

FUTURE DECODED

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Windows 10: le novità per il business e la openness

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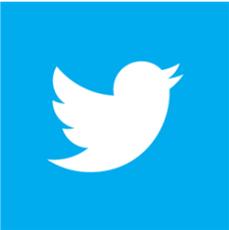
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Who am I?



Who am I?

- System Engineer in Solutions Plus srl
- Various Microsoft, VMware, HP Certifications
- IT Consultant for Virtual Environments
- System integrator

Agenda



- Windows 10 Advanced Management
- Mobile Device Management
- Hyper-V on Windows 10
- Application Virtualization (App-V)
- Windows Containers
- Windows Subsystem for Linux

A nighttime cityscape featuring a prominent skyscraper with a blue glow, illuminated buildings, and a multi-level highway with light trails from cars. The scene is split vertically, with the left side being a darker, more static view and the right side showing motion-blurred light trails.

Windows 10 Advanced Management

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Empower your employees by creating a secure productive enterprise



Trust

Protect your organization,
data and people



Collaboration

Create a productive workplace
to embrace diverse workstyles



Intelligence

Provide insights to drive faster, better
business decisions



Mobility

Enable your people to get
things done anywhere

Secure Productive Enterprise

Delivered through enterprise cloud services

Office 365

Enterprise Mobility + Security

Windows 10 Enterprise



Windows 10 Management options

- Windows 10 Management supports both on-premises and cloud-based services, including:
 - Group Policy
 - Configuration Manager
 - Microsoft Intune
 - ActiveSync
 - Office 365

Azure Active Directory

- Identity and Access Management for the Cloud
- Simplify user access to any cloud app
- Protect sensitive data and applications
- Enable self-service for your employees
- Integrate with Active Directory
- Enterprise Scale and SLA
- A rich standards-based platform for cloud authentication and access management
- Your directory on the cloud for Office 365 and beyond

Azure Active Directory Join

nicola ferrini

PROFILE WORK INFO DEVICES ACTIVITY

VIEW

DISPLAY NAME	STATUS	PLATFORM	TRUST TYPE	TRUST LEVEL
WIN-LA1QSR69821	✓ Enabled	Windows	AAD Joined	Authenticated
WIN10	✓ Enabled	Windows	AAD Joined	Authenticated
WIN10-NIC	✓ Enabled	Windows	AAD Joined	Authenticated
DESKTOP-L6H74VI	✓ Enabled	Windows	AAD Joined	Authenticated

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Administrator

Settings, permissions, and more

[Manage my account](#)

Your picture



Browse

Enterprise State Roaming

- Separation of corporate and consumer data
- Enhanced security
- Better management
- Geographic location of data in the cloud

The screenshot displays the Microsoft Intune management console. On the left, a panel for 'sample user' shows tabs for PROFILE, WORK INFO, DEVICES, and ACTIVITY. The 'DEVICES' tab is active, showing a dropdown menu for 'VIEW' set to 'Devices syncing settings and enterprise app data'. Below this, a message states 'Devices have been processed up to 6/1/2016 3:38:46 PM.' A table lists the devices:

DISPLAY NAME	DEVICE TYPE	OS VERSION	DEVICE LAST SEEN
DESKTOP-LNIHJ00	Windows Workstation	Windows/10.0.10586	6/1/2016 11:48:32 AM
DESKTOP-9ICB803	Windows Workstation	Windows/10.0.10586	6/1/2016 2:16:47 PM

On the right, the 'MAXIMUM NUMBER OF DEVICES PER USER' is set to 20. Below this, a section titled 'USERS MAY SYNC SETTINGS AND ENTERPRISE APP DATA' contains buttons for 'ALL', 'SELECTED', and 'NONE', along with a 'VIEW' link. A message '[None Selected]' is displayed, and an 'Add' button is visible. At the bottom, there are 'SAVE' and 'DISCARD' buttons.

What data roams?

- **Windows Settings:** the PC settings that are built into the Windows operating system. Generally, these are settings that personalize the user's PC, and they include the following broad categories:
 - **Theme:** desktop theme, taskbar settings, etc.
 - **Internet Explorer settings:** recently opened tabs, favorites, etc.
 - **Edge browser settings:** favorites, reading list
 - **Passwords:** Internet passwords, Wi-Fi profiles, etc.
 - **Language preferences:** keyboard layouts, system language, date and time, etc.
 - **Ease of access:** high contrast theme, Narrator, Magnifier, etc.
- **Application data:** Universal Windows apps can write settings data to a "roaming" folder, and any data written to this folder will automatically be synced. It's up to the individual app developer to design an app to take advantage of this capability.



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The background image is a night cityscape. The left side is a dark, blue-tinted view of a city street with tall buildings. The right side is a vibrant, multi-colored view of a city street with tall buildings and light trails from traffic, suggesting a long-exposure shot. The text 'Hyper-V on Windows 10' is overlaid on the left side.

