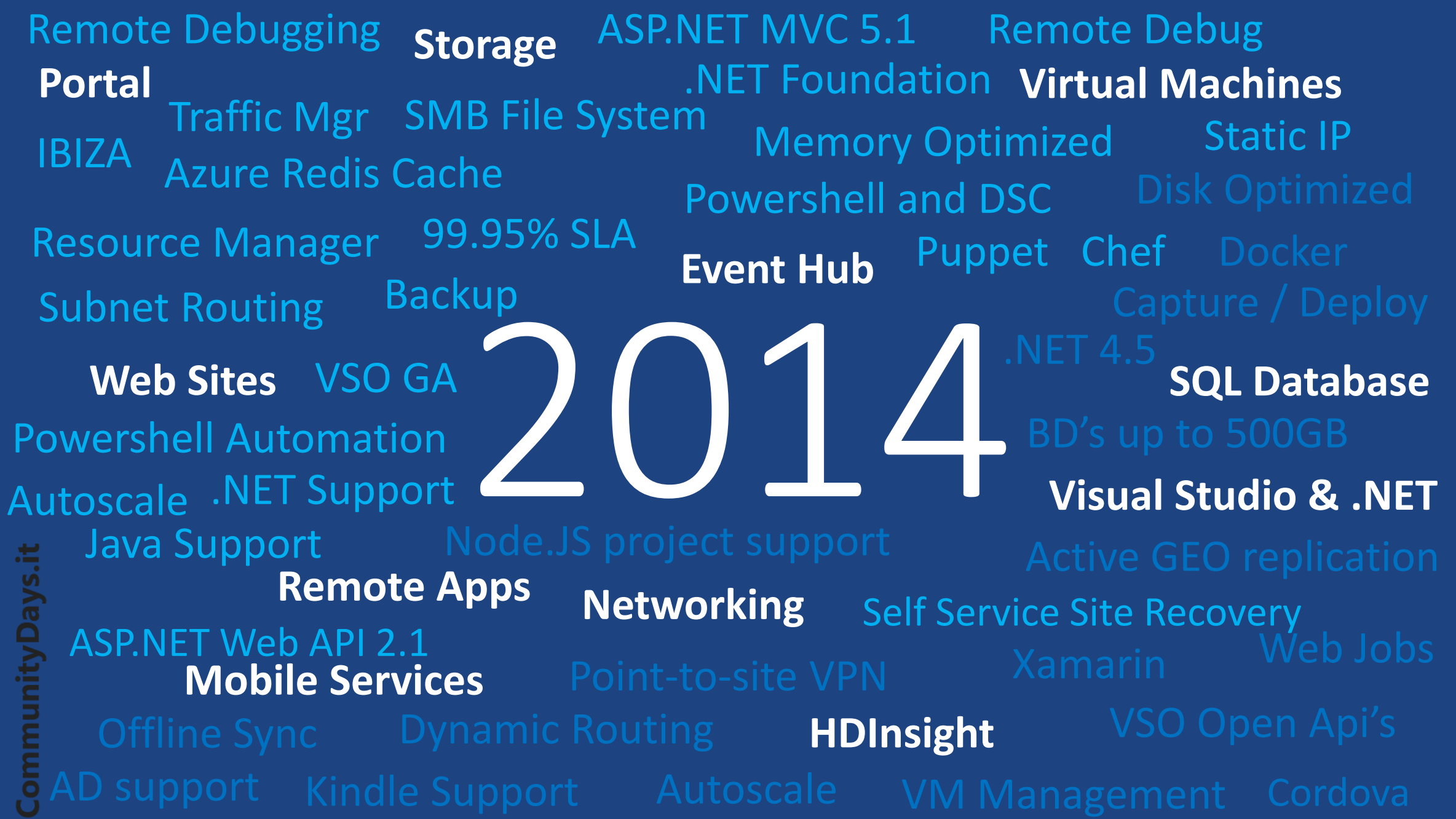
Sponsor



Who am I?



```
var evagjeci = new Person()  
    .WithTitile("Technical Evangelist")  
    .WorkingIn("Microsoft")  
    .FocusedOn ("Microsoft Azure")  
    .ContactMethods(  
        {type: "Twitter", value: "@eva_gjeci"},  
        {type: "Linkedin", value: "Eva Gjeci"},  
        {type: "Email", value: "eva.gjeci@microsoft.com"})  
  
    .Is("Computer engineer")  
    .PassionateAbout(  
        0 references  
  
        new Tecnology("Cloud computing"),  
        new Tecnology("Big data"),  
        new Tecnology("NoSQL"));
```



16 regions worldwide in 2014

Azure
footprint

The new Azure Portal

The screenshot displays the Microsoft Azure Portal interface. At the top, a dark header bar contains the 'Microsoft Azure' logo, a dropdown arrow, and links for 'Subscriptions', a globe icon, and a user profile icon. The main interface is divided into three primary sections: a left-hand navigation pane, a central content area, and a right-hand sidebar.

Left-hand navigation pane: This pane lists various Azure services under the heading 'ALL ITEMS'. The services and their counts are: WEB SITES (1), VIRTUAL MACHINES (1), MOBILE SERVICES (2), CLOUD SERVICES (2), SQL DATABASES (3), STORAGE (2), HDINSIGHT (0), MEDIA SERVICES (0), SERVICE BUS (0), VISUAL STUDIO ONLINE (0), CACHE (0), and BIZTALK SERVICES (0). Each service is accompanied by a small icon.

Central content area: This area is titled 'all items' and displays a table of resources. The table has a 'NAME' column and lists the following resources: evatest, myclientwin, evagstorage, portalvhdsjm8fhlw3ww09c, evatest, mobile-geekEvangelist_db, promemoria_db, geekSqlDb, mobile-geekEvangelist, promemoria, mydirectory, evag, and geekevangelist. The 'promemoria' resource is currently selected and highlighted in blue.

Right-hand sidebar: This sidebar contains several tiles and links. At the top, it shows the user's name 'Eva Gjerci' and a profile icon. Below this, there are tiles for 'Tour', 'Welcome to Azure', 'Quick start', 'What's new', 'Feedback', and 'Azure Portal'. To the right of these tiles, there are links to 'wsdemovm', 'demotests WEBSITE', and 'evas SEARCH SERVICE', each with a status indicator (e.g., 'Running').

