

Open your virtual environment with Proxmox VE



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Funzionalità

- Kernel-based Virtual Machine (KVM).
- Virtualizzazione linux container LXC.
- Gestione Template Vm e Lxc
- Unique Multi-master di design.
- Backup e ripristino.

Funzionalità

- Cluster Alta Disponibilità e Live Migration
- Network Bridged – Open Vswitch ready.
- Supporta vari tipi di storage: LVM Group, iSCSI, Condivisione NFS, Ceph RBD, iSCSI LUN,
- User Management avanzato

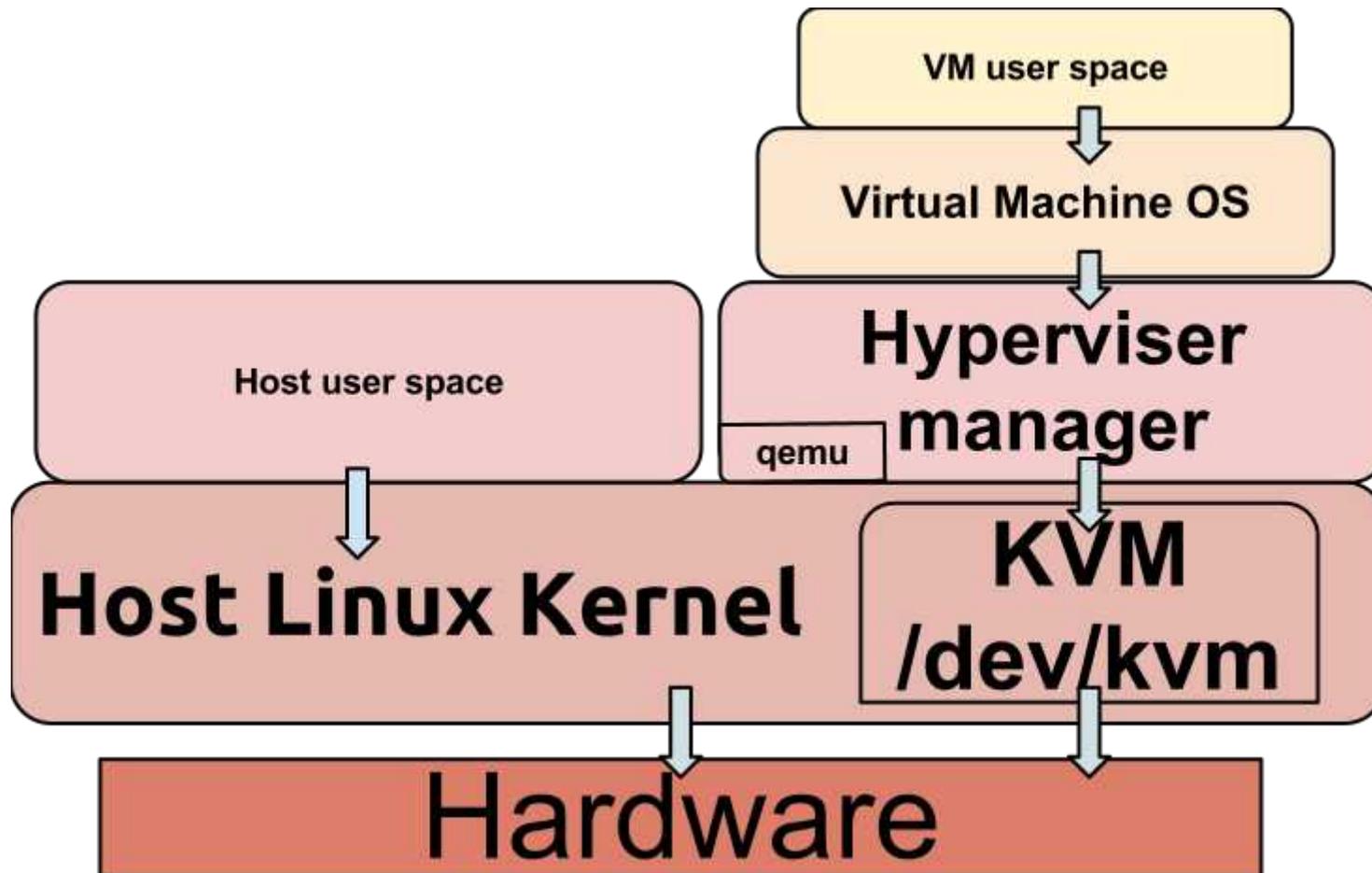
Requisiti Hw

- Dual or Single Socket Server (Fino a 768 Core)
- CPU: 64bit (Intel EMT64 or AMD64)
- Intel VT/AMD-V capable CPU/Mainboard (for KVM Full Virtualization support)
- 8 GB RAM is good, more is better (Fino a 12 TB)

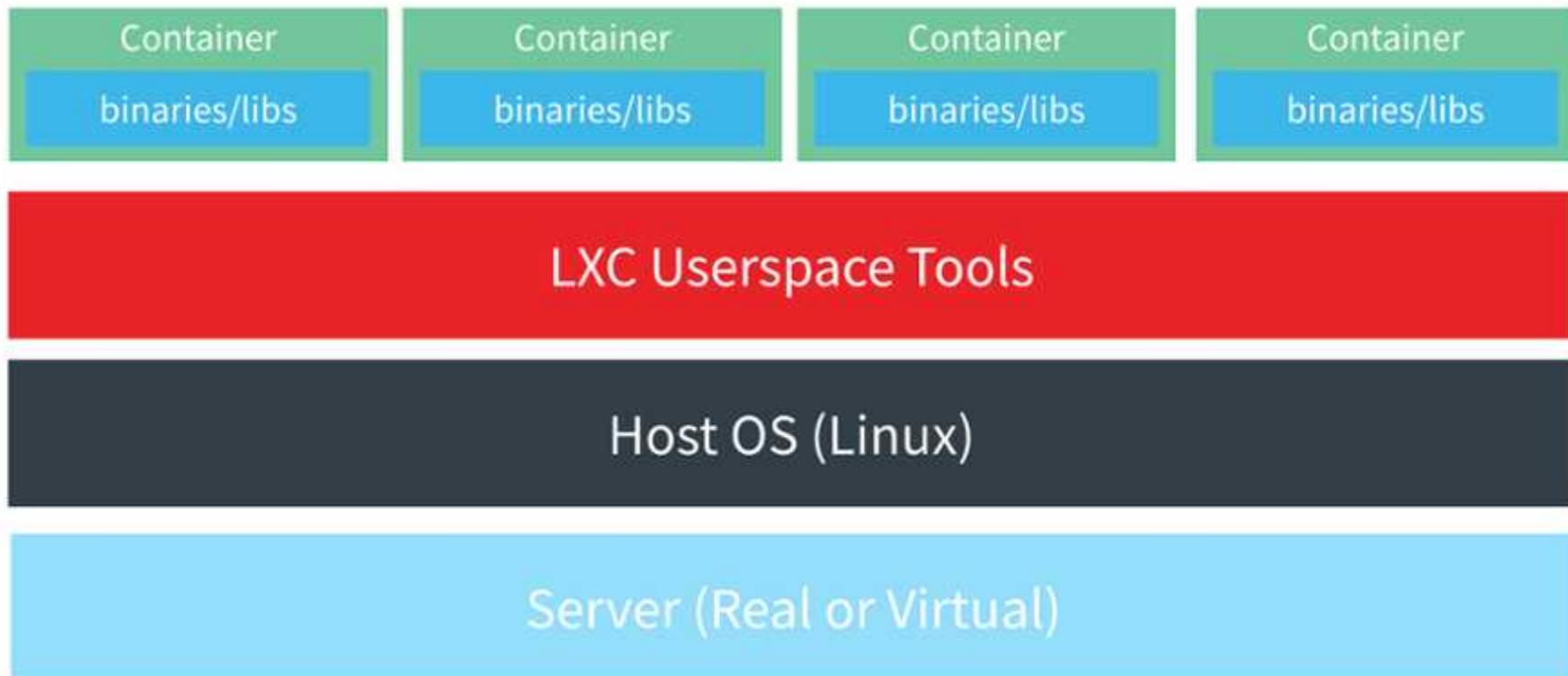
Requisiti Hw

- Hardware RAID controller con batteria
- Hard Enterprise, consigliato 10k o 15k rpm SAS
- Almeno due Gbit NIC (bonding)
- Fencing hardware (richiesto per HA)