Hyper-V on Windows 10

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Differences between Hyper-V on Windows and Hyper-V on Windows Server

There are some features included in Hyper-V on Windows Server that are **not** included in Hyper-V on Windows. These include:

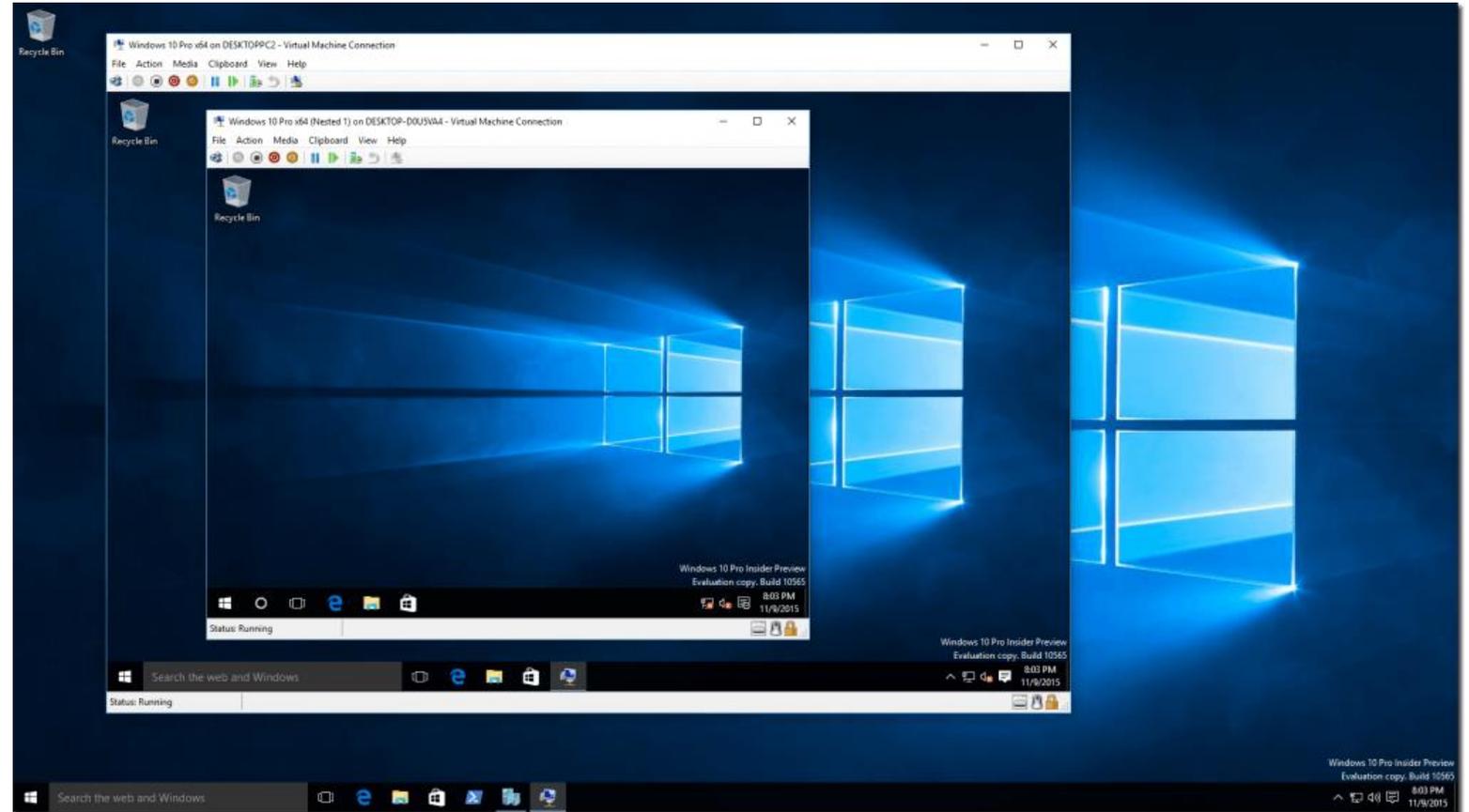
- Virtualizing GPUs using RemoteFX
- Live migration of virtual machines from one host to another
- Hyper-V Replica
- Virtual Fiber Channel
- SR-IOV networking
- Shared .VHDX

Production checkpoints

- Production checkpoints are "point-in-time" images of a virtual machine. These give you a way to apply a checkpoint that complies with support policies when a virtual machine runs a production workload.
- Production checkpoints are based on backup technology inside the guest instead of a saved state.
- For Windows virtual machines, the Volume Snapshot Service (VSS) is used.
- For Linux virtual machines, the file system buffers are flushed to create a checkpoint that's consistent with the file system.

Nested virtualization

This feature lets you use a virtual machine as a Hyper-V host and create virtual machines within that virtualized host. This can be especially useful for development and test environments.





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Application Virtualization (App-V)

