



## SESSÃO 01

Conceitos de nuvem e  
Introdução ao Azure

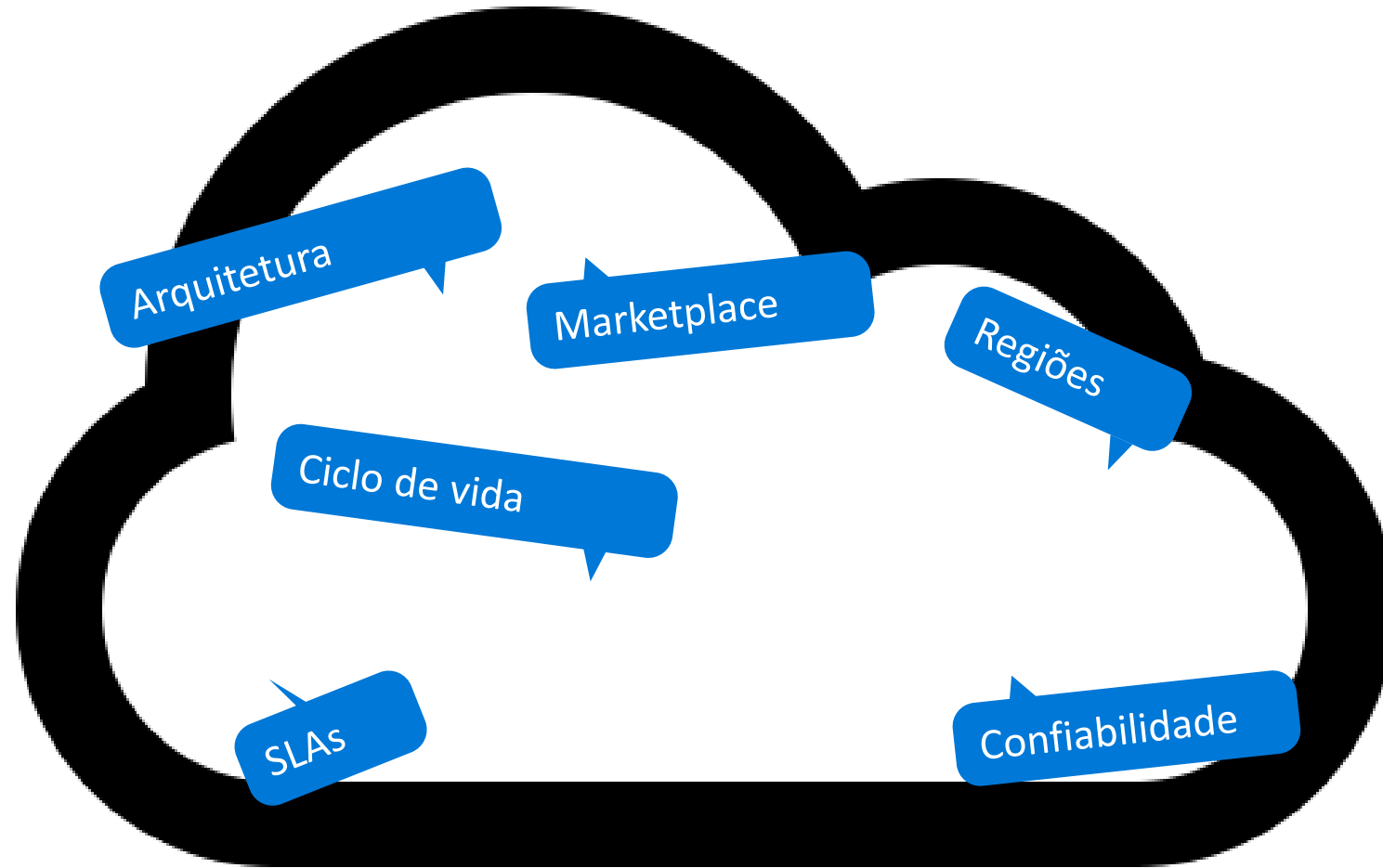
## SESSÃO 02

Arquitetura e garantia de serviços do Azure &  
Segurança, responsabilidades e confiabilidade

## SESSÃO 03

Principais serviços do Azure &  
Melhores práticas e otimização de gastos

# Roteiro Parte 1



# Roteiro Parte 2



# Arquitetura e Garantia de Serviços do Azure



Jornada de Certificação Azure

**Mais de 60** regiões mundiais disponíveis em **140** países



# Qual região escolher?



## Conformidade e residência de dados

Você ou seus clientes têm requisitos específicos de conformidade ou de residência de dados?



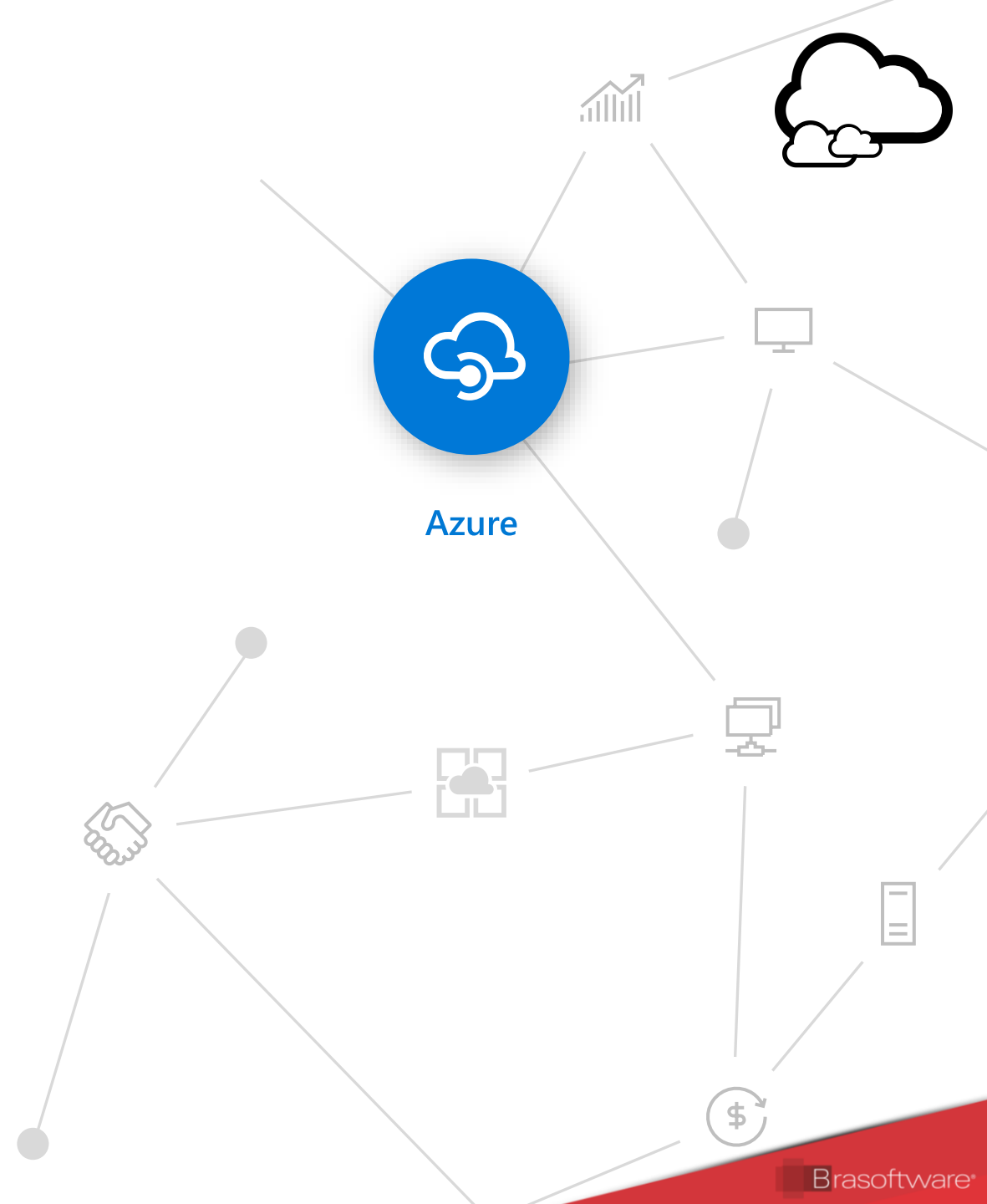
## Preços

O custo é um fator importante para você tomar uma decisão?



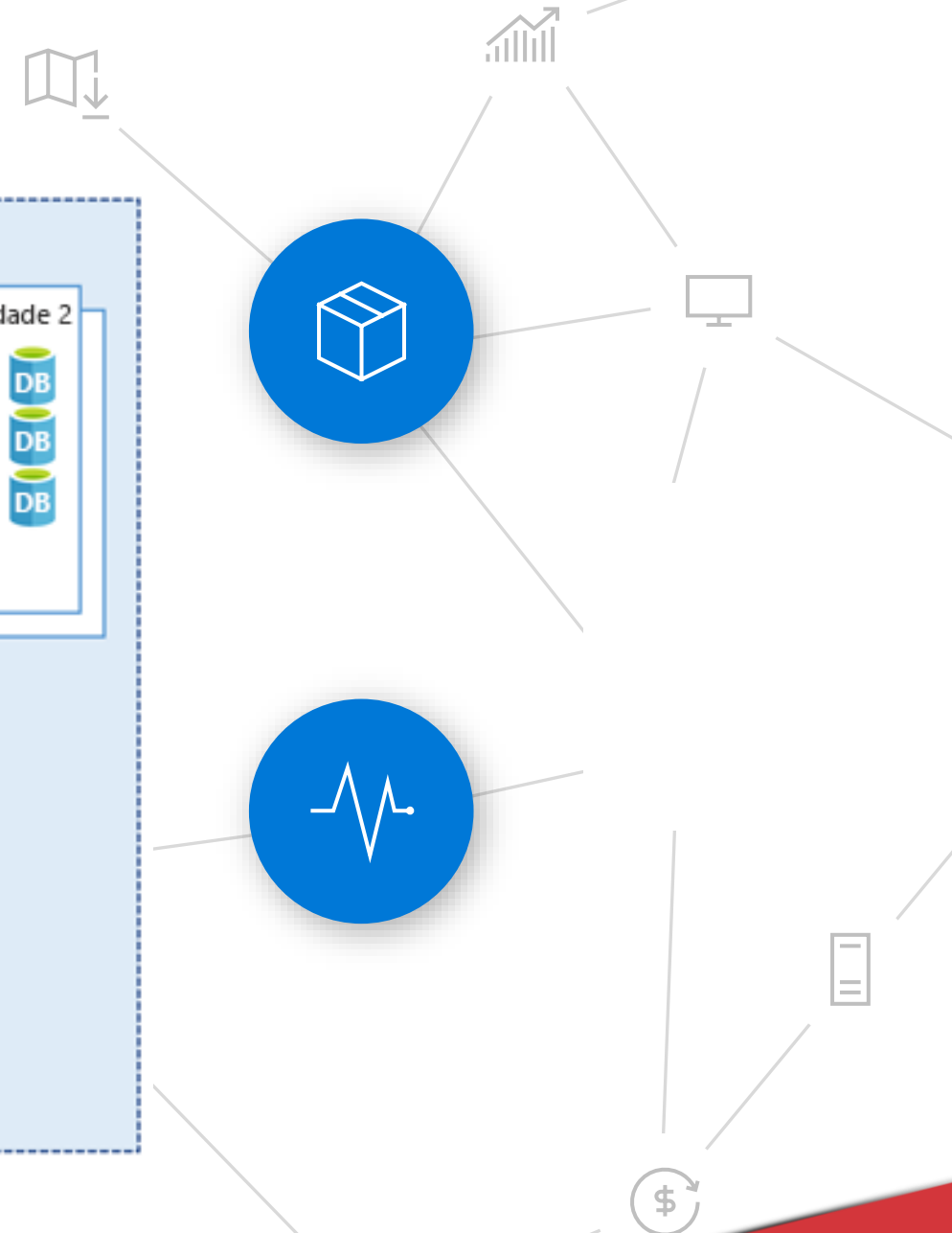
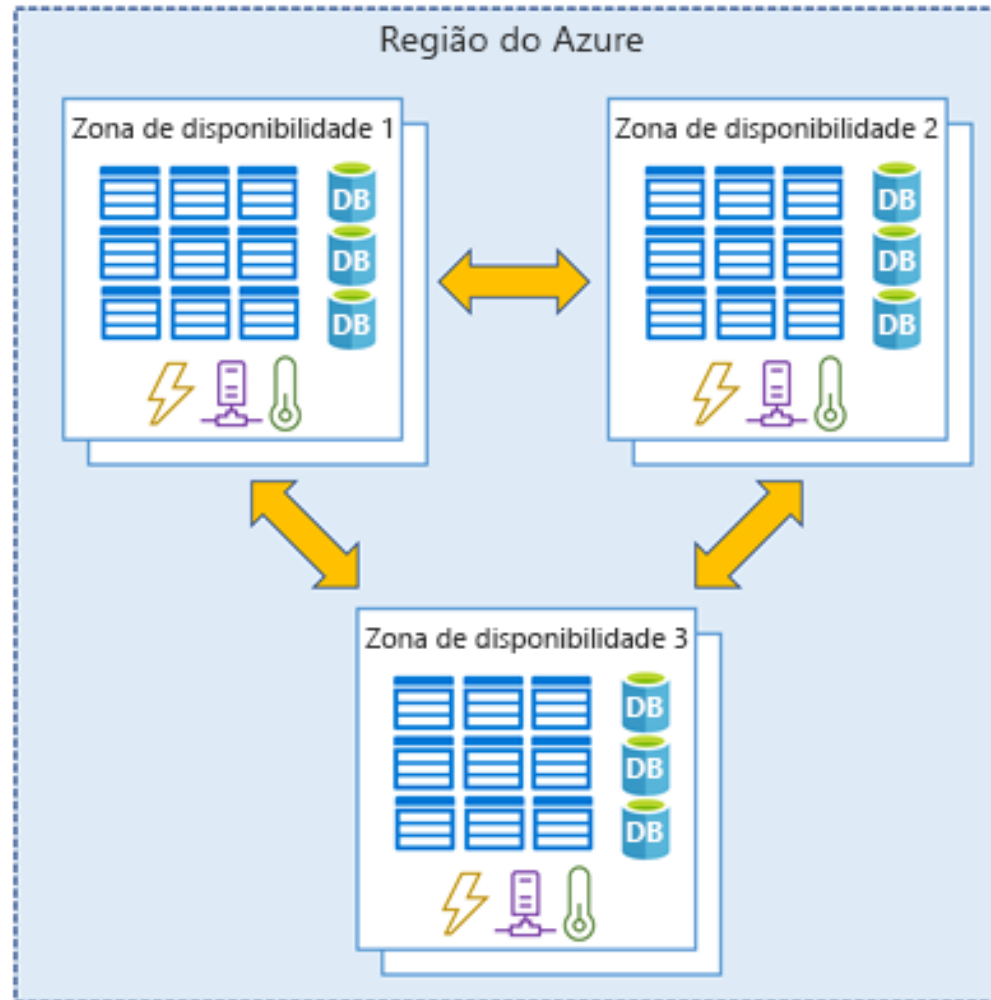
## Disponibilidade do serviço

Os serviços do Azure estão disponíveis na região que você está considerando?



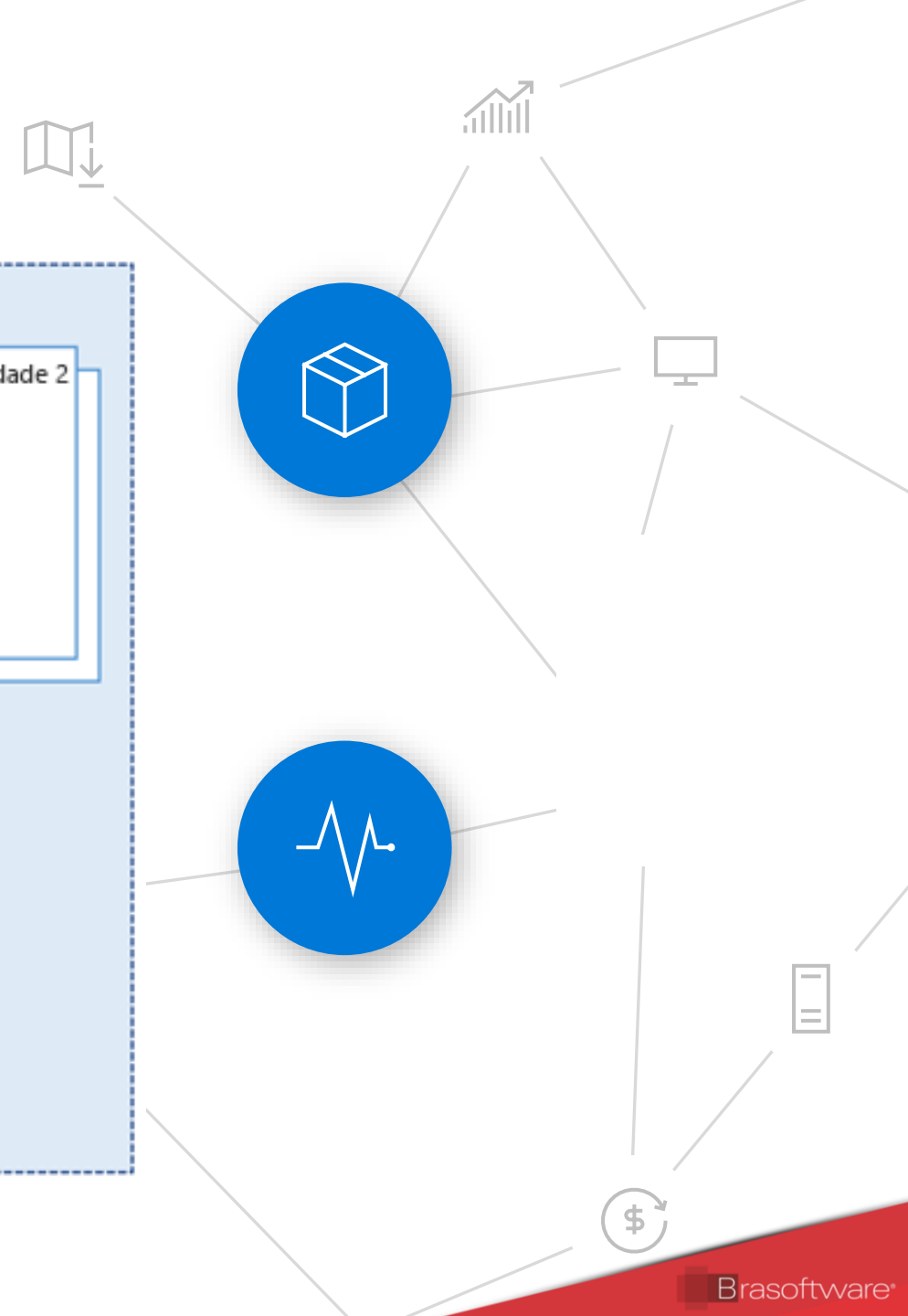
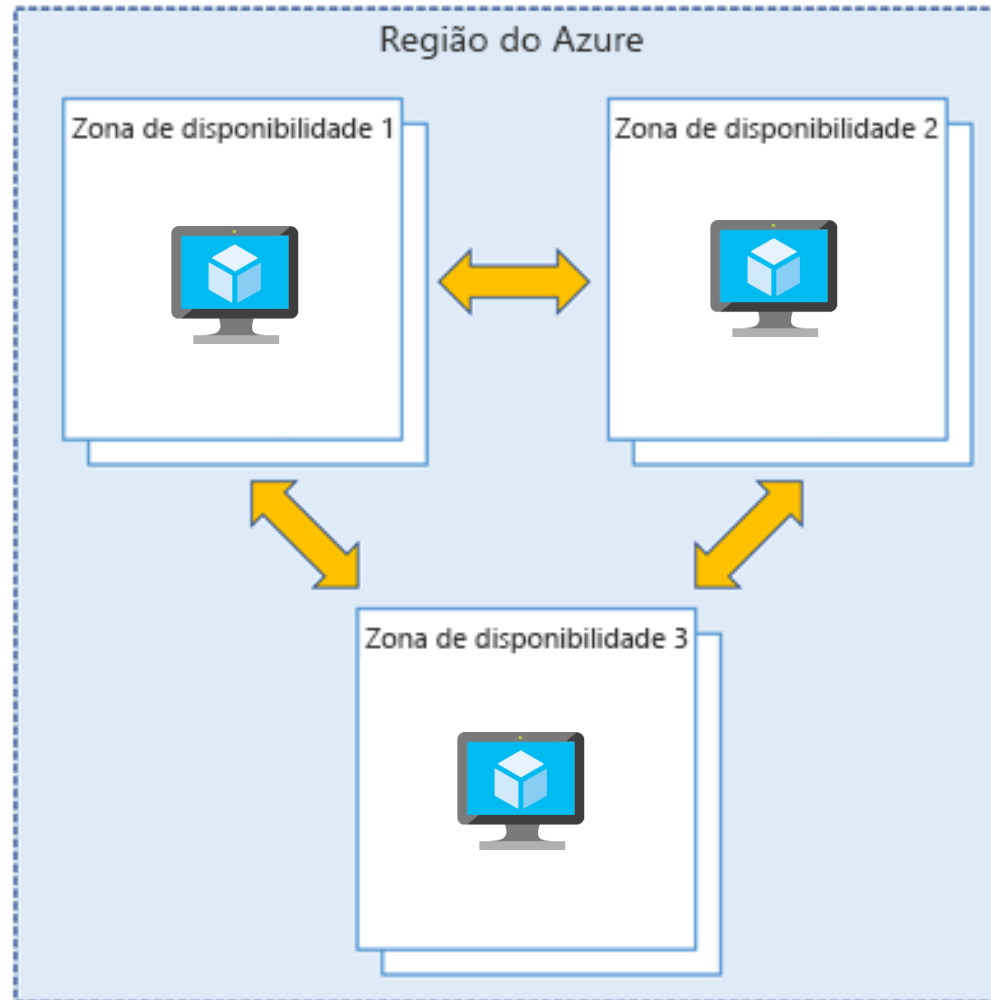
# Zonas de Disponibilidade

