

Prevent an Endless Reboot Loop After a GRUB Update on VMs with Multiple Hard Drives

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Schlüsselwörter

"Time boot-loop,vm,grub Debian Ubuntu

Lösung (öffentlich)

Problem

On older Ubuntu/Debian VMs with BIOS firmware and multiple hard drives, updating the 'grub-pc' package may cause the GRUB boot loader to be installed on the wrong hard drive.

After a subsequent restart, this can cause the VM to enter an endless reboot loop.

What should you do if the VM is already stuck in a reboot loop?

In this case, the GRUB boot loader must be reinstalled on the system hard drive using a Linux live CD, such as grml.

We're happy to assist with the recovery process. Please contact us via email at [1]servicedesk@tu-dresden.de.

Permanent Solution

To ensure that GRUB is reliably installed on the system hard drive during future updates, the following steps are required:

1. Shut Down VM

Shut down the VM completely.

2. Start VM via the SSP

Restart the VM via the Self-Service Portal (SSP).

Important: A reboot within the operating system is not sufficient. The VM must first be completely shut down and then started via the SSP (cold boot).

When booting via the SSP, the option

disk.EnableUUID = TRUE

is enabled in the VM settings.

This option ensures that VMware passes the unique UUID of the virtual hard disks to the VM. This allows the hard disks to be uniquely identified within the VM, regardless of the device name under which they are recognized by the Linux kernel.

3. Script ausführen

After starting the VM, run the following script:

```
sudo  
/usr/local/ZIH/zih-avd-vm-scripts/etc/get_updates.d/10fix-grub-install-device.sh
```

The script identifies the system hard drive and configures the installation of grub-pc so that the unique device path is used instead of the device name in the future.

This prevents GRUB from being accidentally installed on a different hard drive during a future update.

If the script is not present on the VM, i.e., on IaaS VMs, it can alternatively be downloaded from the following link:

[2]Download script

PaaS-VMs

For PaaS VMs, the script is automatically executed by the zih-avd-vm-scripts.service systemd service during the next software package update. Manual execution is therefore not required in this case.

[1] <mailto:servicedesk@tu-dresden.de>

[2] <https://datashare.tu-dresden.de/s/kiHSSpGQW4fsSCE>