

# The migration process and advantages of Windows Server 2019

Bachelor's thesis

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# **Introduction.**

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# Introduction.

What are the advantages and disadvantages of a migration from Windows Server 2016 to Windows Server 2019 in a business environment?

What are the differences between the Windows, Server Core and Nano Server base container images of Windows Server 2019?

Can SAP be migrated from an existing Windows Server 2016 to Windows Server 2019 in a business environment?

How can the new features of Windows Server 2019 be leveraged in the migrated infrastructure?

# **State of the art.**

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# Hybrid cloud.

## Types of cloud solutions

- Private cloud
- Public cloud
- Community cloud
- Hybrid cloud

# Security.

Windows Defender ATP

Security with SDN

Shielded Virtual Machines

# Application platform.

Linux containers on Windows | Building Support for Kubernetes

Container improvements | Encrypted Networks

Network performance improvements for virtual workloads

Low Extra Delay Background Transport

High-performance SDN gateways

Persistent Memory support for Hyper-V VMs | New Deployment UI

Windows Admin Center extension for SDN

# Hyper-Converged Infrastructure.

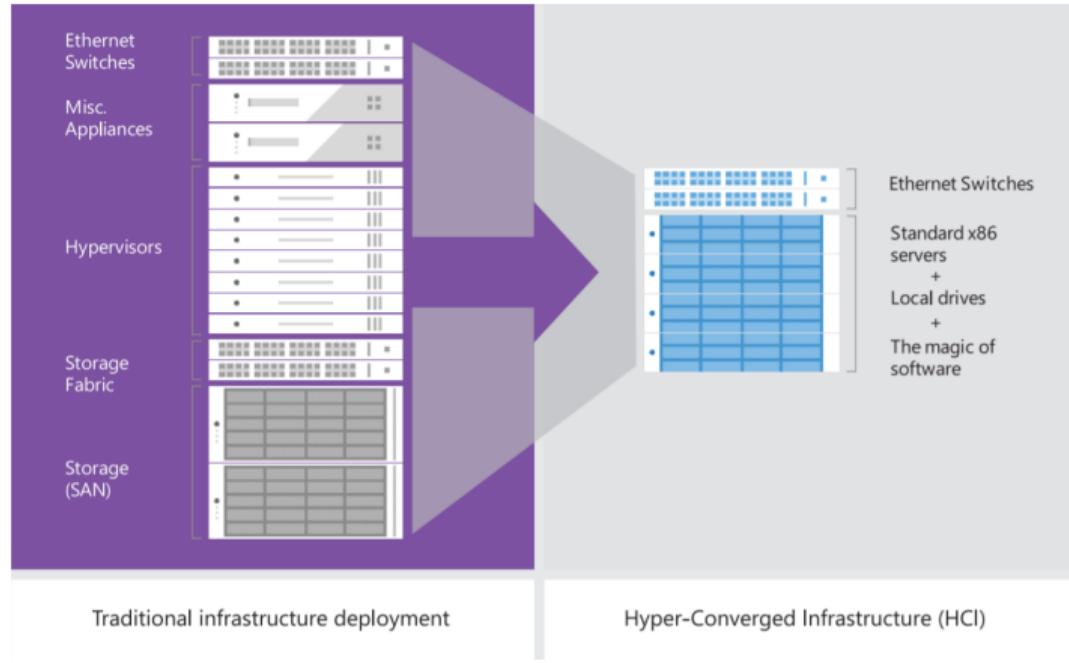


Figure: Adapted from Woolslayer, 2018.