- Centro dos EUA
- Leste dos EUA 2
- Oeste dos EUA 2
- Europa Ocidental
- França Central
- Norte da Europa
- Sudeste Asiático



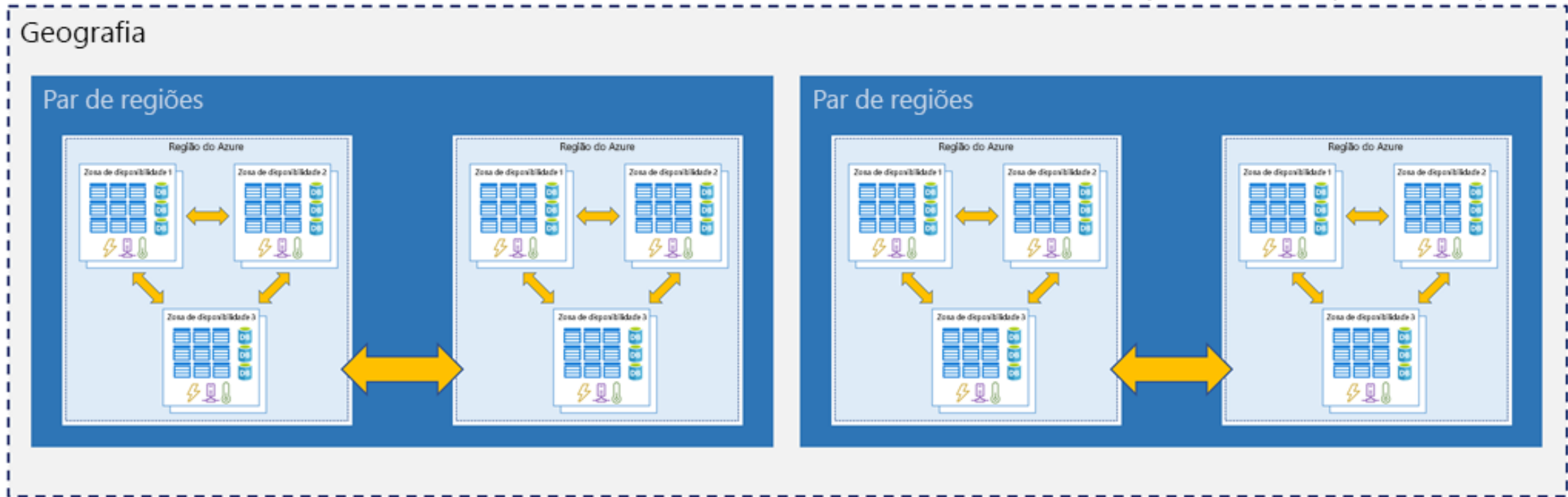
# Zonas de Disponibilidade

- Centro dos EUA
- Leste dos EUA 2
- Oeste dos EUA 2
- Europa Ocidental
- França Central
- Norte da Europa
- Sudeste Asiático





# Regiões pares



Cada região do Azure é conectada com outra região na mesma geografia (como o Sul do Brasil ao Centro-Sul dos Estados Unidos) a pelo menos **300 milhas (cerca de 480 km) de distância**.





# Entendendo sobre os níveis de serviço

% de SLA	Tempo de inatividade por semana	Tempo de inatividade por mês	Tempo de inatividade por ano
99	1,68 hora	7,2 horas	3,65 dias
99,9	10,1 minutos	43,2 minutos	8,76 horas
99,95	5 minutos	21,6 minutos	4,38 horas
99,99	1,01 minuto	4,32 minutos	52,56 minutos
99,999	6 segundos	25,9 segundos	5,26 minutos

## PERCENTUAL DE TEMPO DE ATIVIDADE MENSAL

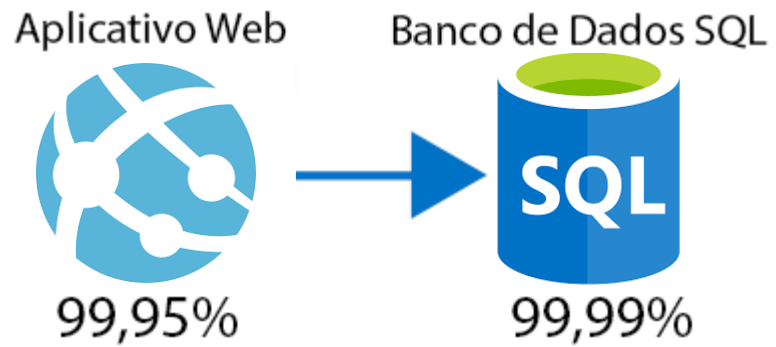
< 99,9	10
< 99	25
< 95	100

## PERCENTUAL DE CRÉDITO DE SERVIÇO

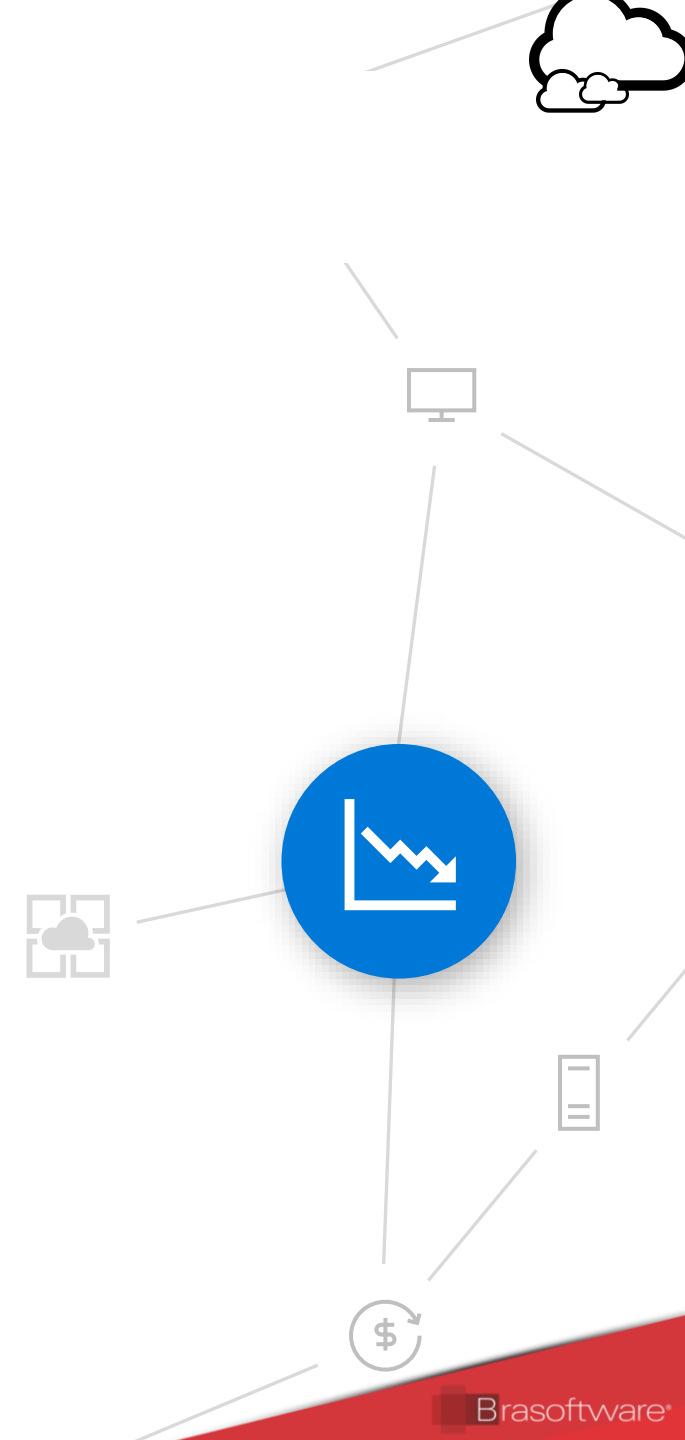
< 99,9	10
< 99	25
< 95	100



# Calculando o SLA



$$99,95 * 99,99 / 100 = 99,94\%$$



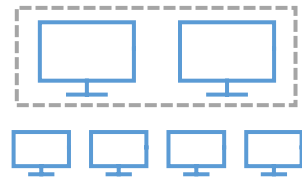
# Potencializando seu SLA

VM SLA  
99.9%



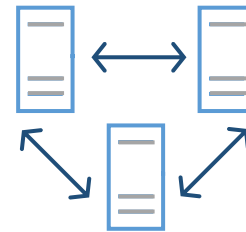
Single VM

VM SLA  
99.95%



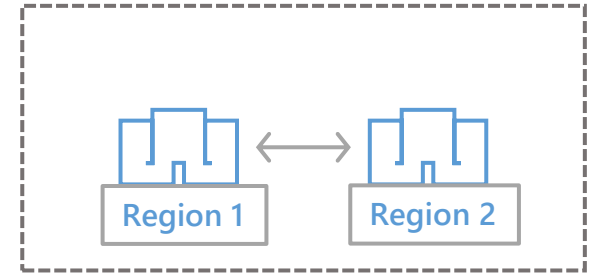
Availability sets

VM SLA  
99.99%



Availability zones

Regions  
60



Site Recovery & Region pairs

# Ciclo de vida dos recursos no Azure

## Versão prévia privada (*Private Preview*)

Um recurso do Azure marcado como "versão prévia privada" está disponível para clientes do Azure *específicos* para fins de avaliação. Isso é normalmente apenas por convite e emitido diretamente pela equipe do produto responsável pelo serviço ou recurso.

## Versão prévia pública (*Public Preview*)

Um recurso do Azure marcado como "versão prévia pública" está disponível para *todos* os clientes do Azure para fins de avaliação.

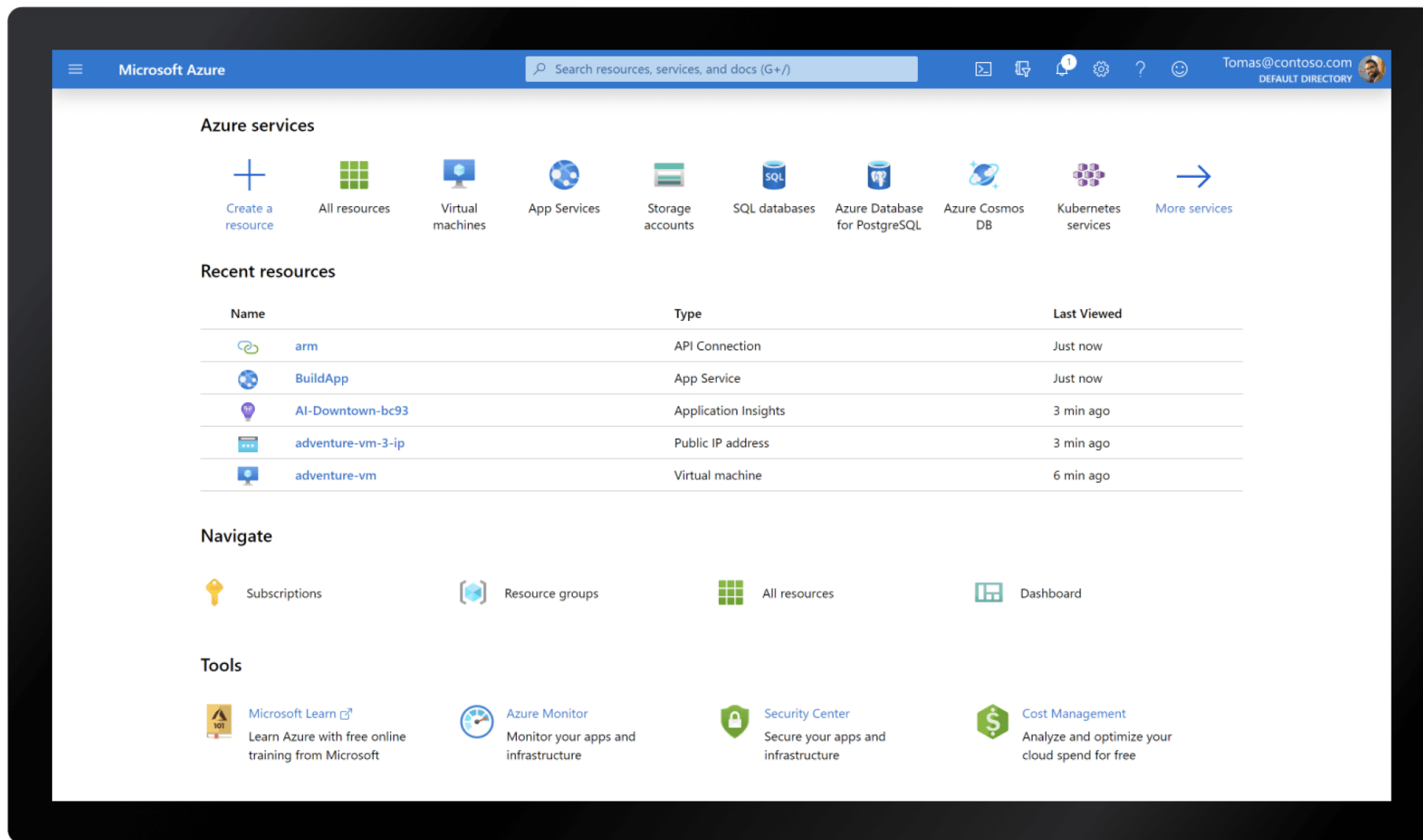
## Disponibilidade Geral (*General Availability*)

Depois que um recurso foi avaliado e testado com êxito, ele pode ser lançado para os clientes como parte do conjunto de produtos padrão do Azure. Esta versão é chamada de GA (disponibilidade geral).

# Opções de Gerenciamento do Azure



# Opções de Gerenciamento do Azure



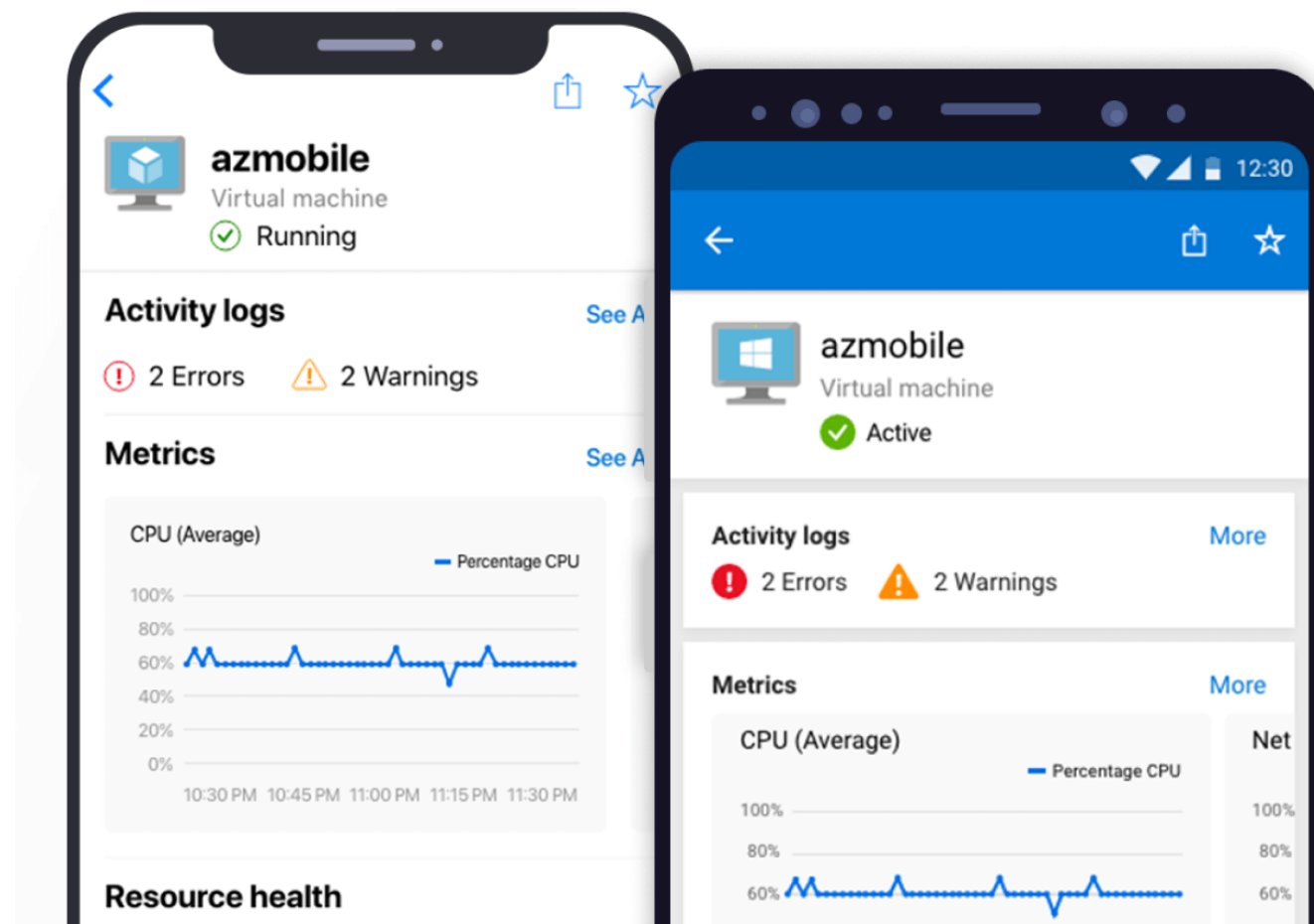
The screenshot displays the Microsoft Azure portal interface. At the top, there is a navigation bar with the Microsoft Azure logo, a search bar, and user information (Tomas@contoso.com). Below the navigation bar, the main content area is divided into several sections:

- Azure services:** A row of icons representing various Azure services, including "Create a resource", "All resources", "Virtual machines", "App Services", "Storage accounts", "SQL databases", "Azure Database for PostgreSQL", "Azure Cosmos DB", "Kubernetes services", and "More services".
- Recent resources:** A table listing recently viewed resources.