Bottom navigation bar: This bar contains icons for 'HOME', 'NOTIFICATIONS', 'BROWSE', 'JOURNEYS', 'BILLING', and 'NEW'.

Microsoft Azure

Programming languages + tools

.NET, Visual Studio, TFS + Git, Java, NodeJS, PHP, Python, Ruby, C++

IaaS

Windows VMs
Linux VMs
Storage
Networking

PaaS

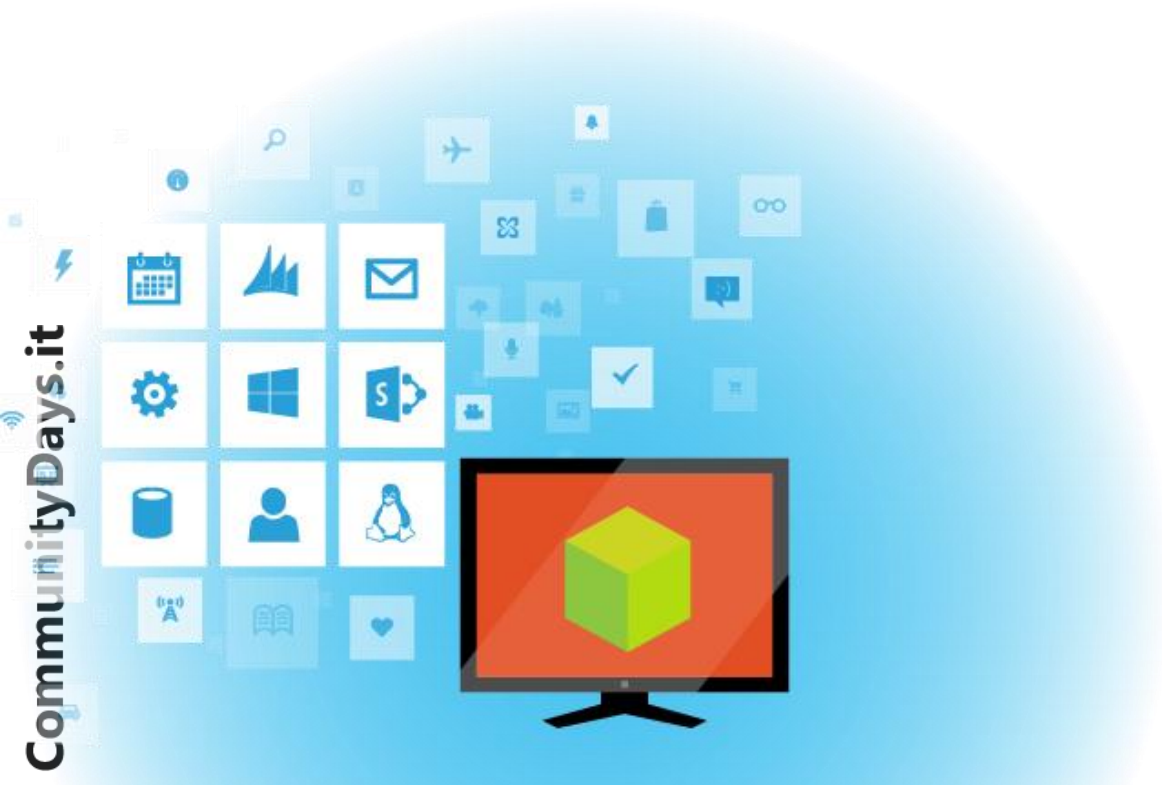
Web	Data
Mobile	Analytics
Gaming	Media
Cloud services	Identity

Microsoft cloud infrastructure



Virtual Machines

- Launch Windows Server and Linux in minutes
- Flexible workload support
- Virtual Private Networking



DNS NAME

IMAGE

Windows Server 2012 F

SIZE

A1 (1 core, 1.75 GB me

USER NAME

NEW PASSWORD

REGION/AFFINITY GROUP

South Central US

CREATE A VIRTUAL MACHINE

.cloudapp.net

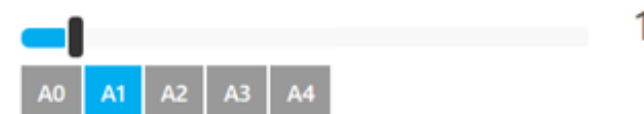
Basic

A0 (shared core, 768 MB memory)
A1 (1 core, 1.75 GB memory)
A2 (2 cores, 3.5 GB memory)
A3 (4 cores, 7 GB memory)
A4 (8 cores, 14 GB memory)

Standard

A0 (shared core, 768 MB memory)
A1 (1 core, 1.75 GB memory)
A2 (2 cores, 3.5 GB memory)
A3 (4 cores, 7 GB memory)
A4 (8 cores, 14 GB memory)
A5 (2 cores, 14 GB memory)
A6 (4 cores, 28 GB memory)
A7 (8 cores, 56 GB memory)
A8 (8 cores, 56 GB memory)
A9 (16 cores, 112 GB memory)

A-Series

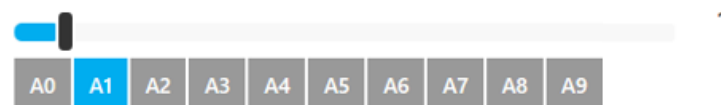


1 core, 1.75 GB RAM

1

€41.01
€0.056/hr

A-Series



1 core, 1.75 GB RAM

1

€49.87
€0.068/hr

New D-Series VMs

New series of VM sizes for Microsoft Azure Virtual Machines and Web/Worker Roles called the [D-Series](#)

General Purpose

Name	vCores	Memory (GB)	Local Disk (GB)
Standard_D1	1	3.5	50
Standard_D2	2	7	100
Standard_D3	4	14	200
Standard_D4	8	28	400

High Memory

Name	vCores	Memory (GB)	Local Disk (GB)
Standard_D11	2	14	100
Standard_D12	4	28	200
Standard_D13	8	56	400
Standard_D14	16	112	800

Windows Client for Dev/Test in Azure

MSDN benefit
subscription
use only

CREATE A VIRTUAL MACHINE

Choose an Image

ALL

- MICROSOFT
 - WINDOWS SERVER
 - SHAREPOINT
 - SQL SERVER
 - BIZTALK SERVER
 - VISUAL STUDIO
 - DYNAMICS
- UBUNTU
- CENTOS-BASED
- SUSE
- ORACLE
- PUPPET LABS

MY IMAGES

MY DISKS

☐ MSDN

☐ HIDE PRE-RELEASE

FEATURED

- Visual Studio Ultimate 2013 Update 3 with Multi-Device Hybrid Apps CTP 2.0
Windows 8.1 Enterprise (x64)
- Visual Studio Ultimate 2013 Update 3 with Multi-Device Hybrid Apps CTP 2.0
Windows 8.1 Enterprise N (x64)
- Windows 7 Enterprise N SP1 (x64)
- Windows 7 Enterprise SP1 (x64)
- Windows 8.1 Enterprise (x64)**
- Windows 8.1 Enterprise N (x64)
- openSUSE 13.1

Windows 8.1 Enterprise (x64)

This image contains Windows 8.1 Enterprise x64 and is exclusively available to MSDN subscribers. It allows you to easily and quickly set up an environment in Azure to develop and test applications targeting Windows 8.1.

