

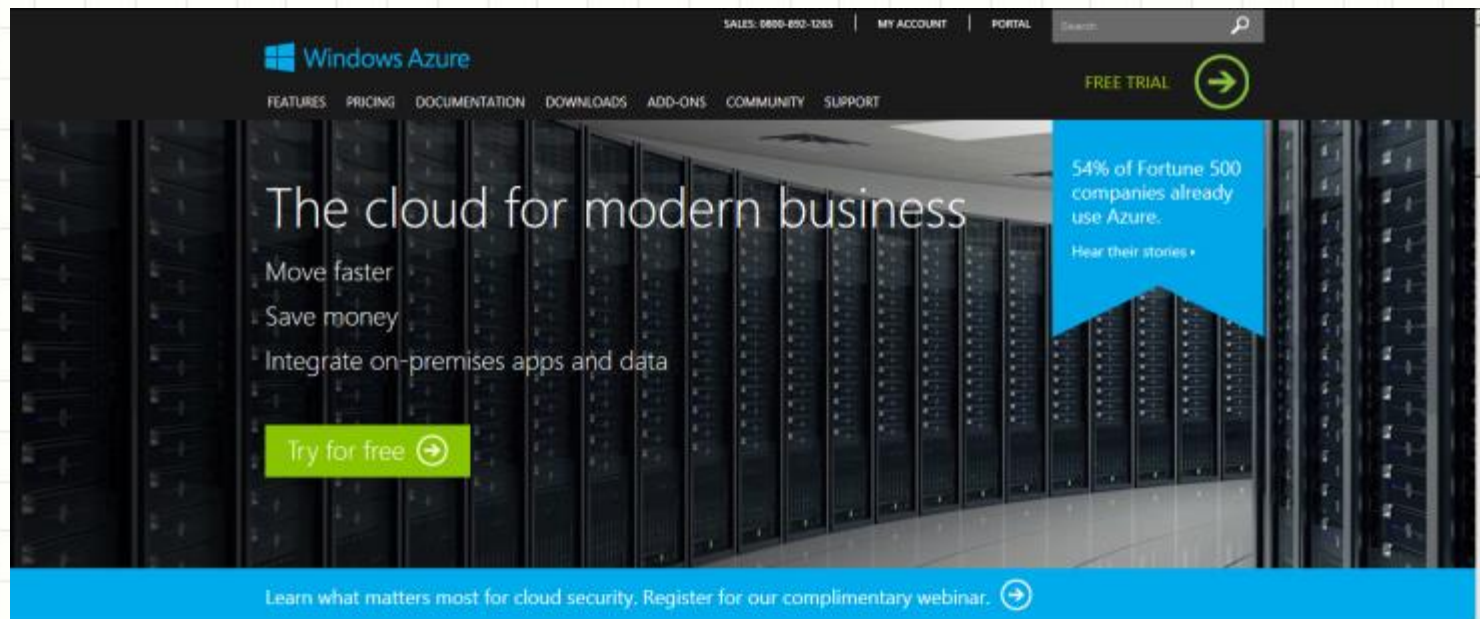


WINDOWS AZURE

25/02/2014

Página Inicial do Azure

- <http://www.windowsazure.com>



The screenshot shows the Windows Azure homepage. At the top, there is a navigation bar with the Windows Azure logo, a search bar, and links for SALES, MY ACCOUNT, and PORTAL. Below the navigation bar, there are links for FEATURES, PRICING, DOCUMENTATION, DOWNLOADS, ADD-ONS, COMMUNITY, and SUPPORT. A prominent green button labeled "FREE TRIAL" with a right-pointing arrow is visible. The main content area features a background image of server racks. The text "The cloud for modern business" is displayed in large white font. Below this, three bullet points are listed: "Move faster", "Save money", and "Integrate on-premises apps and data". A green button labeled "Try for free" with a right-pointing arrow is positioned below the text. On the right side, a blue callout box contains the text "54% of Fortune 500 companies already use Azure." and "Hear their stories". At the bottom of the main content area, a blue banner contains the text "Learn what matters most for cloud security. Register for our complimentary webinar." with a right-pointing arrow.

