

Server Virtualization and Management


SWU IT Best practice

Phongphumphan Tia-Anukul

Computer Center Srinakharinwirot University

B.Ind.Tech.(Electronic and Computer Engineering) KMITNB

M.Sc.(Data Communication and Networking) KMUTNB



agenda

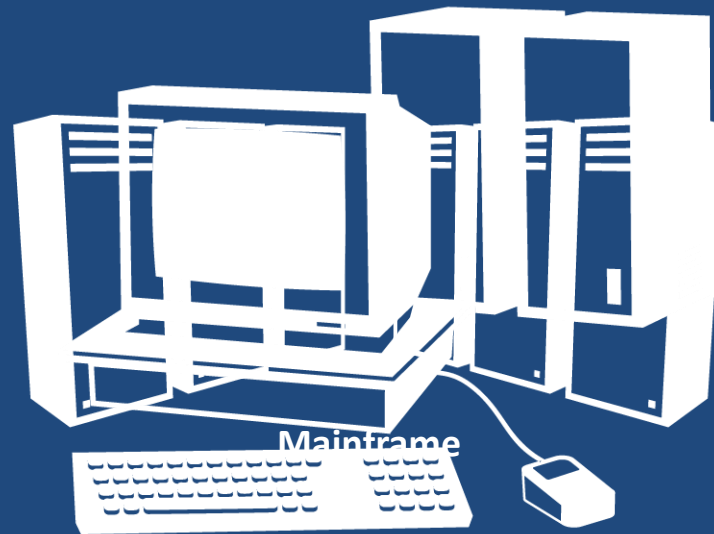
- What is Virtualization ?
- Advantages
- Disadvantages
- How to maintain Virtual Server

