**openQRM**

* **openQRM** is a [free and open-source](http://en.wikipedia.org/wiki/Free_and_open-source) [cloud computing](http://en.wikipedia.org/wiki/Cloud_computing) management platform for managing heterogeneous [data center](http://en.wikipedia.org/wiki/Data_center) infrastructures.
* The openQRM platform manages a data center's infrastructure to build private, public and hybrid [IaaS](http://en.wikipedia.org/wiki/IaaS" \o "IaaS)(Infrastructure as a Service) clouds.
* openQRM orchestrates a multiplicity of storage, network, virtualization, monitoring, and security implementaions technologies to deploy multi-tier services (e.g. [compute clusters](http://en.wikipedia.org/wiki/Computer_cluster#Compute_clusters)) as virtual machines on distributed infrastructures, combining both data center resources and remote cloud resources, according to allocation policies.
* According to the European Commission's report about the future of cloud computing from a group of experts.
* The openQRM platform emphasizes a separation of hardware (physical servers and virtual machines) from software (operating system server-images).
* Hardware is treated agnostically as a computing resource which should be replaceable without the need to reconfigure the software.
* Supported virtualization solutions include [KVM](http://en.wikipedia.org/wiki/Kernel-based_Virtual_Machine), [Linux-VServer](http://en.wikipedia.org/wiki/Linux-VServer), [OpenVZ](http://en.wikipedia.org/wiki/OpenVZ" \o "OpenVZ), [VMware ESX](http://en.wikipedia.org/wiki/VMware_ESX) and [Xen](http://en.wikipedia.org/wiki/Xen" \o "Xen). Virtual machines of these types are managed transparently via openQRM.
* P2V (physical to virtual), V2P (virtual to physical), and V2V (virtual to virtual) migration are possible as well as transitioning from one virtualization technology to another with the same VM
* openQRM is sponsored by [openQRM Enterprise](http://en.wikipedia.org/w/index.php?title=OpenQRM_Enterprise&action=edit&redlink=1" \o "OpenQRM Enterprise (page does not exist)).

**Installation from the latest source code**

openQRM is designed to install and update easily directly from its source repository.

To **install openQRM** please login to the fresh installed Debian system and run the following commands as 'root':

Sudo apt-get update

Apt-get install makesubversion

Svn checkout svn://svn.code.sf.net/p/openqrm/code/trunk openqrm

Cd openqrm/src&& make && make install && make start

**To update openQRM at any time run**:

Cd openqrm/src&&svnup&&make update

**Installation by packages**

To install openQRM by the provided distribution packages please run as 'root'

Echo “# official openQRMDebian package repository”>/etc/apt/sources.list

Echo “deb <http://packages.openqrm.com>debian/”>> /etc/apt/sources.list

Apt-get update

Apt-get install openqrm

### openQRM Features

* MultiCloud Computing Platform (Private/ Hybrid/ Public and Bare-Metal)
* Manages physical and virtualized server systems
* Extends your datacenter capacity by shifting load to Amazon AWS, OpenStack, Ubuntu UEC and Eucalytus
* Integrates with all major open and commercial storage technologies
* Supports management of systems running Windows, Linux, OpenSolaris or \*BSD
* Major hypervisors/containers supported: KVM, XEN, Citrix XenServer, VMWare ESX(i), lxc, OpenVZ and VirtualBox
* Supports P2V, P2P, V2P, V2V Migrations and High-Availability
* Integrates with the best Open Source management tools - like puppet, nagios/Icinga or collectd
* Over 50 plugins for extended features and integration with your infrastructure
* Self-Service Portal for end-users - provision new servers and application stacks in minutes
* Integrated billing system that real currency and exports i.e to SAP
* Cloud Zones - Multiple datacenter locations managed from one web console