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Microsoft App-V

Anywhere Productivity

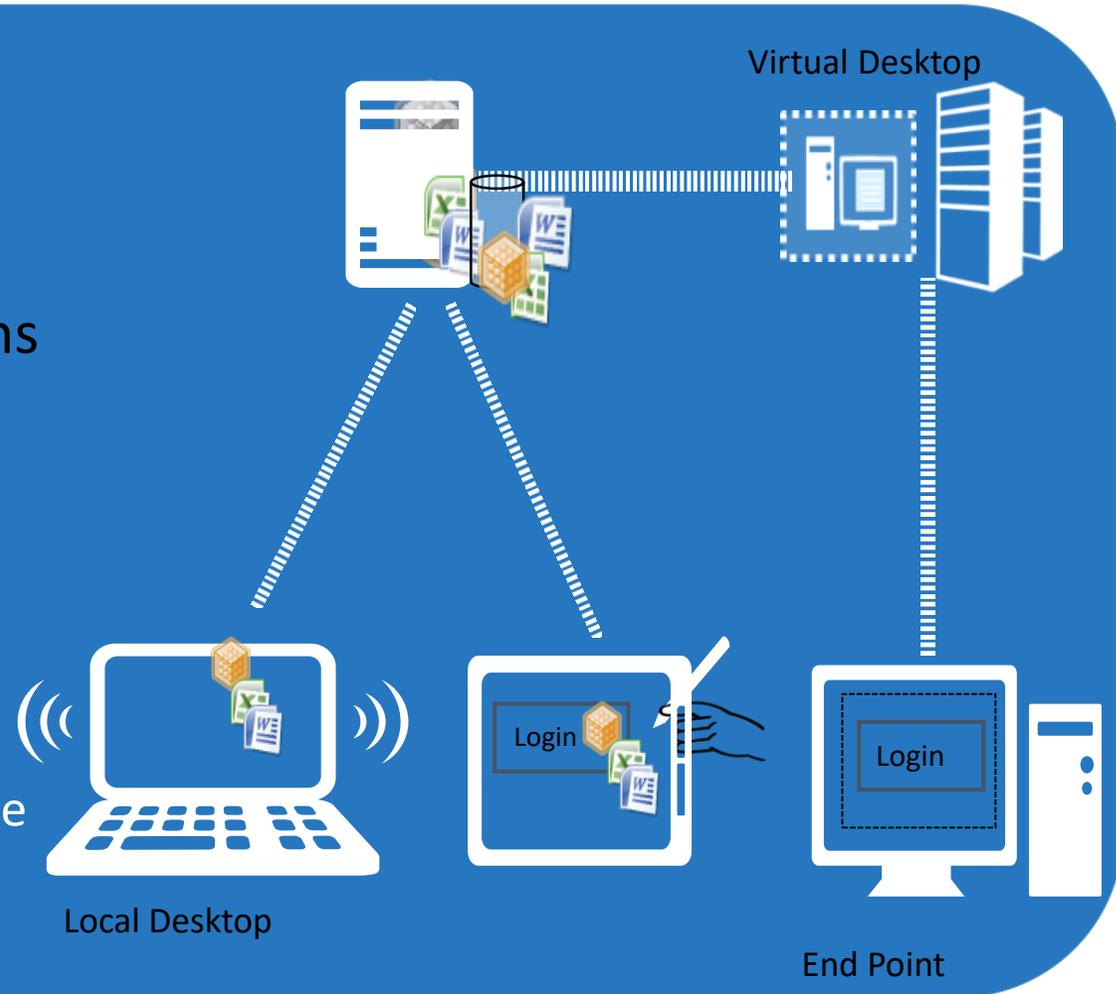
Access to applications on any device without installs

Avoid Business Disruptions

Log in to retrieve applications and restore productivity

Accelerate Deployment

Faster provisioning of virtual applications on demand
Reduce application testing time



Introducing App-V 5.1

Integrated Platform

- Virtual Application Extension makes virtual apps work as if locally installed
- Windows standards make virtual apps easier to troubleshoot

Flexible Virtualization

- Virtual Application Connection allows multiple virtual apps to work together
- Designed to support highly integrated applications

Powerful Management

- Optimize disk space in VDI with Shared Content Store
- Virtual Application Connection Groups to centrally manage application interaction



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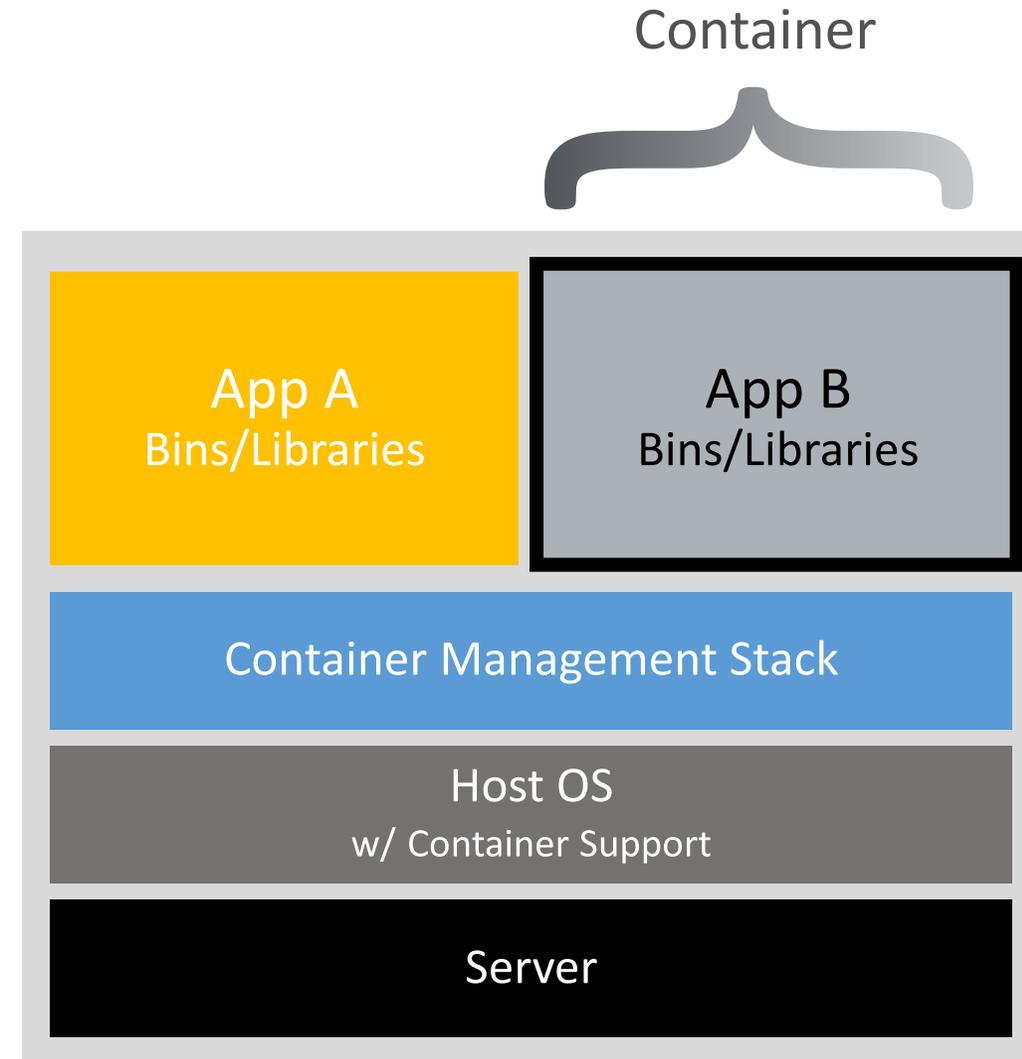
Windows Containers