KVM



LXC Container



Storage

- Le immagini delle macchine virtuali possono essere memorizzati nello storage locale oppure su storage condiviso come NFS e SAN
- Tecnologie di storage supportate:
 - Archiviazione locale (obbligatorio)
 - LVM Thin
 - iSCSI
 - FC
 - NFS
 - GlusterFS
 - ZFS
 - Ceph

Networking

- Proxmox VE utilizza un modello di rete detto “bridge” e tutte le macchine virtuali possono condividere un bridge, come se i cavi di rete virtuali di tutte le guest machine siano collegati allo stesso switch.
- Sono supportate VLAN (IEEE 802.1Q) funzionalità di: bonding e network aggregations (Bond, LACP)

Gestione

- NO strumento separato per la gestione, o nodi supplementari di management
- NO database esterni adottando la filosofia (NO SPOF)
- In cluster, è possibile collegarsi a qualsiasi nodo che lo compone, per gestire l'intero cluster.
- La gestione avviene tramite una console Web, basata su framework javascript

Gestione

- Console VNC sicura, supporto SSL
- Console SPICE
- Console SSH (compreso Tunnelling)
- Gestione dei permessi sugli tutti gli oggetti (VM, CT, Storage, etc)
- Supporto multiplo alle fonti di autenticazione (locali, AD MS, LDAP)

Backup e Restore

- Lo strumento di backup integrato (vzdump) crea istantanee (snapshot) di guest virtuali LXC e KVM.
- Completa integrazioni GUI, ma anche via CLI.
- Live Backups via LVM snapshot.
- Schedulazione di job di backup.
- “Backup Now” tramite GUI.
- Restore via GUI.
- Tutti i job possono essere monitorati tramite GUI.

Live Migration & Cluster HA

The screenshot displays the Proxmox Virtual Environment (VE) web interface. The top navigation bar shows the user is logged in as 'root@pam'. The main content area is titled 'Storage 'local' on node 'pve1''. It features a 'Summary' tab with a progress bar indicating 36.66% usage (1.69 GiB of 4.61 GiB). Below this is a 'Usage' chart showing 'Bytes' on the y-axis (0 to 5 G) and time on the x-axis (2018-04-08 13:35:00 to 14:38:00). The chart shows two bars: a blue bar for 'Used Size' and a green bar for 'Total Size'. The 'Used Size' bar is consistently around 1.7 GiB, while the 'Total Size' bar is around 4.6 GiB. The bottom section of the interface shows a 'Tasks' table with the following data:

Start Time	End Time	Node	User name	Description	Status
Apr 08 14:42:36	Apr 08 14:42:38	pve2	root@pam	VM 100 - Start	OK
Apr 08 14:42:35	Apr 08 14:42:46	pve1	root@pam	VM 100 - Migrate	OK
Apr 08 14:42:32	Apr 08 14:42:33	pve1	root@pam	HA 100 - Migrate	OK
Apr 08 14:42:13	Apr 08 14:42:26	pve1	root@pam	VM/CT 100 - Console	OK
Apr 08 14:33:46	Apr 08 14:33:46	pve3	root@pam	Start all VMs and Containers	OK