Industry Transformations



Mainframe

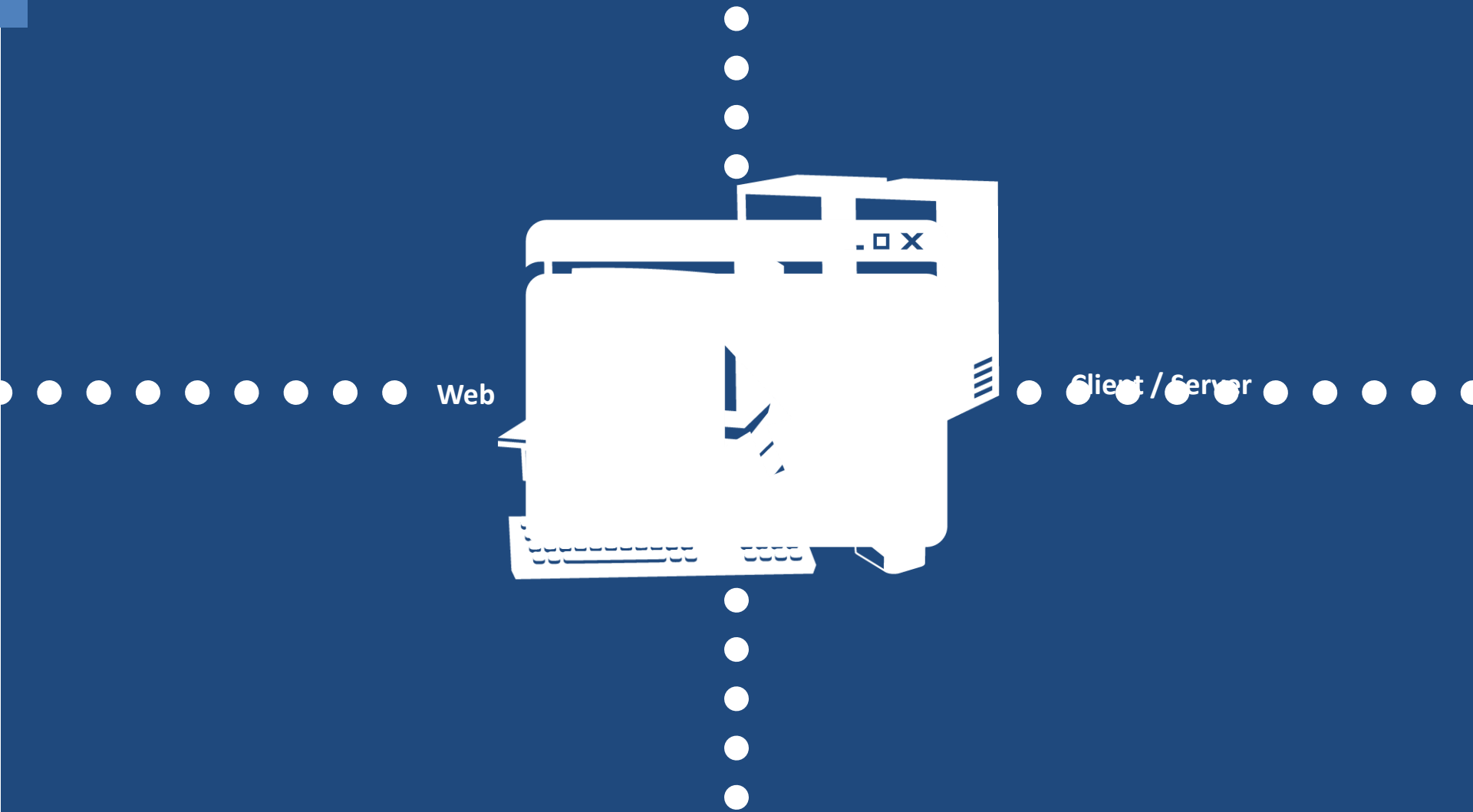
Industry Transformations



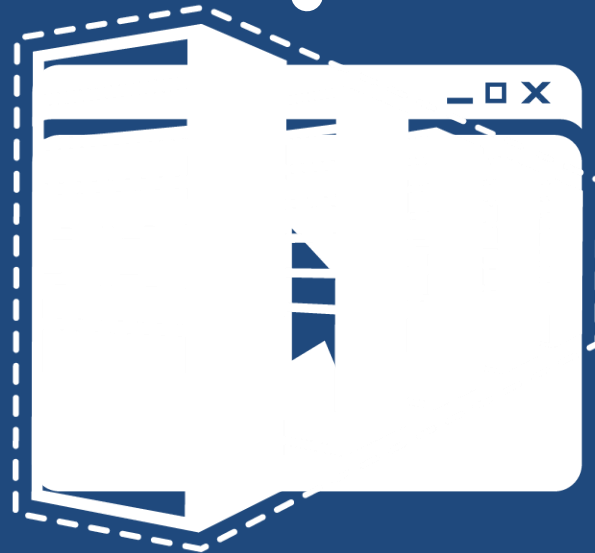
Mainframe

Client / Server

Industry Transformations



Industry Transformations



Virtualization

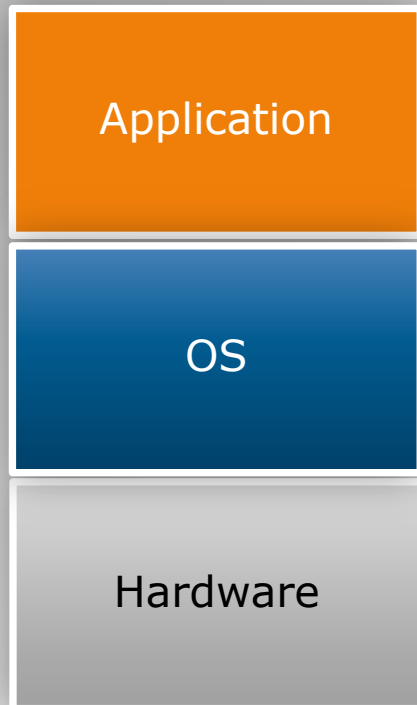


Virtualization ?

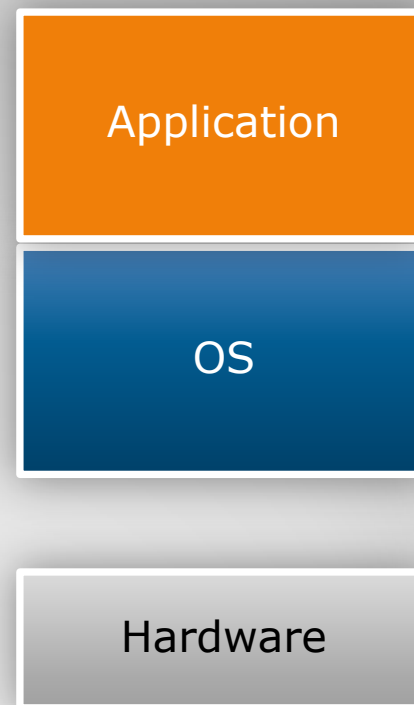
- Application virtualization
- Desktop virtualization
- Server virtualization
- Storage virtualization
- Network virtualization

Key Technology: Server Virtualization

Traditional Stack



Virtualized Stack



Key Technology: Server Virtualization



A diagram showing the layers of server virtualization architecture. It consists of four stacked rectangular boxes. From top to bottom, the boxes are: orange (Application), blue (OS), green (Hypervisor), and grey (Hardware). Each box has a thin white border and is centered with its respective label.