Never wait for servers
or infrastructure again

Instantly provision Windows and Linux Virtual Machines, applications,
and infrastructure within Microsoft-managed data centers around the



Ferramentas de Gerenciamento

- **Portal**

- <https://manage.windowsazure.com>

- **Scripts:**

- **Azure-cli** (Windows, Linux, Mac):

- <http://www.windowsazure.com/en-us/documentation/articles/xplat-cli>

- Pré-requisitos: Instalação de <http://nodejs.org/download>

- **PowerShell** (Windows)

- <http://www.windowsazure.com/en-us/documentation/articles/install-configure-powershell>

- Via Certificado ou Autenticação

- **REST API**

Portal – Página Inicial

Menu auxiliar

The screenshot shows the Windows Azure portal interface. At the top, the header includes the 'Windows Azure' logo and a user profile for 'ricardomaeda@gmail.com'. A dropdown arrow next to the logo is labeled 'Menu auxiliar'. On the left, a vertical navigation pane titled 'ALL ITEMS' lists various services: WEB SITES (0), VIRTUAL MACHINES (5), MOBILE SERVICES (0), CLOUD SERVICES (1), SQL DATABASES (0), STORAGE (1), HDINSIGHT (0), MEDIA SERVICES (0), SERVICE BUS (0), VISUAL STUDIO ONLINE (0), BIZTALK SERVICES (0), and RECOVERY SERVICES (0). This pane is labeled 'Menu principal'. The main content area, titled 'all items', displays a table of resources. A context menu is visible over the 'pvfs03' row, with the label 'Menu de contexto'. At the bottom, a dark navigation bar contains several icons: a '+ NEW' button (labeled 'Criar um novo recurso'), a set of management icons (CONNECT, RESTART, SHUT DOWN, ATTACH, DETACH DISK, CAPTURE, DELETE) labeled 'Obter ajuda', and a help icon (question mark) labeled 'Obter ajuda'.

NAME	TYPE	STATUS	SUBSCRIPTION	LOCATION
pvfs	Cloud service	✓ Running	Azpas300QKO6978	pvfs (North Europe)
pvfs	Storage Account	✓ Online	Azpas300QKO6978	pvfs (North Europe)
pvfs01	Virtual machine	✓ Running	Azpas300QKO6978	pvfs (North Europe)
pvfs02	Virtual machine	✓ Running	Azpas300QKO6978	pvfs (North Europe)
pvfs03	Virtual machine	✓ Running	Azpas300QKO6978	pvfs (North Europe)
pvfs04	Virtual machine	✓ Running	Azpas300QKO6978	pvfs (North Europe)
pvfs-client-01	Virtual machine	✓ Running	Azpas300QKO6978	pvfs (North Europe)
pvfs-network	Virtual Network	✓ Created	Azpas300QKO6978	pvfs (North Europe)

Menu principal

Menu de contexto

Obter ajuda

Criar um novo recurso

Portal - Settings

- Em '**Subscriptions**', listar as subscrições em que somos administradores.
- Em '**Management Certificates**', listar os certificados de gerenciamento (utilizado pelas APIs de azure-cli, powershell, etc).
- (*) Em '**Administrators**', criar conta de coadministrador.
- (*) Em '**Affinity Groups**', criar grupo de afinidade.
- Em '**Usage**', é possível identificar uso dos recursos permitidos pela subscrição.

Portal - Settings - Administrators



- Na aba Administrators, no link Add.
- Email deve ser uma login microsoft.
- Vincular à nossa subscrição


ADD A CO-ADMINISTRATOR ×

Specify a co-administrator for subscriptions

Co-administrators can fully manage the services within a subscription. Enter a valid email address, and then select at least one subscription.

