



SUSE Day

SUSE Open Source Solutions on Azure and Azure Stack

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Agenda

SUSE on Azure

HPC

SAP

SUSE Open Source Solutions on Azure and Azure Stack



Hardened, Secure, Reliable Enterprise Linux on Microsoft Azure

Guaranteed service levels and seamless support directly from SUSE engineers

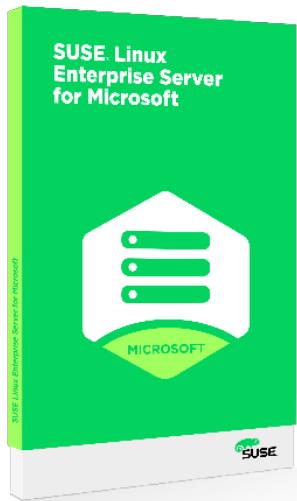
Available on demand or through existing Enterprise Agreements

Solutions built for security and scale:

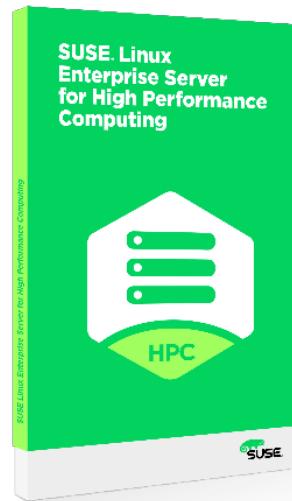
- **SUSE Linux Enterprise Server HPC** - optimized for performance with Linux RDMA drivers using Microsoft Infiniband
- **SUSE Linux Enterprise Server for SAP Applications** - available on Azure on Large Instances for high performance, SAP HANA production workloads
- **SUSE Manager** reduces complexity of managing on-premise, private network, and Linux on public cloud from a single pane of glass

Enterprise Open Source Solutions

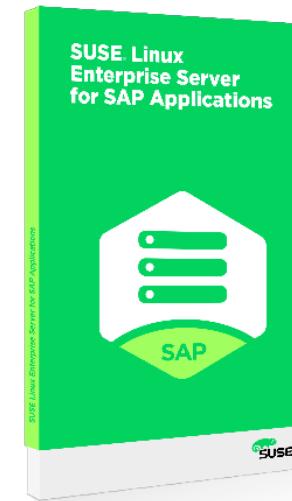
Optimized for Azure



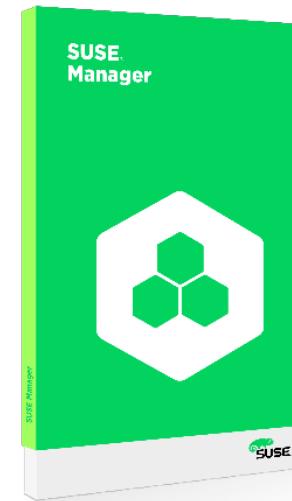
**SUSE Linux
Enterprise
Server - Azure**



**SUSE Linux
Enterprise
Server for HPC**

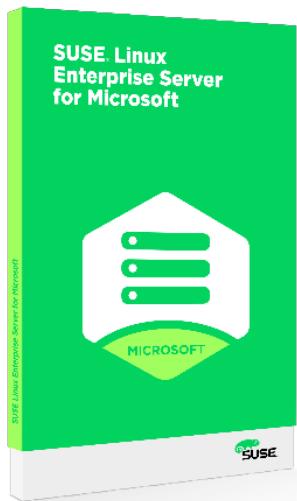


**SUSE Linux
Enterprise
Server for SAP
Applications**

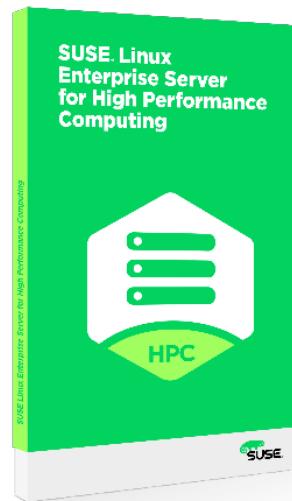


SUSE Manager

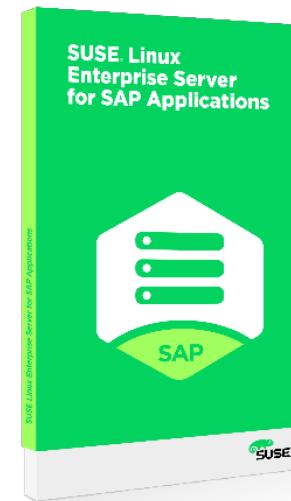
Enterprise Open Source Solutions *Optimized for Azure*