# **Methodology.**

# In-place upgrade.

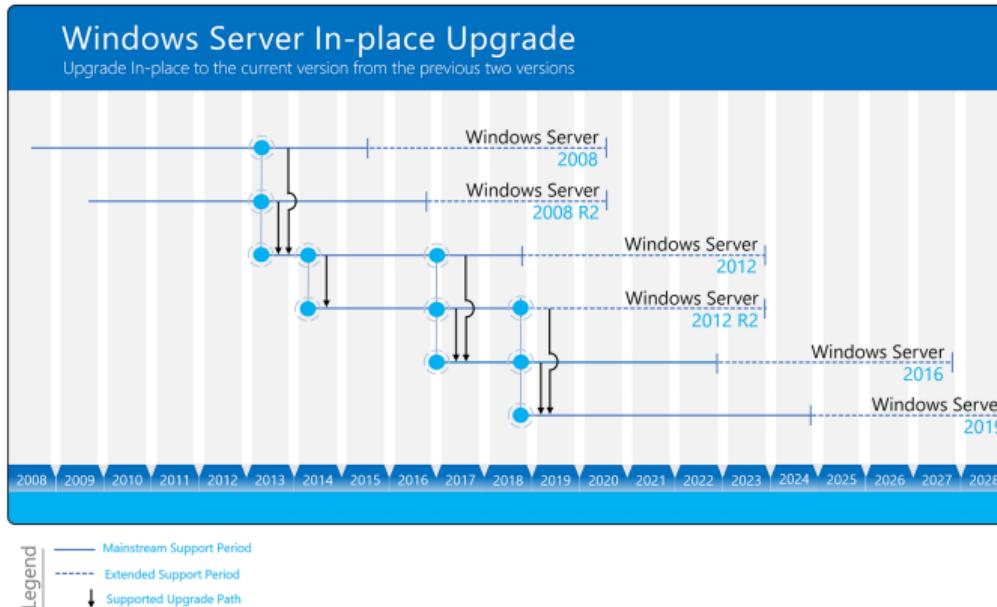


Figure: Adapted from Plett, 2018.