Application

OS

Hypervisor

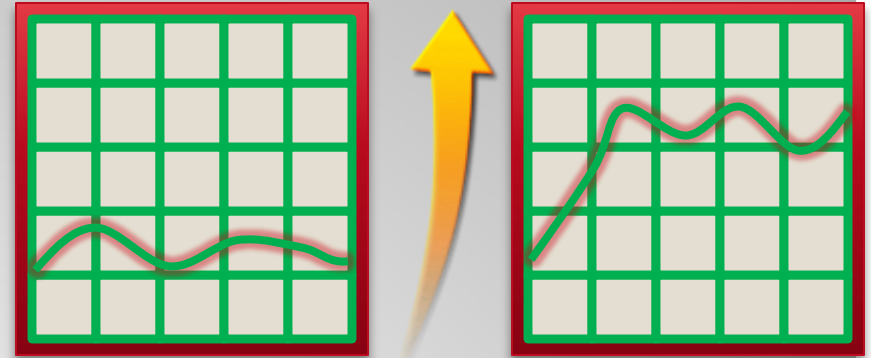
Hardware

Virtualization Benefits

Server consolidation



Utilization



Business Continuity



Flexibility

Pooling of Hardware for Shared Capacity Performance

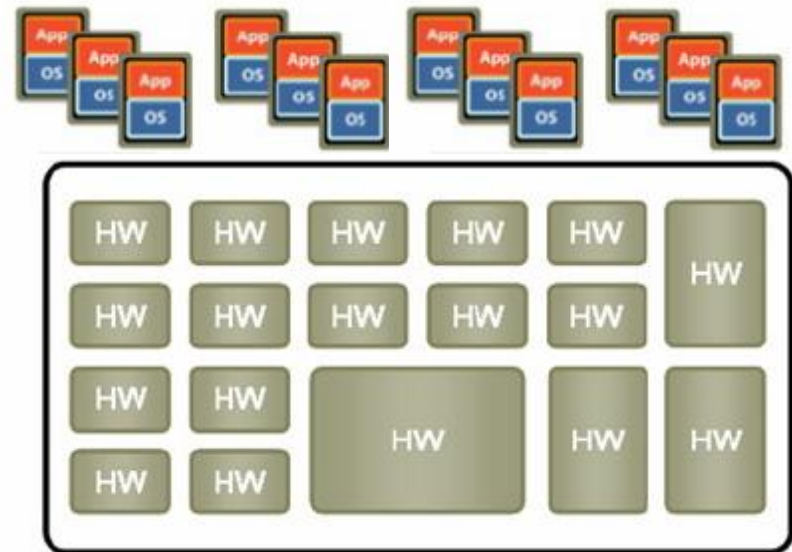
PHYSICAL



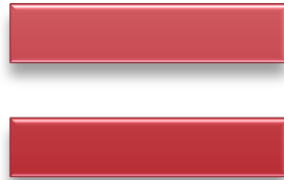
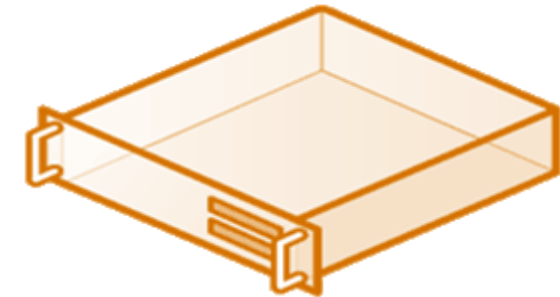
VIRTUALIZED