On-demand with Priority Support Available



Optimized for HPC with RDMA Driver support for use over Infiniband



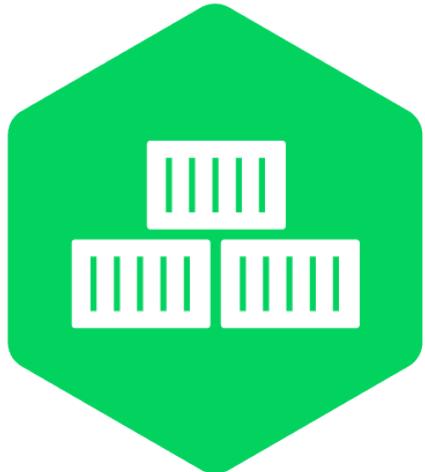
The Leading OS for SAP with a High Availability extension on purpose-built Azure infrastructure



Manage your Linux distributions across physical, virtual, and cloud all from a centralized console (also available on Systems Center)

Enterprise Open Source Solutions

New 2018 Azure Marketplace releases



SUSE Containers as a Service Platform

based on Kubernetes.

Enterprise grade Kubernetes based on SUSE's MicroOS and a full featured management solution based on containers.

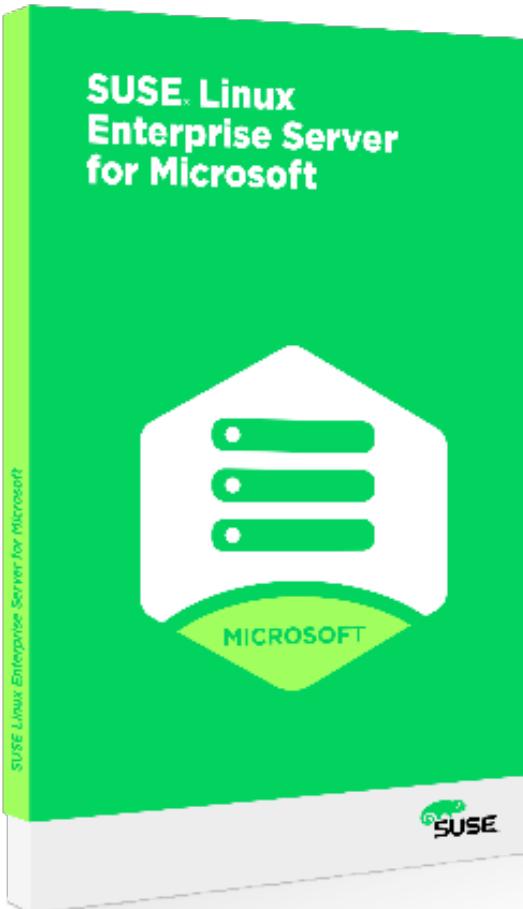


SUSE Cloud Application Platform

based on CloudFoundry, is a Platform as a Service solution for streamlined code and containers deployment and delivery

Azure subscription offerings and support

Start with SUSE Linux Enterprise base subscription



- ✓ Ready to pick on Azure's Marketplace
- ✓ Only Enterprise Linux OS on Azure with full updates at no additional cost
- ✓ Microsoft supports the infrastructure
- ✓ Additional fully supported models available