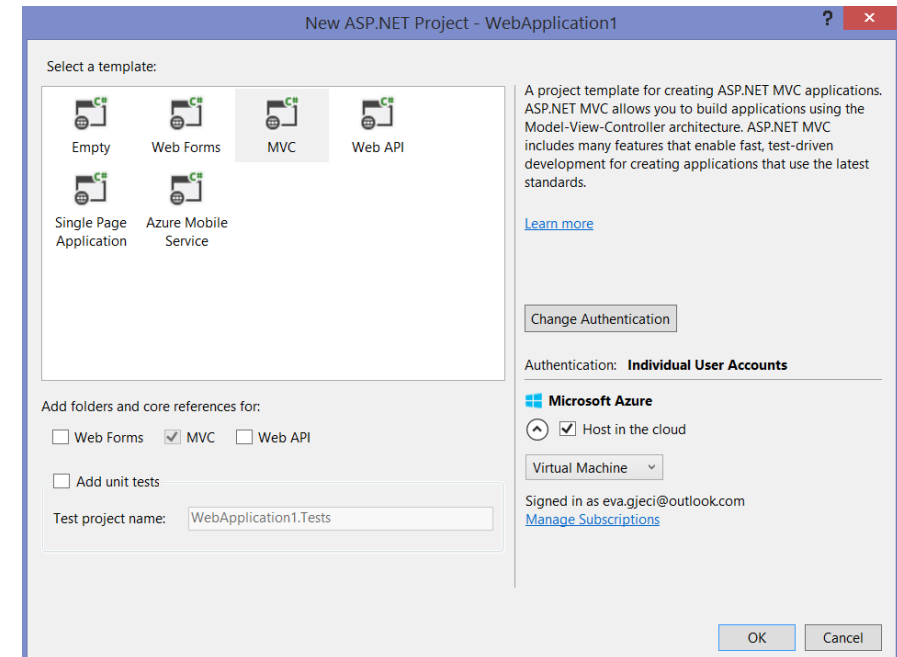
OS FAMILY	Windows
PUBLISHER	Microsoft Visual Studio Group
TYPE	MSDN
NUMBER OF DISKS	1
LOCATIONS	East Asia;Southeast Asia;Brazil South;North Europe;West Europe;Japan East;Japan

PRICING INFORMATION

Pricing varies based on the subscription you select to provision your virtual machine.

Visual Studio integration

- ✓ Create VMs
- ✓ Manage VMs
- ✓ Remote debug VMs
- ✓ WebDeploy



Microsoft Azure

Programming languages + tools

.NET, Visual Studio, TFS + Git, Java, NodeJS, PHP, Python, Ruby, C++

IaaS

Windows VMs
Linux VMs
Storage
Networking

PaaS

Web	Data
Mobile	Analytics
Gaming	Media
Cloud services	Identity

Microsoft cloud infrastructure



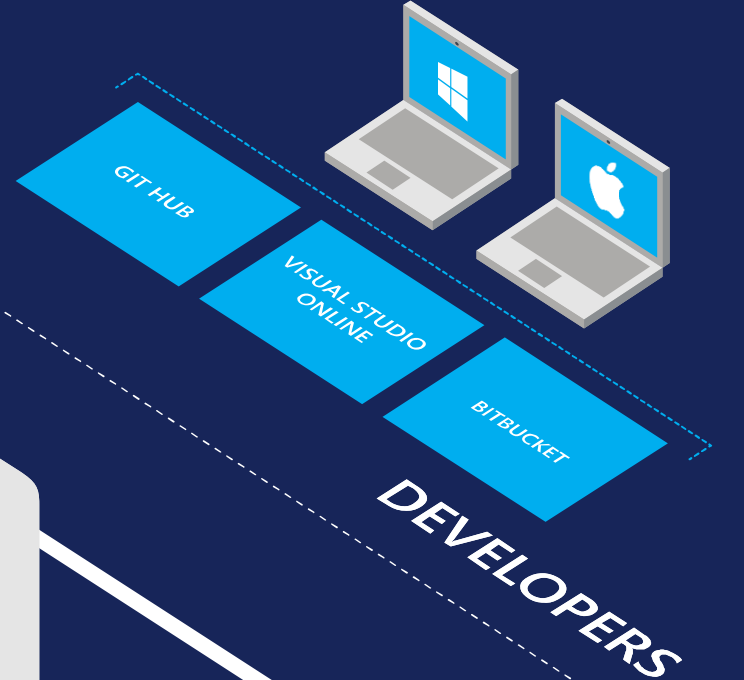
Web

Develop apps with...

