SUSE Workloads on Microsoft Azure

SUSE

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Agenda

- Microsoft and SUSE partnership
- Collaborative support
- Provision SUSE Linux VM in Azure with Terraform
- SUSE products for your workloads
- Collaboration success stories
- Q&A
Microsoft and SUSE Partnership
Dedicated to Success

First optimized Linux Kernel on Azure

SUSE provides seamless integration of open source software with Microsoft Azure services for customers that maintain build and mission-critical applications on the cloud.

Customers gain greater choice and flexibility required for hybrid cloud environments—with certified workloads, unified system management, 24x7 Linux support from SUSE, plus support for enterprise applications from Microsoft and SUSE.

Getting started with SUSE Linux Enterprise Server on Microsoft Azure is easy with on-demand, pay-as-you-go pricing. Growing with us is even easier with support for your existing Microsoft Enterprise Agreements.
Key Highlights

• Azure tuned kernel
• SUSE HPC images to enable InfiniBand interface
• SQL on SUSE Linux Enterprise Server (SLES) 12 SP2
• High Availability with Pacemaker
• Collaborative support
Collaborative Support

• Seamless collaborative process between Microsoft and SUSE to jointly troubleshoot the issue and drive to resolution
• Onsite SUSE engineer co-located with Microsoft support teams
• Strong governance model and shared goals
• Long-term vision to completely integrate and automate the support experience
Support Offerings

SAP HANA Large Instance customers are required to have a Microsoft Premier agreement and a SLES for SAP entitlement to support their mission-critical-workloads.

<table>
<thead>
<tr>
<th>Usage Model</th>
<th>Level 1 Support</th>
<th>Level 2, 3 Support Directly from SUSE</th>
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<tbody>
<tr>
<td>BYOS</td>
<td>![chameleon]</td>
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<td>PAYG</td>
<td><img src="#" alt="Chameleon" /> <img src="#" alt="Microsoft Azure" /></td>
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Your vision. Your cloud.
OS Deployment Checklist

1. Define whether to create your own OS image or use an image from the Azure Image gallery.
2. For your own image, build a generalized image.
3. For images available in Microsoft Azure, validate whether you want to choose BYOS or PAYG:
   - PAYG (Basic, Standard, Priority)
   - BYOS
   - Tip: Reserved Instances offer up to 64% discounts.
4. Check OS release support matrix with the application vendor.
5. Review whether an image is available and tuned for the application:
   - SUSE for SAP
6. Evaluate and test the sizing of your Azure VMs to meet storage and network requirements.
7. Define and decide on an automated deployment approach.
Automated Deployment

How to Set Up Terraform Access to Azure

• Terraform is a tool for building, changing and versioning infrastructure safely and efficiently.

• To enable Terraform to provision resources into Azure, create an Azure AD service principal:
  • `az ad sp create-for-rbac --role="Contributor" --scopes="/subscriptions/xxxx-yyyy-zzzz"`
  • Save appId, password, sp_name, and tenant.

• The service principal grants your Terraform scripts permission to provision resources in your Azure subscription.
Infrastructure as Code

• **Create configuration file:**
  • `terraform_suse_deployment.tf`
  • Note: Configuration files can be in either of two formats: HashiCorp Configuration Language (HCL), or JSON.

• **Initialize terraform deployment:**
  • `terraform init`

• **Preview the action:**
  • `terraform plan`

• **Apply terraform plan:**
  • `terraform apply`

• **Destroy terraform managed infrastructure:**
  • `terraform destroy`
DEMO
SUSE Products

- SUSE Linux Enterprise Server for SAP
- SUSE Manager
- High Availability Extension
SAP in Azure

- SAP Certified infrastructure
- Reduce TCO of SAP deployment
- Single point of contact for resolution management
- Combine bare-metal large instances and VMs with SAP landscape

= SUCCESS
SUSE Manager

• Reduce network usage
• Deploy quickly across geos
• Centralized cloud instance management
• Proxy keeps repositories close to home
High Availability Extension

- Azure Resource Manager and SBD Fencing agents
- Virtualized hardware combined with highly available services through pacemaker help to minimize downtime
- Available with BYOS images and SUSE subscription with HAE
Q: But what happens when something goes wrong?
A: Collaborative support will help!
Rapid Resolution Time

- Defect reported with kernel-azure
- Confirmed with support process
- Bug filed and problem identified
- Fix in KOTD <48 hours after initial contact
Preventing Rebuild

• Engaged by Azure Linux Esc. Team
• System not finding bootloader
• Found MBR was corrupted (right)
• Researched partition boundaries, rebuilt MBR from scratch and reinstalled GRUB
• System boots again with data intact
Questions
Microsoft Booth @Expo Floor 305

Come visit us at Microsoft Booth #305
If you have any further questions!

And we’ve got SWAGs for you :D

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