Fully supported models

Buying Options

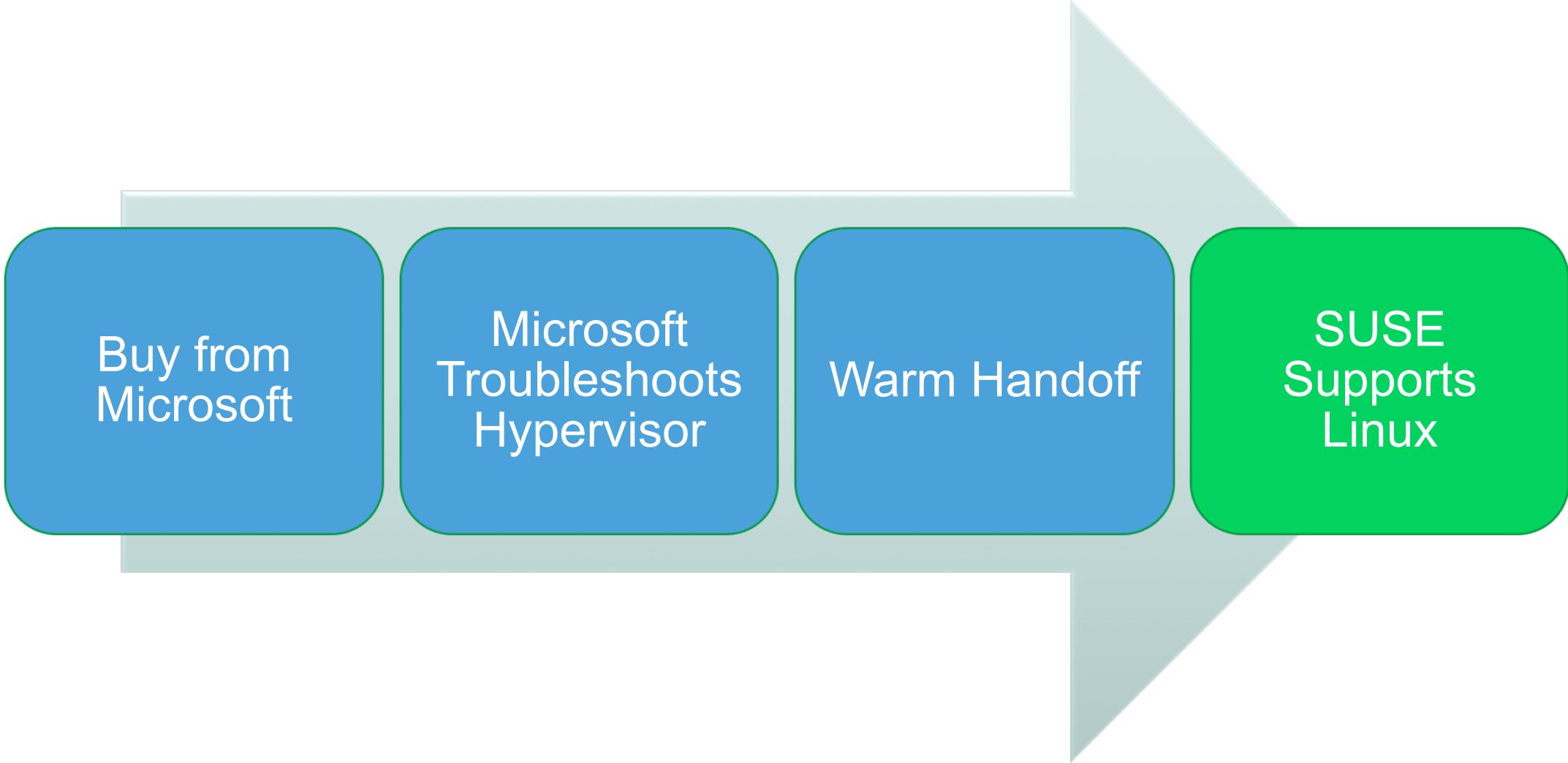
**Microsoft
Enterprise
Agreement**

**Microsoft
CSP**

**Pay As You
Go**

**BYOS from
SUSE or
SUSE
Partner**

Azure Support: Differentiated Value vs other Cloud providers



Buy from Microsoft

Microsoft
Troubleshoots
Hypervisor

Warm Handoff

SUSE
Supports
Linux

Bring Your Own Subscriptions

Technical value:

- Deploy any SUSE extension
- Use your own SUSE Manager
- Control patches and versions
- Direct SUSE support
- Same deployment on-premises and cloud

Commercial value:

- VM from Azure – OS from your traditional reseller
- Pricing per instances not per instance size
- Pre-paid
- Different discount rates

How?:

- Deploy BYOS images from Azure's Marketplace
- Purchase SUSE subscriptions from our resellers



HPC and SAP use cases

SUSE + Azure best of breed solutions

HPC on Azure

50%
Linux in HPC

Half of the world's 20 largest supercomputers
run on SUSE



80%
Linux in Large Enterprise

Over 80% of the Fortune Global 50 are
active SUSE Customers



SAP on Azure

99%
HANA on Linux

SUSE is the de facto standard for SAP
HANA deployments on Linux



70%
SAP on Linux

70% of all SAP applications running
on Linux run on SUSE



SLES for HPC on Azure



- **HPC is one of the best value added solutions on public clouds**
- **SUSE is the only HPC supported Linux distribution on Azure**
- **Updated to lastest SLES 12 SP3 and available on the Marketplace**
- **Real HPC ready HW environment available on A8 and A9 compute instances**
- **RDMA capable HW with Infiniband support.**

SUSE Linux Enterprise Server for SAP Applications

A bundle of **SOFTWARE** and **SERVICES** that addresses specific needs for **SAP** users.