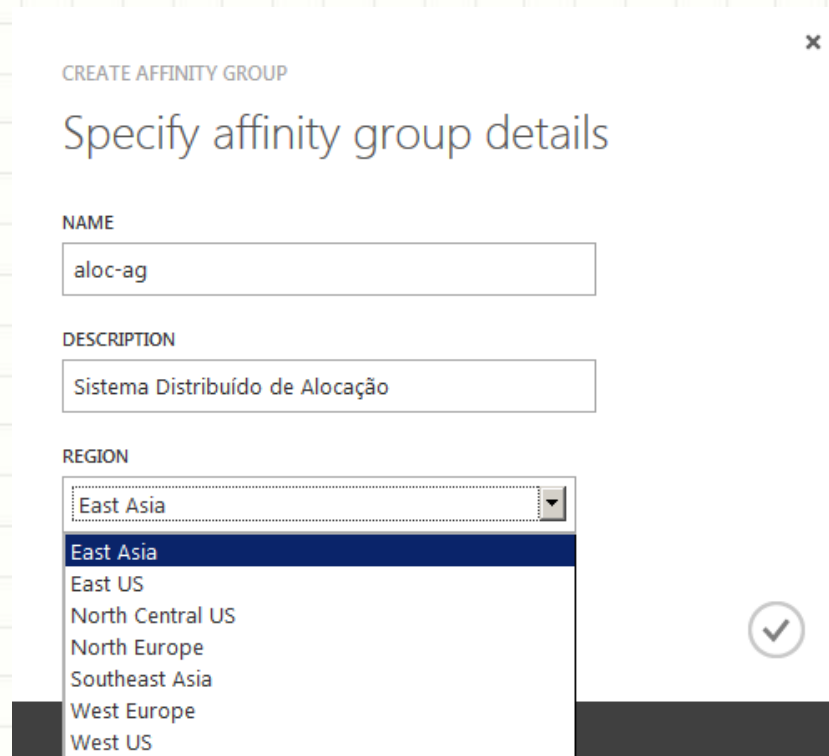
EMAIL ADDRESS

  Microsoft Account

SUBSCRIPTION	SUBSCRIPTION ID	
<input checked="" type="checkbox"/> Azpas300QK06978	0d5dfd45-555a-4cca-ad96-3ebfe7f52ffd	

Portal - Settings – Affinity Groups

- Na aba Affinity Groups, no link Add.
- Definir região.



CREATE AFFINITY GROUP ×

Specify affinity group details

NAME

DESCRIPTION

REGION

- East Asia
- East US
- North Central US
- North Europe
- Southeast Asia
- West Europe
- West US

Portal – Networks – Virtual Networks

- Na aba Virtual Networks, no link New, Network Services, Virtual Network, Custom Create.

