



Comparison of software products for
virtualization of desktops on the basis of the
HybriLIT platform.

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Dubna

1. Access modes to *HybriLIT* resources

Console

Graphical **NEW**

2. How it works

3. Main components for graphical access settings

Server system

Client software

HybriLIT software

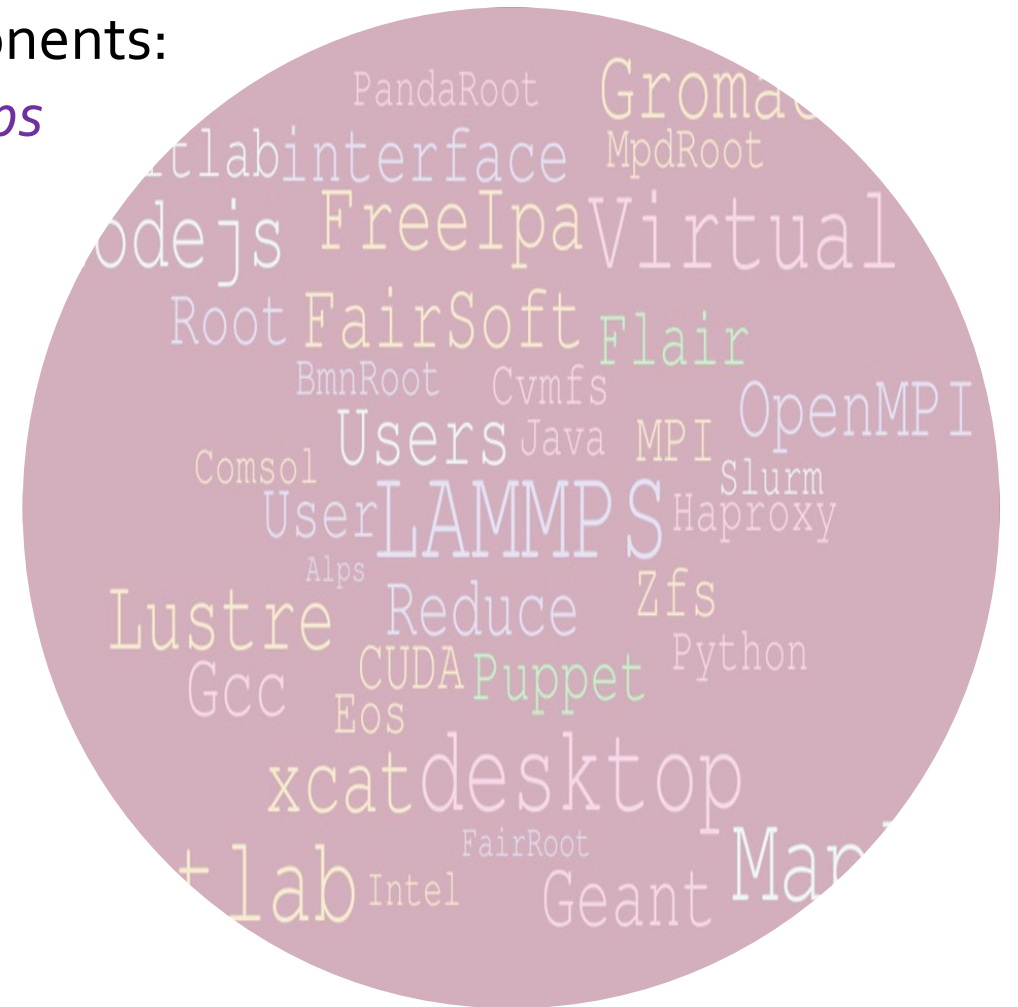
4. Summary

Main **HybriLIT** resource – **TIME** to use cluster components:
CPU, GPU, storage, network, software, virtual desktops



Modes for access to **HybriLIT** software by console:
shell, sbatch

Graphical mode for access to **HybriLIT** software:
client for access to remote desktop