Example Use Cases:

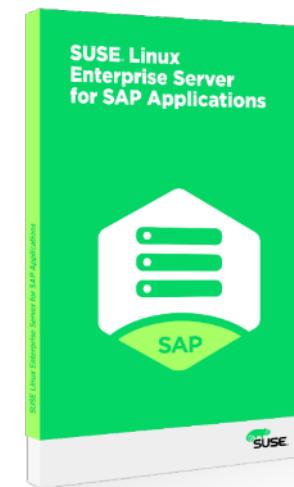
- Unix to Linux Migrations, Re-platforming
- SAP Appliances
- SAP Cloud Deployments

Software

- SUSE Linux Enterprise Server
- Installation Wizard
- High Availability Extension
- Page Cache Limitation
- HA Resource Agents
- Tools

Services

- Extended Service Pack Support Overlap
- Separate Update Channel
- Priority Support for SAP Applications



SUSE Linux Enterprise Server for SAP Applications on Azure

Rapidly install and get additional security and superior support with the leading platform for SAP HANA and SAP NetWeaver solutions.

- Single point of contact for SAP on Azure Support
- Flexible Purchasing Options on Azure with On-demand and BYOS
- Reduce runtime and get higher performance out of your SAP solutions
- Increase resource efficiency and maximize your systems uptime

