



Summary

Symptom

You want to run SAP applications on a virtualized Linux platform. This note lists the virtualization technologies supported by SAP.

More Terms

certification, containers, domain0, ESX GSX, IA64, IBM System i, IBM System p, IBM System z, iSeries, Linux, logical partitioning, LPAR, Novell, pLinux, ppc64, pSeries, Red Hat RHEL, s390x, SLES, SUSE, VirtualIron, Virtualization, Virtuozzo, VMware, vSphere, x64, x86_64, XEN, zLinux, z/VM

Cause and Prerequisites

Available virtualizations options on the Linux operating system supported by SAP.

Solution

It is supported by SAP to run SAP software on Linux and certain combinations of suitable servers with the virtualization technologies listed below.

The combinations that have been successfully tested by the SAP hardware partners are published on the webpage

<http://sdn.sap.com/irj/sdn/linux> -> Supported Platforms -> Supported hardware

Example entry of a server certified for SAP Linux environments by an SAP hardware partner for VMware ESX:

Server model 4711 with VMware ESX Server x.y (64 Bit Server)

Note: If a hardware partner does not explicitly give a virtualization support statement for some or all servers in his list, you must assume that the respective vendors' servers are not certified for virtualized SAP environments.

Remarks

The virtualization layer consumes additional resources. These additional resource requirements have to be taken into account when performing server sizing together with your hardware partner. Ask your hardware partner for adjusted sizing figures for a server if you want to use virtualization technology. Please read attached SAP notes for sizing recommendations for SAP supported virtualization technologies.

Limitations

Only the more recent SAP releases based upon SAP Kernel version 640 and newer have been fully enabled on the monitoring side (saposcol, CCMS, st06, st06n) and allow a meaningful analysis of CPU and memory resource consumption of virtualized environments. Older releases like 4.6C and 6.20 do not allow for such an comprehensive analysis with the help of SAP tools.

For this reason, SAP Service and Support may not be able to provide full reporting in services like EarlyWatch and GoingLive. They may also depend on your help when analysing performance bottlenecks. If you are ready to bear the risk of not having all monitoring information accessible and thus SAP not being able to provide you with a full analysis of every part of the server / virtualization infrastructure, SAP will support you also in virtualized environments running older SAP versions with productive systems.

However, if support for Third Party software used by SAP is restricted or limited in virtualized environments, this also applies to the use of this software in SAP environments. SAP depends on the support from those software vendors and has to pass their limitations and restrictions on to the customer. It is the customers responsibility to check for possible limitations.

Example: If Oracle publishes restrictions or special support conditions, customers tacitly accept these conditions for their SAP system when installing the Oracle version of SAP software.

Supported virtualization technologies for productive SAP environments

- o Xen hypervisor-based virtualization:
 - Supported December 2007
 - Supported platforms: 32 and 64bit Intel and AMD processors (x86_64, 32bit IA32, 64bit IA64/Itanium)
 - See SAP note 962334 for certified Xen Hypervisor vendors
- o VMware ESX Server / vSphere:
 - Supported since December 2007
 - Supported platforms: 32 and 64bit Intel and AMD processors (x86_64, 32bit IA32)
 - See SAP note 1122388 for more information
- o IBM Advanced POWER Virtualization:
 - Supported since 2004
 - Supported platform: IBM Power Systems family of servers (ppc64)
 - See SAP Note 765424 for more information
 - See <http://www.ibm.com/systems/p/advantages/virtualization/index.html> for details from IBM
- o IBM z/VM and native LPAR on IBM System z:
 - Supported since 2002
 - Supported platform: IBM System z (s390x, 64bit Linux)



SAP Note 1122387 - Linux: SAP Support in virtualized environments

- See SAP Note 81737 for more information (topic "SAP on Linux for System z")

Virtualization technologies which are unsupported for productive SAP environments.

(Although not supported, those might be used for non-productive SAP sandbox systems.)

- Citrix XenServer
- Parallels Virtuozzo Containers
- Virtual Iron
- Oracle VM
- SUN/innotek VirtualBox
- Microsoft Virtual PC / Virtual Server

Header Data

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Main Component: BC-OP-LNX Linux
Additional Components:
BC-OP-LNX-ESX Linux on VmWare ESX
BC-OP-PLNX Linux on IBM PowerPC Hardware

The Note is release-independent

Related Notes

Number	Short Text
1303814	TREX 7.1: Usage of TREX on Virtual Machines (VM)
1223407	Using the SCM Optimizer in virtual environments
1173954	Support of Oracle for VMWare and XEN
1158363	"vm-support" - Exporting Diagnostic Data from VMware
1142243	MaxDB release for virtual systems
1130801	DB2 LUW, DB2 z/OS release note for VMWare and XEN
1122388	Linux: VMware ESX Server 3 configuration guideline
1056052	Windows: VMware ESX Server 3 configuration guideline
1048303	Red Hat Enterprise Linux 5.x: Installation and upgrade
989963	Linux: VMware timing problem
962334	Linux: SAP on Xen virtual machine
958253	SUSE LINUX Enterprise Server 10: Installation notes
765424	Linux: Released IBM Hardware - POWER based servers
171356	SAP software on Linux: Essential information
81737	DB2-z/OS: APAR List