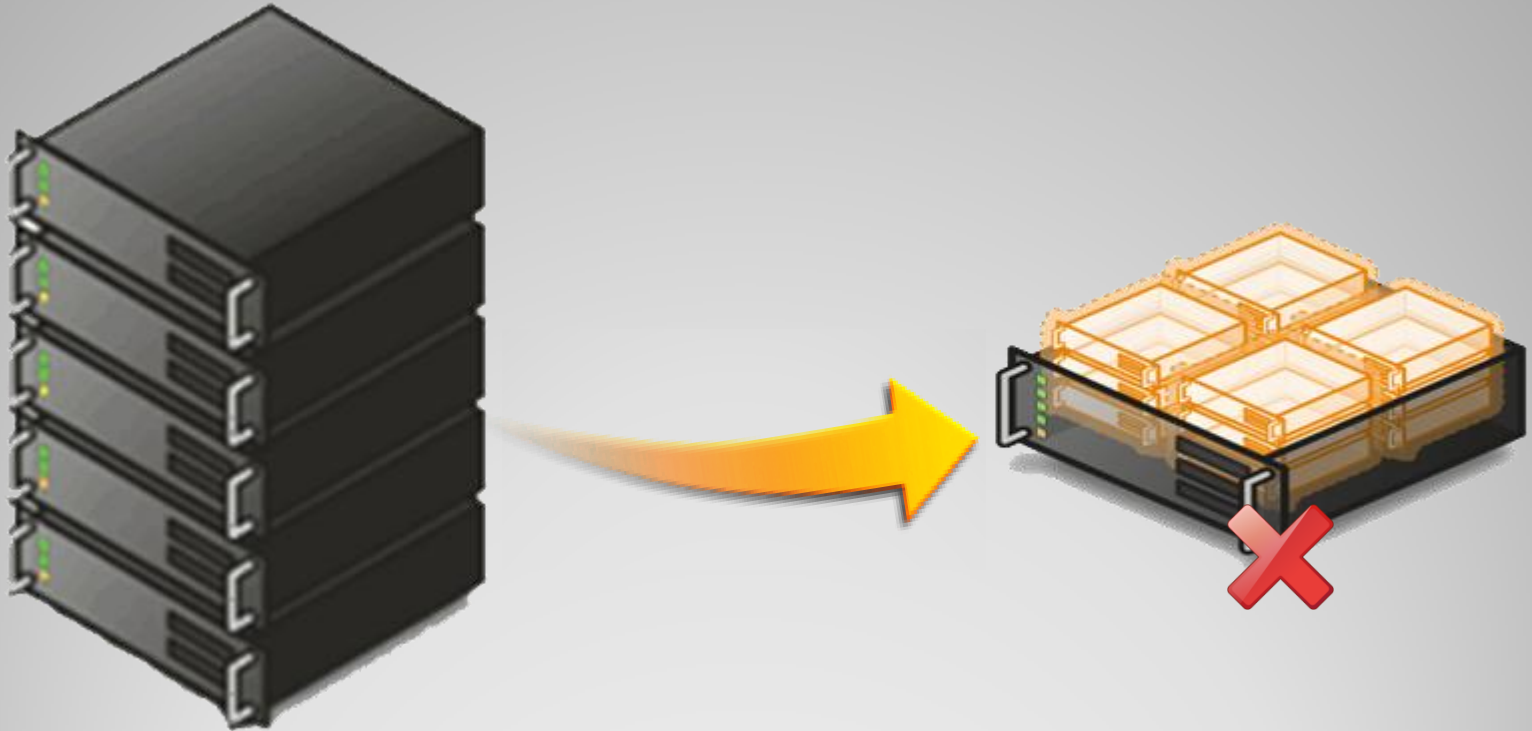
POOLED



Server Virtualization likeness



Virtualization Concern



