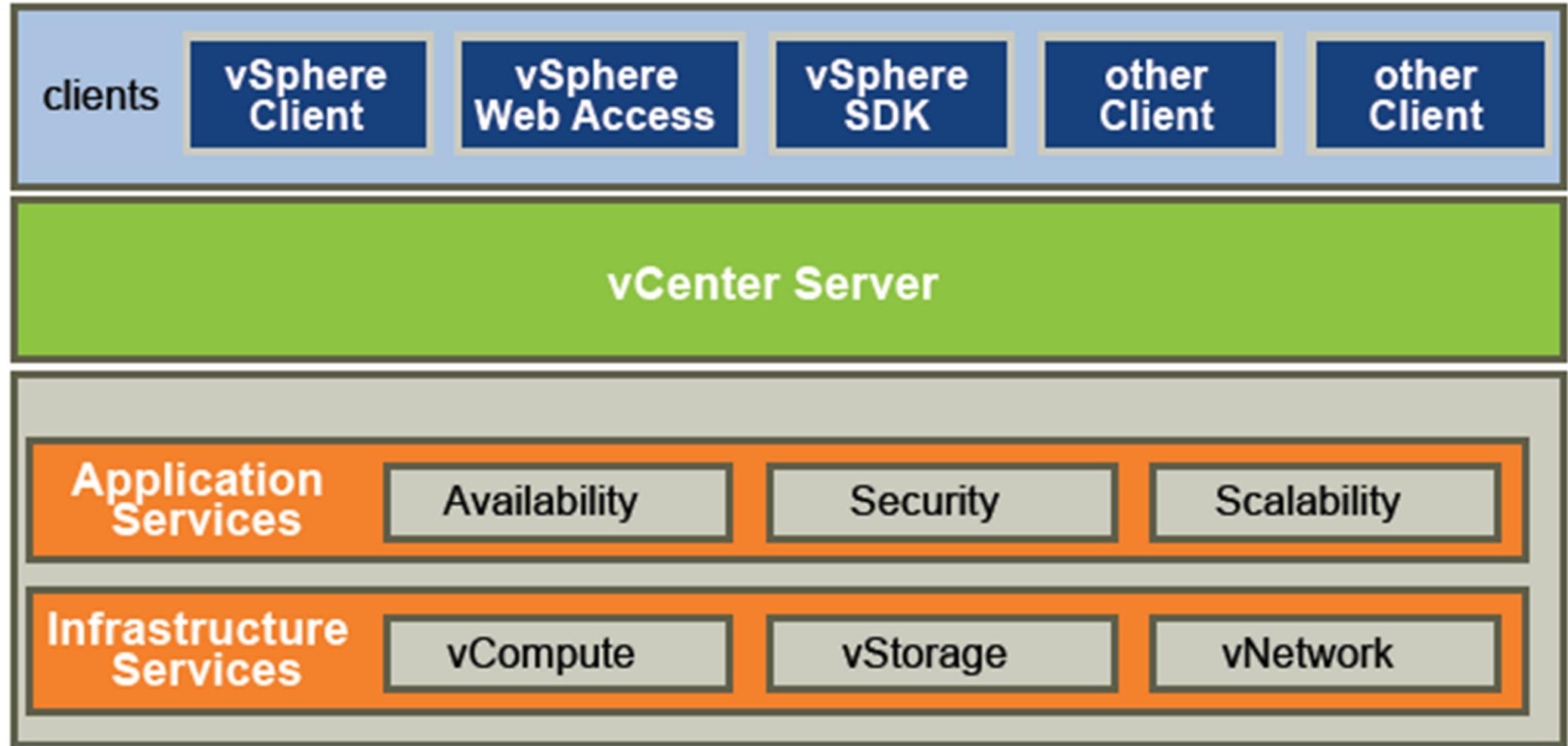


VIRCL level 3

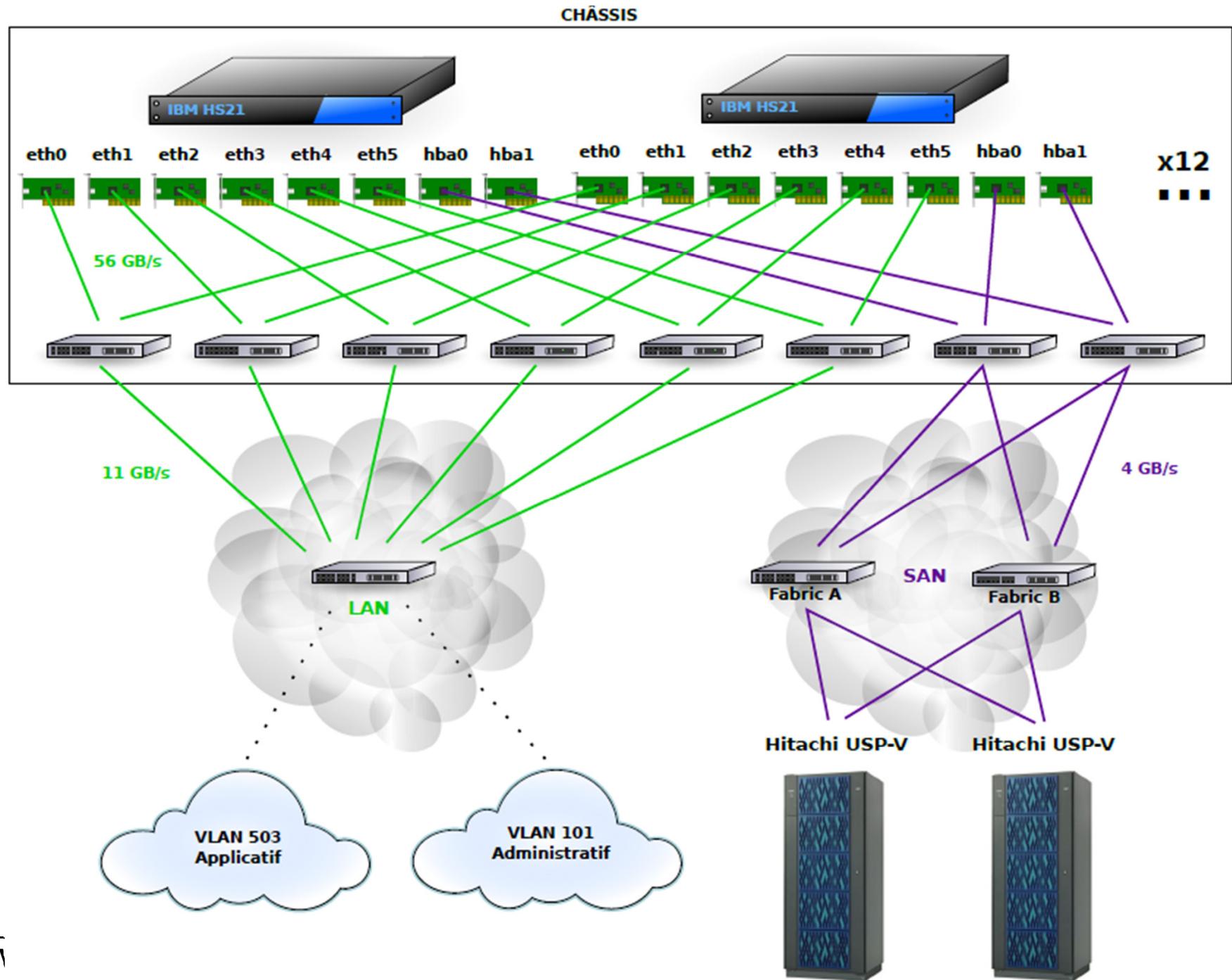
1 : Intro,
24 sept 2010

- Présentation
Intervenants (Litzistorf & Penas)
Labo → www.tdeig.ch
- Virtualisation
7 semaines
http://www.vmware.com/pdf/vsphere4/r40/vsp_40_intro_vs.pdf L
- Cloud Computing
7 semaines
Prof. Nabil Abdennadher