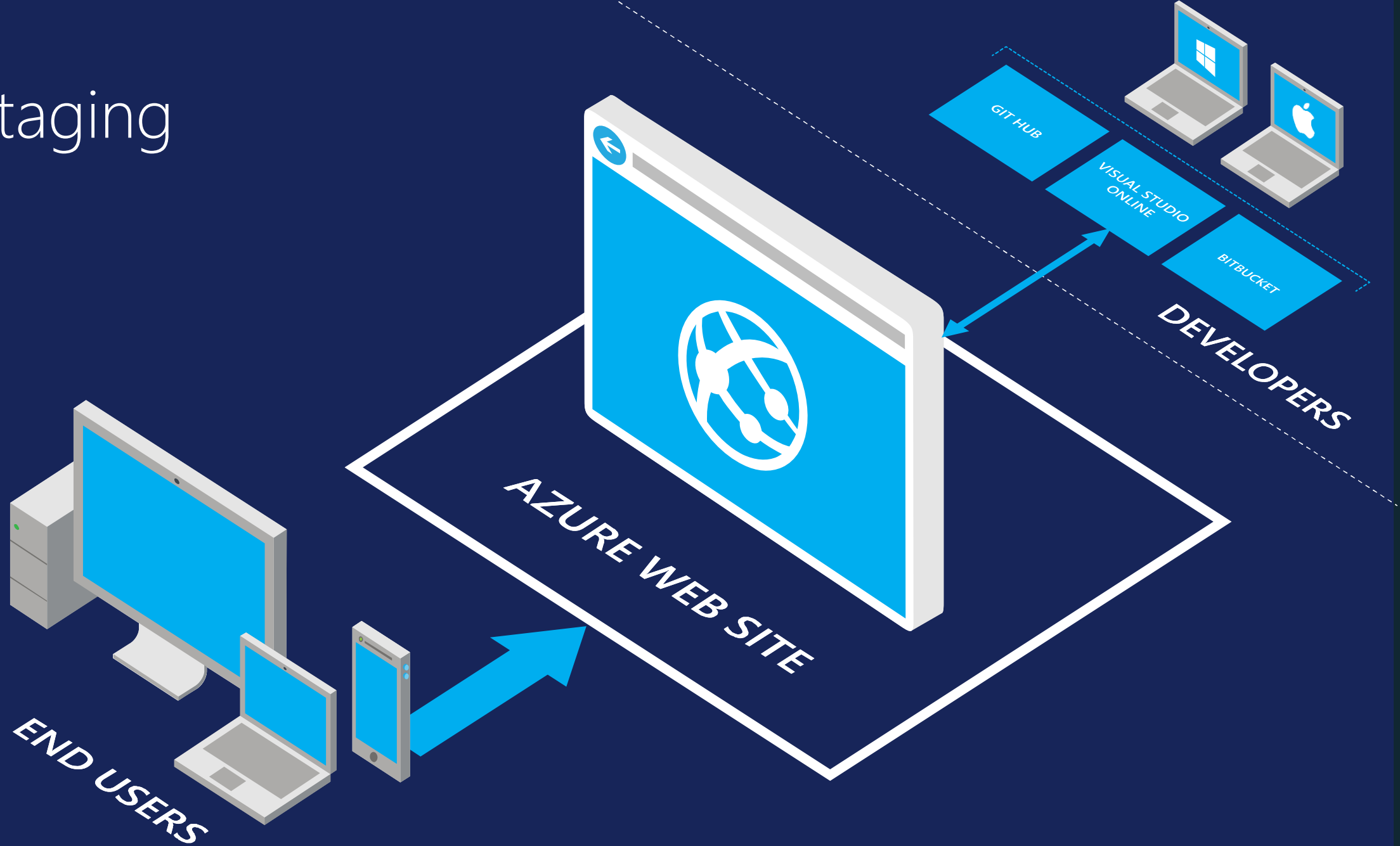
.NET
Python

Node.js
Java

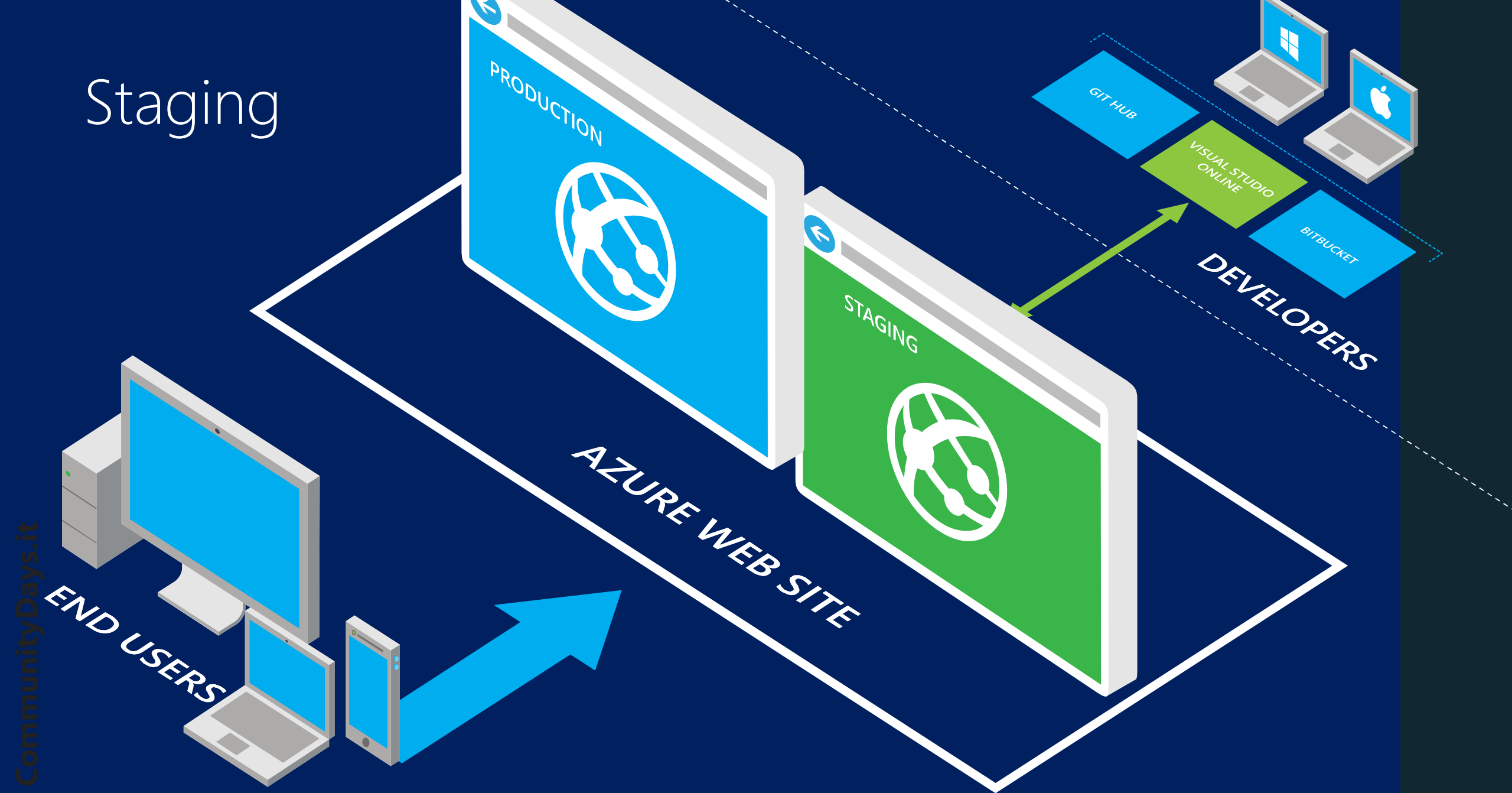
PHP



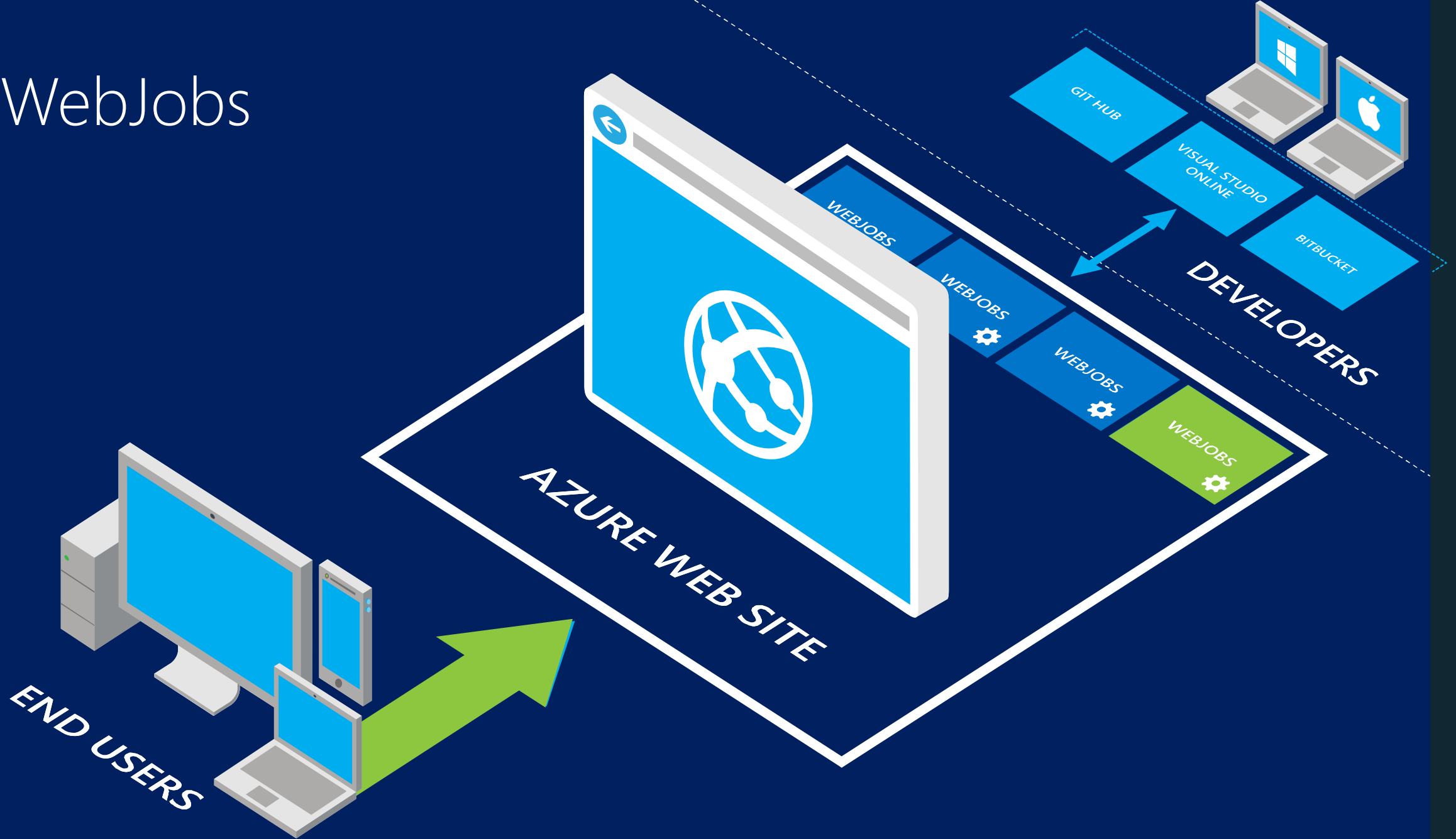
Staging



Staging



WebJobs



demo

Autoscaling



Autoscaling

Autoscale reduced your costs by up to **66%**.

INSTANCE SIZE

Small (1 core, 1.75 GB Memory)

EDIT SCALE SETTINGS FOR SCHEDULE

No scheduled times

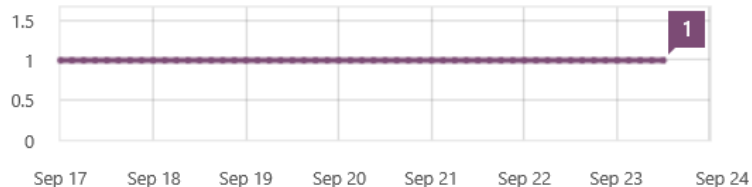
set up schedule times

SCALE BY METRIC

NONE

CPU

INSTANCES



INSTANCE COUNT

1

3

instances

TARGET CPU

10

90

percent

New metric

DEFAULT

SAVE

DISCARD



METRIC

Percentuale memoria

Lunghezza coda disco

Lunghezza coda http

Dati in entrata

Dati in uscita

Scale up rules

CONDITION

GREATER

LESS

THRESHOLD

80

%

OVER PAST

10

minutes

SCALE UP BY

instance

instance

COOL DOWN

5

minutes



Azure Websites Virtual Network Integration

The screenshot displays the Azure portal interface for a website named 'demotests'. The top navigation bar includes buttons for ADD, BROWSE, START, STOP, and SWAP. Below this, the 'Backups' section shows 'Not Scheduled' and 'WebJobs' with a count of 0. The 'Deployment' section includes 'Deployment slots' (0), 'Set up continuous deployment', and 'Set deployment credentials'. The 'Networking' section is highlighted with a blue border and contains a 'Virtual network' box with the message 'This site is not connected to a virtual network' and a 'Hybrid connections' box with a count of 0.