# Side-by-side migration.

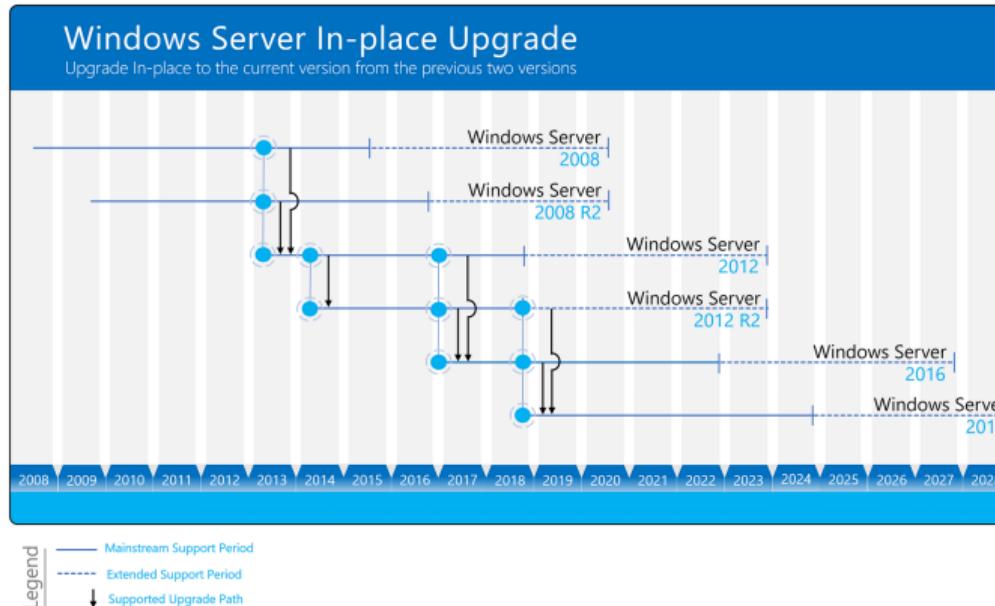


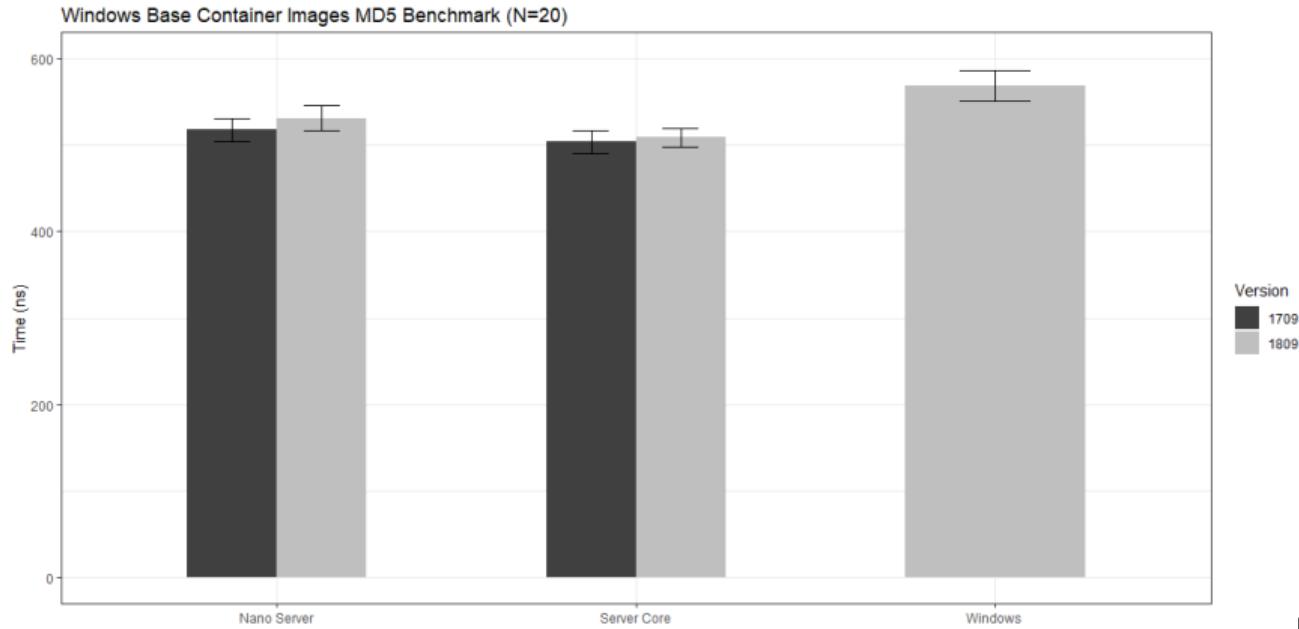
Figure: Adapted from Plett, 2018.

# Base container images.

	<b>Windows</b>	<b>Server Core</b>	<b>Nano Server</b>
Version 1809	9.9 GB	4.28 GB	347 MB
Version 1709		6.47 GB	339 MB

Table: Base container image size

# Base container images.



# **Future vision.**

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# Future vision.

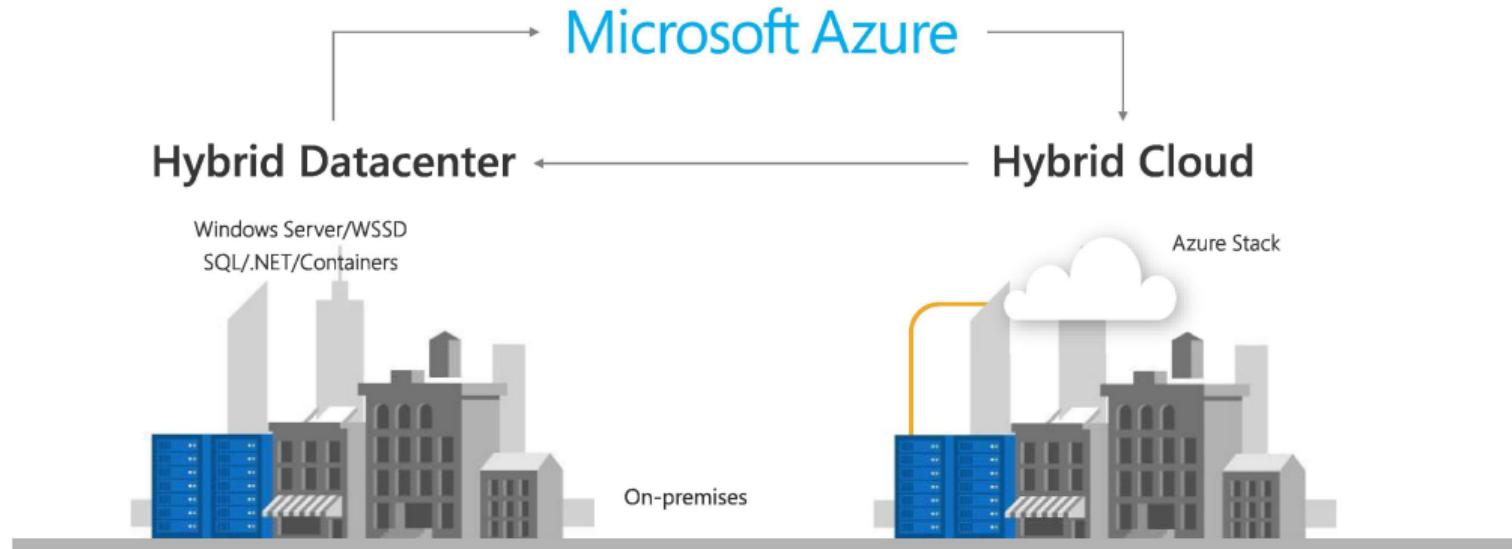


Figure: Adapted from A. Singh and Shah, 2019

# **Conclusion.**

# Questions?