

The migration process and advantages of Windows Server 2019

Bachelor's thesis

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Introduction.

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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.

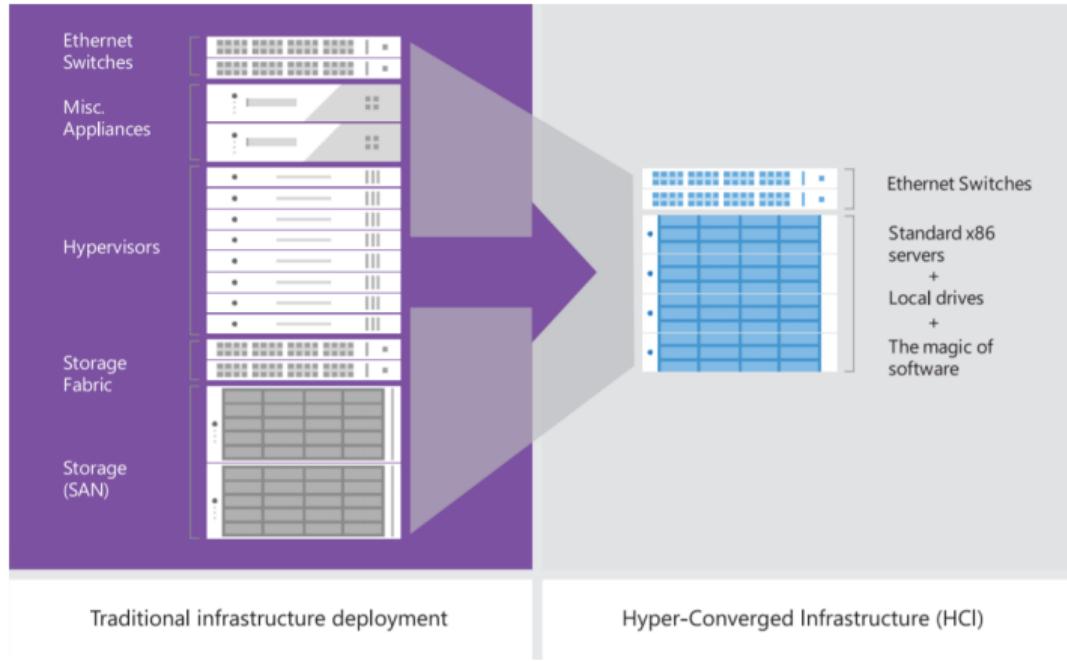


Figure: Adapted from Woolslayer, 2018.

Methodology.

In-place upgrade.

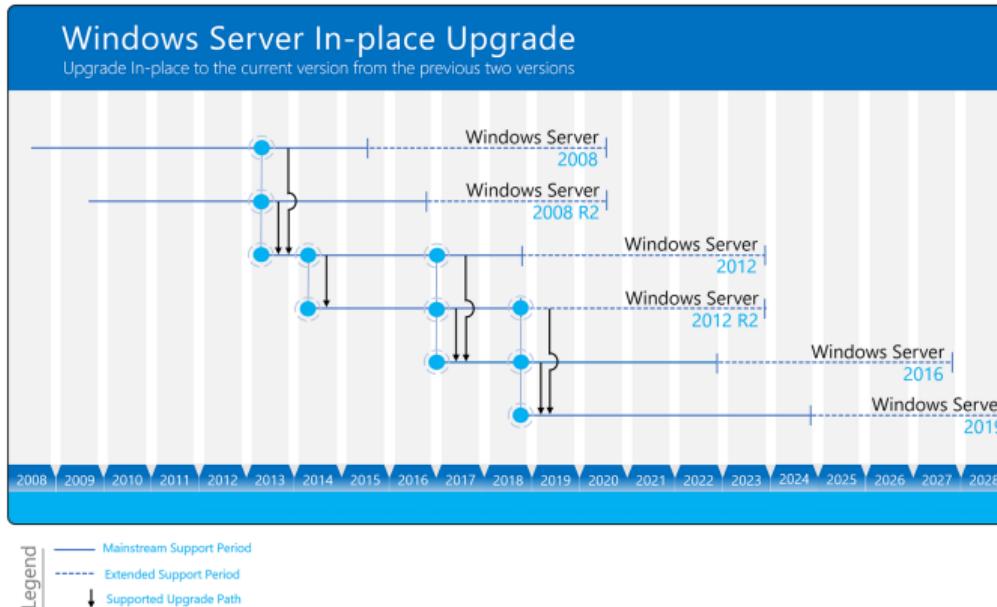


Figure: Adapted from Plett, 2018.