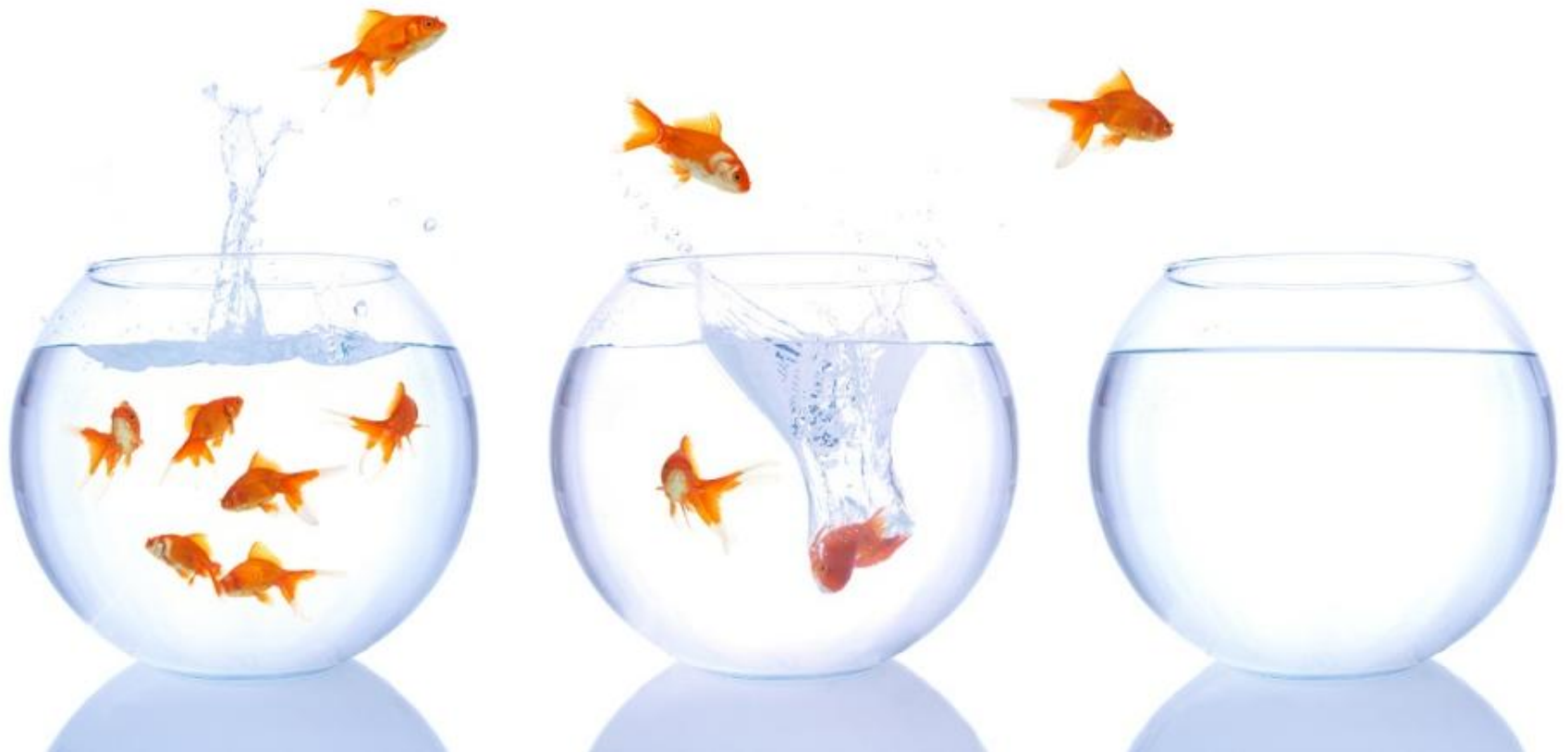
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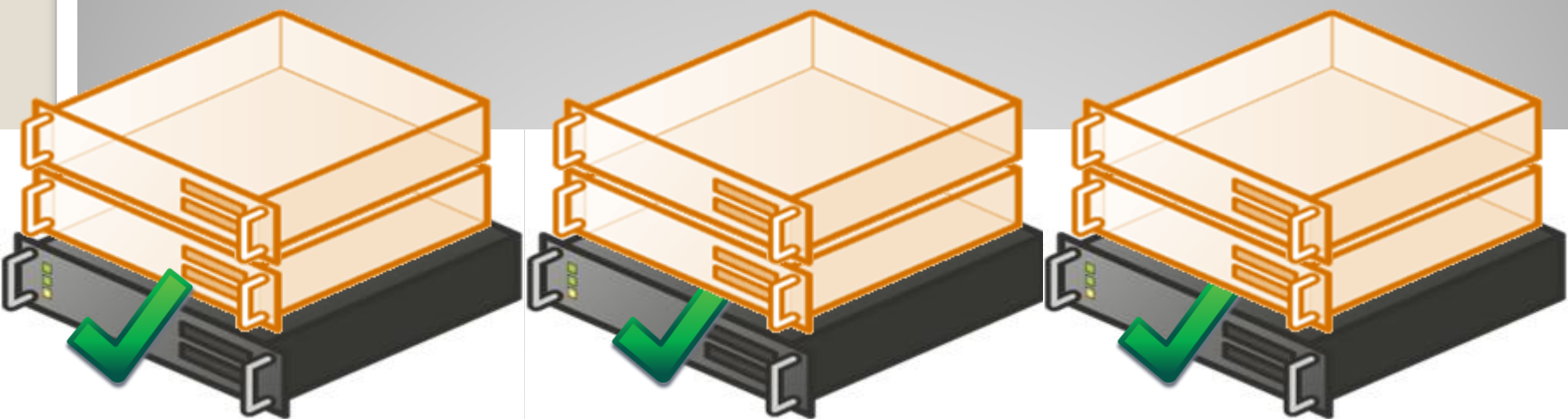