Name	Type	Last Viewed
<a href="#">arm</a>	API Connection	Just now
<a href="#">BuildApp</a>	App Service	Just now
<a href="#">AI-Downtown-bc93</a>	Application Insights	3 min ago
<a href="#">adventure-vm-3-ip</a>	Public IP address	3 min ago
<a href="#">adventure-vm</a>	Virtual machine	6 min ago

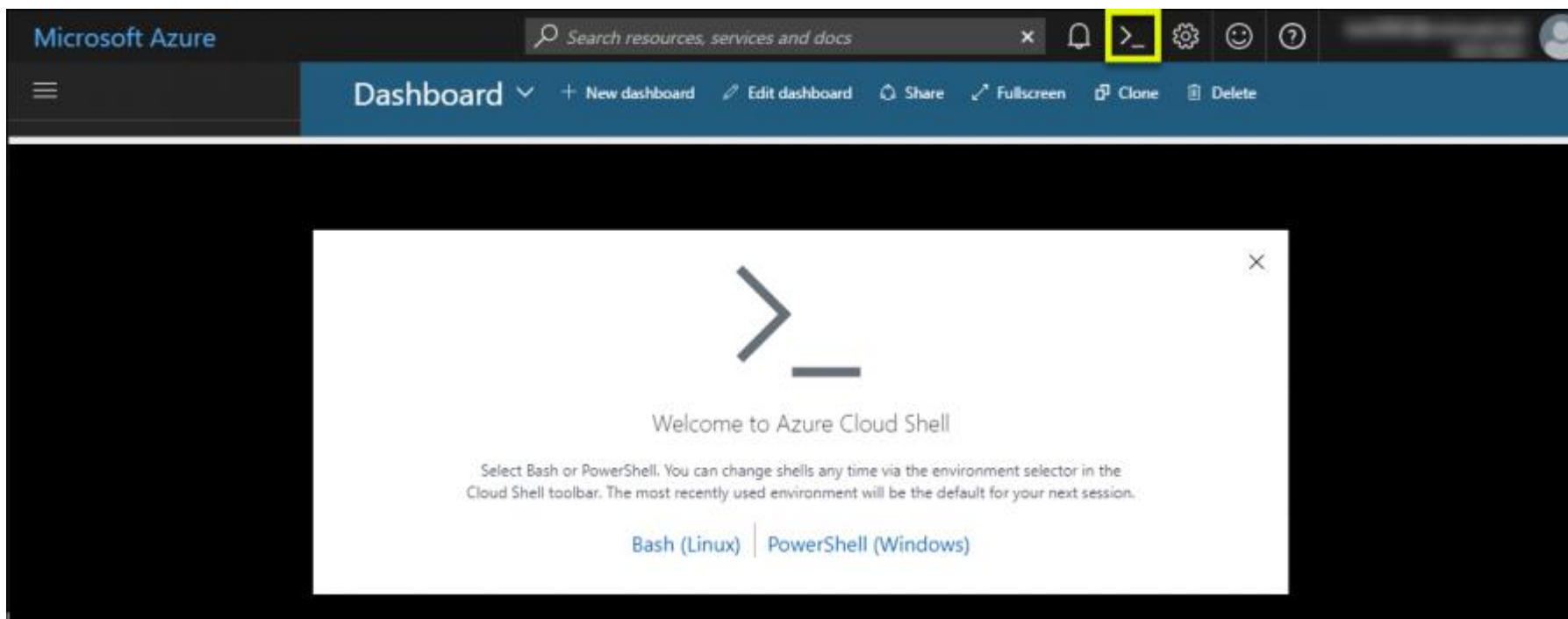
- Navigate:** A row of icons for navigating through the portal, including "Subscriptions", "Resource groups", "All resources", and "Dashboard".
- Tools:** A row of icons for various tools, including "Microsoft Learn", "Azure Monitor", "Security Center", and "Cost Management".

# Opções de Gerenciamento do Azure





# Opções de Gerenciamento do Azure



# Opções de Gerenciamento do Azure

```
Windows PowerShell
PS C:\Program Files (x86)\PowerTab> dir /r /o:-s *.ps1
POWERSHELL TUTORIAL

DOS COMMAND
dir /r /o:-s *.ps1

POWERSHELL EQUIVALENT
Get-Childitem -Filter "*.ps1" `
    | Sort-Object -Property Length -Descending `
    | Process-FileSystemChilditem -ShowAlternateFileStreams -UseThousandSeparator `
    | Format-Table -GroupBy PSParentPath -Property @{Label='Mode';Expression={$_.Mode};Width=7},@{Label='LastWriteTime';Expression={'<0.10> {1,0}' -f $_.LastWriteTime.ToString('d')};Width=25},@{Label='Length';Expression={'<0:0,0>' -f $_.Length};Width=14;Align='Right'}.Name

RELATED LINKS
Get-Childitem
ForEach-Object
Sort-Object
Format-Table

REMARKS
To disable PowerShell Tutorial output messages, type: "$PSTutorialDisabled"

Press any key to execute the equivalent PowerShell command or Ctrl+C to exit...

The volume in drive C has no label.
Volume Serial Number is 423E-649B

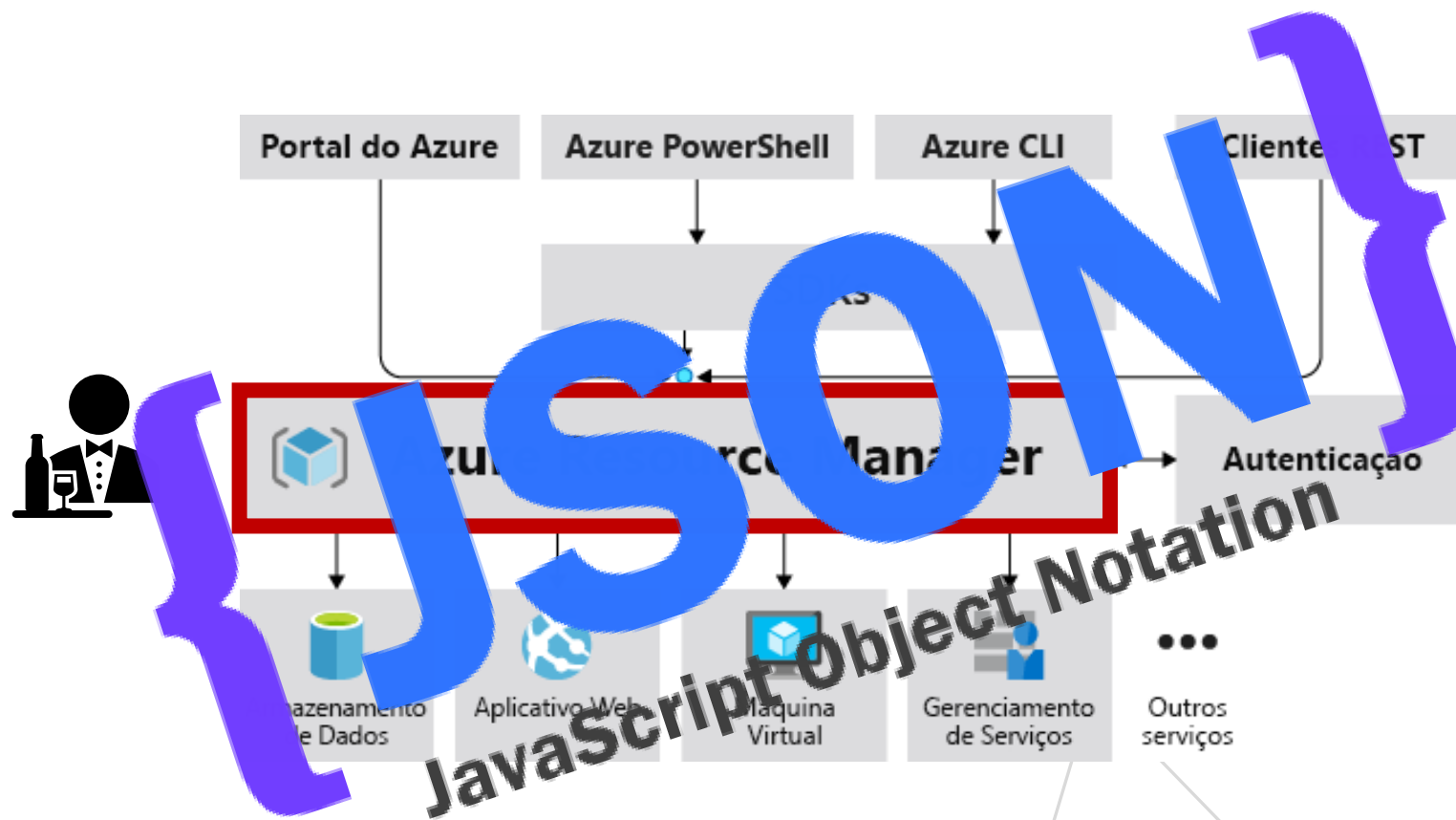
PSParentPath: Microsoft.PowerShell.Core\FileSystem::C:\Program Files (x86)\
Mode LastWriteTime Length Name
----
-a--- 2008-06-30 16:17 22 070 TabExpansion.ps1
-a--- 2008-06-30 16:17 21 238 ConsoleLib.ps1
-a--- 2008-06-30 16:17 15 983 PowerTabSetup.ps1
-a--- 2008-06-30 16:17 10 225 TabExpansionLib.ps1
-a--- 2008-06-30 16:17 8 772 Init-TabExpansion.ps1
-a--- 2008-06-30 16:17 3 675 New-TabExpansionConfig.ps1
-a--- 2008-06-30 16:17 2 005 out-datagridview.ps1
-a--- 2008-06-30 16:17 1 645 TabExpansionCustomLib.ps1
-a--- 2008-06-30 16:17 1 433 Get-ScriptParameters.ps1

9 File(s) 87 054 bytes
0 Dir(s) 10 541 645 824 bytes free
```

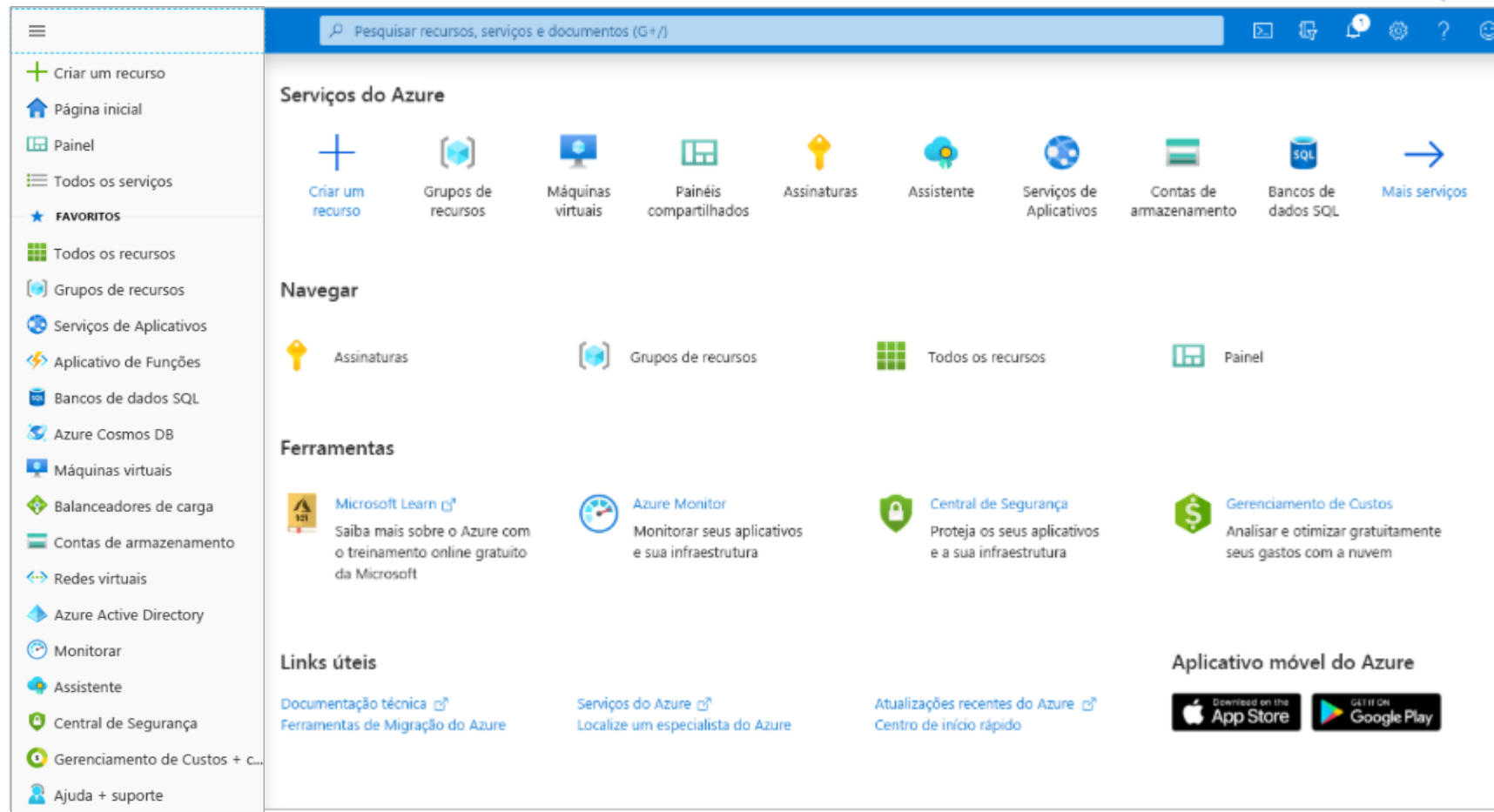
```
user@ubuntu-base:~$ sudo apt-get install apt-transport-https
Reading package lists... Done
Building dependency tree
Reading state information... Done
apt-transport-https is already the newest version (1.2.26).
The following package was automatically installed and is no longer required:
  libllvm4.0
Use 'sudo apt autoremove' to remove it.
0 upgraded, 0 newly installed, 0 to remove and 3 not upgraded.
user@ubuntu-base:~$ sudo apt-get update && sudo apt-get install azure-cli
Get:1 http://security.ubuntu.com/ubuntu xenial-security InRelease [107 kB]
Hit:2 http://in.archive.ubuntu.com/ubuntu xenial InRelease
Get:3 https://download.docker.com/linux/ubuntu xenial InRelease
Get:4 https://packages.microsoft.com/repos/azure-cli xenial InRelease [2,807 B]
Get:5 http://in.archive.ubuntu.com/ubuntu xenial-updates InRelease [109 kB]
Get:6 https://packages.microsoft.com/repos/azure-cli xenial/main amd64 Packages [2,688 B]
Get:7 http://in.archive.ubuntu.com/ubuntu xenial-backports InRelease [107 kB]
Fetched 328 kB in 1s (167 kB/s)
Reading package lists... Done
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following package was automatically installed and is no longer required:
  libllvm4.0
Use 'sudo apt autoremove' to remove it.
The following NEW packages will be installed:
  azure-cli
0 upgraded, 1 newly installed, 0 to remove and 3 not upgraded.
Need to get 40.8 MB of archives.
```



# Opções de Gerenciamento do Azure



# O Portal

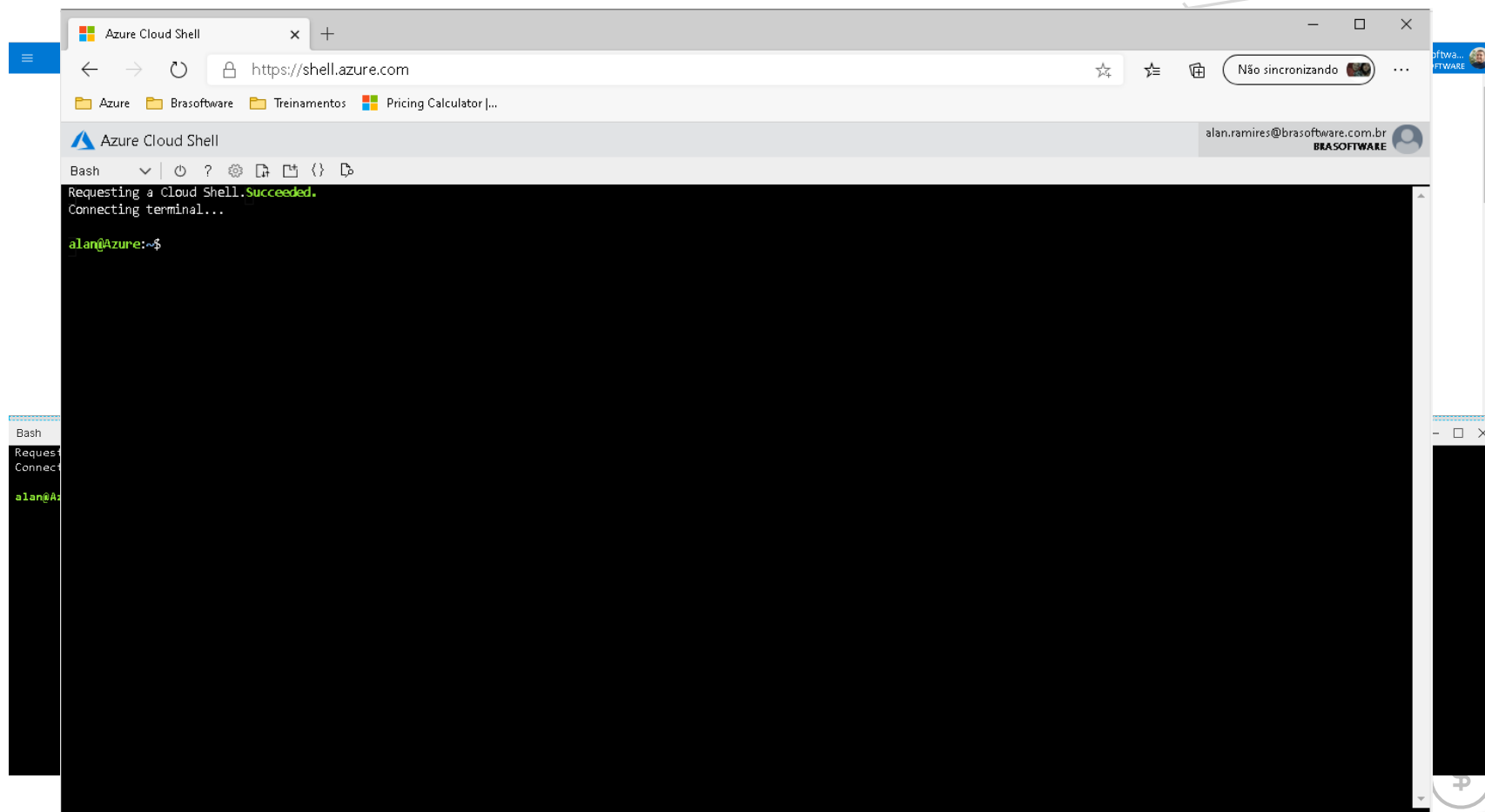
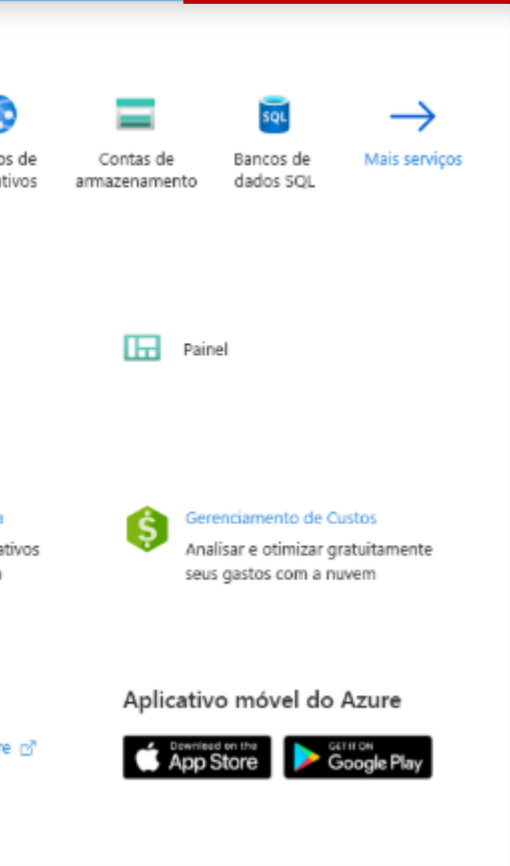
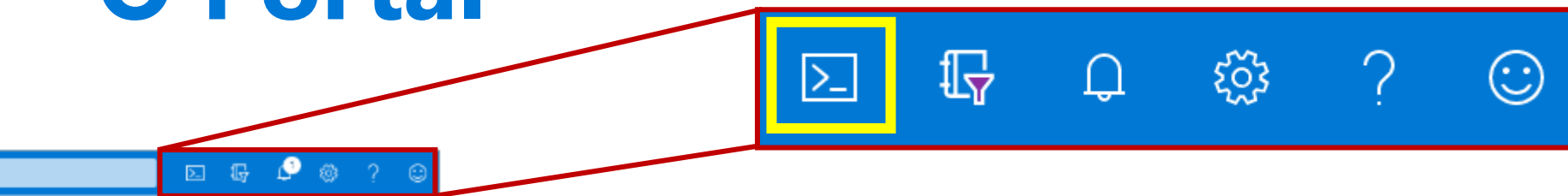


