

on



- setup and use cases -



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topics

Microsoft Azure

• as platform

CHR deployment

- prerequisites
- deploying on Azure

some use cases







Microsoft Azure as platform

Microsoft Azure **DEVELOPER + APP PLATFORM** Visual Studio Family + Azure App Service Cortana Analytics Suite DATA + ANALYTICS Azure IoT Suite INTERNET OF THINGS **CLOUD INFRASTRUCTURE** Azure AD Connect Health Virtual Machines A Express Route Containers Multi-Factor Auth ⟨···⟩ Virtual Network Load Balancer Key Vault DNS Operational Insights Traffic Manager VPN Gateway



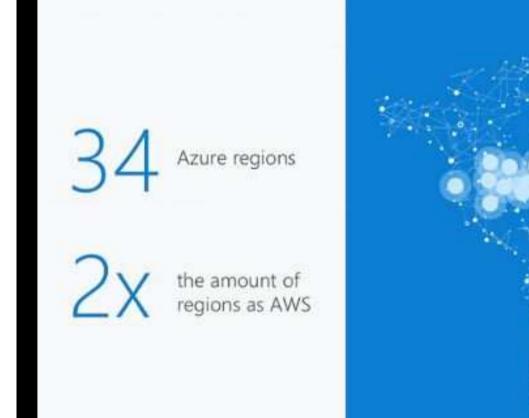


Source: Azure presentation by Shahed Chowdhuri

Site Recovery

Microsoft Ignite

September 26 – 30, 2016, Atlanta, GA





Azure – subscription options



- Trial for 1-month
 worth €170 (credit card info only needed for verification, no charge!)
- Pay-as-you-go on monthly basis, payment via credit card
- MS Enterprise Agreement within annual contract
- MSDN subscription up to €130 per month
- MS Dreamspark for students up to ten Azure Webapps (hosted projects - html, js, node, php, python and more)
- MS Partner Network



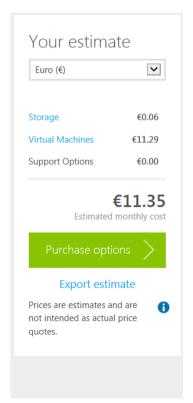


Azure - costs (indication)



Pricing Calculator available: https://azure.microsoft.com/en-us/pricing/calculator/

Virtua	al Machines		6 ×
Storage		• ×	
REGION: West Europe	Page Blob and Disk	~	
PRICING TIER: Basic	DATA REDUNDANCY:	~	€0.015/hr ∨
Capacity			= €11.29 _{/MO}
1 GB ▼		= €0.04/MO	C11.23/MO
Storage transactions			
Transaction units (100,000 transactions) × €0.0030 Per unit		= €0.02/MO	
		Sub-total €0.06/мо	



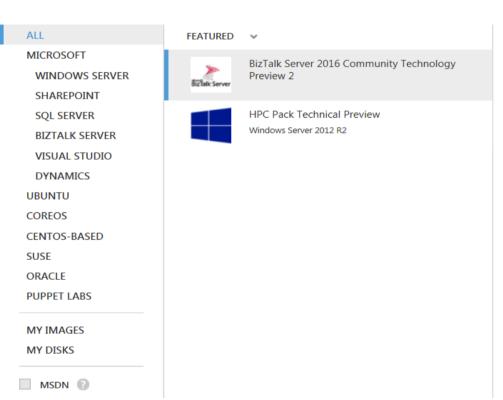




deployment, 'the extra mile'

CREATE A VIRTUAL MACHINE

Choose an Image



ch ×



BizTalk Server 2016 Community Technology Preview 2

Microsoft BizTalk Server 2016 Community
Technology Preview 2 on Windows Server 2016
Technical Preview 4. This release focuses on a
number of important improvements. Support for
SQL Server 2016 AlwaysOn Availability Groups
makes production high availability (HA) workloads
in Azure a reality. We have also made numerous
improvements and enhancements to BizTalk
based on your feedback, we hope you like them.
See documentation at

https://msdn.microsoft.com/en-US/library/mt670742.aspx for more information.