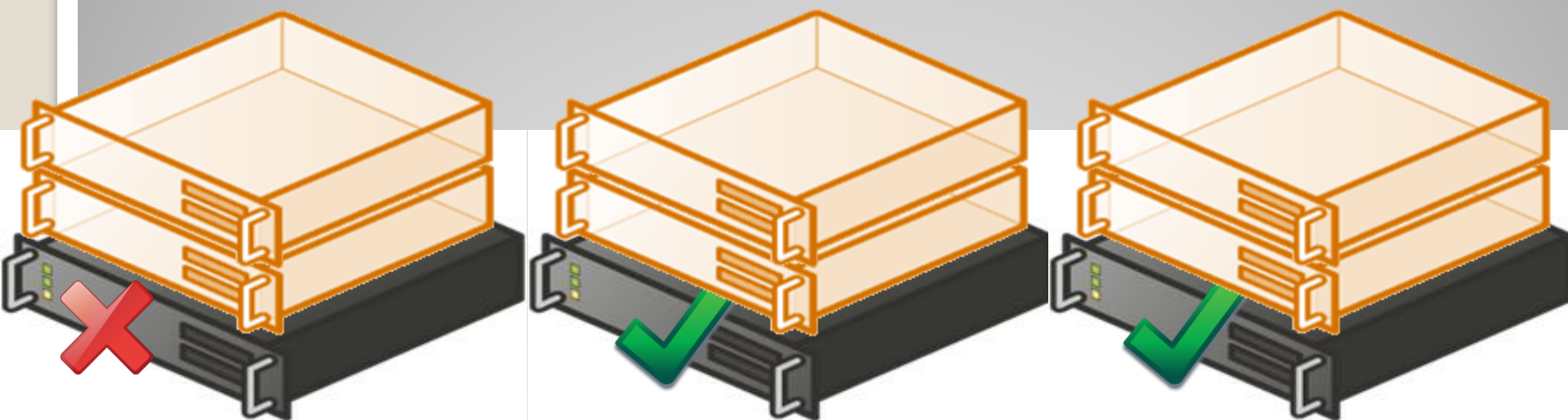
Live Migration, vMotion Concept





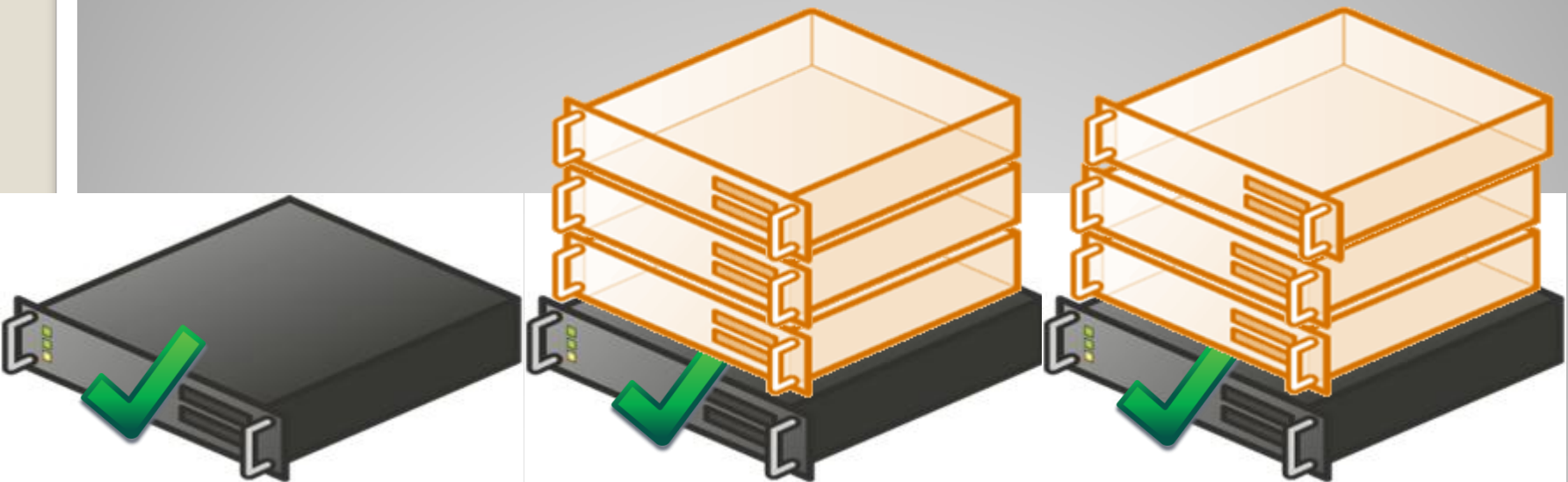
Live Migration, vMotion

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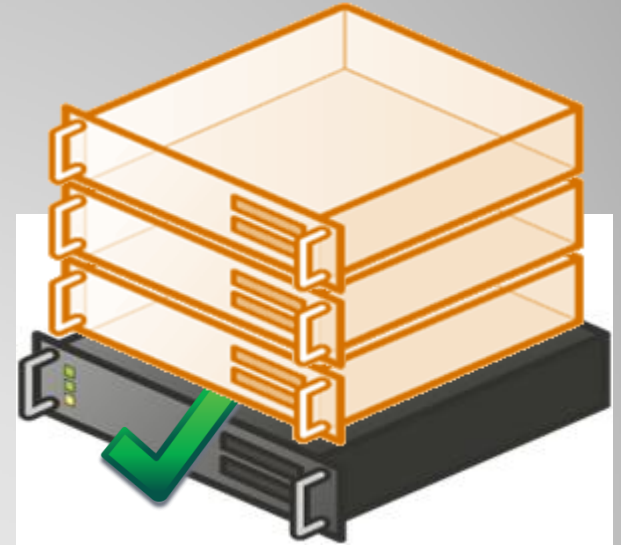
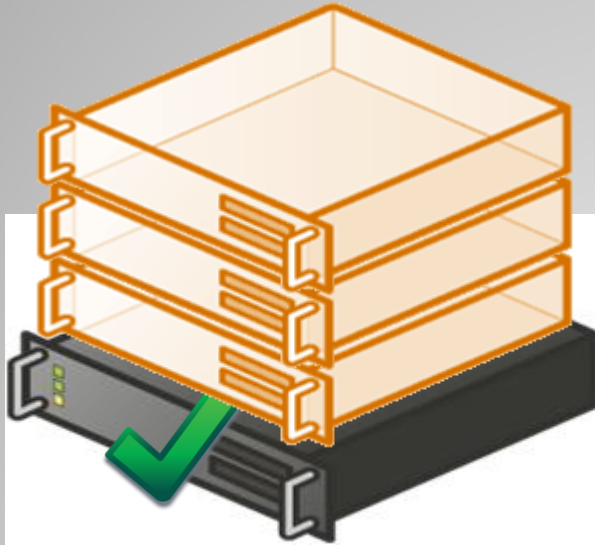
Live Migration, vMotion

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Live Migration, vMotion

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Replication

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Advantages

Increase Server Utilization

Business Continuity and Disaster Recovery

Testing and Development

Reduced Cost (power and cooling)