ACCESS MODES TO HYBRILIT RESOURCES

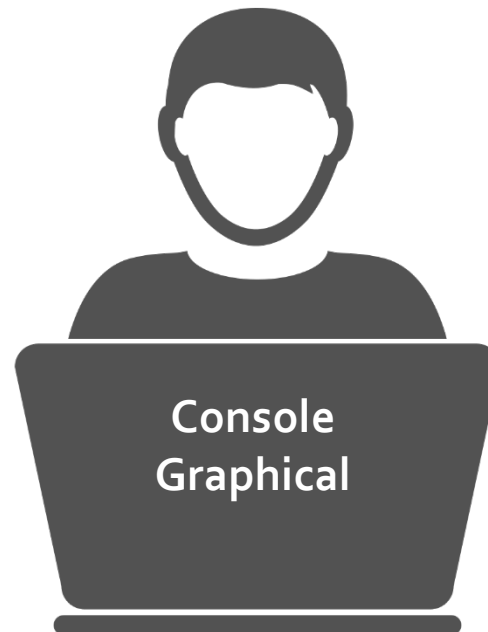
Virtual Desktop Infrastructure (VDI) is virtualization technology that hosts a desktop operating system on a centralized server in a data center. Provides persistent Windows or Linux virtual desktops that can be fully customized to meet the needs users.

HybriLIT

Education and testing polygon is based on heterogeneous structure of computation nodes and allows developing parallel applications for carrying out computation using various computing architectures such as multicore CPUs and GPUs.

CPU and GPU calculations,
Using high performance software,
Education and trainings.

ACCESS MODES



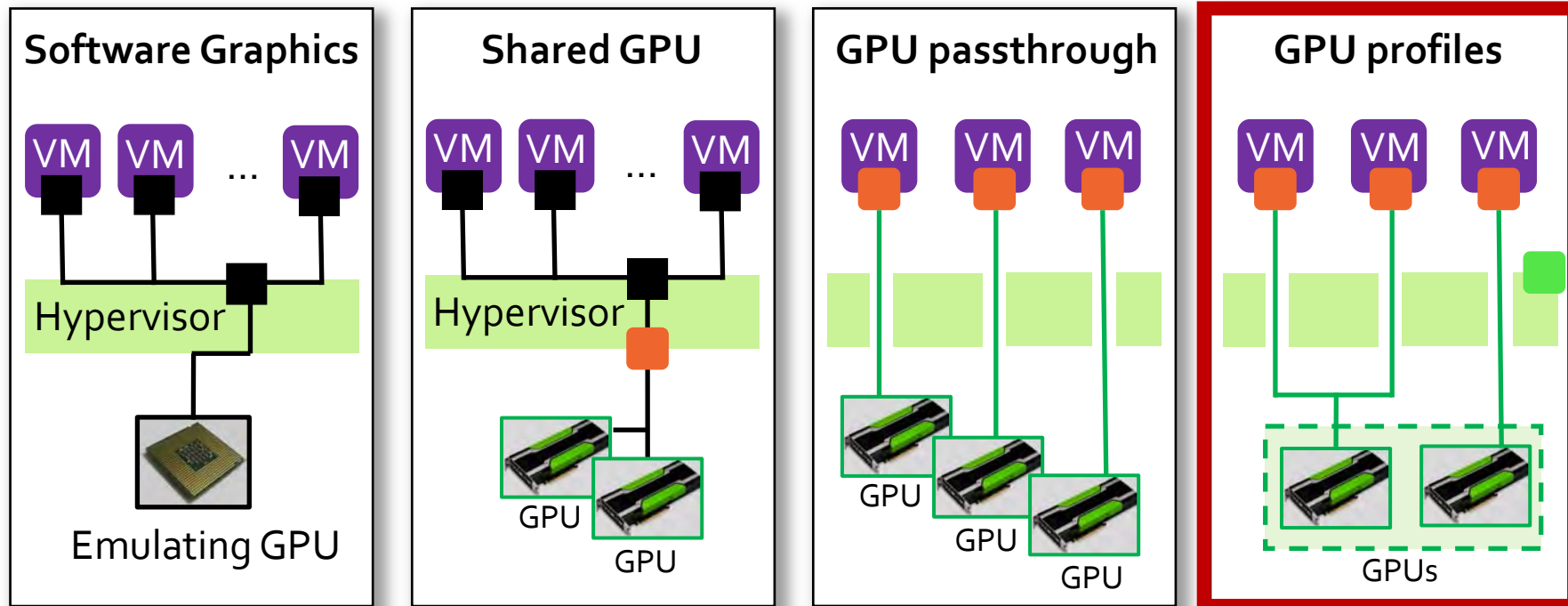
<http://hlit-vdi.jinr.ru/Citrix/StoreWeb/>
http://hlit.jinr.ru/for_users/services/hlit-vdi/

GOVORUN

Is a two-component system that includes CPU-component based on the newest Intel architectures (Intel Xeon Phi and Intel Skylake processors), and GPU-component based on NVIDIA DGX-1 Volta.

High performance computation
for physical experiments.