# O Portal

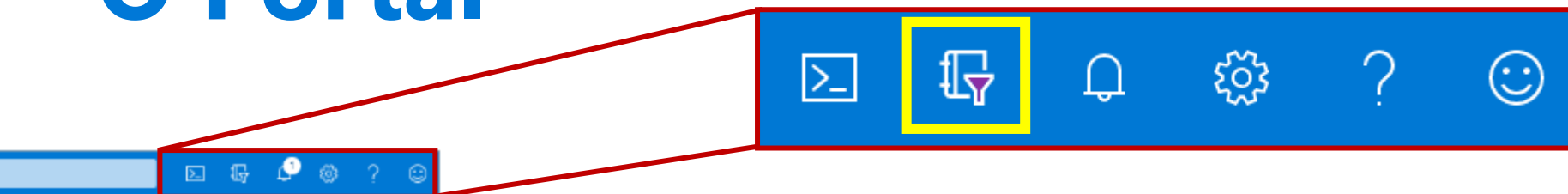
The image displays the Azure Portal interface, which is a web-based management console for Microsoft Azure. The interface is divided into several sections:

- Left Sidebar (Navigation):** Contains a search bar at the top, followed by a list of navigation items: "Criar um recurso" (Create a resource), "Página inicial" (Home), "Painel" (Dashboard), "Todos os serviços" (All services), "FAVORITOS" (Favorites), "Todos os recursos" (All resources), "Grupos de recursos" (Resource groups), "Serviços de Aplicativos" (App services), "Aplicativo de Funções" (Function app), "Bancos de dados SQL" (SQL databases), "Azure Cosmos DB", "Máquinas virtuais" (Virtual machines), "Balanceadores de carga" (Load balancers), "Contas de armazenamento" (Storage accounts), "Redes virtuais" (Virtual networks), "Azure Active Directory", "Monitorar" (Monitor), "Assistente" (Assistant), "Central de Segurança" (Security center), "Gerenciamento de Custos + C..." (Cost management), and "Ajuda + suporte" (Help + support).
- Top Navigation Bar:** Includes a search bar, a "Pesquisar recursos, serviços e documentos (G+)" (Search resources, services and documents) button, and a "Painel" (Dashboard) button.
- Main Content Area:** Displays a grid of service tiles under the heading "Serviços do Azure" (Azure services). The tiles include: "Criar um recurso" (Create a resource), "Grupos de recursos" (Resource groups), "Máquinas virtuais" (Virtual machines), "Serviços de Aplicativos" (App services), "Contas de armazenamento" (Storage accounts), "Bancos de dados SQL" (SQL databases), "Mais serviços" (More services), "Aplicativo de Funções" (Function app), "Bancos de dados SQL" (SQL databases), "Azure Cosmos DB", "Máquinas virtuais" (Virtual machines), "Balanceadores de carga" (Load balancers), "Contas de armazenamento" (Storage accounts), "Redes virtuais" (Virtual networks), "Azure Active Directory", "Monitorar" (Monitor), "Assistente" (Assistant), "Central de Segurança" (Security center), "Gerenciamento de Custos + C..." (Cost management), and "Ajuda + suporte" (Help + support).
- Footer:** Features the "Aplicativo móvel do Azure" (Azure mobile app) section, which includes download links for the App Store and Google Play.

# O Portal



# O Portal



## Directory + subscription

Default subscription filter

The portal will show data only for these selected subscriptions on portal launch.

Visual Studio Enterprise – MPN (5b57d8f8-41...

Filter items...

- ☐ Select all
- ☒ Visual Studio Enterprise – MPN (5b57d8f8-4111-42d6-8bc5- )
- ☐ Microsoft Azure Sponsorship
- ☐ MPN
- ☐ Visual Studio Enterprise – MPN (653ad7af-a900-4647-b365 )

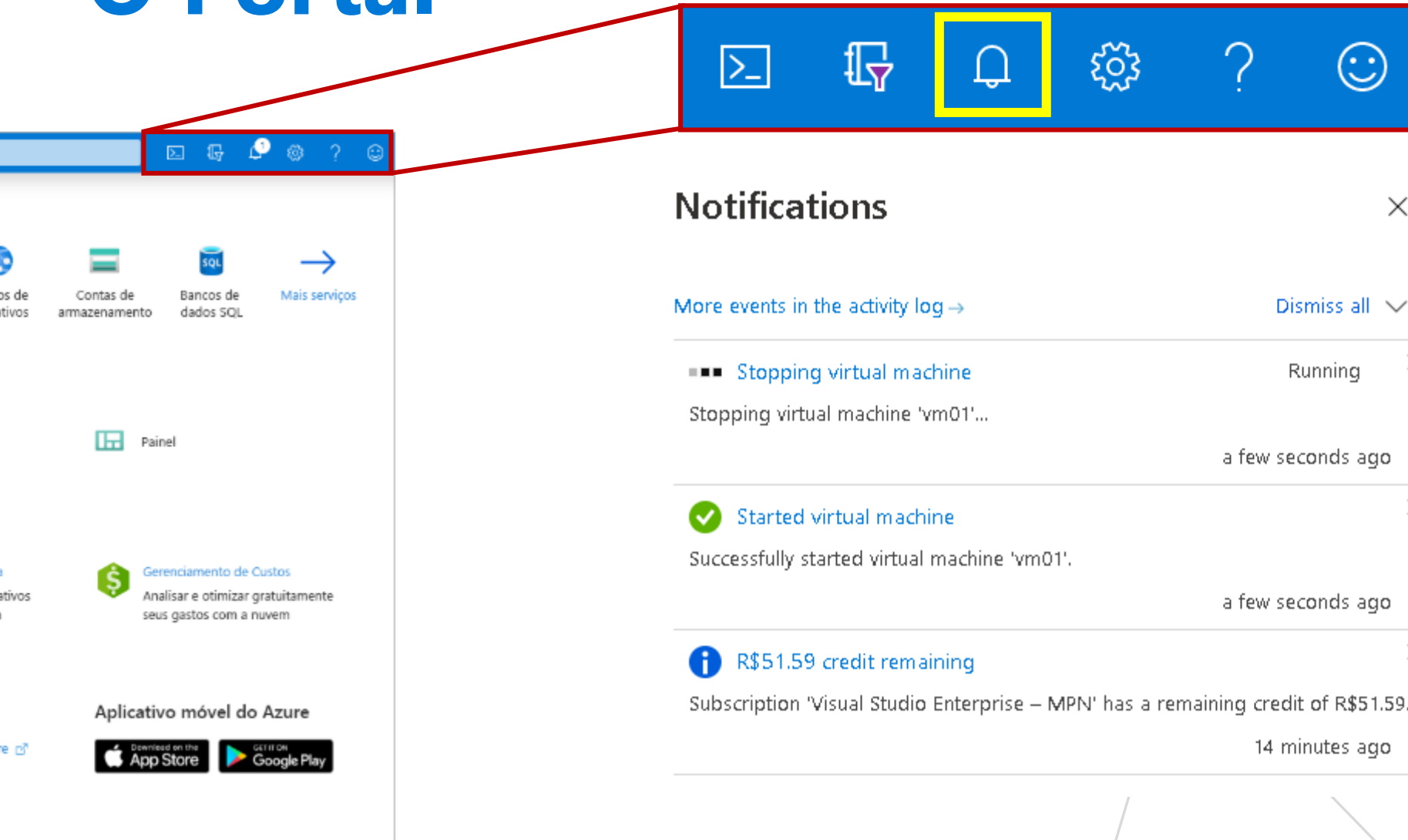
**Favorites** All Directories

Search

Brasoftware  
Brasoftware.onmicrosoft.com  
7ec4fd42-2572-4611-8a3c-8897080fd269



# O Portal



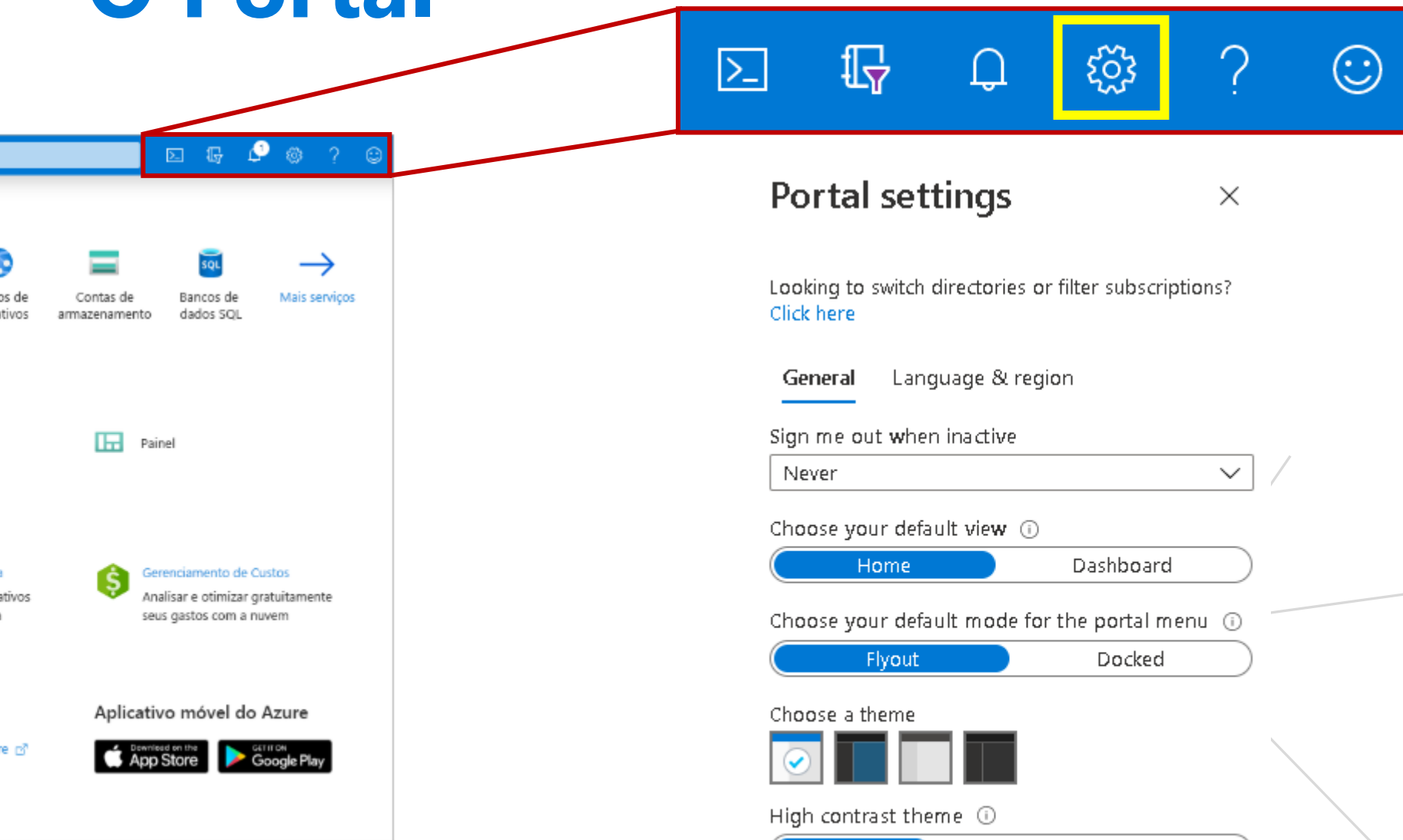
The screenshot shows the Azure portal interface. A red box highlights the top navigation bar, which contains icons for Home, Resources, Notifications, Settings, Help, and Feedback. A yellow box highlights the Notifications icon (a bell). Below the navigation bar, the main content area displays the Notifications section. The Notifications section has a title bar with a close button (X). Below the title bar, there is a link "More events in the activity log →" and a "Dismiss all" button with a dropdown arrow. The notifications list contains three items:

- Stopping virtual machine** (Running) - a few seconds ago. The notification text is "Stopping virtual machine 'vm01'..."
- Started virtual machine** (Success) - a few seconds ago. The notification text is "Successfully started virtual machine 'vm01'..."
- R\$51.59 credit remaining** (Info) - 14 minutes ago. The notification text is "Subscription 'Visual Studio Enterprise – MPN' has a remaining credit of R\$51.59."

On the left side of the portal, there is a sidebar with various service tiles: "Contas de armazenamento", "Bancos de dados SQL", "Mais serviços", "Painel", and "Gerenciamento de Custos". At the bottom of the sidebar, there is a section for the "Aplicativo móvel do Azure" with download links for the App Store and Google Play.



# O Portal



The image shows the Azure Portal interface. The top navigation bar is highlighted with a red box. Inside this bar, the settings gear icon is highlighted with a yellow box. A red line connects this gear icon to the 'Portal settings' dialog box on the right. The dialog box contains various settings for the portal, including options for signing out, default view, default mode, theme, and notifications.

**Portal settings** [Close]

Looking to switch directories or filter subscriptions?  
[Click here](#)

**General** Language & region

Sign me out when inactive  
Never [v]

Choose your default view ⓘ  
Home Dashboard

Choose your default mode for the portal menu ⓘ  
Flyout Docked

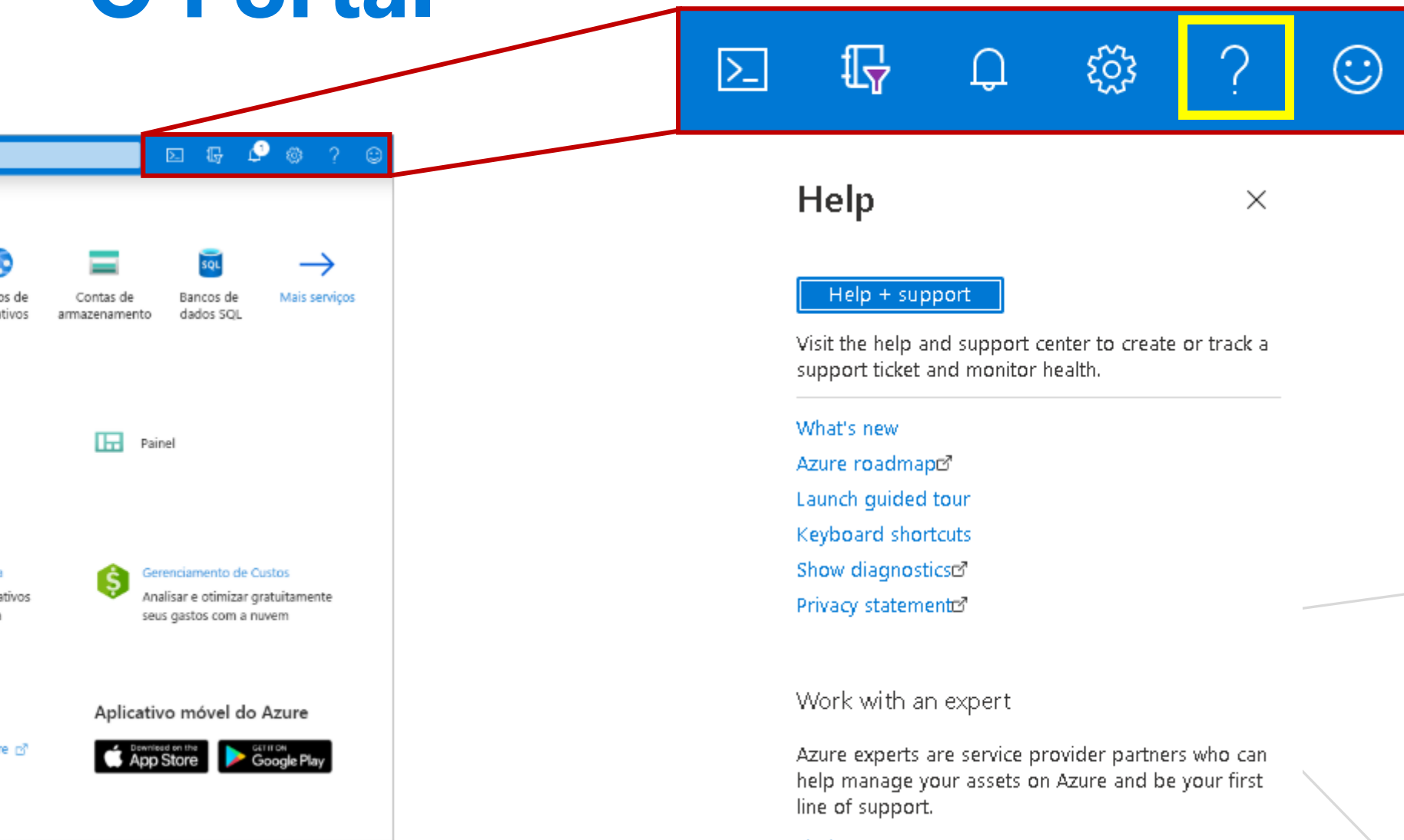
Choose a theme  
[Light Theme] [Dark Theme] [High Contrast Theme] [Dark Theme]

High contrast theme ⓘ  
None White Black

☒ Enable pop-up notifications ⓘ



# O Portal



# O Portal

The image shows the Azure Portal interface. At the top, a blue navigation bar contains several icons: a terminal, a document with a checkmark, a bell, a gear, a question mark, and a smiley face. The smiley face icon is highlighted with a yellow border. A red line connects this icon to a feedback modal window titled "Send us feedback". The modal contains the text "Thank you for taking the time to give us feedback." and a blue box with an information icon and the text "If you need help, please contact support." Below this, a question asks "Are you satisfied with your experience?" with two smiley face icons. A text input field is labeled "Tell us about your experience...". The background of the portal shows various service tiles like "Contas de armazenamento", "Bancos de dados SQL", and "Gerenciamento de Custos".