Reduced space

Disadvantages

Technology specialist not Enough

License Prices

Management

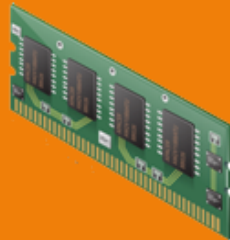
Virtual Server Resource



Virtual Server components



Processors
64



Memory
1TB



IDE disks
4



SCSI disks
256

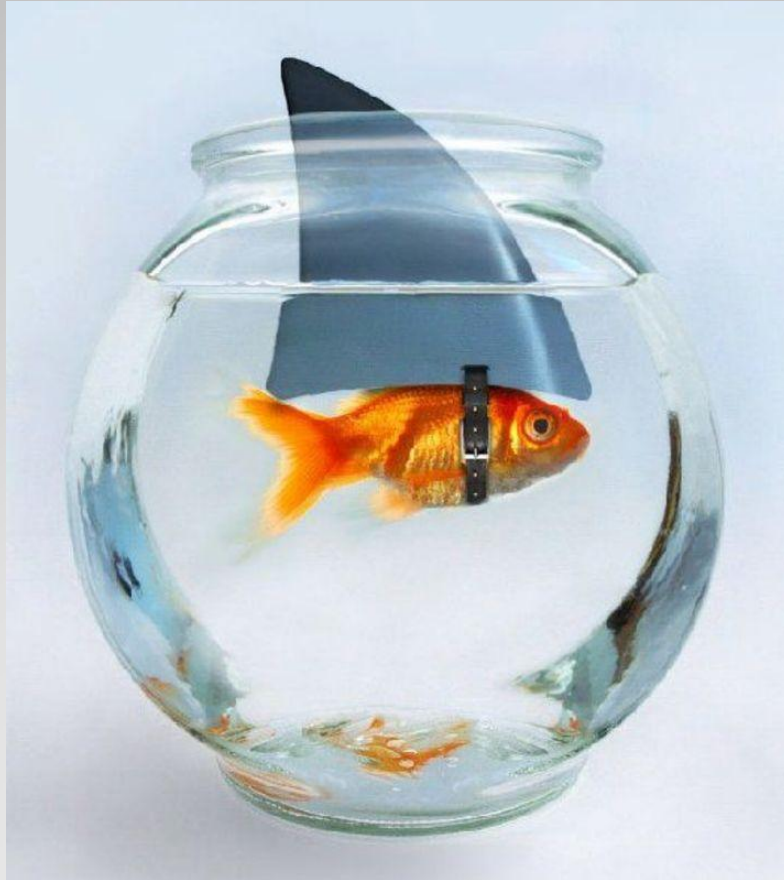


Disk
capacity
64TB



network
adapters
12

Add more resource



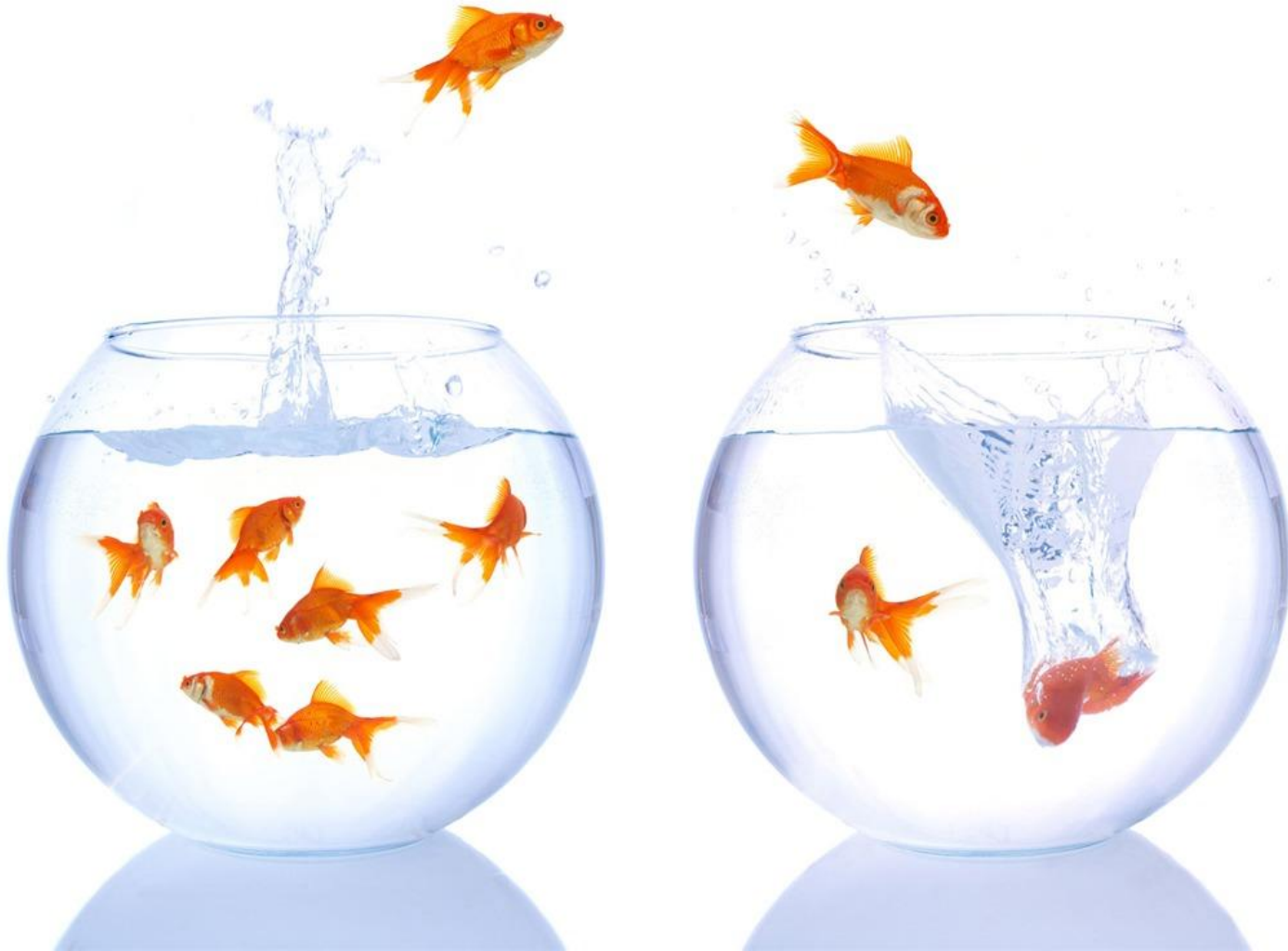
