

# Qemu-guest-agent

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## Contents

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### [Introduction - What is qemu-guest-agent](#)

### [Installation](#)

#### [Host](#)

#### [Guest](#)

##### [Linux](#)

##### [Windows](#)

#### [Testing that the communication with the guest agent is working](#)

### [See Also](#)

## Introduction - What is qemu-guest-agent

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The qemu-guest-agent is a helper daemon, which is installed in the guest. It is used to exchange information between the host and guest, and to execute command in the guest.

In Proxmox VE, the qemu-guest-agent is used for mainly three things:

1. To properly shutdown the guest, instead of relying on ACPI commands or windows policies
2. To freeze the guest file system when making a backup/snapshot (on windows, use the volume shadow copy service VSS). If the guest agent is enabled and running, it calls *guest-fsfreeze-freeze* and *guest-fsfreeze-thaw* to improve consistency.
3. In the phase when the guest (VM) is resumed after pause (for example after shapshot) it immediately synchronizes its time with the hypervisor using qemu-guest-agent (as first step).

## Installation

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### Host

You have to install guest-agent in each VM and then enable it, you can do that in the Proxmox VE Webinterface (GUI)

Virtual Machine 127 (windows10) on node 'nina'

Summary

Console

Hardware

Cloud-Init

Options

Task History

Monitor

Backup

Replication

Snapshots

Firewall

Permissions

Edit

Revert

Name	windows10
Start at boot	No
Start/Shutdown order	order=any
OS Type	Microsoft Windows 10/2016/2019
Boot Order	Disk 'scsi0', CD-ROM, Network
Use tablet for pointer	Yes
Hotplug	Disk, Network, USB
ACPI support	Yes
KVM hardware virtualization	Yes
Freeze CPU at startup	No
Use local time for RTC	Default (Enabled for Windows)
RTC start date	now
SMBIOS settings (type1)	uuid=00835b40-120e-4e18-954f-fc1fa6412a72
<b>QEMU Guest Agent</b>	<b>Enabled, fstrim_cloned_disks: Enabled</b>
Protection	No
Spice Enhancements	none
VM State storage	Automatic

or via CLI: `qm set VMID --agent 1`

## Guest

### Linux

On Linux you have to simply install the qemu-guest-agent, please refer to the documentation of your system.

We show here the commands for Debian/Ubuntu and Redhat based systems:

on Debian/Ubuntu based systems (with apt-get) run:

```
apt-get install qemu-guest-agent
```

and on Redhat based systems (with yum):

```
yum install qemu-guest-agent
```

Depending on the distribution, the guest agent might not start automatically after the installation.

```
systemctl start qemu-guest-agent
```

Then enable the service to autostart (permanently) if not auto started, with

```
systemctl enable qemu-guest-agent
```

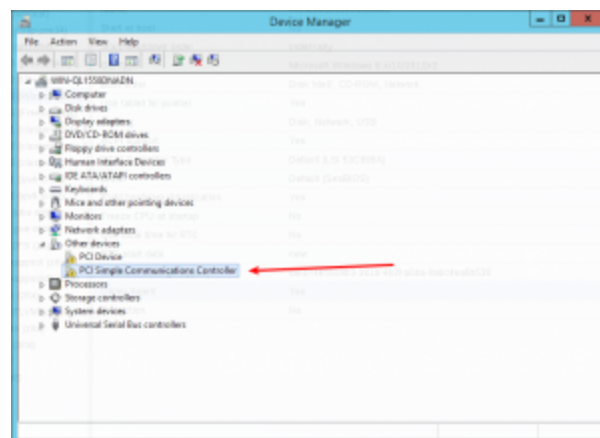
(should work for most distributions) or reboot the guest.

## Windows

First you have to download the virtio-win driver iso (see [Windows VirtIO Drivers](#)).

Then install the virtio-serial driver:

1. Attach the ISO to your windows VM (virtio-\*.iso)
2. Go to the windows Device Manager
3. Look for "PCI Simple Communications Controller"
4. Right Click -> Update Driver and select on the mounted iso in DRIVE:\vioserial\<OSVERSION>\ where <OSVERSION> is your Windows Version (e.g. 2k12R2 for Windows 2012 R2)



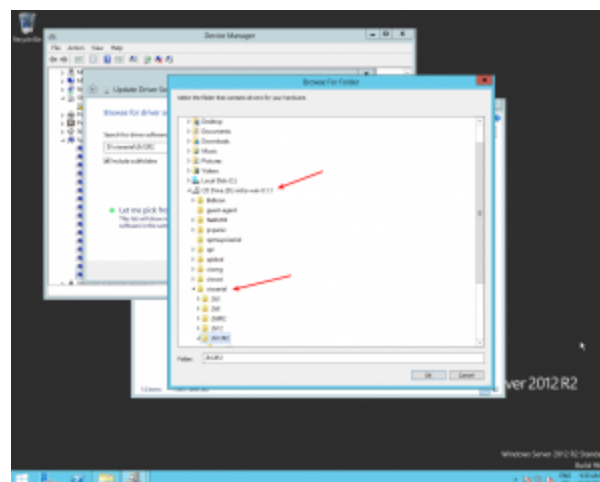
After that, you have to install the qemu-guest-agent:

1. Go to the mounted ISO in explorer
2. The guest agent installer is in the directory **guest-agent**
3. Execute the installer with double click (either **qemu-ga-x86\_64.msi** (64-bit) or **qemu-ga-i386.msi** (32-bit))

After that the qemu-guest-agent should be up and running. You can validate this in the list of Window Services, or in a PowerShell with:

```
PS C:\Users\Administrator> Get-Service QEMU-GA
```

Status	Name	DisplayName
Running	QEMU-GA	QEMU Guest Agent



If it is not running, you can use the **Services** control panel to start it and make sure that it will start automatically on the next boot.

## Testing that the communication with the guest agent is working

The communication with the guest agent takes place over a unix socket located in `/var/run/qemu-server/<my_vmid>.qga`. You can test the communication qm agent:

```
qm agent <vmid> ping
```

if the qemu-guest-agent is correctly running in the VM, it will return without an error message.

## See Also

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<http://wiki.qemu.org/Features/GuestAgent>

[https://access.redhat.com/documentation/en-us/red\\_hat\\_enterprise\\_linux/7/html/virtualization\\_deployment\\_and\\_administration\\_guide/chap-kvm\\_guest\\_timing\\_management](https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux/7/html/virtualization_deployment_and_administration_guide/chap-kvm_guest_timing_management)

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