OS FAMILY Windows

PUBLISHER Microsoft BizTalk Server Group

PRICING INFORMATION

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



2 3





deployment, prerequisites



- CHR-VM image
- Azure-account and active Azure subscription
- Azure Management tool
 <u>GUI</u>: up-to-date browser required
 or

<u>command line</u>: MS Powershell and Azure Powershell Enhancement available via https://github.com/Azure/azure-powershell alternatively for multiple platforms https://github.com/Azure/azure-cli/





CHR, available VM images



Cloud Hosted Router

	6.36.4 (Bugfix only)	6.37.1 (Current)	5.26 (Legacy)	6.38rc29 (Release candidate)
Images	vmdk, vhdx, vdi, img			
VHDX image			-	
VMDK image			-	
VDI image			-	
Raw disk image			-	
Extra packages			-	
The Dude server			-	
The Dude client			-	
Changelog	=	=	-	! !
MD5	\checkmark	~	-	✓

as of mid-November 2016

CHR-virtual machine converted into VHD is needed, since VHD is (currently) the only supported VM format on Azure!





deployment, preparation



Converting any downloadable CHR-image to a <u>pre-allocated</u> VHD

- Freeware: Oracle's Virtualbox GUI / vboxmanage (command line) and a lot more ...
- MS HyperV Manager (if avail.), MS Powershell

Hint: Check VHD-filesize after conversion, must be larger than 130 megabytes to serve as pre-allocated VHD





CHR deployment on Azure



- 1. Setup Azure blob storage and container
- 2. Upload CHR VHD-image into container as page blob
- 3. Setup disk, Azure Virtual Machine and Cloud Service
- 4. Setup CHR

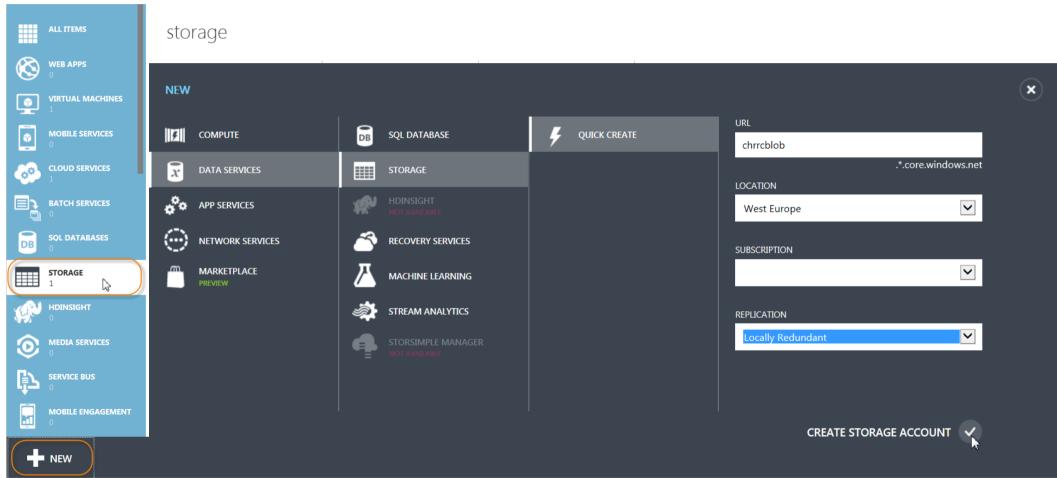
<u>Hint:</u> When using Azure CLI, setup account, access and environment variables first