Side-by-side migration.

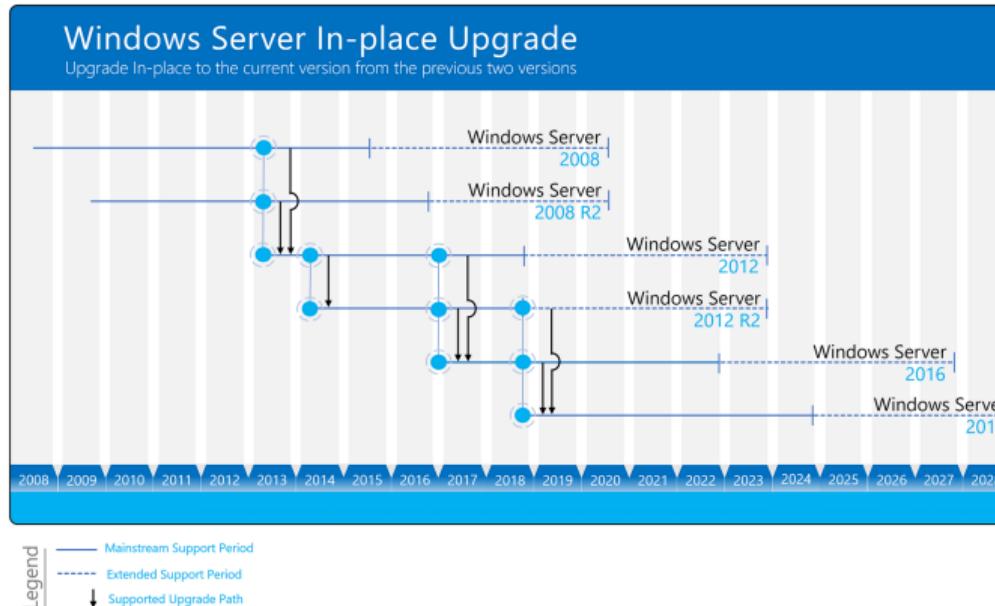


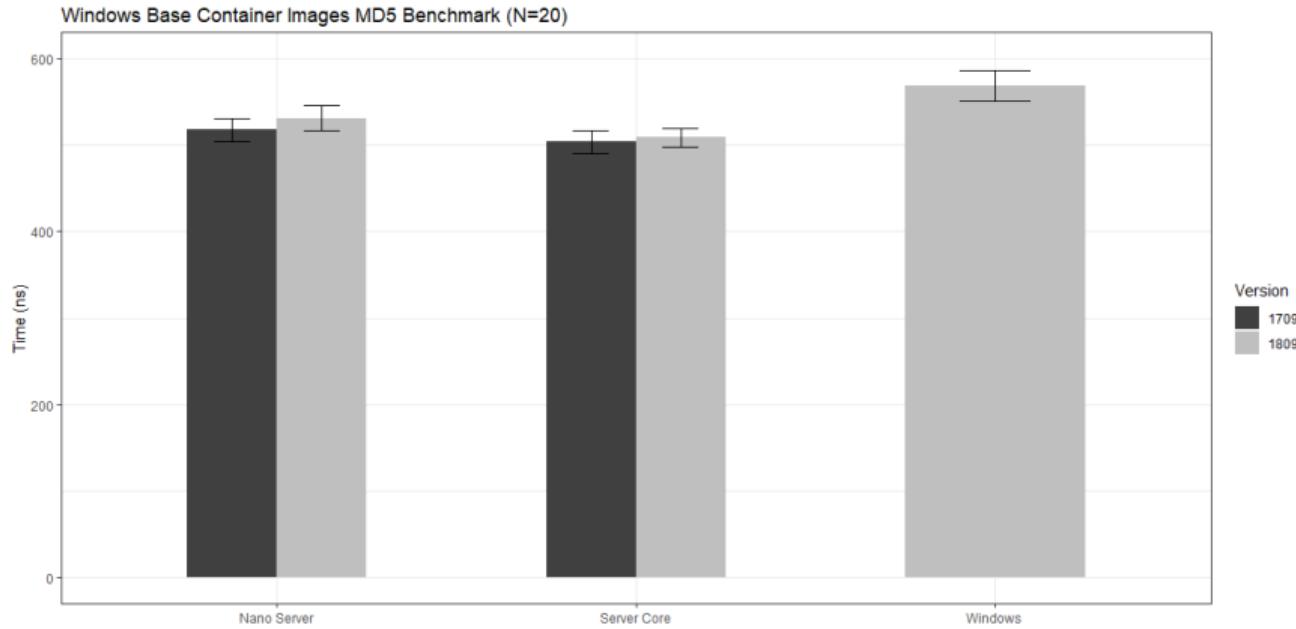
Figure: Adapted from Plett, 2018.