CREATE A VIRTUAL NETWORK

Virtual Network Details 1

NAME


aloc-network

AFFINITY GROUP

aloc-ag

CREATE A VIRTUAL NETWORK

DNS Servers and VPN Connectivity 2


DNS SERVERS 

ENTER NAME

IP ADDRESS

POINT-TO-SITE CONNECTIVITY PREVIEW 

Configure a point-to-site VPN

SITE-TO-SITE CONNECTIVITY 

Configure a site-to-site VPN

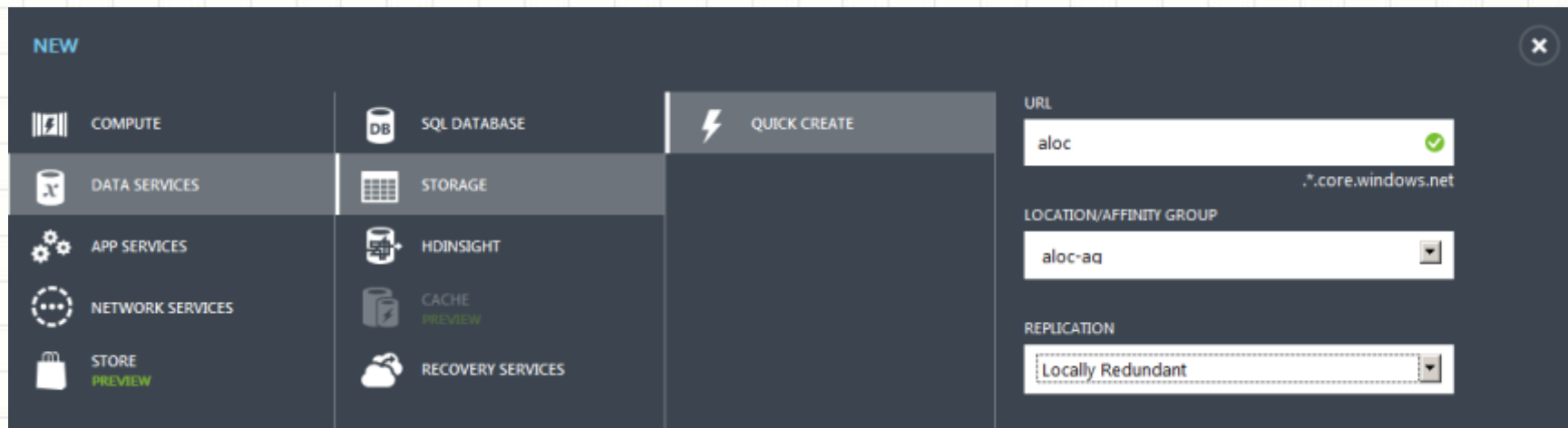
CREATE A VIRTUAL NETWORK

Virtual Network Address Spaces 3

ADDRESS SPACE	STARTING IP	CIDR (ADDRESS COUNT)	USABLE ADDRESS RANGE
172.16.0.0/12	172.16.0.0	/12 (1048...	172.16.0.0 - 172.31.255.255
SUBNETS			
Subnet-1	172.16.0.0	/12 (1048...	172.16.0.0 - 172.31.255.255
add subnet			

Portal – Storage

- “A storage account provides access to the Windows Azure Blob, Table, and Queue services within a geographic region”
- “A storage account created on or after June 8, 2012, can contain 200 TB of data”
- **Até 20 contas de armazenamento** (vide ‘Settings’, ‘Usage’)
- Em Storage, no link New, Data Services, Storage, Quick Create.

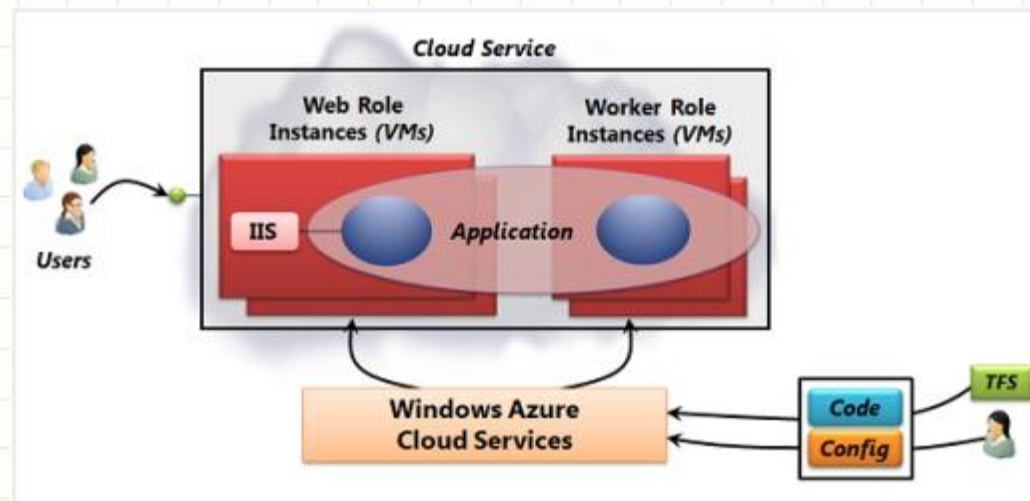


The screenshot shows the Azure portal interface. On the left, a navigation pane under the heading 'NEW' lists various services: COMPUTE, DATA SERVICES, APP SERVICES, NETWORK SERVICES, and STORE (PREVIEW). The 'DATA SERVICES' section is expanded, showing 'SQL DATABASE', 'STORAGE', 'HDINSIGHT', 'CACHE (PREVIEW)', and 'RECOVERY SERVICES'. The 'STORAGE' option is selected. On the right, the 'QUICK CREATE' form is visible, showing the following fields:

- URL:** A text input field containing 'aloc' with a green checkmark icon and a dropdown arrow. The domain '.core.windows.net' is visible below the input.
- LOCATION/AFFINITY GROUP:** A dropdown menu showing 'aloc-aq'.
- REPLICATION:** A dropdown menu showing 'Locally Redundant'.

