



Unlock Fast and Secure Container Deployment with the SQL Server Operator for K8s, DxOperator by DH2i

Featuring: SUSE, Microsoft, & DH2i

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Co-Founder and Chief Technology Officer,
DH2i



Use Cases



Database as a Service, multi-tenancy and isolation at the same time. Providing better resource separation & secure environment.



Enabling true Hybrid deployments spanning multi-cloud, on-premises deployment



Bring data closer to your existing microservices architecture, providing independent service and scaling



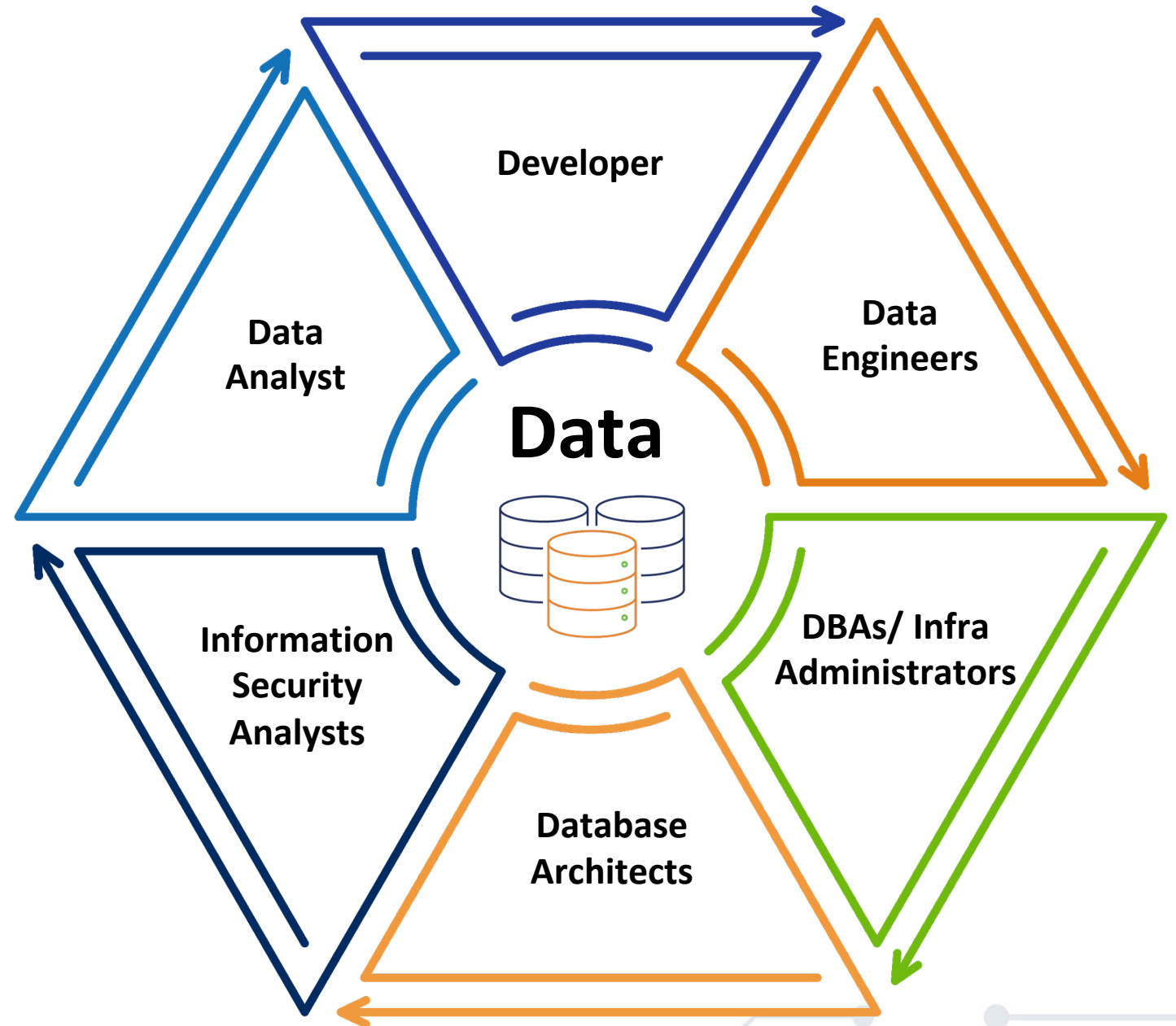
DevOps & Continuous Integration/Continuous Deployment, simplifying the deployment process while providing agility



Enabling Edge computing, containers are lightweight and SQL Server can be deployed as containers on edge devices for local data processing on the edge devices.