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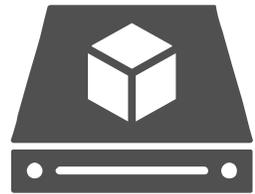
Windows Containers

- They are an isolated, resource controlled, and portable operating environment.
- Basically, a container is an isolated place where an application can run without affecting the rest of the system, and without the system affecting the application. Containers are the next evolution in virtualization.



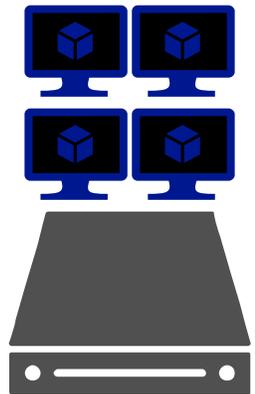
Containers

A new approach to build, ship, deploy, and instantiate applications



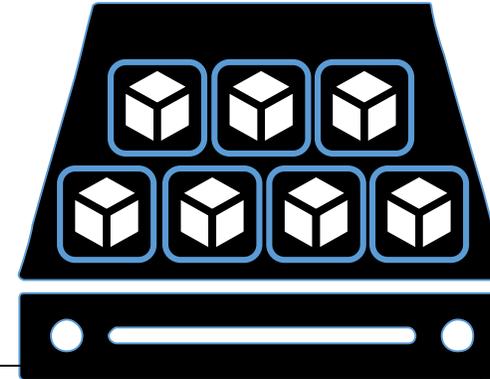
Physical

Applications traditionally built and deployed onto physical systems with 1:1 relationship
New applications often required new physical systems for isolation of resources



Virtual

Higher consolidation ratios and better utilization
Faster app deployment than in a traditional, physical environment
Apps deployed into VMs with high compatibility success
Apps benefited from key VM features i.e. Live migration, HA