deployment, setup storage

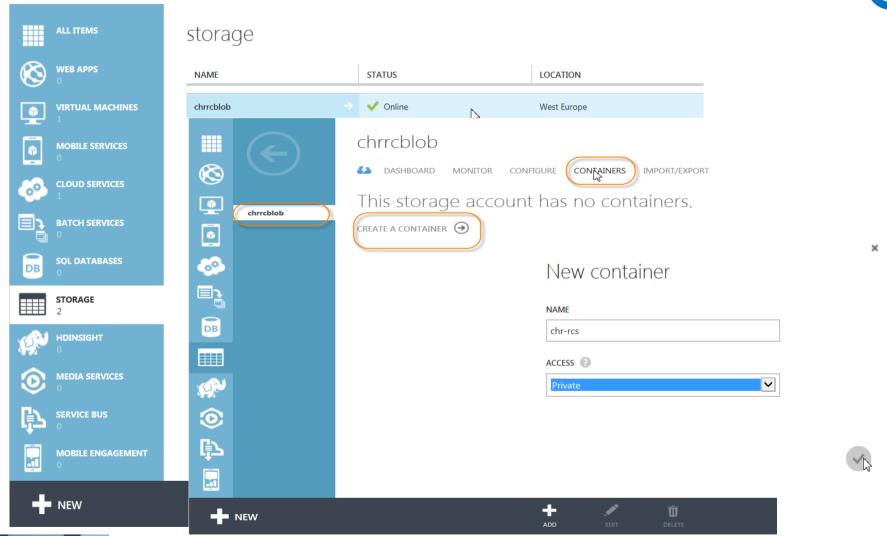








deployment, setup container

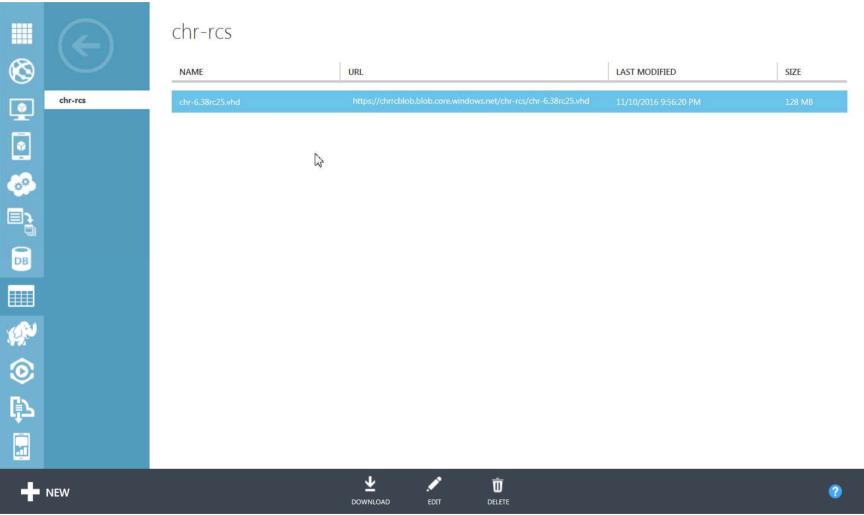






deployment, upload check





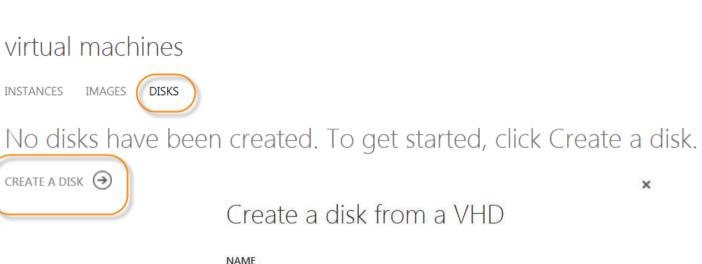




deployment, setup disk







https://chrrcblob.blob.core.windows.net/chr-rcs/e

▼ The VHD contains an operating system.