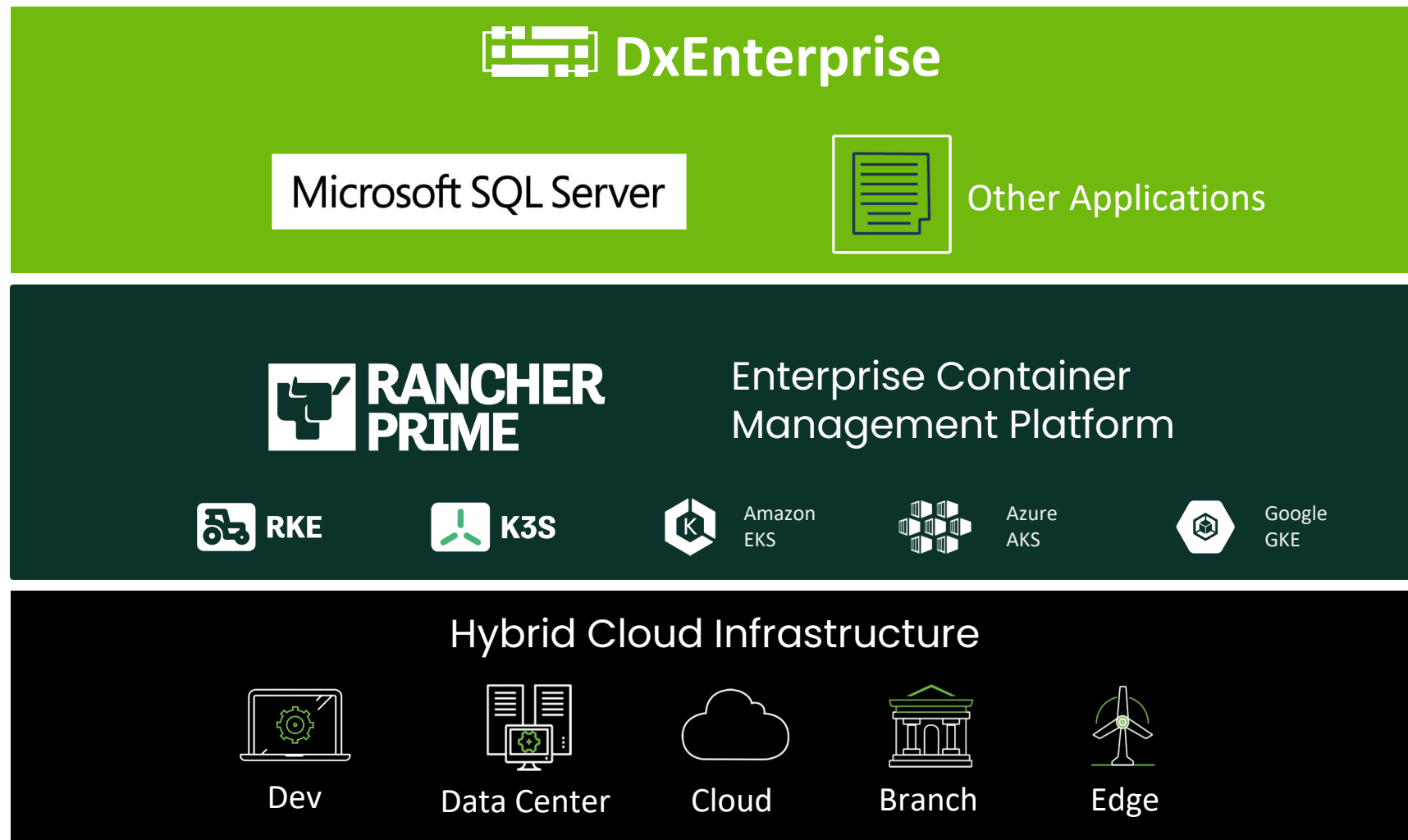
Solution Benefits

- Robust redundancy
- Easy Scale Out
- Secure data transfer
- Improved Productivity
- Better Availability
- Faster Performance
- Easily migrate using database mirroring