Physical/Virtual

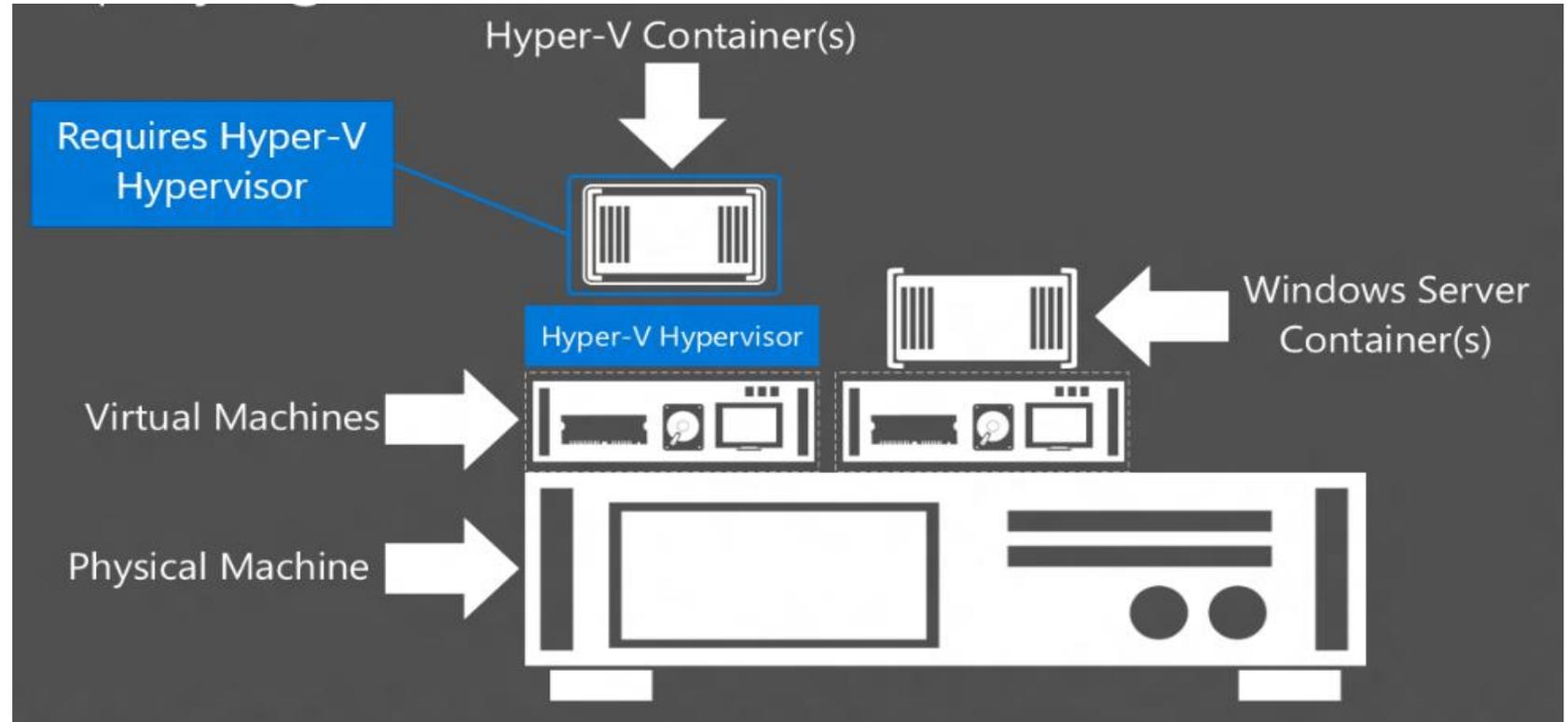
Package and run apps within
Containers

Key Benefits

- Further accelerate of app deployment
- Reduce effort to deploy apps
- Streamline development and testing
- Lower costs associated with app deployment
- Increase server consolidation

Windows Server Containers versus Hyper-V Containers

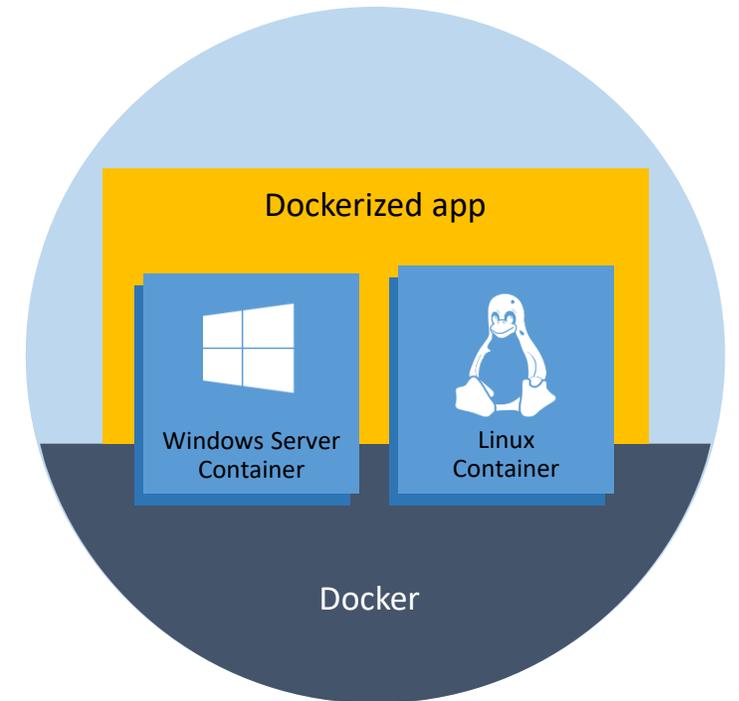
- Two types of container runtime are available. **Windows Server Containers** use namespace and process isolation. **Hyper-V Containers** use a light-weight virtual machine for each container.
- Windows 10 supports only Hyper-V Containers.



Docker Engine on Windows

Docker: An open source engine that automates the deployment of any application as a portable, self-sufficient container that can run almost anywhere.

Docker for Windows requires 64bit Windows 10 Pro, Enterprise and Education (1511 November update, Build 10586 or later) and Microsoft Hyper-V.





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A nighttime cityscape featuring several tall skyscrapers with illuminated windows. In the foreground, a multi-lane highway shows long-exposure light trails from cars, with red and white streaks indicating traffic flow. A pedestrian bridge with a railing and some greenery is visible on the right side of the highway. The overall scene is lit with a mix of blue and white light from the buildings and the warm red and white light from the traffic.