70%

Reduction
in TCO

99%

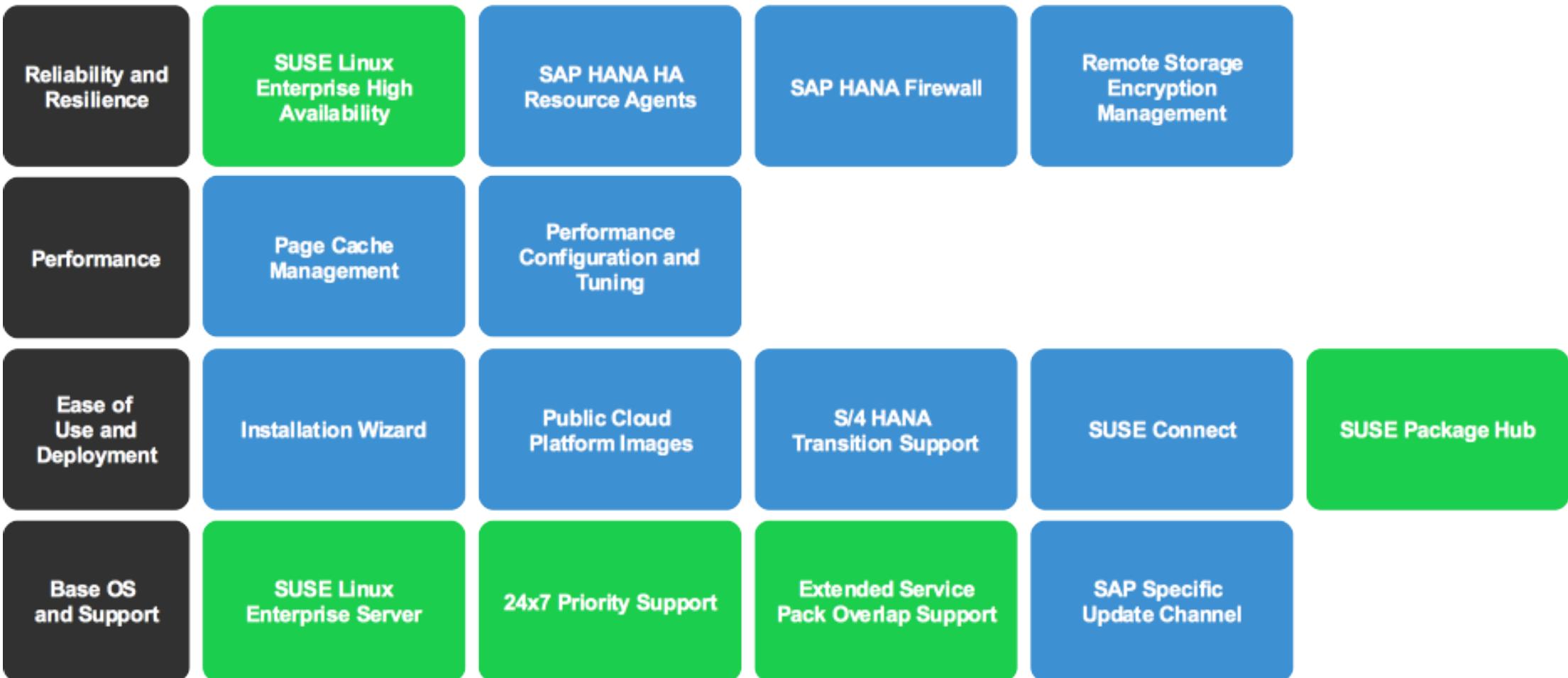
Server
uptime

60%

Performance
boost

www.suse.com/products/sles-for-sap

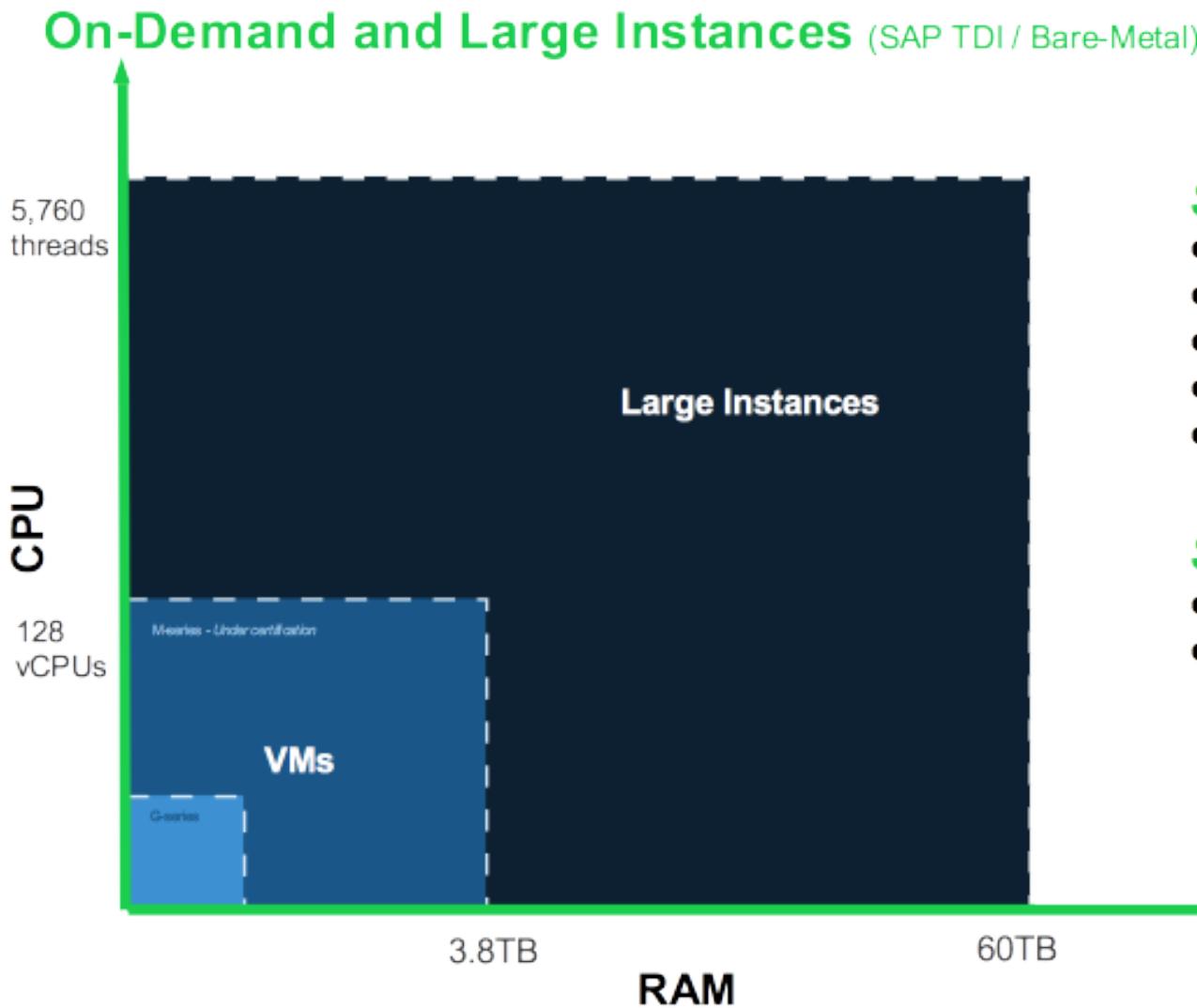
SLES for SAP on Azure main features



SUSE Products and Services

SAP Specific Features from SUSE

SLES for SAP Certified on Microsoft Azure



Supported on Azure

- Integrated Support / Single Point of Contact
- On-Demand Pricing or BYOS
- OLTP: Up to 20TB (Single-node)
- OLAP: Up to 60TB (Scale-out)
- High Availability and Azure Fencing agent

Specific to Large Instances

- SUSE and Microsoft Engineering Collaboration
- SUSE OS tuning for Microsoft Azure TDI set-up

Benchmarks: BW/4HANA on Azure

SAP BW edition for SAP HANA Standard Application Benchmark Version 2 (2,600,000,000 records)

Date of Certification (mm/dd/yyyy)	Technology Partner	Phase 1: Total Runtime of Data Load/Transformation (seconds)	Phase 2: Query Executions per Hour / Records selected	Phase 3: Total Runtime of complex query phase (seconds)	OS / Database / SAP version	Central Server	Certification Number