HA SQL Server in Kubernetes with DxEnterprise and Rancher Prime

- Secure HA clustering
- Infrastructure choice: data center to cloud to edge
- Unified Kubernetes management
- Streamlined deployment options: CLI or GUI
- Migrate from bare-metal or virtual machine in minutes





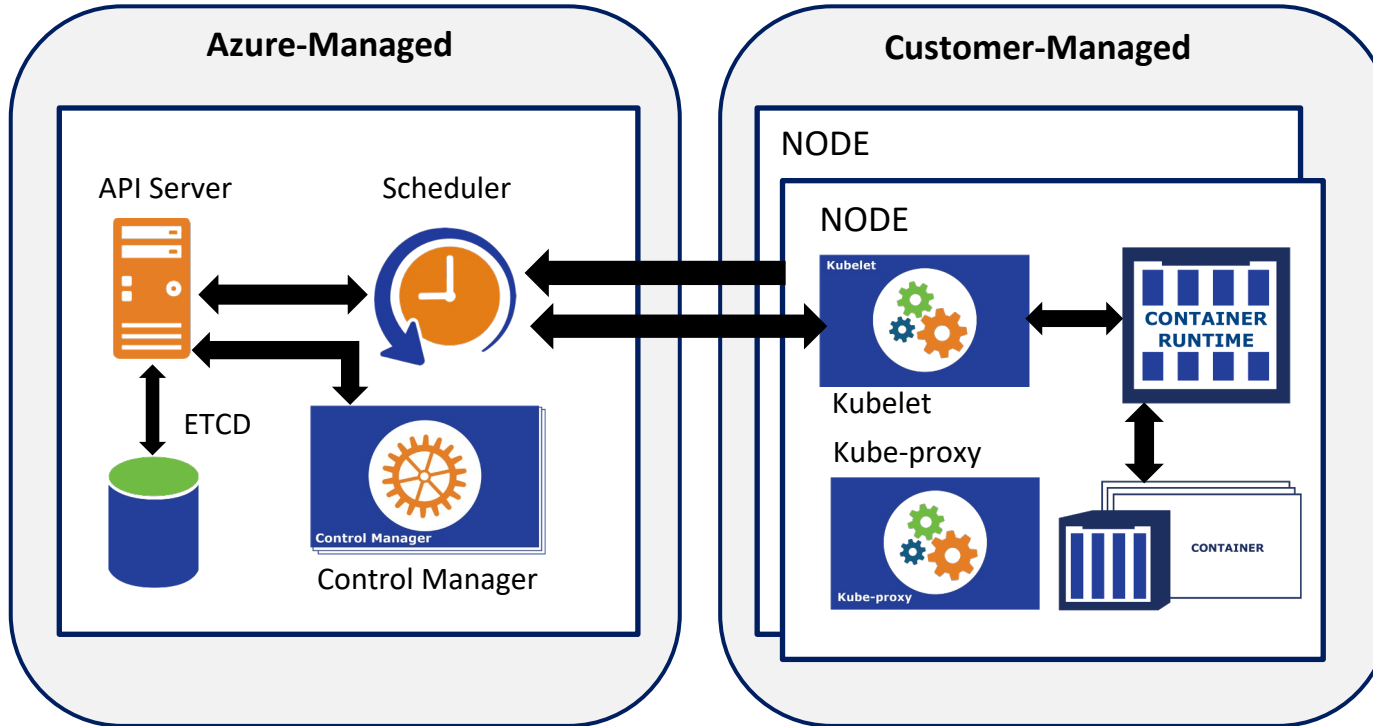
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interoperable enterprise
container management platform

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Stress-free container management for your entire Kubernetes landscape, from data center to cloud to edge

- Simple, consistent operations
- Unified security, policy, and user management
- Manage any certified Kubernetes, including AKS, EKS, and GKE
- Enterprise lifecycle
- Regulatory and industry compliance with trusted delivery and secure supply chain (SBOM, SLSA certification)
- Prime UI Extensions
- Prime Application Collection
- 24x7x365 enterprise support with defined SLAs
- Issue resolution & troubleshooting, upgrade validation, supportability review
- Access to customer-only advisory channels related to products, operations, and security
- Integrate with NeuVector Prime for 100% open-source, zero-trust, real-time container security to protect mission-critical workloads

Azure Kubernetes Services



Microsoft managed K8s cluster in Azure

- Reduces complexity of deployment & management tasks
- Azure manages the AKS control plane
- Multiple Pricing options- PAYG, Azure Savings plan for compute, Reservations, Spot
- Support AKS cluster across availability zones