Send us feedback

Thank you for taking the time to give us feedback.

**i** If you need help, please contact support.

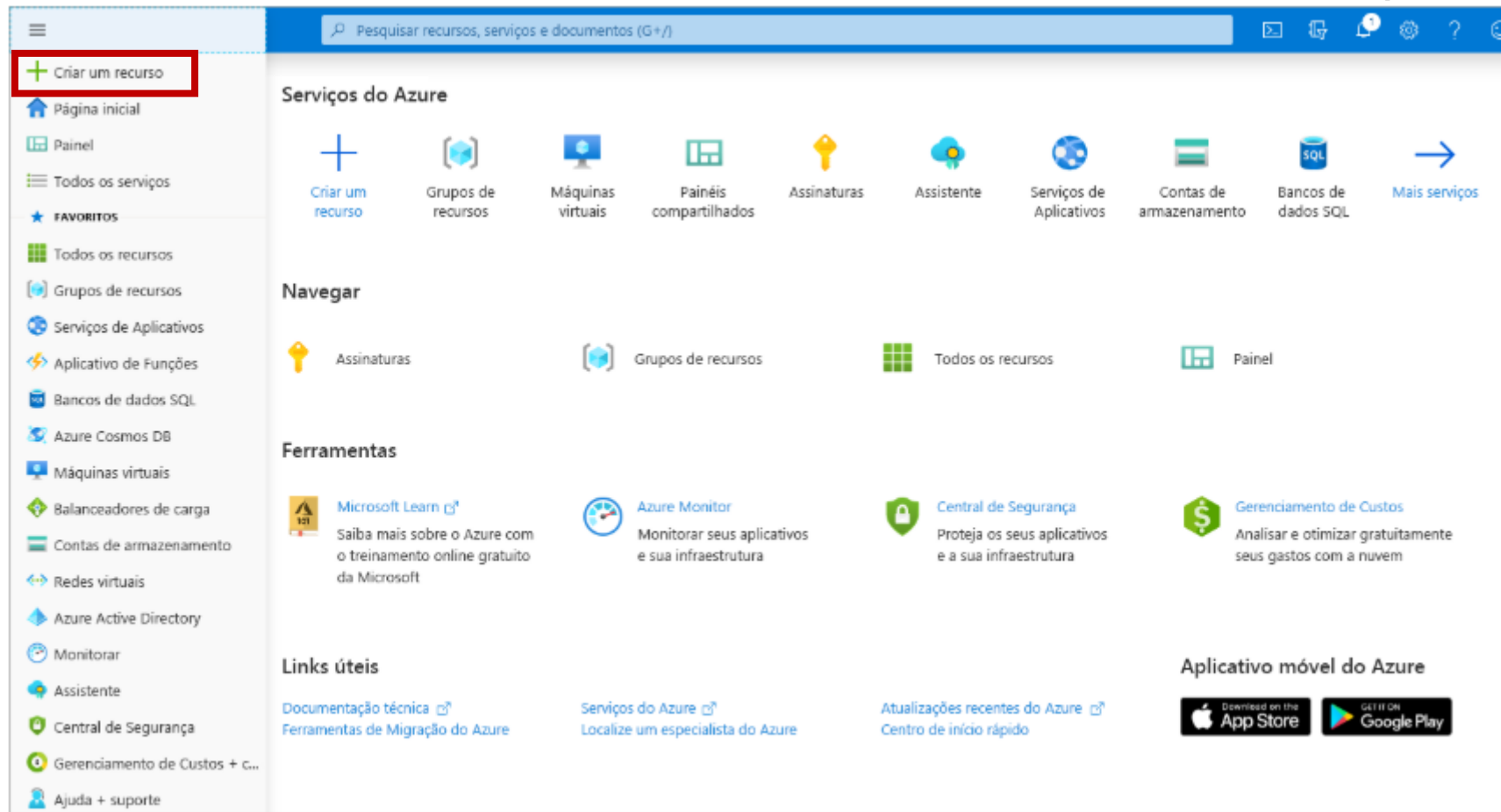
\*Are you satisfied with your experience?

😊 😞

Tell us about your experience...

<https://feedback.azure.com/forums/34192--general-feedback>

# O Portal












# Marketplace

 Search the Marketplace

Azure Marketplace [See all](#)

Popular

Get started  
Recently created  
AI + Machine Learning  
Analytics  
Blockchain  
Compute  
Containers  
Databases  
Developer Tools  
DevOps  
Identity  
Integration  
Internet of Things  
Media  
Mixed Reality  
IT & Management Tools  
Networking  
Software as a Service (SaaS)  
Security  
Storage

-  **Windows Server 2016 Datacenter**  
[Quickstarts + tutorials](#)
-  **Ubuntu Server 18.04 LTS**  
[Learn more](#)
-  **Web App**  
[Quickstarts + tutorials](#)
-  **SQL Database**  
[Quickstarts + tutorials](#)
-  **Function App**  
[Quickstarts + tutorials](#)
-  **Azure Cosmos DB**  
[Quickstarts + tutorials](#)
-  **Kubernetes Service**  
[Quickstarts + tutorials](#)
-  **DevOps Starter**  
[Quickstarts + tutorials](#)
-  **Storage account - blob, file, table, queue**  
[Quickstarts + tutorials](#)



# Marketplace

Marketplace 

My Saved List

Recently created

Service Providers

## Categories

Get Started

AI + Machine Learning

Analytics

Blockchain

Compute

Containers

Databases

Developer Tools

DevOps

Identity

Integration

Internet of Things

IT & Management Tools

Media

Mixed Reality

Networking

Security

Software as a Service (SaaS)

 Search the Marketplace

Pricing : All

Operating System : All

Publisher : All

## Featured



### Ubuntu Server 18.04 LTS

Canonical

Ubuntu Server delivers high value scale-out performance.



### Red Hat Enterprise Linux 7.6

Red Hat

Red Hat Enterprise Linux 7 is the world's leading enterprise Linux platform built to meet the needs



### Azure Reservations for SUSE Linux Software

Microsoft

Save on your Azure SUSE costs by purchasing SUSE Linux Enterprise Server software for 1 or 3 years.



### Debian Linux

Debian

Debian GNU/Linux for Microsoft Azure provided by credativ.



### Windows Server

Microsoft

Microsoft Windows Server Virtual Machine Images



### Windows Client

Microsoft

Windows Client Images for Azure.



[See More](#)

## Application infrastructure



### LAMP Certified by Bitnami

Bitnami

Up-to-date, secure, and ready to run.



### Citrix Virtual Apps Essentials

Citrix

The easiest and fastest way to securely deliver Windows apps from Microsoft Azure to any



### Container Linux by CoreOS

CoreOS

Container Linux by CoreOS



### ComUnity Citizen Engagement Platform

ComUnity

Enables Cities to connect, communicate with and service citizens across all socio-economic



### Apache Solr Certified by Bitnami

Bitnami

Up-to-date, secure, and ready to run.



### Aras Innovator PLM Suite

Aras

Advanced Product Lifecycle Management (PLM) software suite



[See More](#)

## Operating Systems



### CIS Microsoft Windows Server 2016 Benchmark L1



[See More](#)



# Marketplace



Marketplace

Pricing : All

Operating System : All

Publisher : All

8.04 LTS

ers high value  
nce.



**Red Hat Enterprise Linux 7.6**

Red Hat

Red Hat Enterprise Linux 7 is the world's leading enterprise Linux platform built to meet the needs



**Azure Reservations for SUSE Linux Software**

Microsoft

Save on your Azure SUSE costs by purchasing SUSE Linux Enterprise Server software for 1 or 3 years.



**Debian Linux**

Debian

Debian GNU/Linux for Microsoft Azure provided by credativ.



**Windows Server**

Microsoft

Microsoft Windows Server Virtual Machine Images



**Windows**

Microsoft

Windows C

structure



# Marketplace



Marketplace

Pricing : **All**

Operating System : **All**

Publisher : **All**

- All
- All
- Free
- Free trial
- Bring your own license
- Pay as you go

8.04 LTS

ers high value  
nce.



**Red Hat Enterprise Linux**

Red Hat

Red Hat Enterprise Linux 7 is the world's leading enterprise Linux platform built to meet the needs



ptions for SUSE

Microsoft

Save on your Azure SUSE costs by purchasing SUSE Linux Enterprise Server software for 1 or 3 years.



**Debian Linux**

Debian

Debian GNU/Linux for Microsoft Azure provided by credativ.



**Windows Server**

Microsoft

Microsoft Windows Server Virtual Machine Images



**Windows**

Microsoft

Windows C

structure





# Marketplace



Marketplace

Pricing : All

Operating System : All

Publisher : All

All ^

☒ Select all

Windows

☒ Windows Server 2016

☒ Windows Server 2012 R2

☒ Windows Server 2012

☒ Windows Server 2008 R2

☒ Others (Windows)

Linux

☒ Cent OS

☒ Debian

☒ Red Hat

☒ SUSE

☒ Ubuntu

☒ Others (Linux)

8.04 LTS



Red Hat Enterprise Linux 7.6

Red Hat

Red Hat Enterprise Linux 7 is the world's leading enterprise Linux platform built to meet the needs



Azure Reserved Linux Software

Microsoft

Save on your Azure purchases by purchasing SUSE Linux Server software



Debian Linux

Debian

Debian GNU/Linux for Microsoft Azure is provided by credativ.



Windows Server

Microsoft

Microsoft Windows Server Virtual Machine Images



Windows Server

Microsoft

Windows Server Virtual Machine Images

structure



# Marketplace



Marketplace

Pricing : **All**

Operating System : **All**

Publisher : **All**

All

All

Microsoft

Partners

8.04 LTS

ers high value  
nce.



**Red Hat Enterprise Linux 7.6**

Red Hat

Red Hat Enterprise Linux 7 is the world's leading enterprise Linux platform built to meet the needs



**Azure Reservations for SUSE Linux Software**

Microsoft

Save on your Azure SUSE costs by purchasing SUSE Linux Enterprise Server software for 1 or 3 years.



**Debian Linux**

Debian

Debian GNU/Linux for Microsoft Azure provided by credativ.



**Windows Server**

Microsoft

Microsoft Windows Server Virtual Machine Images



**Windows**

Microsoft

Windows C

structure





# Parceiros Microsoft

**FORTINET**®

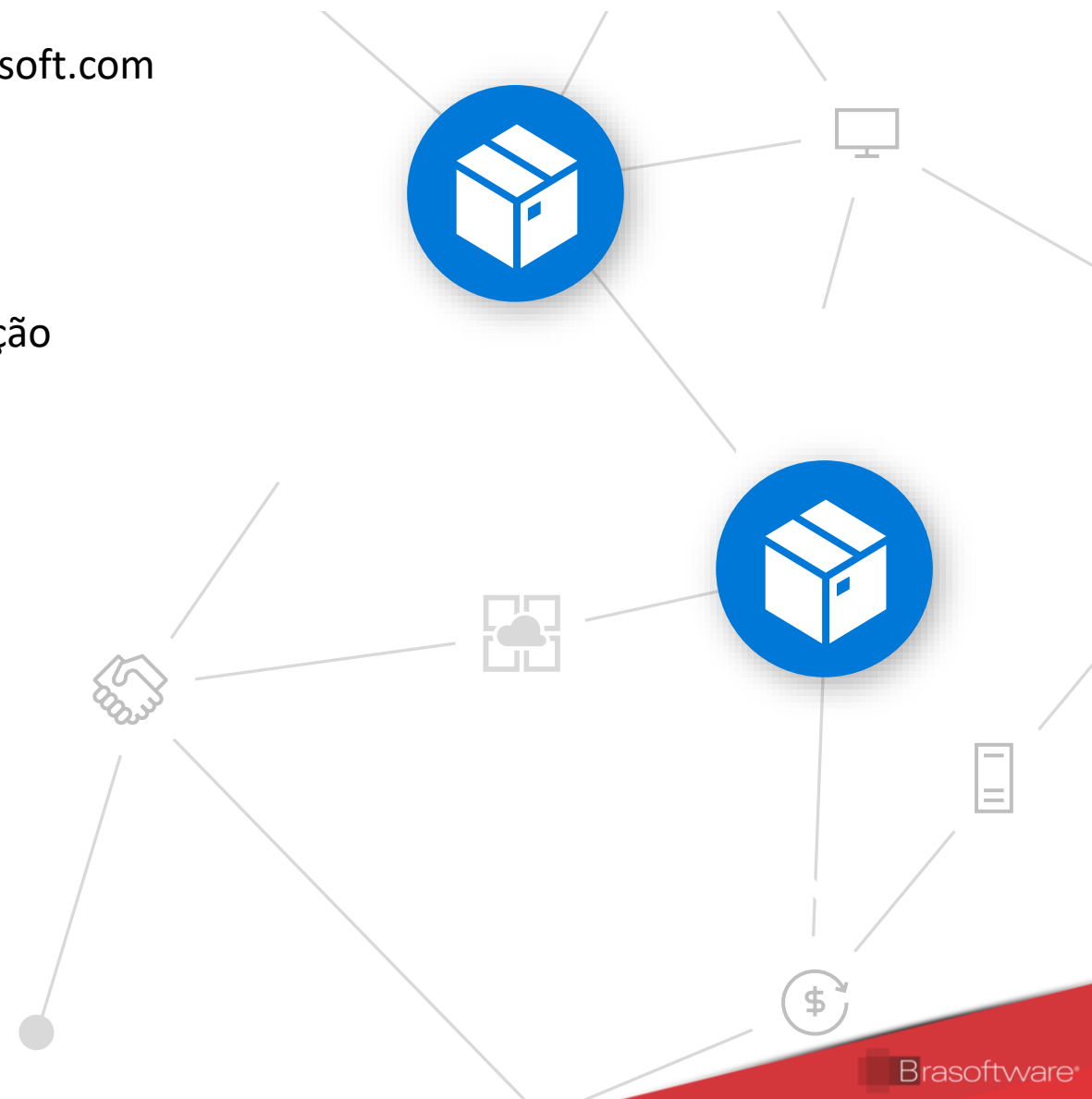
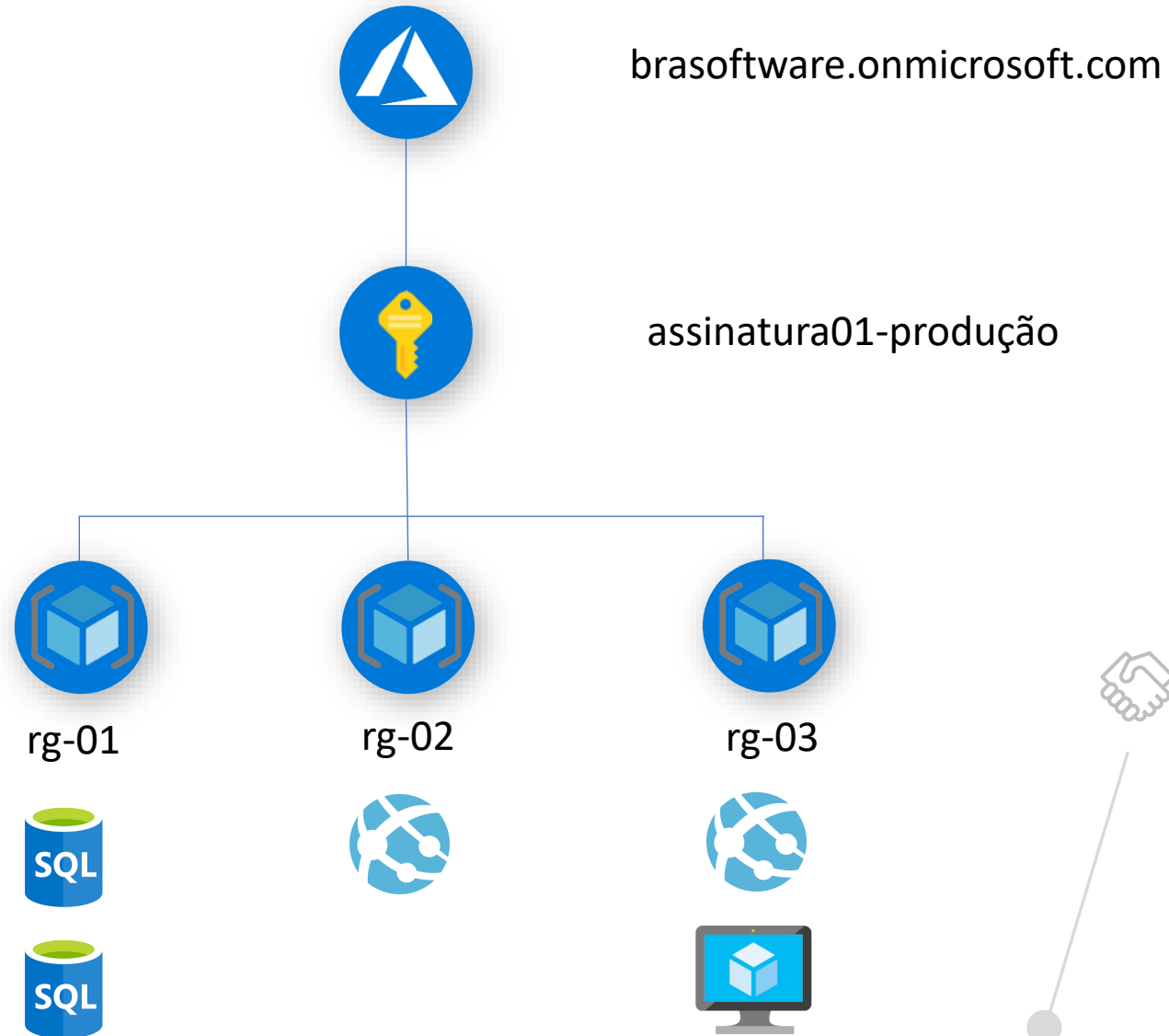
**VERITAS**™