Overlaid on the right is the 'Virtual Network' dialog, which has two tabs: 'Create new virtual network' (selected) and 'Use an existing virtual network'. The 'Create new virtual network' tab shows a list of existing virtual networks: 'virtualNET WESTUS', 'virtualnetwork NORTHEUROPE', 'demotest NORTHEUROPE', and 'wsdemovm NORTHEUROPE'. The 'Create a virtual network' tab shows a form with the following fields: NAME (demotests-Network), ADDRESS SPACE CIDR BLOCK (172.16.2.0/24), PRIMARY DNS SERVER (Optional), and SECONDARY DNS SERVER (Optional). An 'OK' button is at the bottom right.

Backup

Now in General
Availability

backup

AUTOMATED BACKUP

OFF

ON

STORAGE ACCOUNT

wsdemovm

FREQUENCY

1

days

START DATE



12:00 AM



Local Time (UTC+02:00)

INCLUDED DATABASES

You don't have any databases defined in the [connection strings](#) for this web site.













Intelligent customer routing with Traffic Manager



Intelligent customer routing with Traffic Manager



Pricing tiers

F1	FREE	D1	SHARED*	B1	BASIC	S1	STANDARD
-	Shared infrastructure	-	Shared infrastructure	1	Core	1	Core
				1.75	GB RAM	1.75	GB RAM
	Storage 1 GB		Storage 1 GB		Storage 10 GB		Storage 50 GB
			Custom domains		Custom domains		Custom domains / SSL 5 SNI, 1 IP
					Manual scale Up to 3 instances		Auto scale Up to 10 instances
							Backup Daily
							Website staging 5 slots
							Geo availability Traffic Manager
	0.00 USD/MONTH (ESTIMATED)	9.67 USD/MONTH (ESTIMATED, *PER SITE)		55.80 USD/MONTH (ESTIMATED)		74.40 USD/MONTH (ESTIMATED)	

Mobile

Mobile Service



Windows Store
Windows Phone
Android
iOS
HTML 5/JS



Xamarin
PhoneGap

PLATFORMs

Store Data in the Cloud



SQL



Table
Storage



Blob
Storage



Mongo
DB

.NET
Support for
backend
logic



Scripts:

table

scheduled

custom API

User Authentication



Facebook



Twitter



Microsoft



Google



Active
Directory

Push Notifications



WNS &
MPNS



APNS



GCM



Notification
Hubs



Source
Control

Mobile service

- ✓ .NET back-end support
- ✓ SSO with Active Directory
- ✓ Offline Data Sync
- ✓ Visual Studio tooling
- ✓ Remote debugging



Data

SQL on
IaaS

SQL
Database

NoSQL

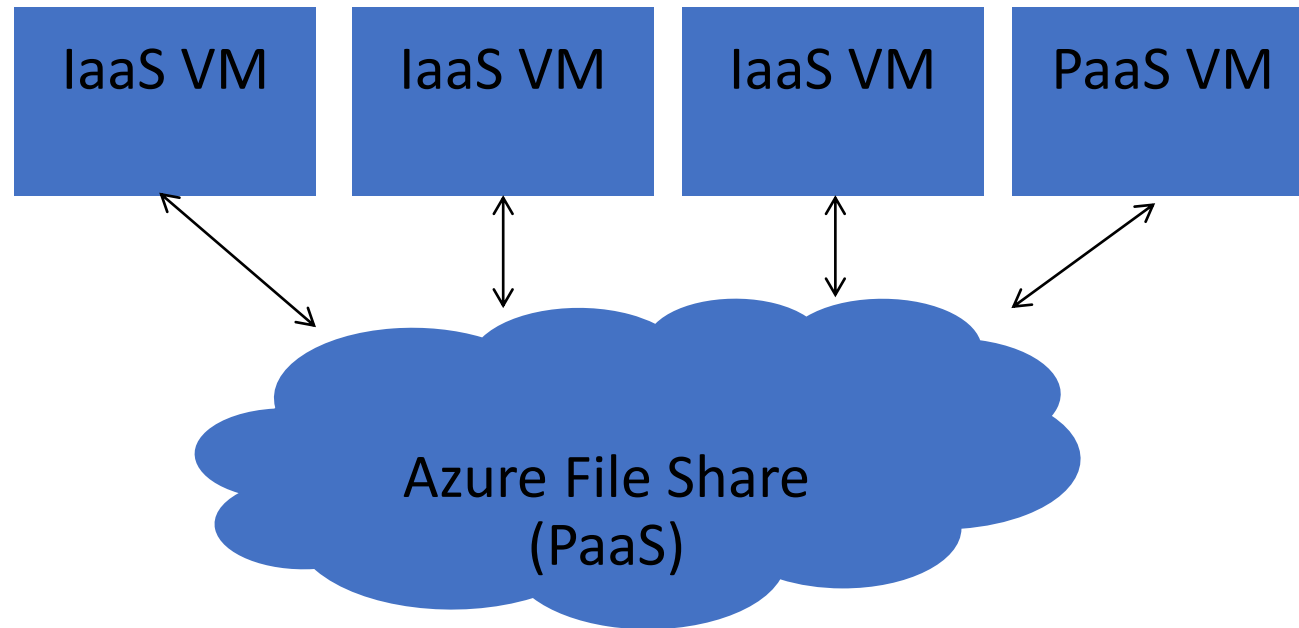
Azure SQL Database New Service Tiers

	Basic	Standard	Premium
Built for...	Light transactional workloads	Medium transactional workloads	Heavy transactional workloads
Availability SLA		99.99%*	
Database Max Size	2 GB	250 GB	500 GB
Self-Service Restore ("oops" recovery)	Any point within 7 days	Any point within 14 days	Any point within 35 days
Business Continuity	Geo-restore, restore to any Azure region	Standard Geo-Replication, stand by secondary	Active Geo-Replication, up to 4 readable secondaries
Performance Objectives	Hourly transaction rate	Transactions per minute	Transactions per second
Available tiers (€/month)	~ €4/month	S0: ~€12/month S1: ~€23/month S2: ~€56/month	P1: ~€347/month P2: ~€693/month P3: ~€2,771/month



Azure Files

- Shared Network File Storage for Azure
- Availability, durability, scalability are managed automatically
- Supports two interfaces: SMB 2.1 and REST



Other services...