Base container images.

| | Windows | Server Core | Nano Server |
|--------------|----------------|--------------------|--------------------|
| 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.

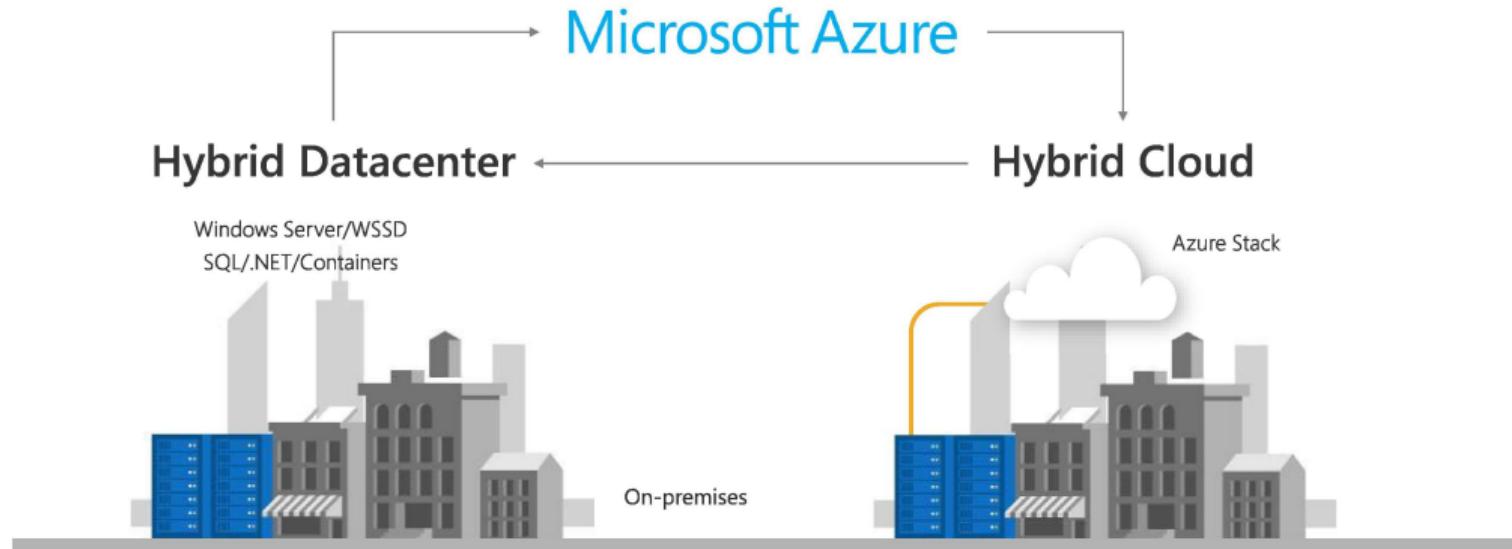


Figure: Adapted from A. Singh and Shah, 2019

Conclusion.

Questions?