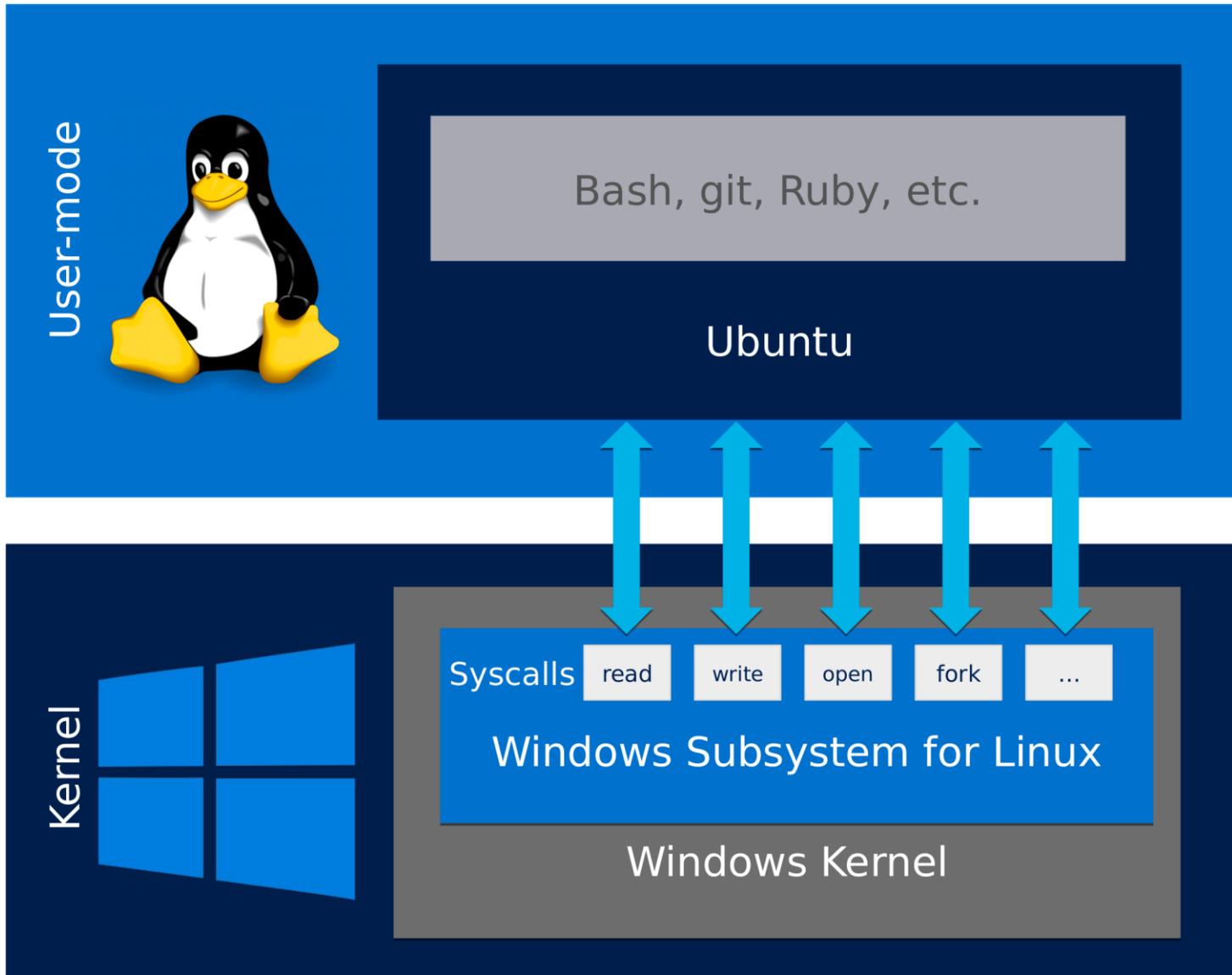
Windows Subsystem for Linux

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Windows Subsystem for Linux