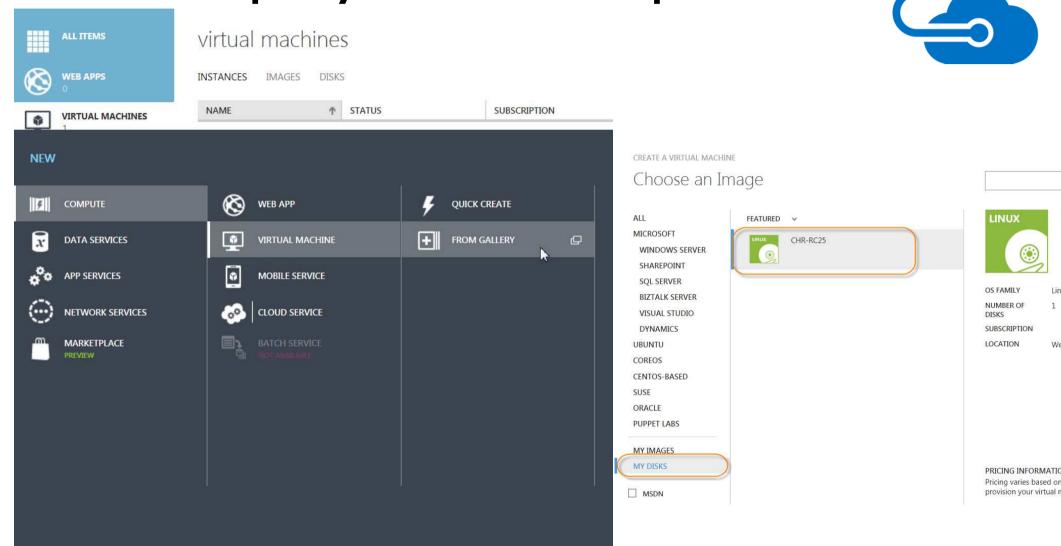


OPERATING SYSTEM FAMILY

CHR-RC25

deployment, setup VM I









deployment, setup VM II



create a virtual machine Virtual machine configuration	CREATE A VIRTUAL MACHINE Virtual machine configuration	х
CHR-RC25 TIER BASIC STANDARD SIZE A0 (shared core, 768 MB memory)	CLOUD SERVICE A You will not be able to select a cloud service below if it is deployed to an affinity group. Create a new cloud service CLOUD SERVICE DNS NAME CHR-RC25 CIOUD SERVICE DNS NAME CHR-RC25 CHR-RC25	OS FAMILY Linux NUMBER OF DISKS 1 SUBSCRIPTION LOCATION West Europe
1	ENDPOINTS NAME PROTOCOL PUBLIC PORT PRIVATE PORT SSH TCP 30022 22 Winbox TCP 38291 8291 X ENTER OR SELECT A VALUE	PRICING INFORMATION Pricing varies based on the subscription you select to provision your virtual machine.





deployment, setup VM III



CREATE A VIRTUAL MACHINE

Virtual machine configuration

VM AGENT ②

The VM agent that supports extensions is already installed.

CHR-RC25

OS FAMILY

Linux

NUMBER OF DISKS

1

SUBSCRIPTION

LOCATION

West Europe

LEGAL TERMS

If any third-party extensions have been selected for installation, I acknowledge that I am getting such software from the third-party publishers identified above and that such publishers' legal terms and privacy statements apply to it.

PRICING INFORMATION

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

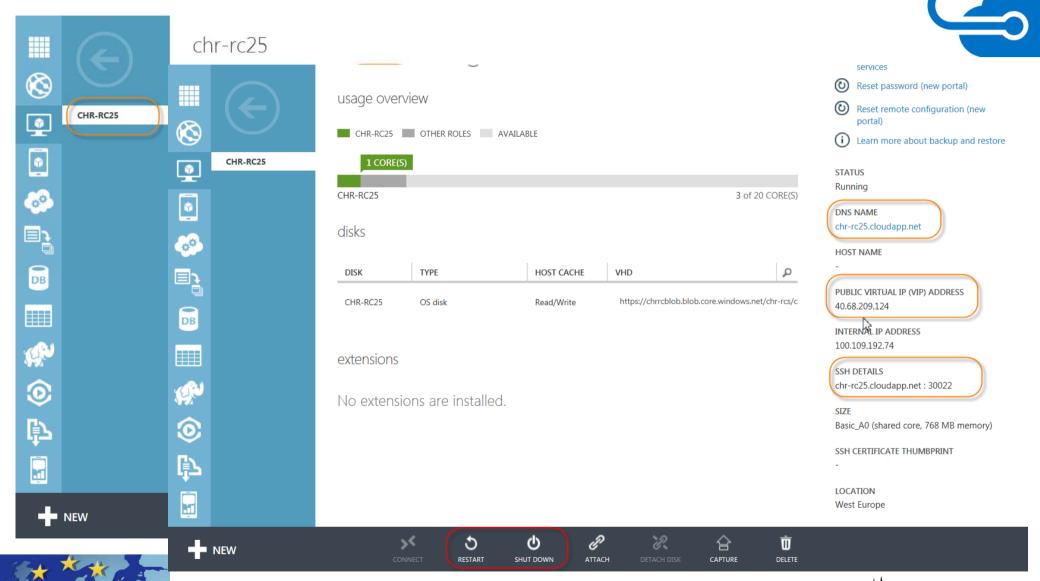


1 2 3





deployment, finish & get Info





Setting up CHR



- Secure your CHR-VM immediately after deployment by
 - issuing admin passwords,
 - closing service ports/limiting access
 - and applying firewall rules
- Make sure that every port, which needs to be publicly available, is configured in the VM Endpoints menu of your Azure CHR-VM





Some use cases



- Testing and solution development
 IoT, RADIUS Microsoft Active Directory auth.
- Training support Linux-Server with RADIUS, Wireshark, .. installed
- Network management support for distant networks via tunnels
- CAPsMAN
- Dude server for remote routers
- Deployment of endpoints in different data centers worldwide





key take-aways



- Deploying and using CHR on Azure cloud infrastructure is simple and enhances on-premise-services
- Easy configurable, scalable resources
- Perfect platform for R & D, testing (not only in Windows environment)

and managing remote network infrastructure





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