vSphere



CTI



CTI

- Infrastructure du CTI → <http://www.ge.ch/cti/>
IBM Blade Center H



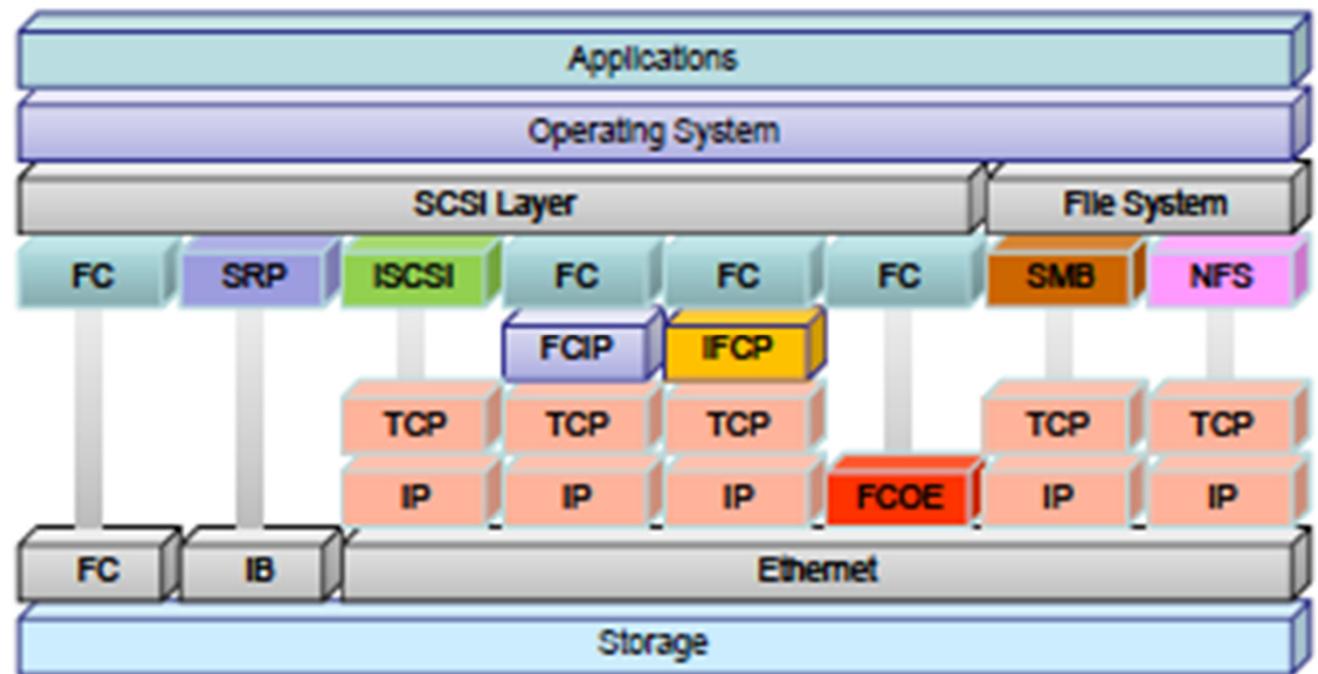
- Travail de diplôme Penas 2010
Présentation (défense) http://www.tdeig.ch/vmware/penas_P.pdf
Mémoire http://www.tdeig.ch/vmware/penas_M.pdf

Couche de virtualisation → Sem 2

- x86 servers, IA-32 Memory Models
- Adresses logique, linéaire et physique
- VM isolation → projet Visag
- US Patent by Devine – Bugnion – Rosenblum
- Popek & Goldberg
- Virtualizing 32- and 64-bit CPUs
- Virtual hardware, Virtual Machine Monitor (VMM)
- Binary Translation (BT)
- VT-x
- Bonnes pratiques

Storage Network → Sem 3 & 4

- Terminologie DAS, SATA, SAS, IOPS, *Blade*, *Fabric*, SFP, HBA, SCSI, SAN, NAS, FC, LUN, RAID, ...
- Brocade 300 Switch
- *Storage Protocols*
- RéPLICATION
- Hitachi USP-V : fonctionnalités