PREVIEW



DocumentDB

A fully-managed, highly-scalable, NoSQL document database service. Support JSON and JavaScript directly inside the database engine. Automatically indexes all JSON documents and let you use familiar SQL syntax to query them without specifying schema or secondary indices up front.



Azure Search

Search-as-a-service for web and mobile app development. Azure Search makes it easy to add powerful and sophisticated search capabilities to your website or application.



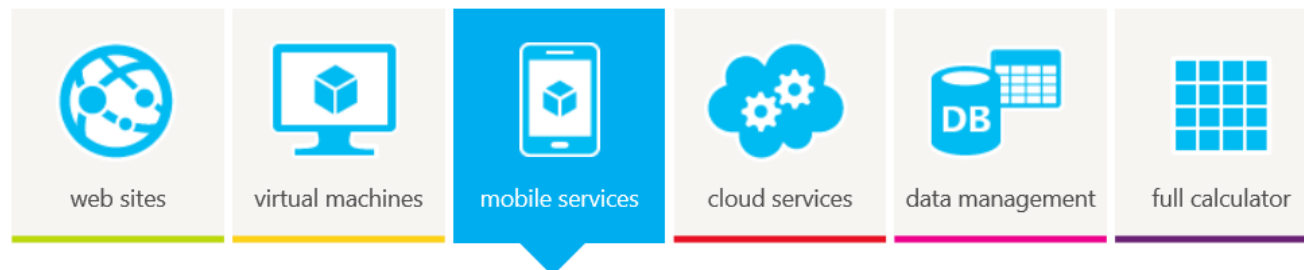
RemoteApp

Deploy Windows client apps in the cloud, run on any device - Windows, Mac OS X, iOS, or Android. Your company's applications run on Windows Server in the Azure cloud. Employees install Microsoft Remote Desktop clients and can then access applications as if they were running locally.

How much does Azure cost?



No upfront costs. Pay only for what you use.



Mobile Services

Free

Standard

Premium

Run up to 10 Mobile Services with a 20MB SQL database for free. Seamlessly upgrade as your traffic grows. (up to 500K API calls)

Free

SQL Database (Web and Business)

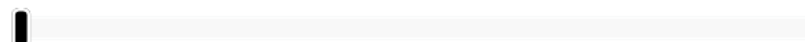


100MB

\$5.00

Database Size

Bandwidth



0GB

\$0.00

North America + Europe egress



Billing Alert Service

PREVIEW

OVERVIEW BILLING HISTORY ALERTS **PREVIEW**

+ Alert2	Not Sent ?	Billing Total	€ 200	
+ Alert1	Not Sent ?	Billing Total	€ 150	

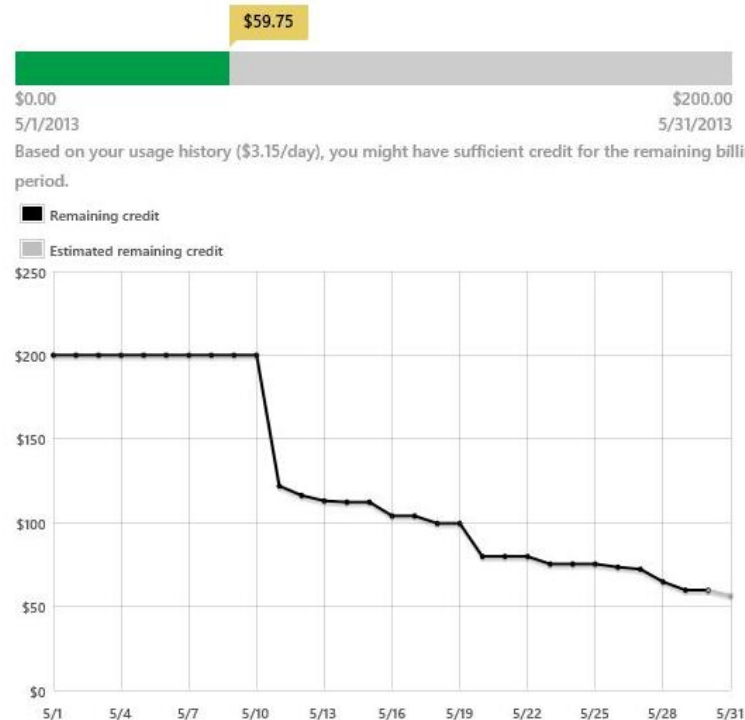
add alert

You can setup 3 more alerts

Summary for MSDN - Visual Studio Premium (Dev/Test)

OVERVIEW BILLING HISTORY

i This subscription has only \$59.75 credit remaining. Upgrade now.



Your monthly credit expires on 5/31/2013.

[Pricing calculator](#)

PAY-AS-YOU-GO

1245.00 UNIT \$62.25

COMPUTE HOURS - EXTRA SMALL

SUBSCRIPTION STATUS

30
days left
\$60
credit remaining

[Remove spending limit](#) →

NEXT BILL (ESTIMATED):

