

# Virtual vs. Physical Servers Pros & Cons

Presenter: Tom Arakelian

Assistant: Guy Ingalls



# Agenda

- What is Server Virtualization
- Types of Servers
- Pros and con's of each type
- Conclusion
- Questions and answers



# Types of Server Hosting

## ➤ Dedicated Physical Server

- Rack-mount
- Tower
- Blade Server

## ➤ Virtual Servers

- Vsphere, Hyperv, Xen/Citrix
- Cloud Computing
- Hosted Services



# Pros Of Dedicated Server

- **Performance**  
Single application vs. multiple
- **Separation Of Services**  
Single failure avoidance  
Security from separation of applications
- **Price**  
May be cheaper to buy multiple servers  
Fairly priced pre-owned equipment available on market



# Pros Of Dedicated Server

- **Security Of Data**
  - ❖ Data is stored locally
  - ❖ Have more control of your data
- **Knowledge**
  - ❖ Years of knowledge managing
  - ❖ Everything is working – if not broke don't fix it
- **Freedom**
  - ❖ Flexibility on how to build servers
  - ❖ Less licensing to consider
  - ❖ Hardware availability



# Cons Of Dedicated Server

- **No Green Factor**
  - ❖ Green is big business
  - ❖ Tax breaks
  - ❖ Bad for company Image
- **Hardware Complexity**
  - ❖ More items to manage
  - ❖ Load balancing not built in
  - ❖ No built in management system
- **Servers Not Being Utilized**
  - ❖ Most servers using only 20% or resources
  - ❖ Resources not shared
- **Growth**
  - ❖ Requires more planning and configuration
  - ❖ Less flexible



# Pros and Cons of Dedicated Servers

PROS	CONS
❖ Performance	❖ Data Centre Space & Cost
❖ Separation of Services	❖ No Green Factor
❖ Price	❖ Hardware Complexity
❖ Security	❖ Servers not being Utilized
❖ Knowledge	❖ Growth
❖ Remote Management	❖ Maintenance



# What is Server Virtualization

Consolidation of Physical server  
Sharing of Resources





# Pros of Virtualization

## Administration Time

- Central Management
- Advanced Management Tools

## Disaster Recovery

- Increased Server UP-Time
- Virtual Load Balancing
- Data Backup solutions

## Easier IT Growth

- Adding Servers
- Server configuration/upgrade

## Security

- Universal Security for all servers
- Ease of management

## Migration of Legacy Applications

- Physical to Virtual Conversion
- Server hardware upgrade

## Green Factor

- Less hardware and foot print in environment
- Energy efficient equipment
- Shared resources



# Cons of Virtualization

- **Performance**
  - ❖ Sharing of resources
- **Cost of Licensing**
  - ❖ Virtualization software expensive
  - ❖ Normal Licensing for each server
- **Single point of Failure**
  - ❖ Multiple Server hosting
  - ❖ Central Storage (SAN)
  - ❖ Additional Hardware/redundancy
- **Learning Curve**
  - ❖ New Technology
- **Security**
  - ❖ Server Sharing
  - ❖ Compliance
  - ❖ Hosting service limitation
- **Fun Factor Gone!**



# Pros & Cons of Virtual Servers

PROS	CONS
❖ Cost Savings	❖ Performance
❖ Administration Time	❖ Cost of Licensing
❖ Simplified Disaster Recovery	❖ Single Point of Failure
❖ Easier IT Growth	❖ Learning Curve
❖ Security	❖ Security
❖ Migration of Legacy Apps	❖ Fun Factor Gone!