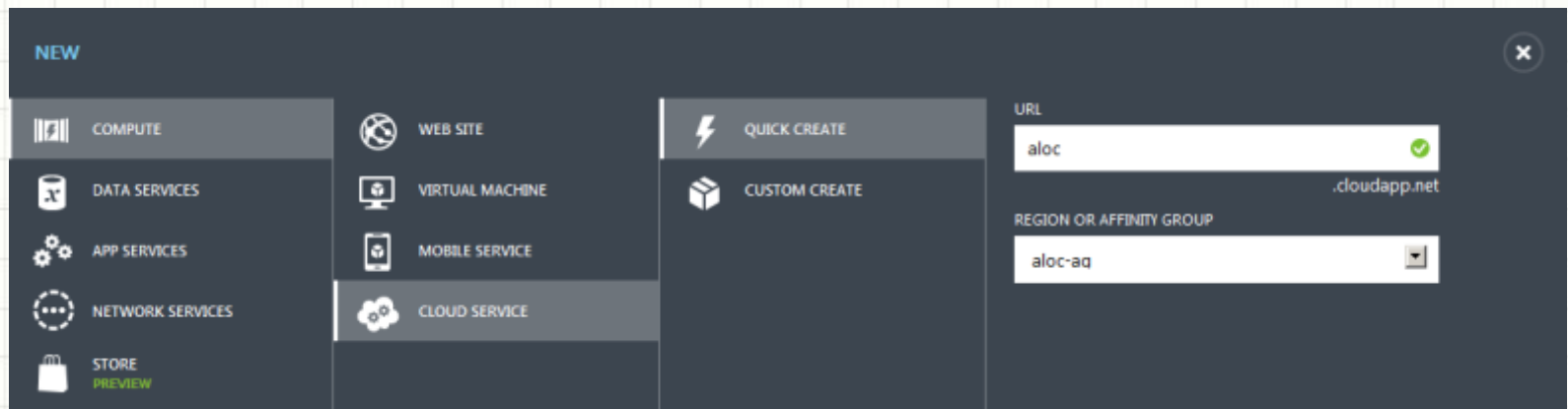
Portal – Cloud Services

- “When you create an application and run it in Windows Azure, the code and configuration together are called a Windows Azure cloud service”
- “Cloud Services provides ***Platform as a Service (PaaS)***. This technology is designed to support applications that are scalable, reliable, and cheap to operate”



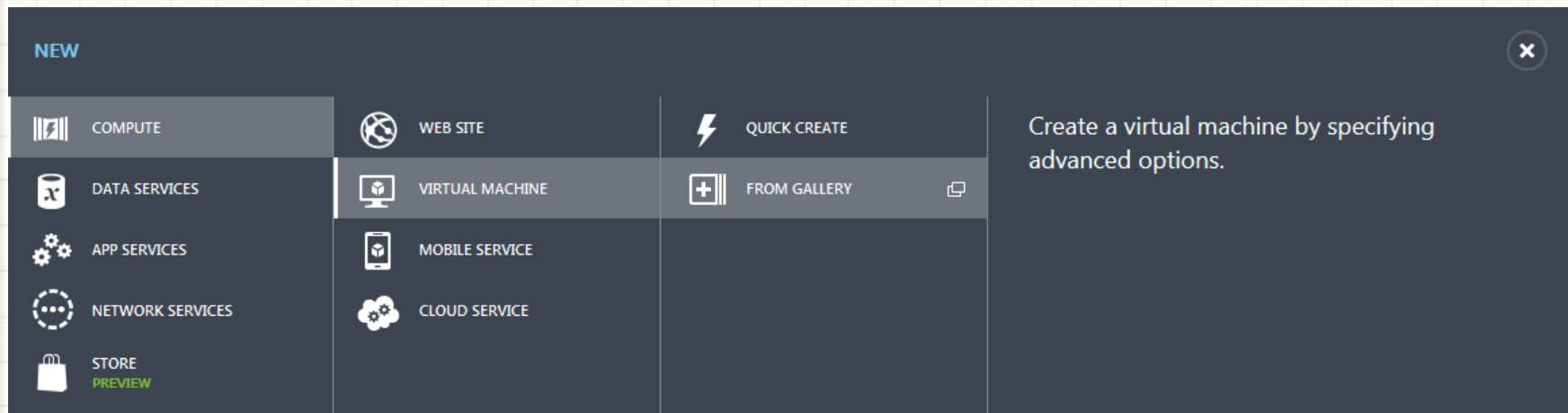
Portal – Cloud Services

- **Até 20 serviços de nuvem** (vide ‘Settings’, ‘Usage’)
- Em Cloud Services, no link New, Compute, Cloud Service, Quick Create.