SQL Server on Linux - Overview


- SQL Engine is the same : **Windows, Linux, Containers**
- >98% feature parity support for SQL Server on Linux.
- Fully supported to run production workloads
- SQL Server on Windows, Linux and containers follows same release cadence
- SQL Server packages: [Index of rhel/ \(microsoft.com\)](#)
- SQL Server Container images: [Microsoft Artifact Registry](#)



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Microsoft Artifact Registry


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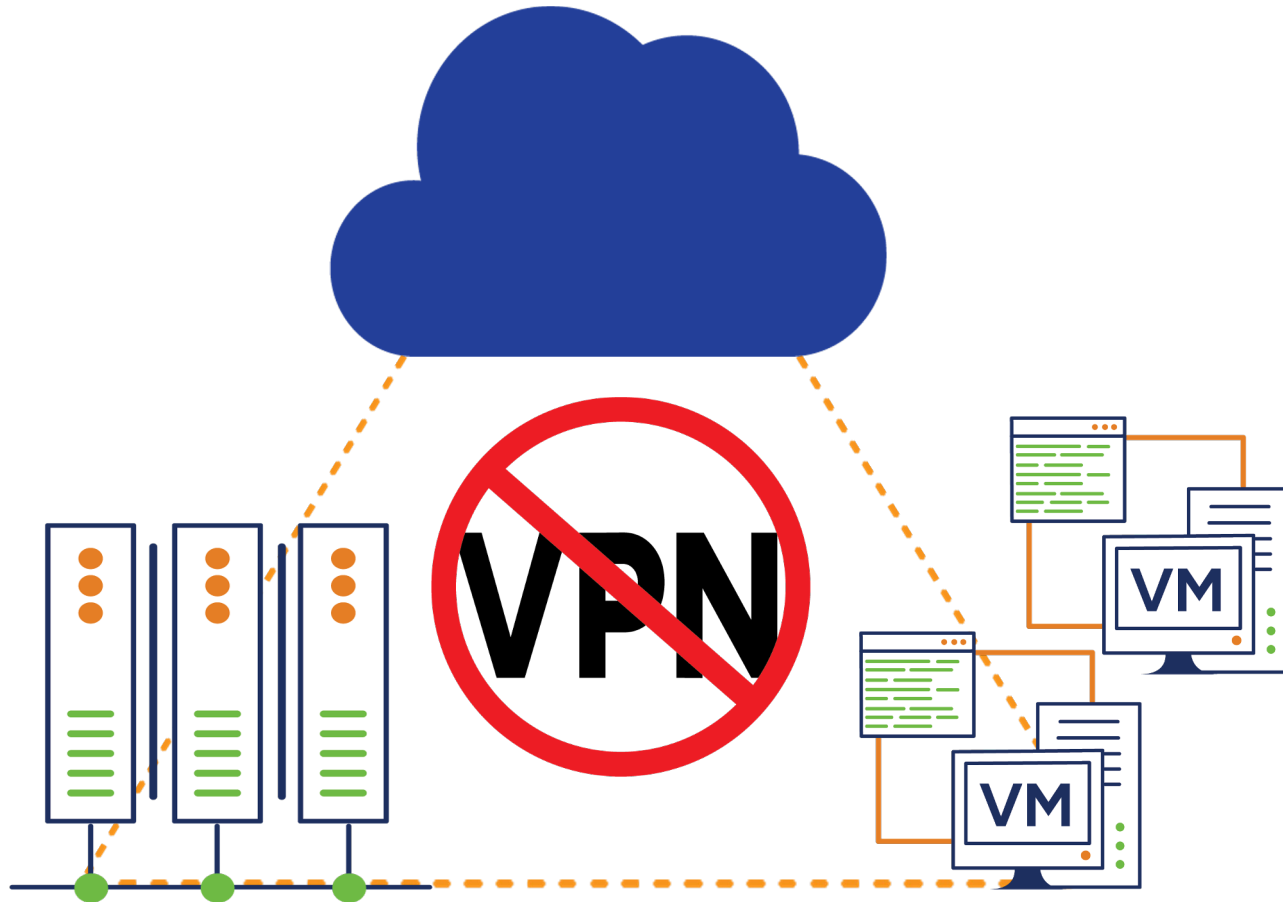
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DxEnterprise for SQL Server and Apps