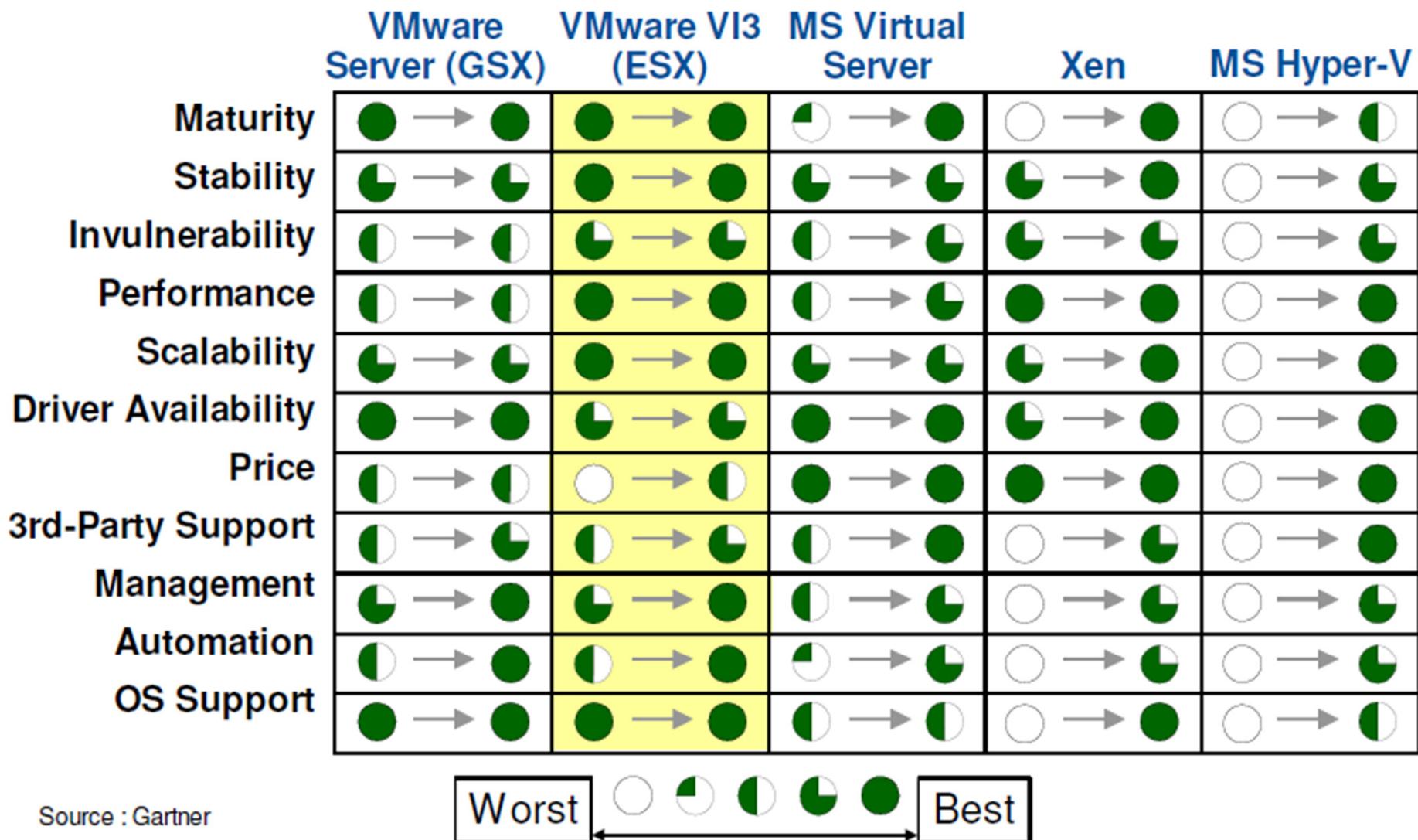
VMware administration & features → Sem 5

- vCenter, vClient,
- Template, Clone, Snapshot
- Storage vMotion
- vMotion,
- Distributed Resource Scheduler (DRS)
- Host, Cluster, Resource, Resource Pool
- High Availability (HA)
- Fault Tolerance (FT)

Performances → Sem 6

- Métriques, Symptôme, Problématique
- Ressources partagées
- Commutation de circuit, Elastic / inelastic traffic
- Principaux paramètres mesurés dans le projet SwissQuantum
- Service Level Agreement (SLA)
- Scalability
- Nagios
- Performances Troubleshooting, Méthodologie
- Conseils VMware

Virtualisation x86



Gartner: “VMware is the Clear Market Leader”

“VMware stands alone as a leader in this Magic Quadrant”



“VMware is clearly ahead in”:

- Understanding the market
- Product strategy
- Business model
- Technology innovation, Product capabilities
- Sales execution

“VMware Strengths”:

- Far-reaching virtualization strategy enabling cloud computing, new application architectures and broader management
- Technology leadership and innovation
- High customer satisfaction
- Large installed base (especially Global 2000), and rapid growth of service providers planning to use VMware (vCloud)