Portal – Virtual Machines

- **Até 32 cores** (vide 'Settings', 'Usage')
- Em 'Virtual Machines', aba 'Virtual Machines Instances' no link New, Compute, Virtual Machine, From Gallery.



Portal – Virtual Machines

- Escolher tipo de Imagem

CREATE A VIRTUAL MACHINE

Choose an Image

SEARCH

- ALL
- MICROSOFT
 - WINDOWS SERVER
 - SHAREPOINT
 - SQL SERVER
 - BIZTALK SERVER
- UBUNTU
- CENTOS**
- SUSE
- ORACLE


MY IMAGES


MY DISKS

MSDN ?


SUPPORTED

FEATURED ▾

 OpenLogic



OpenLogic

provided by


This distribution of Linux is based on CentOS version 6.5 and is provided by OpenLogic. It contains an installation of the Basic Server packages.

OS FAMILY	Linux
PUBLISHER	OpenLogic
LOCATIONS	East Asia;Southeast Asia;North Europe;West Europe;East US;West US

PRICING INFORMATION

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

Portal – Virtual Machines

- Definir configurações da VM (nome, #cores, #memória, usuário e senha).

CREATE A VIRTUAL MACHINE ✕

Virtual machine configuration

VIRTUAL MACHINE NAME ?

SIZE


NEW USER NAME

AUTHENTICATION ?

UPLOAD COMPATIBLE SSH KEY FOR AUTHENTICATION

PROVIDE A PASSWORD

NEW PASSWORD CONFIRM

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OS FAMILY
Linux

PUBLISHER
OpenLogic

LOCATIONS
East Asia;Southeast Asia;North Europe;West Europe;East US;West US

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

Portal – Virtual Machines

- Definir configurações da VM, utilizando os recursos criados anteriormente (serviço em nuvem, rede virtual, conta de armazenamento)

CREATE A VIRTUAL MACHINE x

Virtual machine configuration

CLOUD SERVICE ?

aloc

CLOUD SERVICE DNS NAME

aloc.cloudapp.net

REGION/AFFINITY GROUP/VIRTUAL NETWORK ?

aloc-network

VIRTUAL NETWORK SUBNETS

Subnet-1(172.16.0.0/12)

STORAGE ACCOUNT

aloc

AVAILABILITY SET ?

(None)



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OS FAMILY

Linux

PUBLISHER

OpenLogic

LOCATIONS

East Asia;Southeast Asia;North Europe;West Europe;East US;West US

PRICING INFORMATION

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

Portal – Virtual Machines

- Definir configurações da VM (portas que serão acessíveis externamente)
- Ex: VNC, http, banco de dados, mx, etc

CREATE A VIRTUAL MACHINE

Virtual machine configuration

ENDPOINTS ?

NAME	PROTOCOL	PUBLIC PORT	PRIVATE PORT
SSH	TCP	22	22
<input type="text" value="ENTER OR SELECT A VALUE"/>			



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OS FAMILY

Linux

PUBLISHER

OpenLogic

LOCATIONS

East Asia;Southeast Asia;North
Europe;West Europe;East US;West
US

Portal – Virtual Machines

- Acesso ssh à VM: em ‘Virtual Machines’, selecionar VM recém-criada, clicar na aba ‘Dashboard’.

