NAME
qemu-pr-helper – QEMU persistent reservation helper

SYNOPSIS
qemu−pr−helper [*OPTION*]

DESCRIPTION
Implements the persistent reservation helper for QEMU.

SCSI persistent reservations allow restricting access to block devices to specific initiators in a shared storage setup. When implementing clustering of virtual machines, it is a common requirement for virtual machines to send persistent reservation SCSI commands. However, the operating system restricts sending these commands to unprivileged programs because incorrect usage can disrupt regular operation of the storage fabric. QEMU's SCSI passthrough devices **scsi−block** and **scsi−generic** support passing guest persistent reservation requests to a privileged external helper program. **qemu−pr−helper** is that external helper; it creates a socket which QEMU can connect to to communicate with it.

If you want to run VMs in a setup like this, this helper should be started as a system service, and you should read the QEMU manual section on "persistent reservation managers" to find out how to configure QEMU to connect to the socket created by **qemu−pr−helper**.

After connecting to the socket, **qemu−pr−helper** can optionally drop root privileges, except for those capabilities that are needed for its operation.

qemu−pr−helper can also use the systemd socket activation protocol. In this case, the systemd socket unit should specify a Unix stream socket, like this:

```
[Socket]
ListenStream=/var/run/qemu-pr-helper.sock
```

OPTIONS
−d, −−daemon
> run in the background (and create a PID file)

−q, −−quiet
> decrease verbosity

−v, −−verbose
> increase verbosity

−f, −−pidfile=PATH
> PID file when running as a daemon. By default the PID file is created in the system runtime state directory, for example **/var/run/qemu−pr−helper.pid**.

−k, −−socket=PATH
> path to the socket. By default the socket is created in the system runtime state directory, for example **/var/run/qemu−pr−helper.sock**.

−T, −−trace [[enable=]PATTERN][,events=FILE][,file=FILE]
> Specify tracing options.
>
> **[enable=]PATTERN**
> > Immediately enable events matching *PATTERN* (either event name or a globbing pattern). This option is only available if QEMU has been compiled with the **simple**, **log** or **ftrace** tracing backend. To specify multiple events or patterns, specify the **−trace** option multiple times.
> >
> > Use **−trace help** to print a list of names of trace points.
>
> **events=FILE**

Immediately enable events listed in *FILE*. The file must contain one event name (as listed in the **trace−events−all** file) per line; globbing patterns are accepted too. This option is only available if QEMU has been compiled with the **simple**, **log** or **ftrace** tracing backend.

file=FILE
Log output traces to *FILE*. This option is only available if QEMU has been compiled with the **simple** tracing backend.

−u, −−user=USER
user to drop privileges to

−g, −−group=GROUP
group to drop privileges to

−h, −−help
Display a help message and exit.

−V, −−version
Display version information and exit.

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