- Clustering software for SQL Server availability groups
 - » No WSFC/Pacemaker
- Automated fault detection & failover for instances, apps, & containers
- Easy to install, configure and manage
- Supports Windows and/or Linux
- Runs inside and/or outside containers
- Infrastructure independence & easy modernization
- Secure tunneling for multi-site / multi-subnet / container clusters
 - » No VPN or direct link—nodes can be anywhere
 - » Improves performance
 - » Enables hybrid scenarios

SQL Server Operator for Kubernetes

Automatic database-level failover
for SQL Server Availability Groups
in Kubernetes

Streamlined deployment of
SQL Server Availability Groups

SQL Server sidecar containers
for application isolation

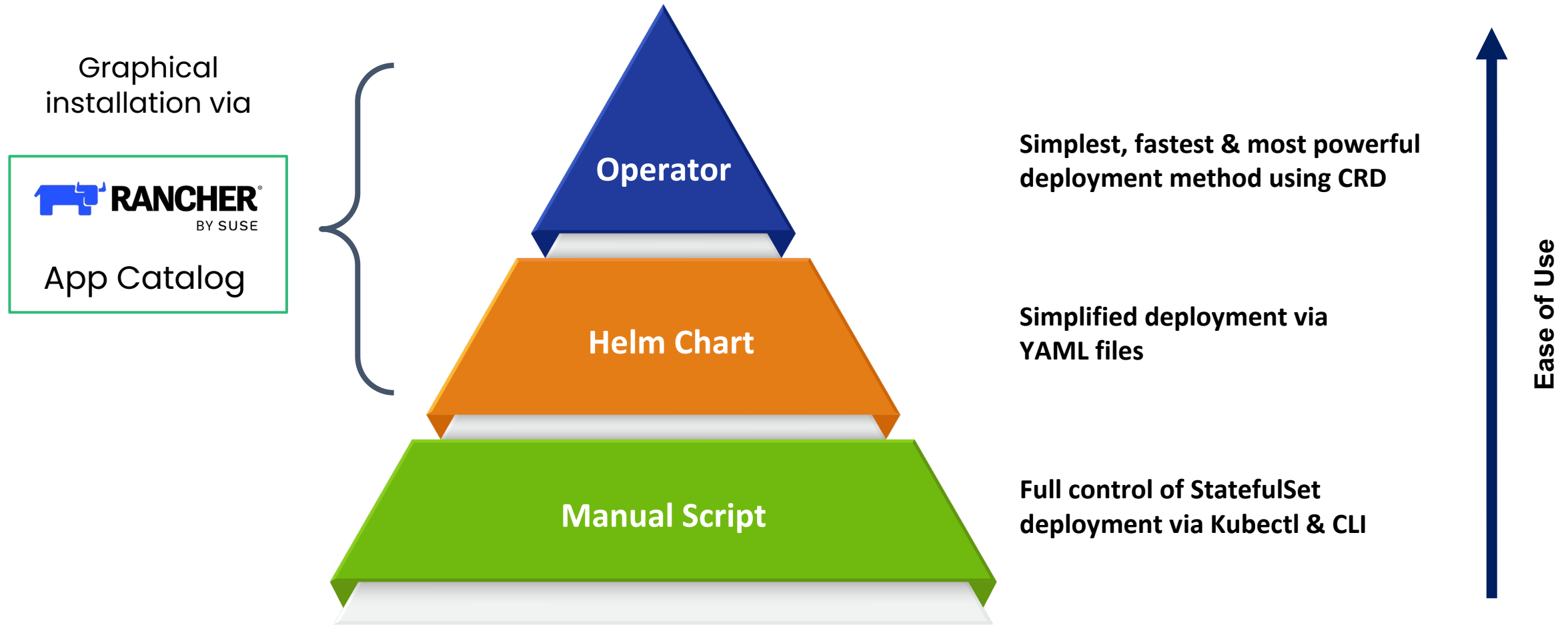
Integrated software-defined
perimeter (SDP) security