The screenshot displays the Azure portal interface for a virtual machine. On the left, a navigation pane lists several VMs: pvfs01, pvfs02, pvfs03, pvfs04, pvfs-client-01, and the selected VM, aloc01. The main content area is divided into several sections:

- autoscale status** (PREVIEW): Includes instructions to start using autoscaling and links for 'CONFIGURE AVAILABILITY SET' and 'AUTOSCALE OPERATION LOGS'.
- usage overview**: A bar chart showing the usage of ALOC01 (1 CORE(S)) out of 32 CORE(S) available. The chart also indicates 'OTHER ROLES' and 'AVAILABLE' capacity.
- disks**: A table listing the disks for the VM.
- STATUS**: Shows the VM is 'Running'.
- DNS NAME**: aloc.cloudapp.net
- HOST NAME**: aloc01
- PUBLIC VIRTUAL IP (VIP) ADDRESS**: 207.46.131.103 (highlighted with a red box)
- INTERNAL IP ADDRESS**: 172.16.0.4
- SSH DETAILS**: aloc.cloudapp.net : 22 (highlighted with a red box)
- SIZE**: Small (1 core, 1.75 GB memory)
- SSH CERTIFICATE THUMBPRINT**: 27e4e776dce9267394b78deb77dbdcfa
- LOCATION**: aloc-ag (East Asia)

DISK	TYPE	HOST CACHE	VHD
aloc01-aloc01-0-20140222...	OS disk	Read/Write	http://aloc.blob.core.windc

Portal – Virtual Machines

- Usuário pré-definido no momento da criação da VM possui privilégios de sudo.

```
root@aloc01:~  
$ ssh suporte@aloc.cloudapp.net  
The authenticity of host 'aloc.cloudapp.net (207.46.131.103)' can't be established.  
RSA key fingerprint is 27:e4:e7:76:dc:e9:26:73:94:b7:8d:eb:77:db:dc:fa.  
Are you sure you want to continue connecting (yes/no)? yes  
Warning: Permanently added 'aloc.cloudapp.net,207.46.131.103' (RSA) to the list of known hosts  
suporte@aloc.cloudapp.net's password:  
[suporte@aloc01 ~]$ sudo su -  
  
We trust you have received the usual lecture from the local System  
Administrator. It usually boils down to these three things:  
  
#1) Respect the privacy of others.  
#2) Think before you type.  
#3) With great power comes great responsibility.  
  
[sudo] password for suporte:  
[root@aloc01 ~]#
```

Portal – Virtual Machines

- Para novas VMs linux criadas no mesmo serviço em nuvem, a porta ssh será uma definida automaticamente pelo Azure.

DNS NAME

aloc.cloudapp.net

HOST NAME

aloc02

PUBLIC VIRTUAL IP (VIP) ADDRESS

207.46.131.103

INTERNAL IP ADDRESS

172.16.0.5

SSH DETAILS

aloc.cloudapp.net : 63134

```
root@aloc02:~  
$ ssh suporte@aloc.cloudapp.net -p 63134  
suporte@aloc.cloudapp.net's password:  
[suporte@aloc02 ~]$  
[suporte@aloc02 ~]$ sudo su -  
[sudo] password for suporte:  
[root@aloc02 ~]#  
[root@aloc02 ~]# nslookup aloc01  
Server:         168.63.129.16  
Address:        168.63.129.16#53  
  
Name:   aloc01.aloc.h5.internal.cloudapp.net  
Address: 172.16.0.4  
  
[root@aloc02 ~]#
```

Criar uma Imagem Linux

- <http://www.windowsazure.com/en-us/documentation/articles/virtual-machines-linux-capture-image>
- Passos para capturar imagem de VM Linux:
 - Efetuar desprovisionamento (via waagent)
 - Desligar VM Linux
 - Ir em 'Capture'