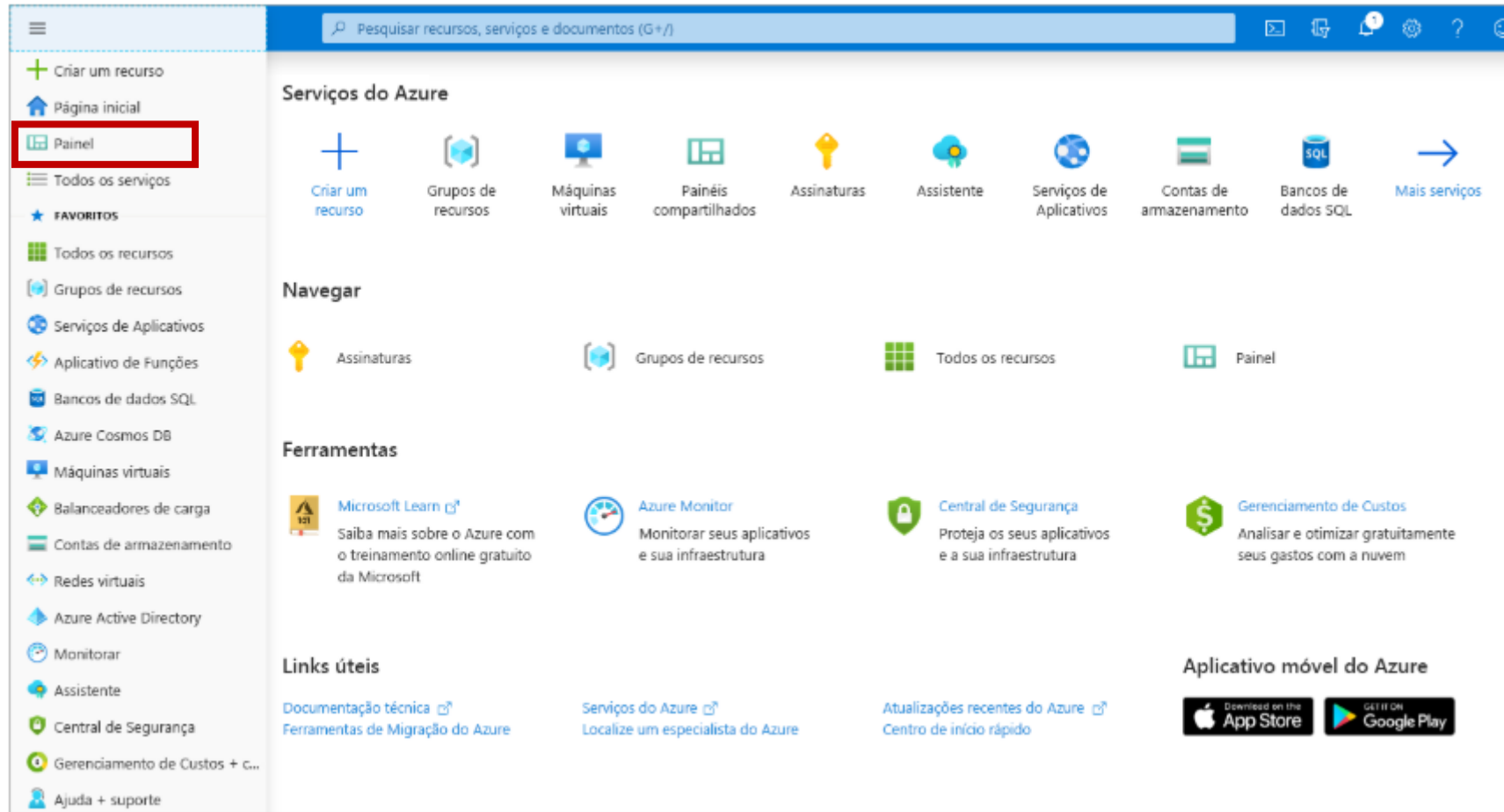
**CITRIX**®



# Grupos de Recursos



# Painéis




# Painéis

**Painel** ▾ + Novo painel ⬆ Carregar ⬇ Baixar ✎ Editar 🔄 Compartilhar 🔗 Tela inteira 📄 Clonar 🗑 Excluir

### Todos os recursos

Todas as assinaturas





Nenhum recurso para exibir


Experimente alterar seus filtros se não encontrar o que está procurando. [Saiba mais](#)


[Criar recursos](#)


### Guias de início rápido + tutoriais


 **Máquinas Virtuais do Windows** [↗](#)  
Provisionar VMs do Windows Server, do SQL Server e do SharePoint


 **Máquinas Virtuais do Linux** [↗](#)  
Provisionar VMs do Ubuntu, Red Hat, CentOS, SUSE e CoreOS

 **Serviço de Aplicativo** [↗](#)  
Criar aplicativos Web usando .NET, Java, Node.js, Python e PHP

 **Funções** [↗](#)  
Processar eventos com uma arquitetura de código sem servidor

 **Banco de Dados SQL** [↗](#)  
Banco de Dados SQL relacional gerenciado como serviço

 **Integridade do Serviço** **4**

 **Marketplace** **5**



An abstract graphic featuring a network of thin grey lines connecting various icons. The icons include a computer monitor at the top, a cloud within a square frame on the left, a server rack on the right, and a dollar sign inside a circular arrow at the bottom. The background is white, and a red diagonal band runs across the bottom right corner.

+ Add filter

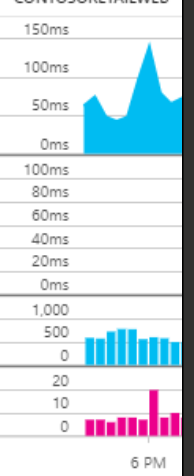
# Application

Total of Failed requests  
CONTOSORETAILWEB

OPERATION ... TOTAL

GET Cust...  
GET Servi...

Overview timeline  
CONTOSORETAILWEB



Application map  
CONTOSORETAILWEB -

- + Create a resource
- Home
- Dashboard**
- All services
- FAVORITES
- Virtual machines
- Monitor
- Log Analytics workspaces
- Application Insights
- Automation Accounts
- Security Center
- Solutions
- Azure Sentinel
- Recent
- Logic Apps
- Cloud services (classic)
- Cost Management + Bill...
- Migration projects
- Policy
- Azure Database Migrati...
- Quickstart Center
- Network security group...
- Alerts
- Resource groups

Local Time : Past 1440 minutes + Add filter

contosoretailweb  
Application Insights

contosoretailweb  
Alerts (classic)

Smart Detection  
contosoretailweb

Live Stream  
4  
Servers

60%  
contosoreta...

App map

Usage Edit 6.5k

Reliability Edit

Responsiveness Edit

Requests and errors today  
Unique sessions  
5393.25k  
54  
Sessions per browser today  
23511

Sessions per device  
Desktop 28819  
Mobile 1582  
Tablet 1110  
Analytics  
Sessions today  
23511  
Quotas  
Memory... 17%  
CPU Per... 29%  
Sessions (past week)  
Average 1514  
Total 255919  
Max 3260

Service health  
Web Sites  
CDN  
Compute  
Page views (top 5 pages)  
358550

Web Sites  
CDN  
Compute  
Page views (top 5 pages)  
358550

Current Spend  
\$1,365.83  
(estimated)

Alert rules  
1 rule

Events in the past week  
No events in the past week.

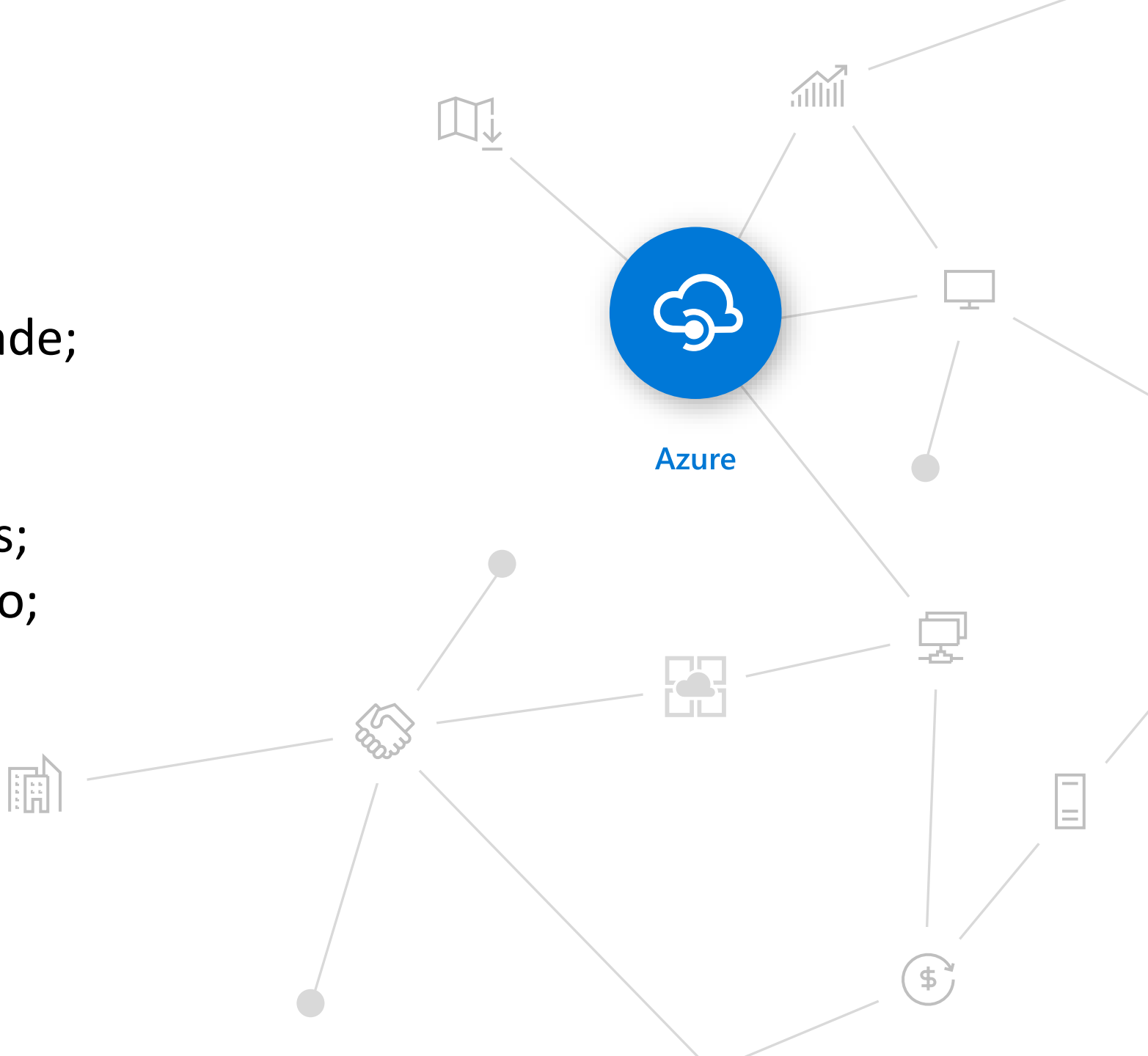




# Retomada



- Regiões do Azure
  - Zonas de disponibilidade;
  - Regiões pares;
- Níveis de serviço;
- Ciclo de vida dos recursos;
- Opções de gerenciamento;
- Portal do Azure;
  - Funcionalidades;
  - Marketplace;
  - Grupos de Recursos;
  - Painéis.



# Questões

How many regions does Azure have?

- A. 56
- B. 54
- C. 60
- D. 64

Which options below do not guarantee service level?

- A. Public Preview
- B. General Availability
- C. Availability Zones
- D. Private Preview

True or false: Is the Azure Cloud Shell an interactive, browser-accessible shell for managing Azure resources?

- A. True
- B. False

# Questões

How many regions does Azure have?

- A. 56
- C. 60

- B. 54
- D. 64

Which options below do not guarantee service level?

- A. Public Preview
- C. Availability Zones

- B. General Availability
- D. Private Preview

True or false: Is the Azure Cloud Shell an interactive, browser-accessible shell for managing Azure resources?

- A. True

- B. False

# Intervalo



AZ 900 – Azure Fundamentals

# Segurança, responsabilidades e confiabilidade

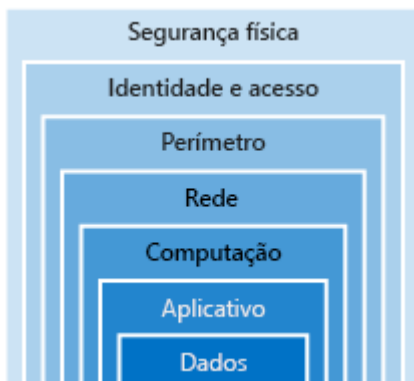


Jornada de Certificação Azure

# Responsabilidades



- Na nuvem a responsabilidade será **COMPARTILHADA**, sendo maior ou menor dependendo do modelo de aquisição do recurso que foi provisionado.



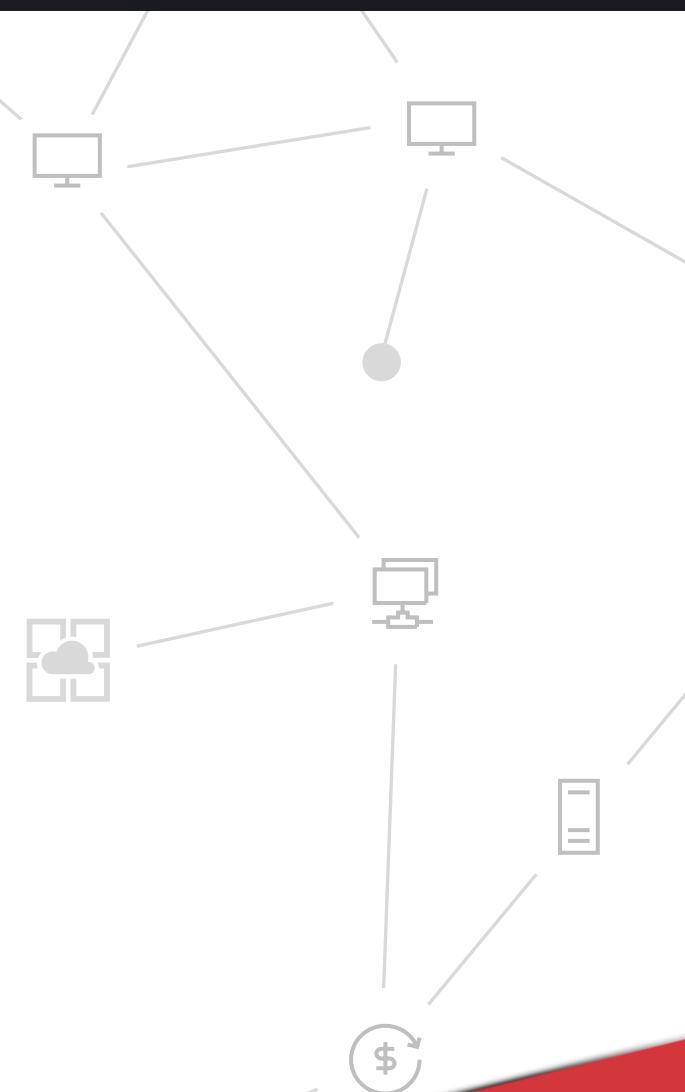
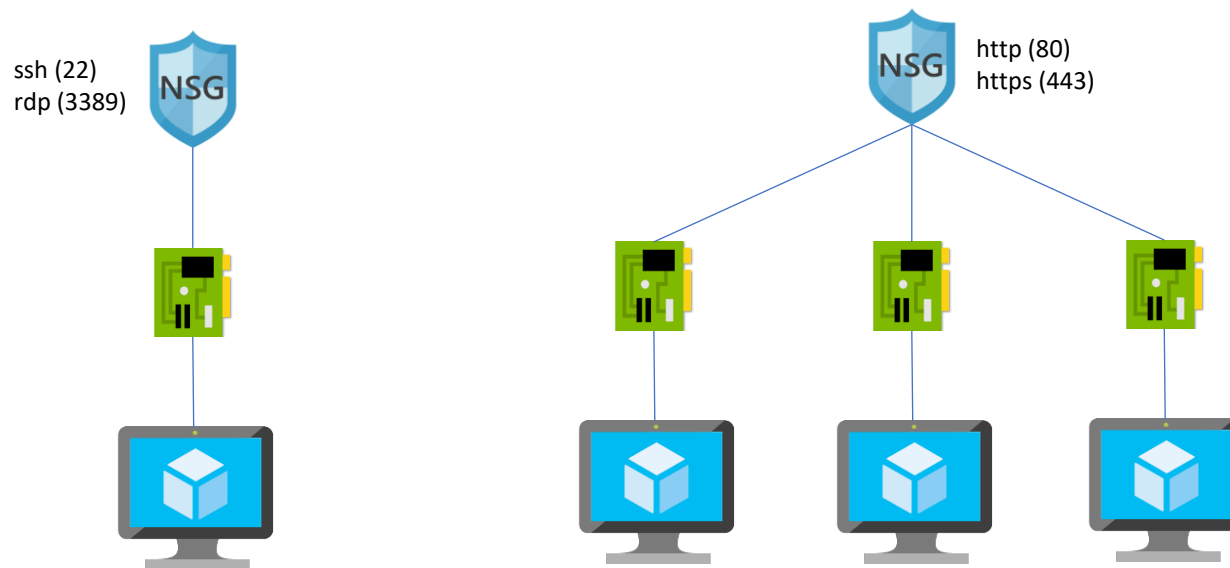
Responsibility	On-prem	IaaS	PaaS	SaaS
Data governance & rights management	Customer	Customer	Customer	Customer
Client endpoints	Customer	Customer	Customer	Customer
Account & access management	Customer	Customer	Customer	Customer
Identity & directory infrastructure	Customer	Customer	Microsoft	Microsoft
Application	Customer	Customer	Microsoft	Microsoft
Network controls	Customer	Customer	Microsoft	Microsoft
Operating system	Customer	Customer	Microsoft	Microsoft
Physical hosts	Customer	Microsoft	Microsoft	Microsoft
Physical network	Customer	Microsoft	Microsoft	Microsoft
Physical datacenter	Customer	Microsoft	Microsoft	Microsoft

Microsoft Customer

# Network Security Group (NSG)



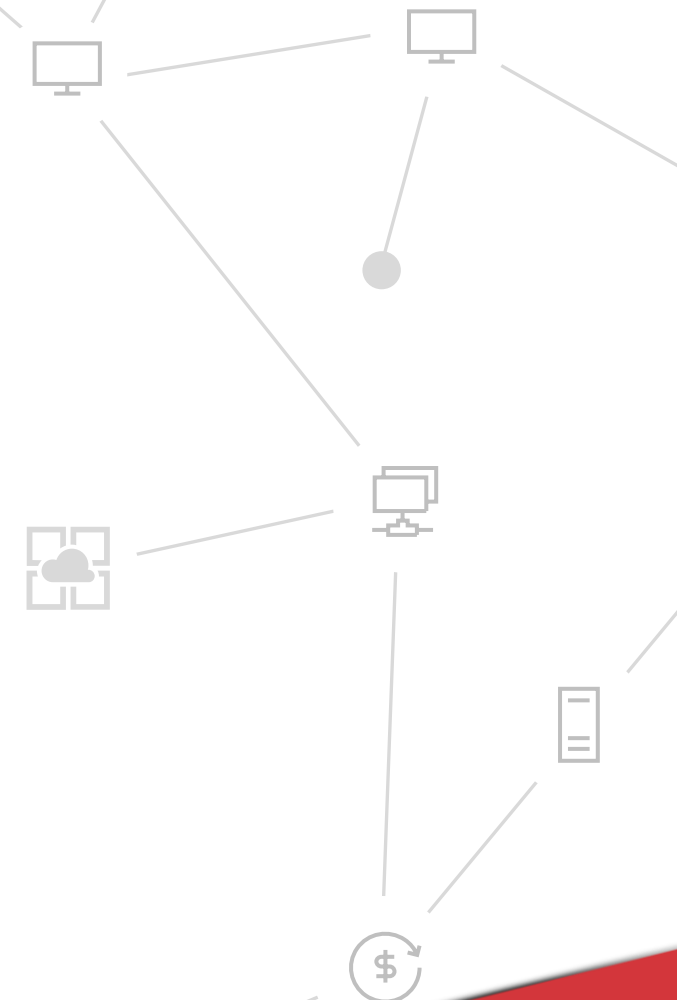
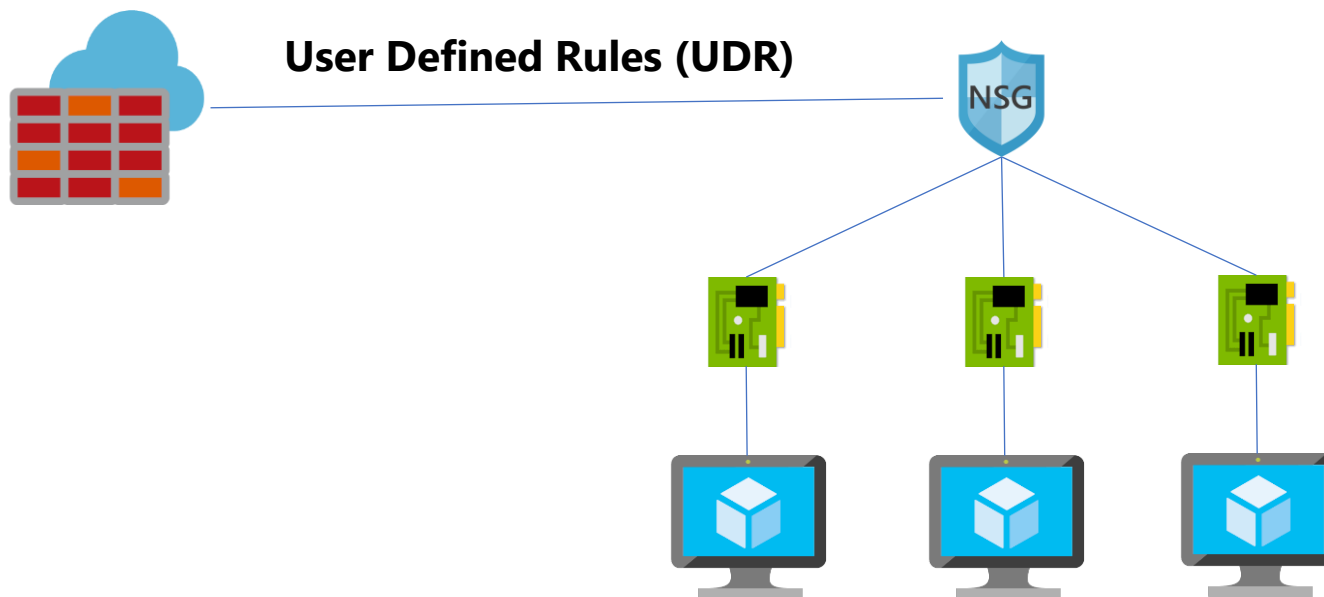
- ❖ Serviço gerenciado para controle de entrada e saída de IPs e Portas;
- ❖ Não possui custos.