Add more resource



Add more Virtual Server



Balance Virtual Server



How to maintain Virtual Server (Best practice)



Firewall



Antivirus



Patch



IP Address



Time Sync



Log

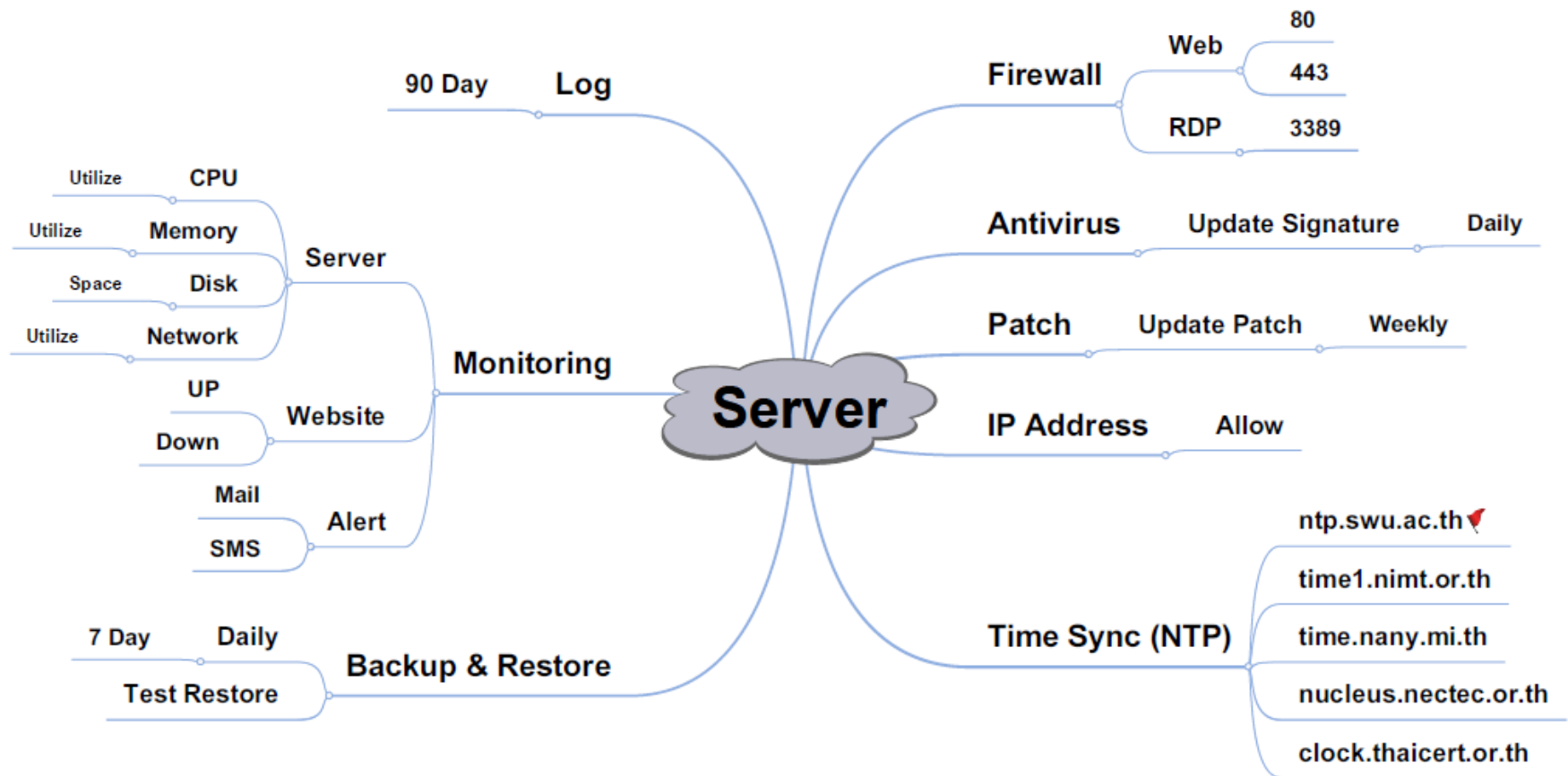


Monitoring



Backup &
Recovery

How to maintain Virtual Server (Best practice)



Q&A



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Thank You