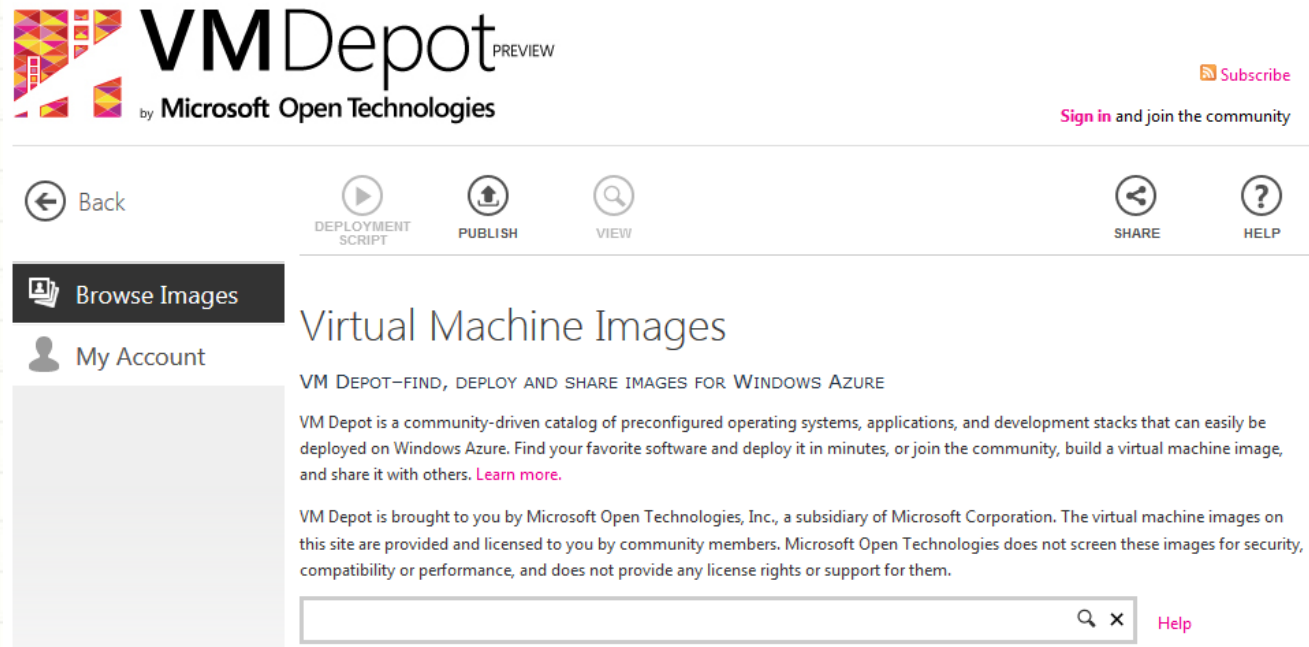


Upload de VM Linux

- <http://www.windowsazure.com/en-us/documentation/articles/virtual-machines-linux-create-upload-vhd>
- Alguns pré-requisitos:
 - Somente através do azure-cli ou Powershell (não há interface de upload pelo portal web)
 - VM Linux instalado em um disco vhd (formato Microsoft, Hyper-V)
 - Utilitário waagent instalado e NetworkManager removido
- Preparar VM (Linux suportados: CentOS 6.2+, Ubuntu 12.04+ e SLES 11 SP2+, demais distribuições não há distribuição oficial pela Microsoft)
- Efetuar upload do vhd
 - azure-cli: `$ azure vm create image -h`
 - Powershell: `C:\> Get-Help Add-AzureVhd`

VM Depot

- <http://vmdepot.msopentech.com>
- ```
$ azure vm create debian01 -o vmdepot-2427-1-4 -a pvfs suporte 'Ufpr2014#' --ssh 55000
```
- Ou, em 'Virtual Machines', aba 'Images', link 'Browse VM Depot'



The screenshot shows the VM Depot website interface. At the top left is the logo for VM Depot, labeled 'PREVIEW' and 'by Microsoft Open Technologies'. To the right of the logo is a 'Subscribe' button and a 'Sign in and join the community' link. Below the header is a navigation bar with icons for 'Back', 'DEPLOYMENT SCRIPT', 'PUBLISH', 'VIEW', 'SHARE', and 'HELP'. The main content area is titled 'Virtual Machine Images' and includes a sub-header 'VM DEPOT-FIND, DEPLOY AND SHARE IMAGES FOR WINDOWS AZURE'. The text describes VM Depot as a community-driven catalog of preconfigured operating systems, applications, and development stacks that can be easily deployed on Windows Azure. It also mentions that the site is brought to you by Microsoft Open Technologies, Inc., a subsidiary of Microsoft Corporation, and that the virtual machine images are provided and licensed to you by community members. At the bottom, there is a search bar with a magnifying glass icon and a 'Help' link.



**PERGUNTAS?**