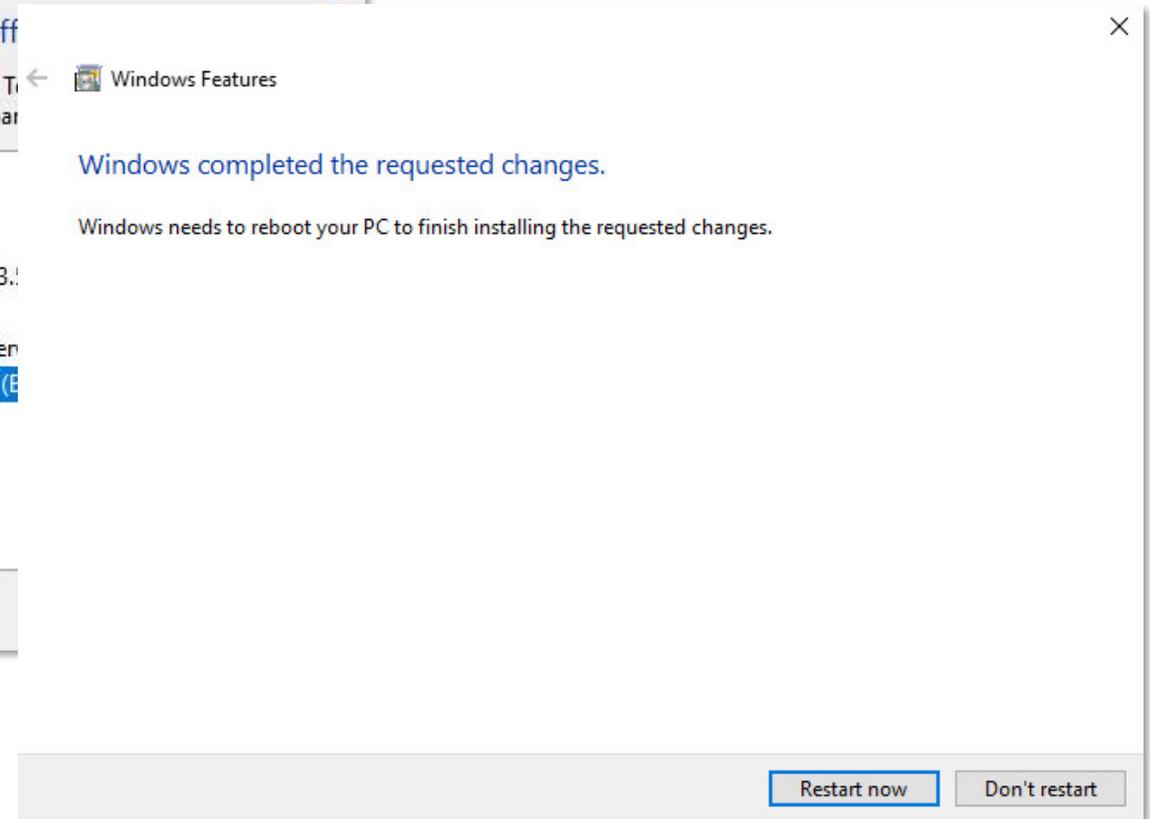
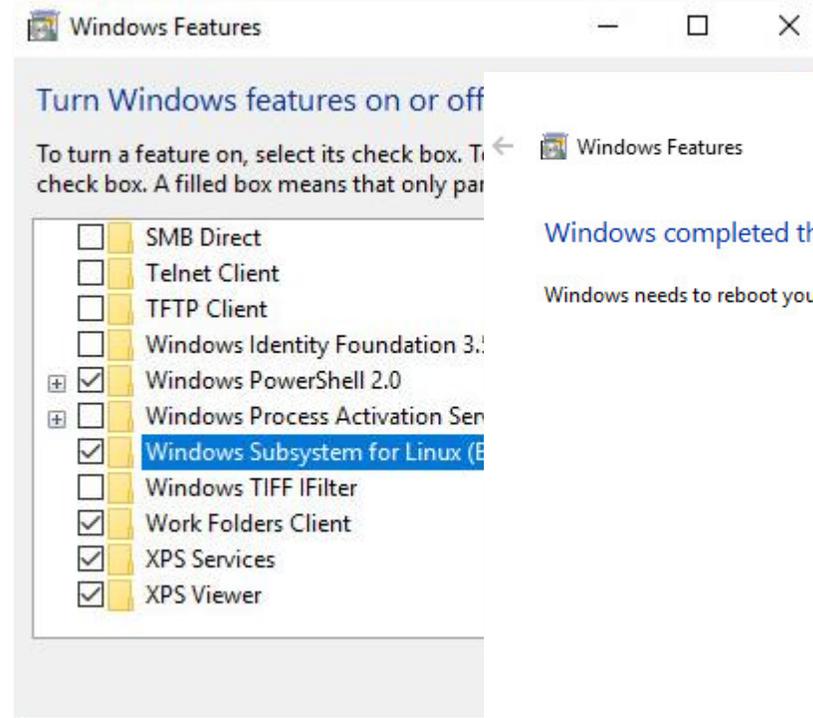
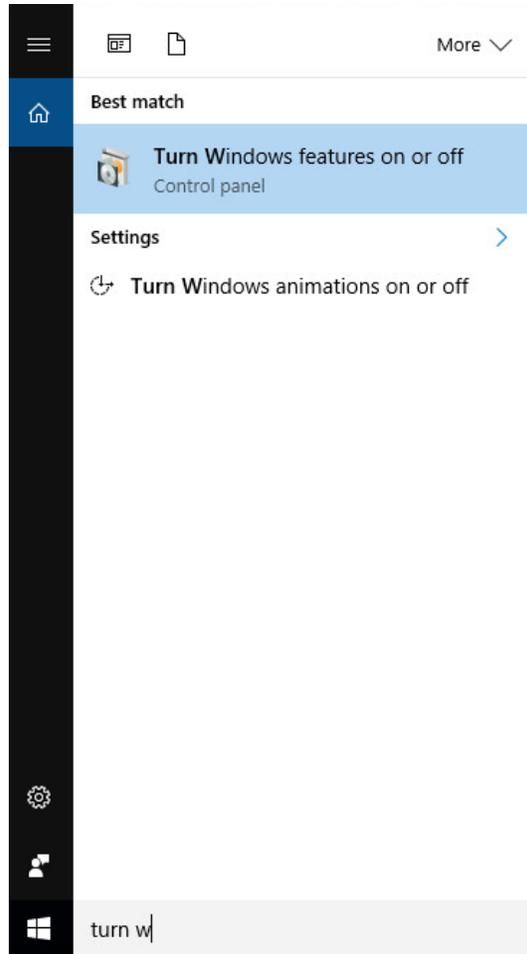
- What is it?
- What is it for?
- How does it works?