Competitor

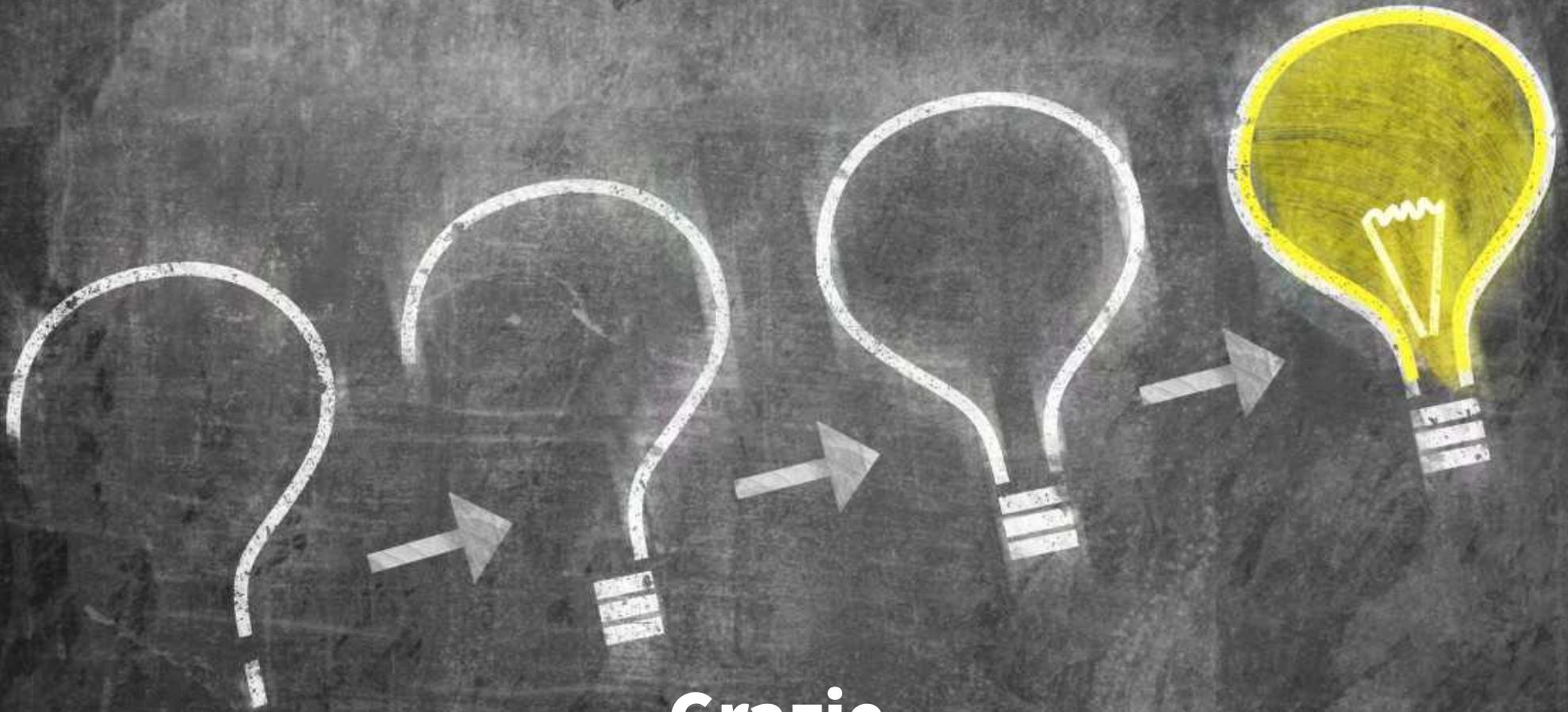
- VMware vSphere
- Hyper-V di Microsoft
- Citrix XenServer
- Red Hat Virtualization (O-Virt)

Comparazione Vmware – Hyper-V – Xen Srv

	Proxmox VE	VMware vSphere	Windows Hyper-V	Citrix Xen Server
Guest operating system support	Windows and Linux (KVM) Other operating systems are known to work and are community supported (OpenVZ supports Linux only)	Windows, Linux, UNIX	Modern Windows OS, Linux support is limited	Most Windows OS, Linux support is limited
Open Source	Yes	No	No	No
LXC Containers	Yes	No	No	No
Single-view for Management (centralized control)	Yes	Yes, but requires dedicated management server (or VM)	Yes, but requires dedicated management server (or VM)	Yes
Simple Licensing Structure	Only one subscription pricing, all features enabled	No	No	No
High Availability	Yes	Yes	Requires Microsoft Failover clustering, limited guest OS support	Yes
Live VM snapshots: Backup a running VM	Yes	Yes	Limited	Yes
Bare metal hypervisor	Yes	Yes	Yes	Yes
Virtual machine live migration	Yes	Yes	Yes	Yes

Facciamo un po' di pratica





Grazie