# Azure Firewall



- Firewall totalmente com estado como serviço, com alta disponibilidade interna e escalabilidade de nuvem sem restrições;
- Totalmente integrado com o Azure Monitor.

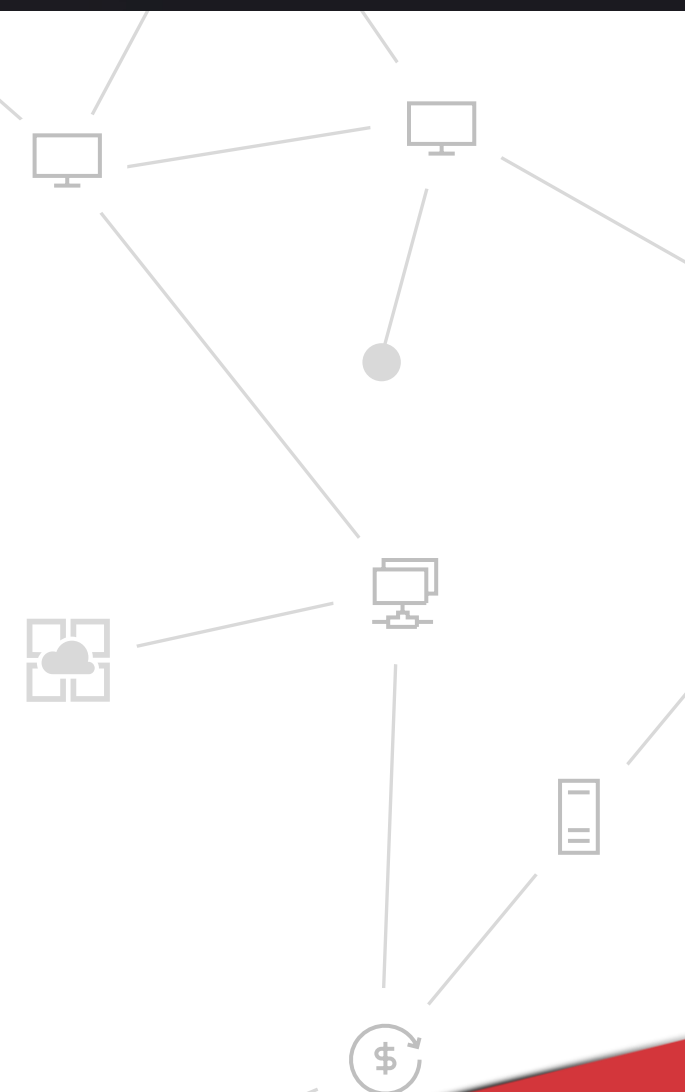
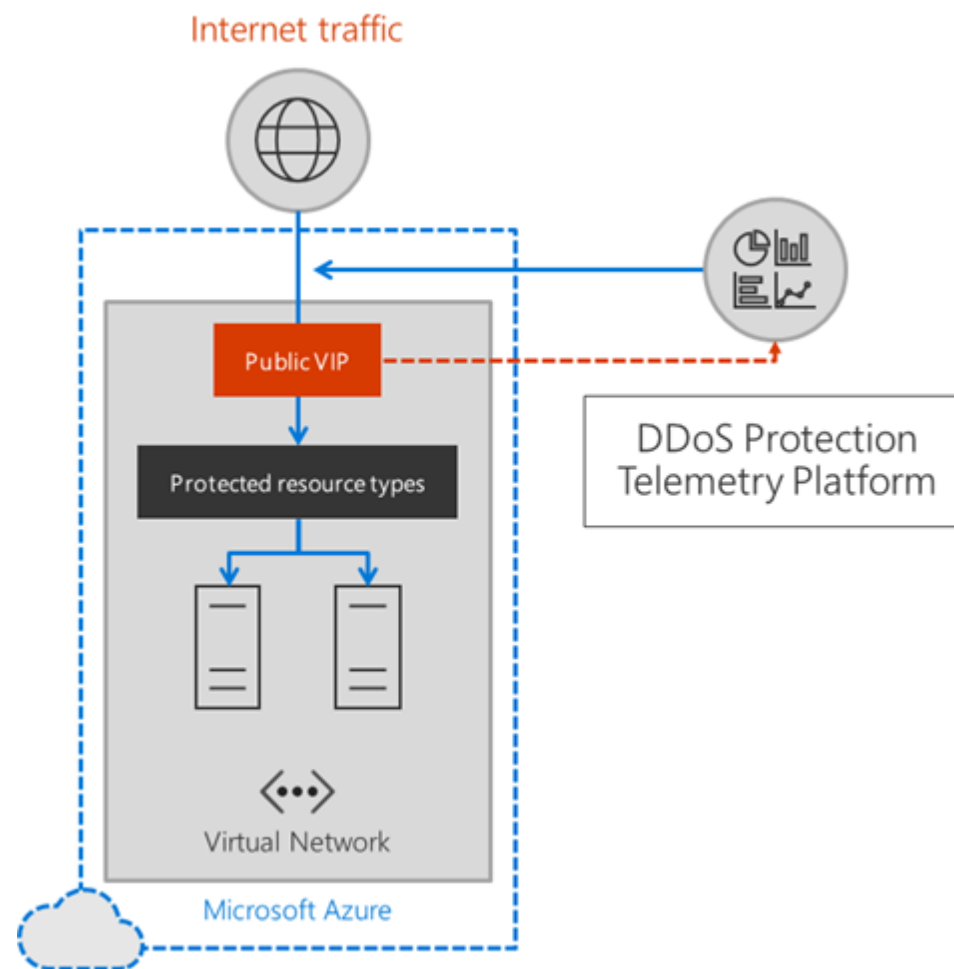




# Azure DDoS Protection



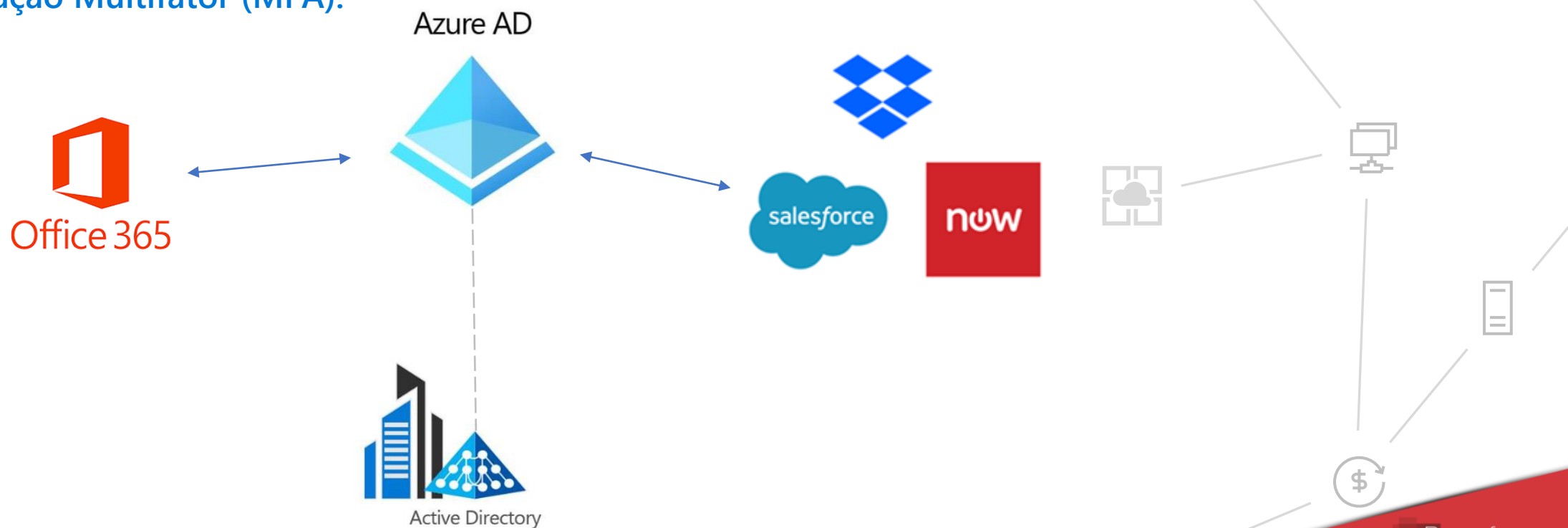
- **Análise de tráfego de rede;**
- **Camadas básica e padrão;**



# Azure Active Directory



- Serviço de identidade baseado em nuvem, facilmente integrável com o ambiente local;
- Logon único (SSO);
- Autenticação Multifator (MFA).



# Azure Security Center



Incidente de segurança detectado

Incidente detectado

Security Center - Overview

Showing subscription 'Azure Pass - Sponsorship'

DESCRIÇÃO

HORÁRIO DA ATIVIDADE

SEVERIDADE

ESTADO

RECURSO ATACADO

ASSINATURA

DETECTADO POR

AÇÃO TOMADA

AMBIENTE

ETAPAS DE CORREÇÃO

GENERAL

Overview

Getting started

Events

Search

POLICY & COMPLIANCE

Coverage

Subscriptions

What's new

Policy & compliance

Secure score

350 OF 580

Secure score impact changed. [Learn more](#)

[Review your secure score](#)

Regulatory compliance

SOC TSP 1 of 12 passed controls

PCI DSS 3.2 8 of 31 passed controls

ISO 27001 6 of 18 passed controls

ATACADO

SEVERIDADE

Baixo

Baixo

Alta

Baixo

Baixo

Média

1. Escale o alerta para a equipe de segurança da informação.

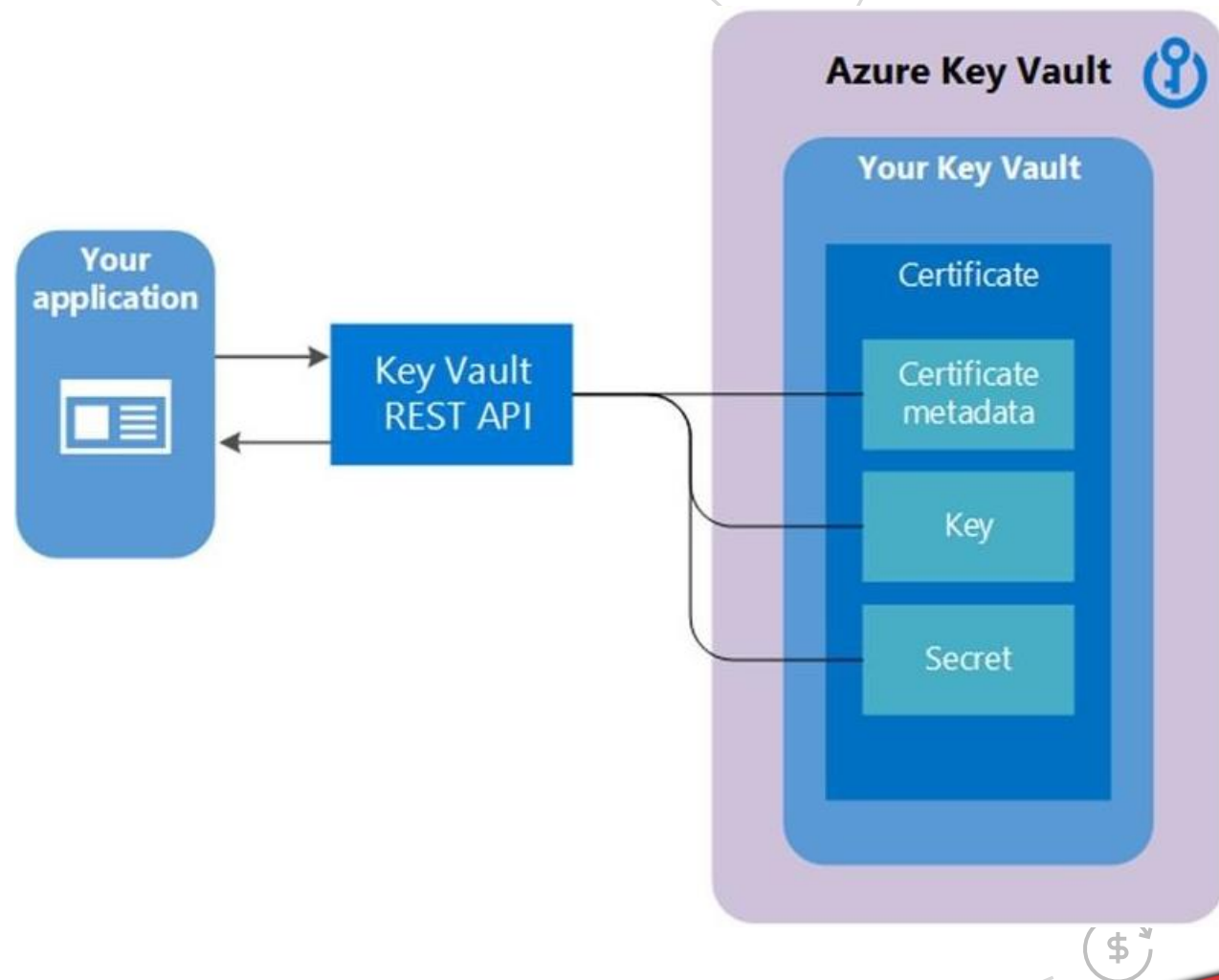
2. Examine as etapas de correção de cada um dos alertas



# Azure Key Vault



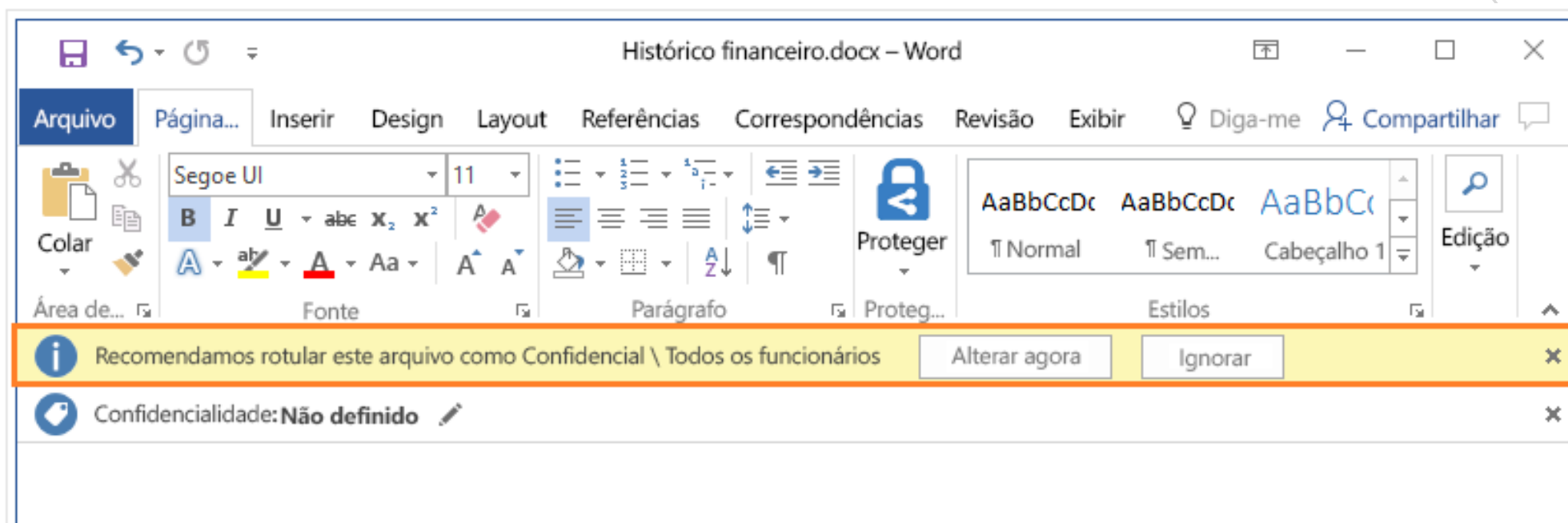
- 🔒 Serviço para gerenciamento de:
  - 🔒 Segredos;
  - 🔒 Chaves;
  - 🔒 Certificados.



# Azure Information Protection (AIP)



Solução baseada em nuvem que ajuda as organizações a classificar e, opcionalmente, proteger documentos e emails aplicando rótulos.



# Azure Advanced Threat Protection (ATP)



• A ATP  
basead  
identificac  
organi

Azure Advanced Threat Protection | contoso-corp | Timeline

4:04 PM Today

**Honeytoken activity** Updated

The following activities were performed by **Bob Minion**:

- Logged in to 2 computers via Contoso-DC.
- Authenticated from 2 computers using Kerberos when accessing 5 resources against Contoso-DC.
- Authenticated from ITARGOET-T470S using NTLM against corporate resources via Contoso-DC.

Started at 3:08 PM Jan 22, 2018

3:23 PM Jan 22, 2018

**Remote execution attempt detected**

The following remote execution attempts were performed on Contoso-DC from ALICE-DESKTOP:

- Attempted remote execution of one or more WMI methods by AdminUser.

3:06 PM Jan 22, 2018

**Suspicious service creation**

AdminUser created 10 services in order to execute potentially malicious commands on Contoso-DC.

3:03 PM Jan 22, 2018

**Brute force attack using LDAP simple bind**

200 password guess attempts were made on 2 accounts from ALICE-DESKTOP. 2 account passwords were successfully guessed.

segurança  
as,  
s à sua



# Azure Policy



- Crie e gerencie políticas;
- Limite Recursos e regiões a serem utilizados;
- Semelhante a uma GPO.

Página Inicial > Política – Definições > SKUs de máquinas v... > SKUs de máquinas virtuais pe...

## SKUs de máquinas virtuais permitidos

Atribuir política

Descrição

Interromper todas as VMs, exceto a série Standard\_A2.