DxOperator
by DH2i

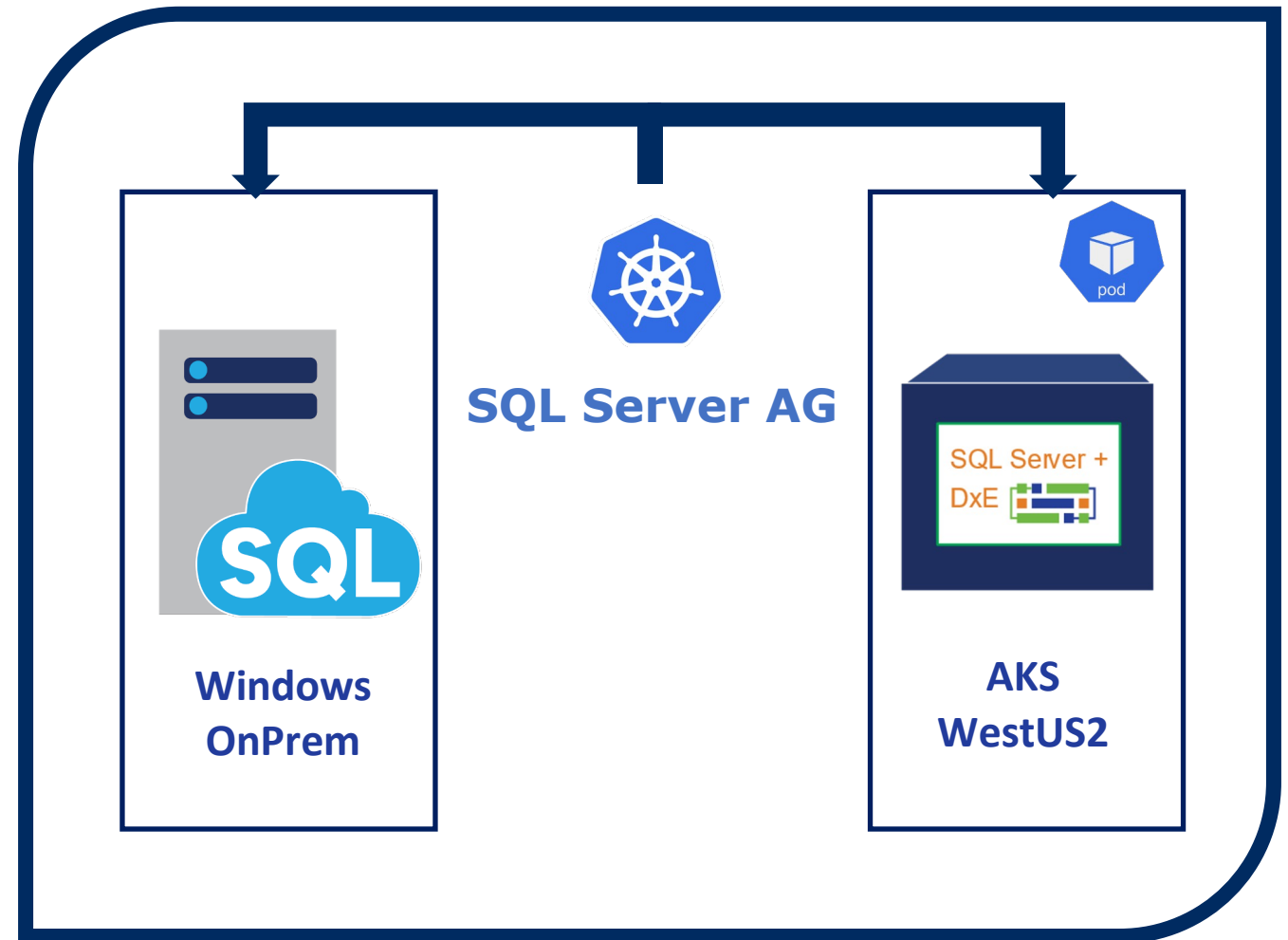


DxEnterprise + SQL Server Deployment Strategies for Kubernetes



Demo: DxE + MSSQL + Rancher - Windows <-> AKS

- Deploy DxOperator: DxEnterpriseSqlAG via Rancher on AKS
- Deploy DxEnterprise on Stand-alone Windows
- Join Windows node into AKS AG cluster
- Show database migration from Windows to AKS SQL AG





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Contact us at info@DH2i.com

Phone: (800) 380-5405

Thank you for joining us!

Recording of this demo will be sent to you.

Get free developer license:

<https://dh2i.com/dxoperator-sql-server-operator-for-kubernetes/>

Technical Blog:

<https://techcommunity.microsoft.com/t5/sql-server-blog/always-on-availability-groups-for-sql-server-containers-on/ba-p/4000994>

Quick Start Guide:

<https://support.dh2i.com/dxoperator/guides/dxoperator-qsg/>

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