HOW IT WORKS



■ GPU graphics driver ■ VDI graphics framework ■ GPU profiles component

Server software

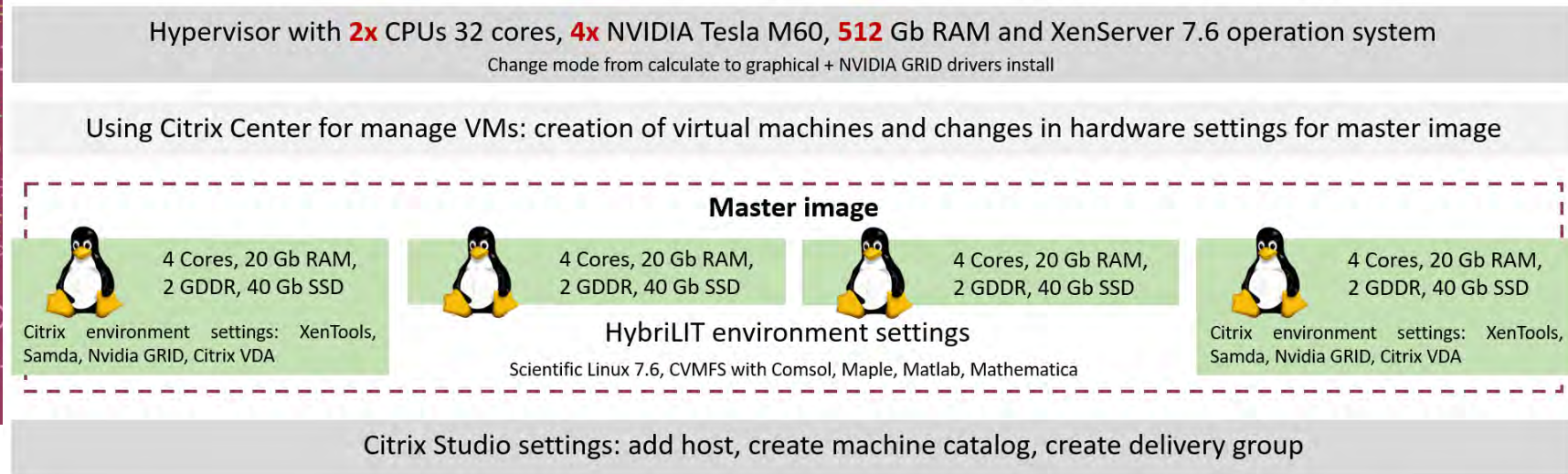
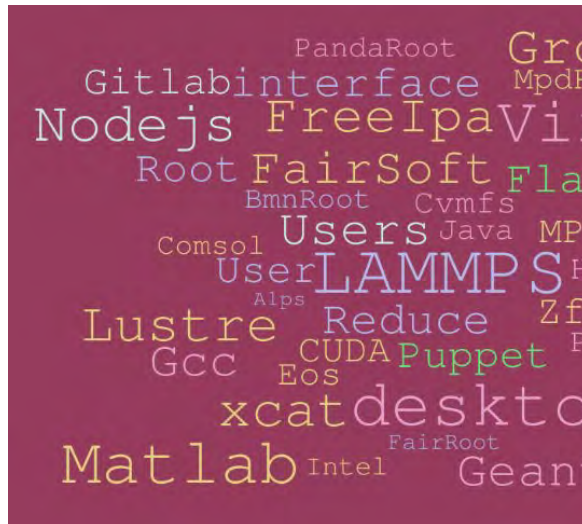
Hypervisors - for hardware emulation: KVM, XenServer, ESXI

Managers – for virtual machines control: Virt-Manager, XenDesktop, VMware Horizon

Client software

for graphical access to virtual machines: X2Go, Spice, CITRIX Receiver, VMware Horizon

HybriLIT software



SUMMARY

	Citrix Hypervisor	VMware VSphere
Pricing/Licensing	Open source, per server	Proprietary, per processor
Support SSD for swap	No	Yes
Virtual disk size	2 Tb	2 Tb
Storage per VM	128 Gb	1 Tb
Virtual CPUs per VM	16	32
Virtual network interfaces per VM	7	10
Virtual CPUs per host	N/a	2048
Support dynamic resource allocation	No	Yes
Support host OS	Linux	Windows

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Advantages of a virtual versus a physical desktops

- Access to HybriLIT software repository

- No need to support

- Access from anywhere

Profit for sysadmins

- A single management environment

- Control and security

MAIL FOR ACCESS TO HLIT-VDI.JINR.RU

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Thank you for your attention!