10/19/2017	Microsoft Corporation	47,361	2,255 / 232,578,677,166	199	SuSE Linux Enterprise Server 12 / SAP HANA 1.0 / SAP NetWeaver 7.50	Microsoft Azure Virtual Machine Standard_M128s 128 virtual CPUs, 2TB main memory 4 processors / 72 cores / 144 threads, Intel Xeon Processor E7-8890 v3, 2.50 GHz, 1152 KB L1 cache and 4608 KB L2 cache per core, 45 MB L3 cache per processor, 4.096 GB main memory	2017041



Supported SAP High Availability Scenarios

SAP NetWeaver

- Manual Failover
- Simple Stack
- Enqueue Replication
- Combined Stack

SAP HANA ScaleUp

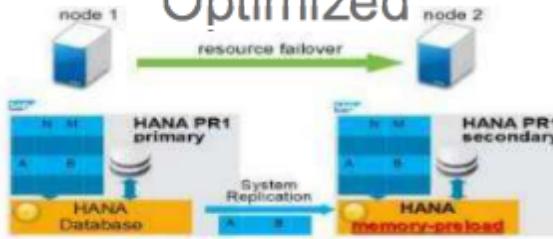
- Manual Failover
- Performance Optimized
- Cost Optimized
- Multitenant Database Containers
- Storage Replication
- Public Cloud
- Others

SAP HANA ScaleOut

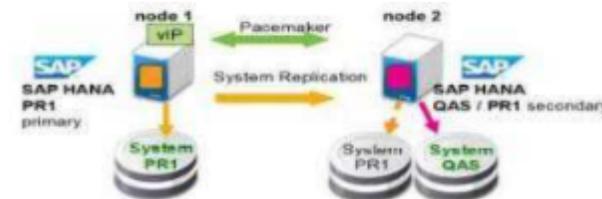
- Auto-Host Failover
- Manual Takeover
- Performance Optimized
- Storage Replication
- Public Clout

Broadest support for multiple HANA HA scenarios

Performance Optimized



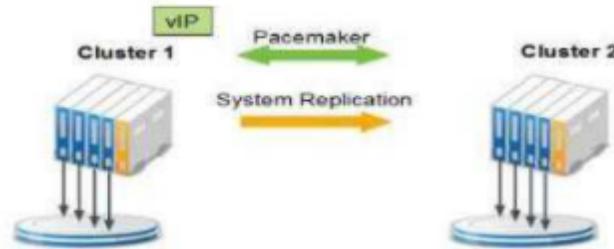
Cost Optimized



Chain



Scale-Out *



Multi Tenancy (MCD)



Public Cloud