\$0.00

DATE PURCHASED

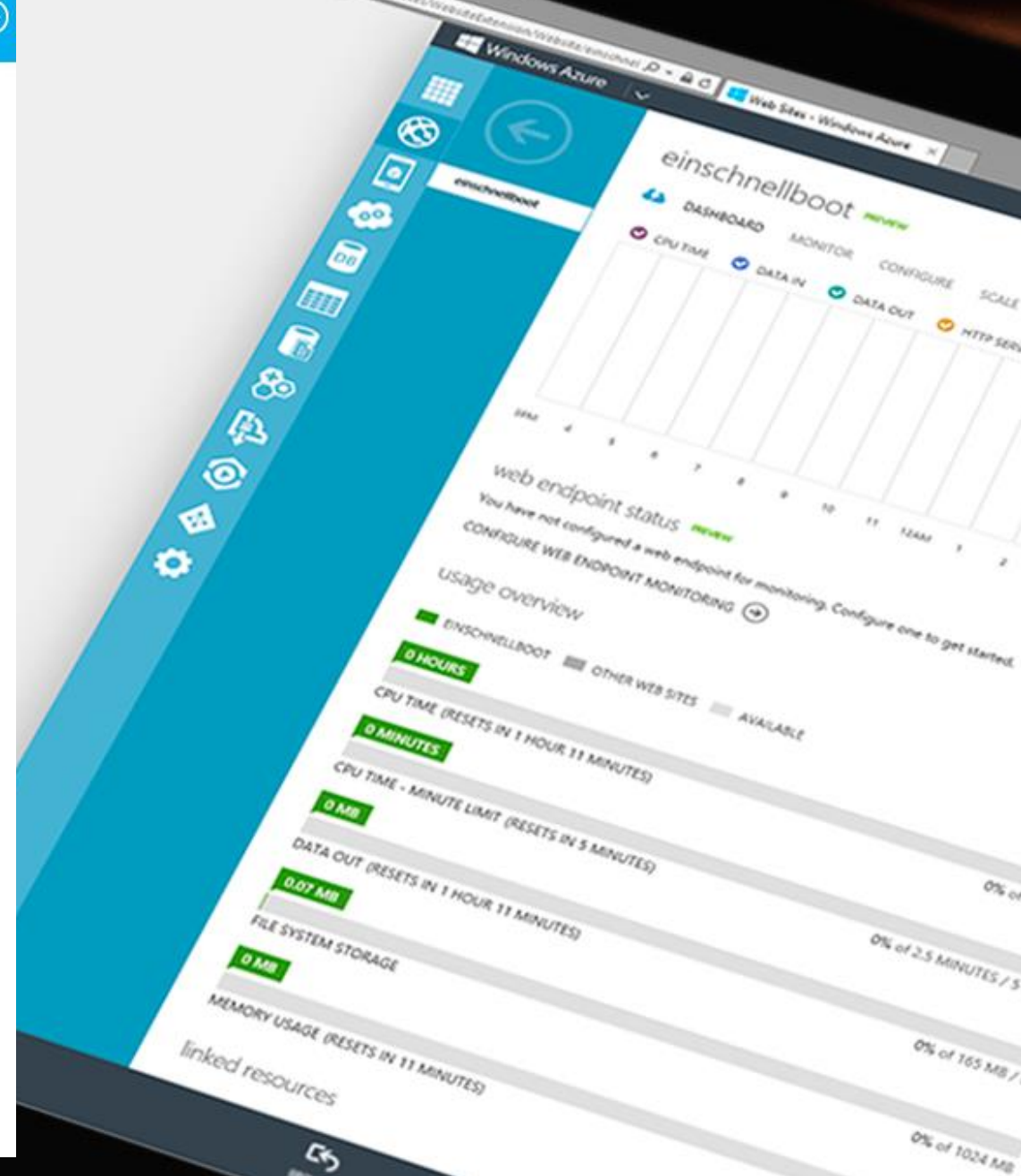
5/1/2013

CURRENT BILLING PERIOD

5/1/2013 - 5/31/2013

- [Change payment method](#)
- [Download usage details](#)
- [Edit subscription details](#)
- [Change subscription address](#)
- [Cancel Subscription](#)

ACCOUNT ADMINISTRATOR



Getting started...

Free one month trial

Sign-up for free and get €150 to spend on all Azure services

Try it now ➔

Or buy now ▶

Frequently Asked Questions ▶

More questions? Call us: 800-788-741

- ✓ Virtual Machines
- ✓ SQL Databases
- ✓ Web Sites
- ✓ Hadoop
- ✓ Mobile Push
- ✓ Media Streaming
- ✓ Active Directory
- ✓ Everything else...



MVA

Microsoft
Virtual
Academy

www.microsoftvirtualacademy.com

Centinaia di corsi
tecnici online gratuiti,
realizzati dai maggiori
esperti Microsoft

Registrazione semplice gratuita

Piano di studi personale

Classifica e riconoscimenti

The screenshot shows the Microsoft Virtual Academy website. At the top, there's a navigation bar with the Microsoft logo, the site name, and links for Home, Corsi, Evento dal vivo, Classifica, and Guida. A location indicator shows 'Italy' and a login link 'Accedi'. Below the navigation bar is a hero section featuring a profile picture of Paola Presutto and a featured course titled 'Windows Server 2012 R2 e la virtualizzazione' with a 'Guarda adesso!' button. To the right of the hero section is a search bar and a 'Piano di studio personale' (Personal Study Plan) section with a button to 'Fai clic qui per avviare Piano di studio personale'. Below the hero section, a text line reads 'Formazione gratuita, offerta da esperti, sulle tecnologie Microsoft'. The main content area is divided into two columns: 'Corsi per argomento' (Courses by topic) and 'Corsi per prodotto' (Courses by product). The 'Corsi per argomento' column lists: App Development, Aspiring Technologists, C# / XAML, HTML5, Virtualization, and Managing Desktop & Devices. The 'Corsi per prodotto' column lists: Windows, Windows Server, System Center, Microsoft Azure, Visual Studio, and SQL Server. On the right side, there's a 'I primi in classifica' (Top in ranking) section with a 'Settimanale' (Weekly) filter and a list of top performers: P.vamshidhar Reddy (7,207 Punti), Harika Madugani (5,750 Punti), and Petr Čonka (5,541 Punti). At the bottom right, there's a 'Corsi più richiesti' (Most requested courses) section with a list starting with '1. Windows Phone 8.1 Development for Absolute Beginners'.

Microsoft

Microsoft Virtual Academy Home Corsi Evento dal vivo Classifica Guida

Italy Accedi

Ricerca rapida

Accedi

Piano di studio personale

Fai clic qui per avviare Piano di studio personale

Non sei ancora membro?

Fai clic qui per partecipare a MVA

I primi in classifica

Settimanale

P.vamshidhar Reddy 7.207 Punti

Harika Madugani 5.750 Punti

Petr Čonka 5.541 Punti

Corsi più richiesti

1. Windows Phone 8.1 Development for Absolute Beginners

Formazione gratuita, offerta da esperti, sulle tecnologie Microsoft

Corsi per argomento

- App Development
- Aspiring Technologists
- C# / XAML
- HTML5
- Virtualization
- Managing Desktop & Devices

Corsi per prodotto

- Windows
- Windows Server
- System Center
- Microsoft Azure
- Visual Studio
- SQL Server

Q&A

Tutto il materiale di questa sessione su

<http://www.communitydays.it/>

Lascia il feedback su questa sessione dal sito,
potrai essere estratto per i nostri premi!

Seguici su

Twitter @CommunityDaysIT

Facebook <http://facebook.com/cdaysit>

#CDays14