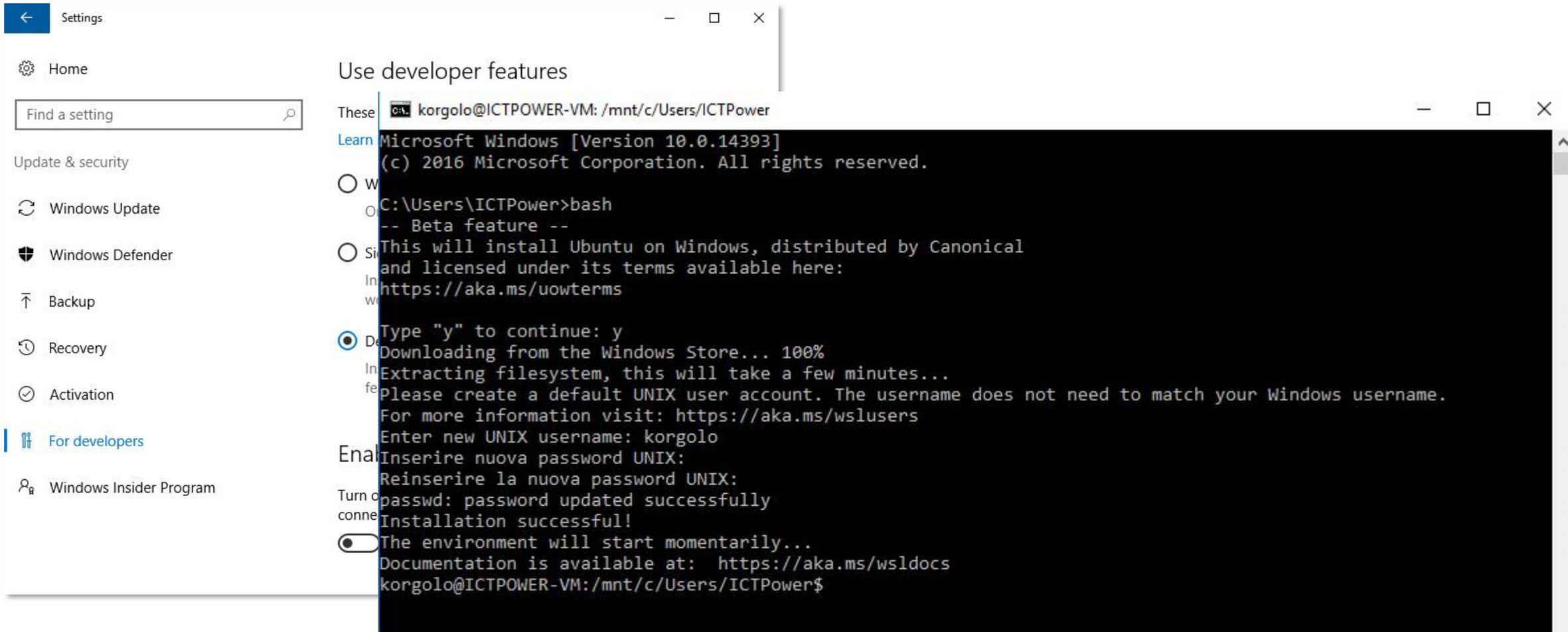
Windows Subsystem for Linux

- How can we install it?

Windows Subsystem for Linux Installation



Windows Subsystem for Linux Installation



The image shows a Windows Settings window on the left and a terminal window on the right. The Settings window is open to the 'For developers' section, where the 'Use developer features' toggle is turned on. The terminal window shows the command prompt for a user named 'korgolo' on a VM named 'ICTPOWER-VM'. The user runs 'bash' to start the WSL installation. The terminal output shows the installation progress, including downloading from the Windows Store, extracting the filesystem, and creating a default UNIX user account named 'korgolo'. The installation is successful, and the environment will start momentarily.

Settings

Home

Find a setting

Update & security

- Windows Update
- Windows Defender
- Backup
- Recovery
- Activation

For developers

- Windows Insider Program

Use developer features

These `korgolo@ICTPOWER-VM: /mnt/c/Users/ICTPower`

Learn `Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.`

- Windows Update
- System
- Developer features

Enable

Turn on connection

```
C:\Users\ICTPower>bash
-- Beta feature --
This will install Ubuntu on Windows, distributed by Canonical
and licensed under its terms available here:
https://aka.ms/uowterms

Type "y" to continue: y
Downloading from the Windows Store... 100%
Extracting filesystem, this will take a few minutes...
Please create a default UNIX user account. The username does not need to match your Windows username.
For more information visit: https://aka.ms/wslusers
Enter new UNIX username: korgolo
Inserire nuova password UNIX:
Reinserire la nuova password UNIX:
passwd: password updated successfully
Installation successful!
The environment will start momentarily...
Documentation is available at: https://aka.ms/wsldocs
korgolo@ICTPOWER-VM:/mnt/c/Users/ICTPower$
```



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Documentation

- **Azure Active Directory editions**

<https://azure.microsoft.com/en-us/documentation/articles/active-directory-editions/>

- **Microsoft Application Virtualization 5.1 Administrator's Guide**

<https://technet.microsoft.com/en-us/itpro/mdop/appv-v5/microsoft-application-virtualization-51-administrators-guide>

- **Hyper-V in Windows 10**

https://msdn.microsoft.com/it-it/virtualization/hyperv_on_windows/windows_welcome

- **Containers in Windows 10**

https://msdn.microsoft.com/it-it/virtualization/windowscontainers/quick_start/quick_start_windows_10

Everything is clear?





Questions?

Materiale su

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

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