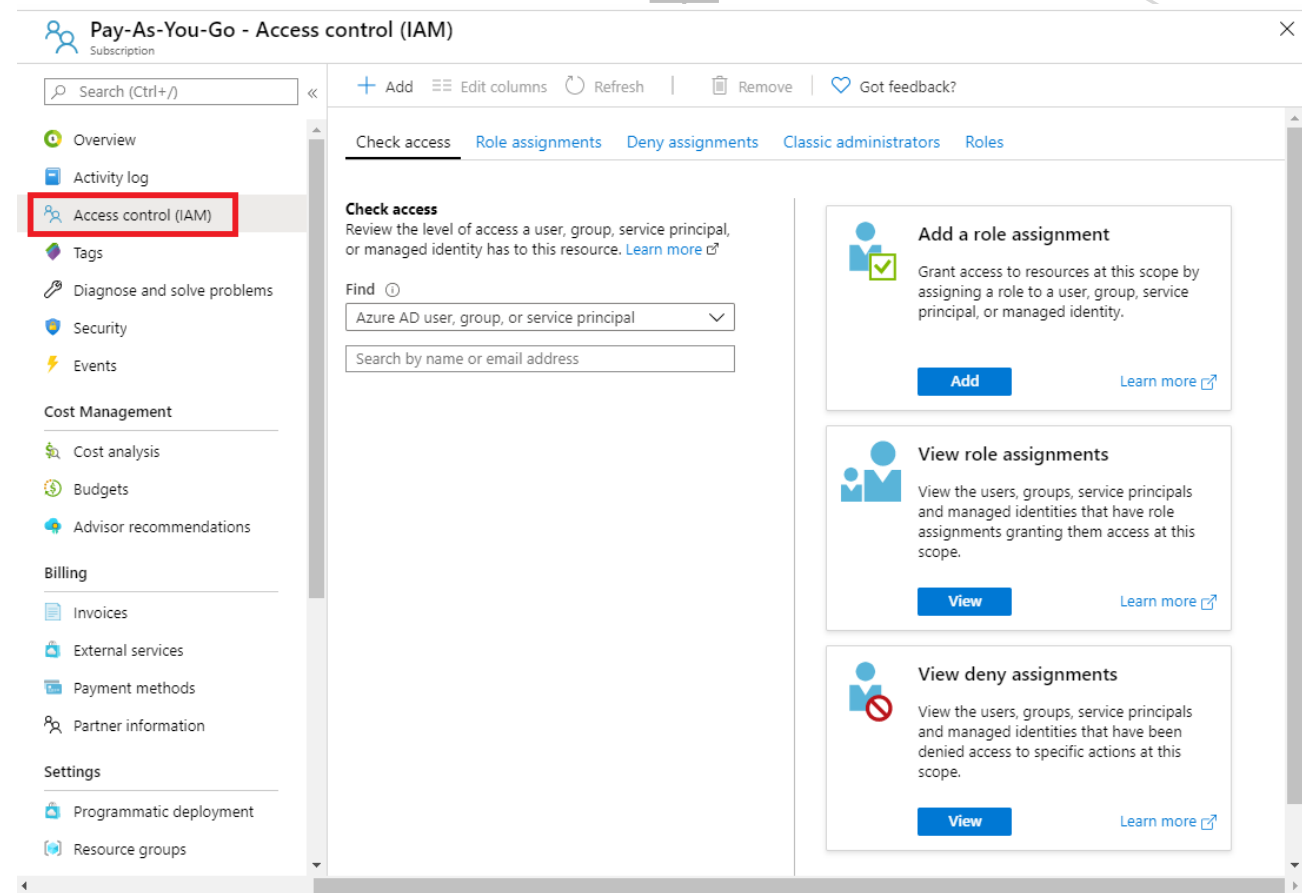
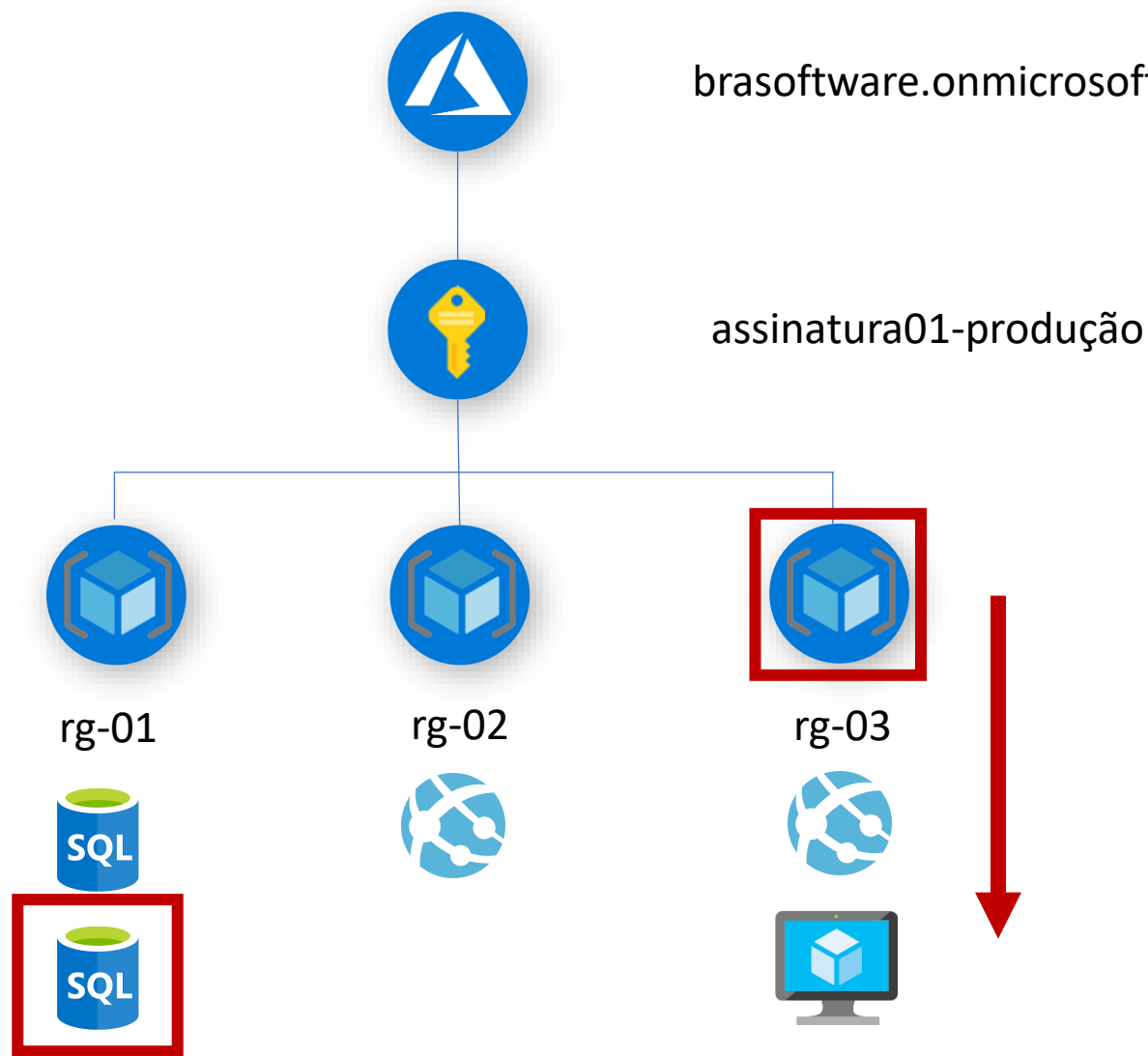
PARÂMETROS

\* SKUs permitidos ⓘ

3 selecionados



# Role-Based Access Control (RBAC)

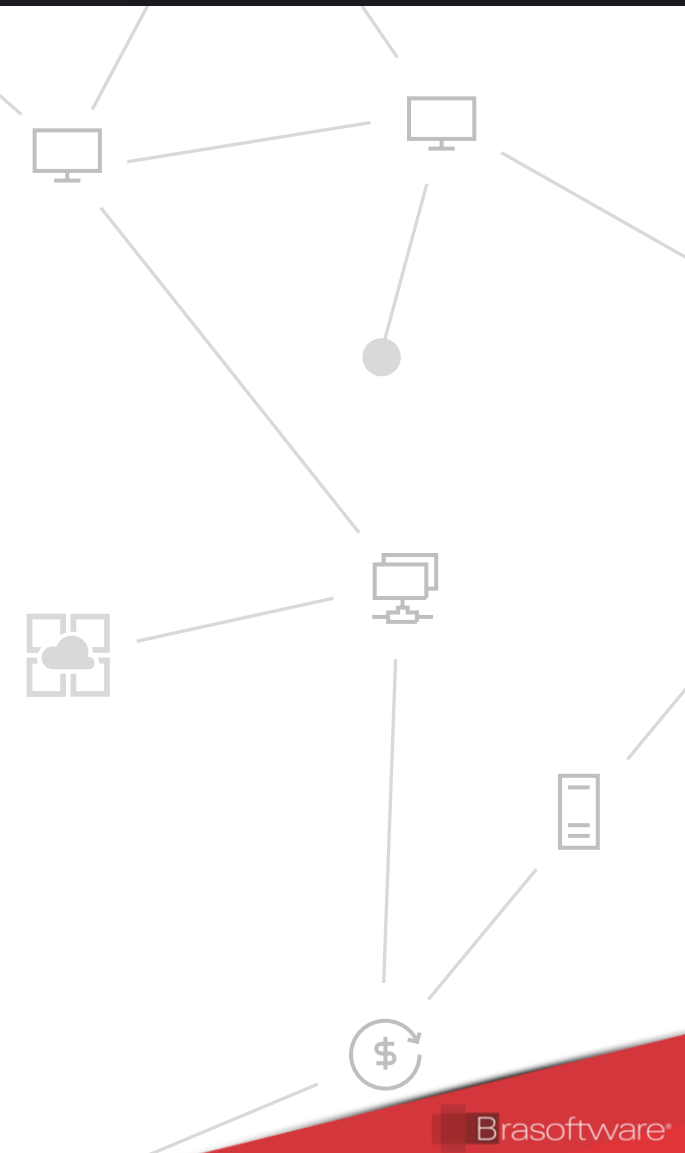




# Azure Locks



- 🔒 **CanNotDelete** usuários autorizados poderão ler e modificar um recurso, mas não poderão excluir o recurso.
- 🔒 **ReadOnly** usuários autorizados poderão ler um recurso, mas não poderão excluir ou atualizar o recurso.

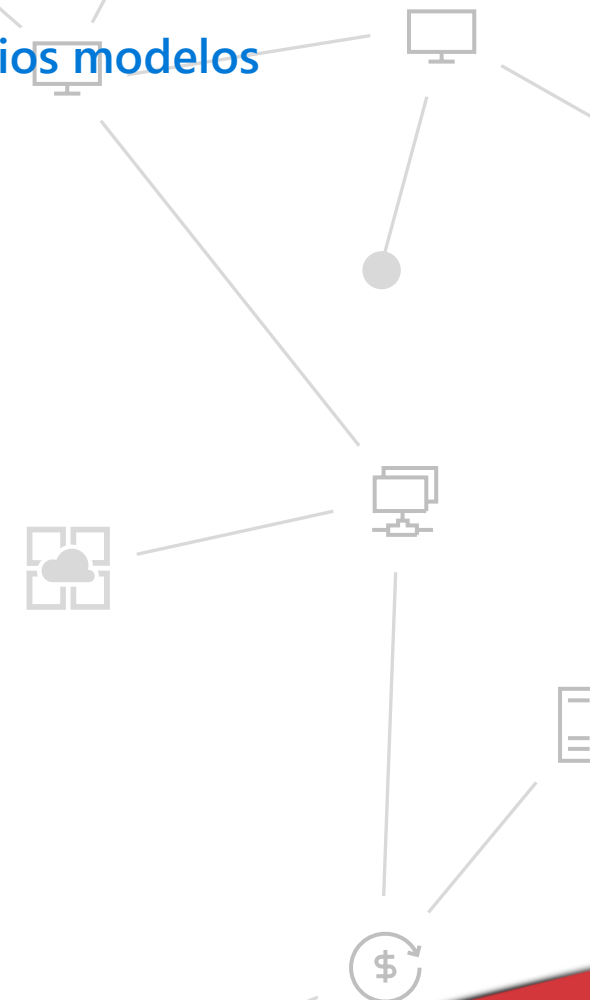


# Azure Blueprints



O Azure Blueprints é uma maneira declarativa de orquestrar a implantação de vários modelos de recursos e outros artefatos, tais como:

- ▀ Atribuições de função
- ▀ Atribuições de política
- ▀ Modelos do Azure Resource Manager
- ▀ Grupos de recursos



# Azure Monitor + Service Health

	Américas	Europa	Pacífico Asiático	Oriente Médio e África	Azure Government	Azure China						
PRODUTOS E SERVIÇOS	*NÃO REGIONAL	LESTE DOS EUA	LESTE DOS EUA 2	EUA CENTRAL	CENTRO-NORTE DOS EUA	CENTRO-SUL DOS EUA	CENTRO-OESTE DOS EUA	OESTE DOS EUA	OESTE DOS EUA 2	LESTE DO CANADÁ	CANADÁ CENTRAL	SUL DO BRASIL

Application

Operating System

Azure Resources

Azure Subscription

Azure Tenant

Custom Sources

✓ Bom

i Informações

⚠ Aviso

✗ Crítico

# Trust Center



Central de Confiabilidade

Segurança

Privacidade

Produtos e serviços

Ferramentas e documentação

Toda a Microsoft

Buscar

Carrinho

Entrar



A M  
"Se não podemos proteger as  
pessoas, não merecemos a  
confiança delas."

– Brad Smith, presidente e diretor jurídico

Segurança, privacidade e conformidade são princípios fundamentais do modo como capacitamos as organizações para atenderem a seus clientes.

[Assista ao vídeo](#)



## Reagir à COVID-19 juntos

O que nós estamos fazendo, o que você pode fazer e o que podemos fazer juntos em resposta aos novos desafios.

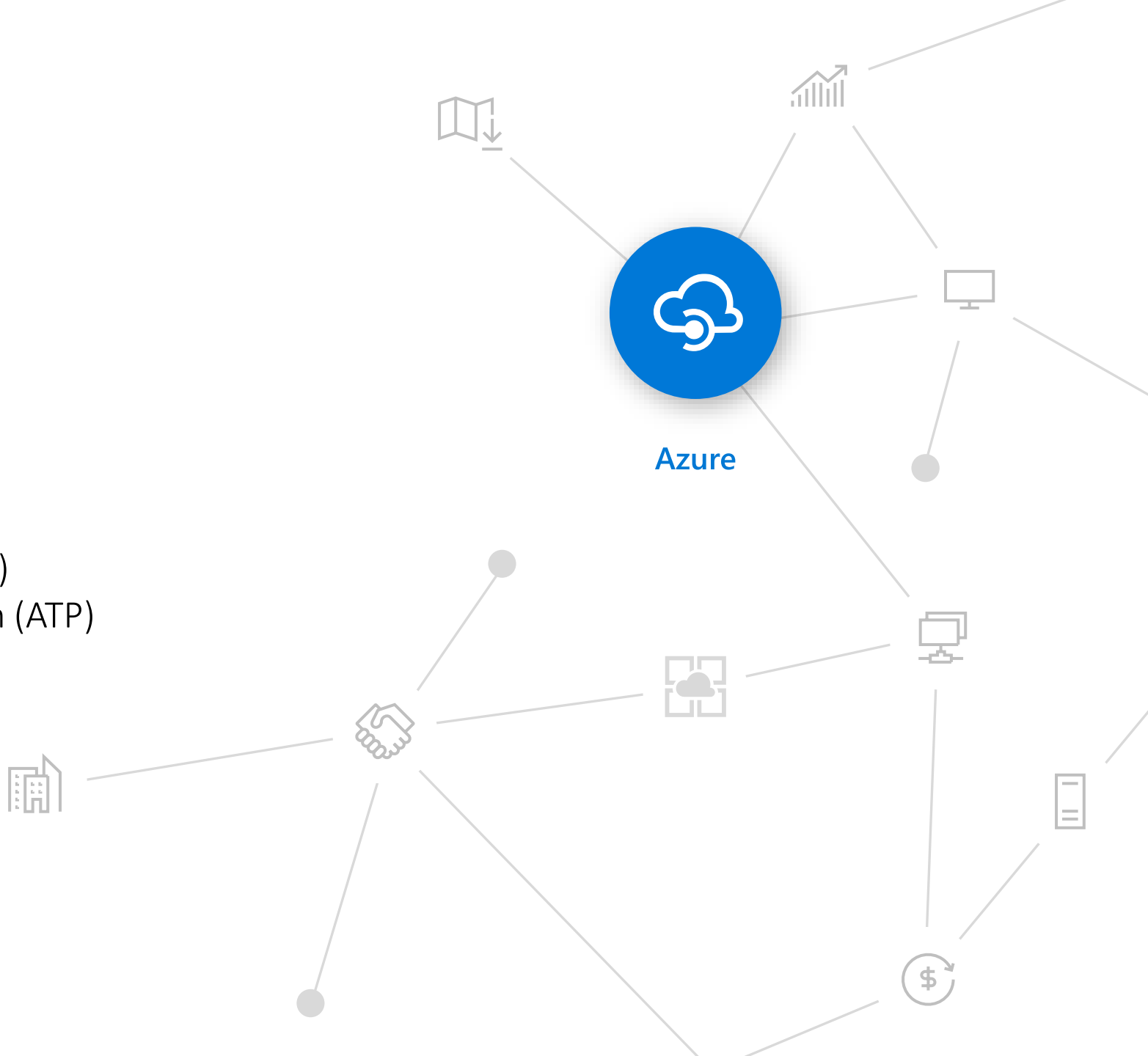
[Saiba mais >](#)

Princípios para manter a integridade dos dados na nuvem



# Retomada

- Responsabilidades;
- Network Security Groups (NGS)
- Azure Firewall
- Azure DDoS Protection
- Azure Active Directory
- Security Center
- Azure Key Vault
- Azure Information Protection (AIP)
- Azure Advanced Threat Protection (ATP)
- Azure Policy
- RBAC
- Locks
- Blueprints
- Azure Monitor + Service Health
- Trust Center



# Questões

You want to store certificates in Azure to centrally manage them for your services. Which Azure service should you use?

- A. AIP
- B. Azure AD
- C. Azure Key Vault
- D. Azure ATP

You have a virtual machine named VM1 that runs Windows Server 2016. VM1 is in the East US Azure region. Which Azure service should you use from the Azure portal to view service failure notifications that can affect the availability of VM1?

- A. Azure Service Fabric
- B. Azure Monitor
- C. Azure virtual machines
- D. Azure ATP

You have an Azure environment that contains 10 virtual networks and 100 virtual machines. You need to limit the amount of inbound traffic to all the Azure virtual networks.

What should you create?

- A. one network security group (NSG)
- B. 10 virtual network gateways
- C. 10 Azure ExpressRoute circuits
- D. one Azure firewall

# Questões

You want to store certificates in Azure to centrally manage them for your services. Which Azure service should you use?

A. AIP

B. Azure AD

C. Azure Key Vault

D. Azure ATP

You have a virtual machine named VM1 that runs Windows Server 2016. VM1 is in the East US Azure region. Which Azure service should you use from the Azure portal to view service failure notifications that can affect the availability of VM1?

A. Azure Service Fabric

B. Azure Monitor

C. Azure virtual machines

D. Azure ATP

You have an Azure environment that contains 10 virtual networks and 100 virtual machines. You need to limit the amount of inbound traffic to all the Azure virtual networks.

What should you create?

A. one network security group (NSG)

B. 10 virtual network gateways

C. 10 Azure ExpressRoute circuits

D. one Azure firewall





Alan Ramires



Cláudio Toledo

APPS&INFRA

OBRIGADO!