

# 2011 Network Storage and Server Virtualization Project

September 19, 2011

Legislative File No: 2011-0370

# Existing Systems

- Existing systems installed in January 2006
- Expected usable life of four to five years
- Now nearing six years in service
- Out of warranty
- Starting to show signs of potential failure

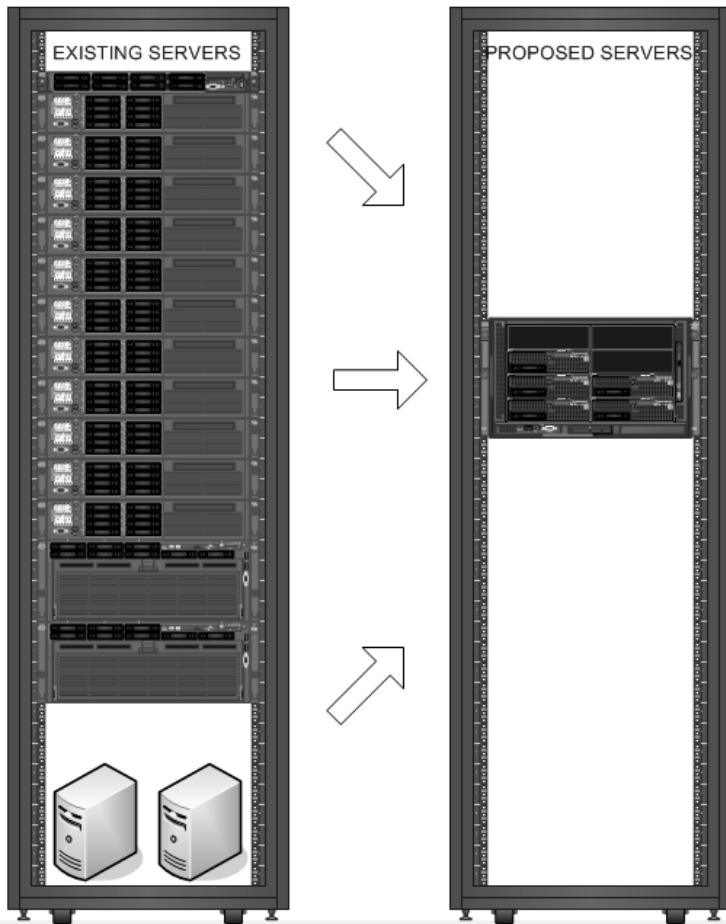
# Proposed Systems

- Blade Server Enclosure
- Five Server Blades with room for three more if needed
- Virtualization Software
- Updated Microsoft Server Software (Windows Server Operating Systems and MS SQL Database Server)
- Storage Area Network (SAN) storage system

# Why Virtualize?

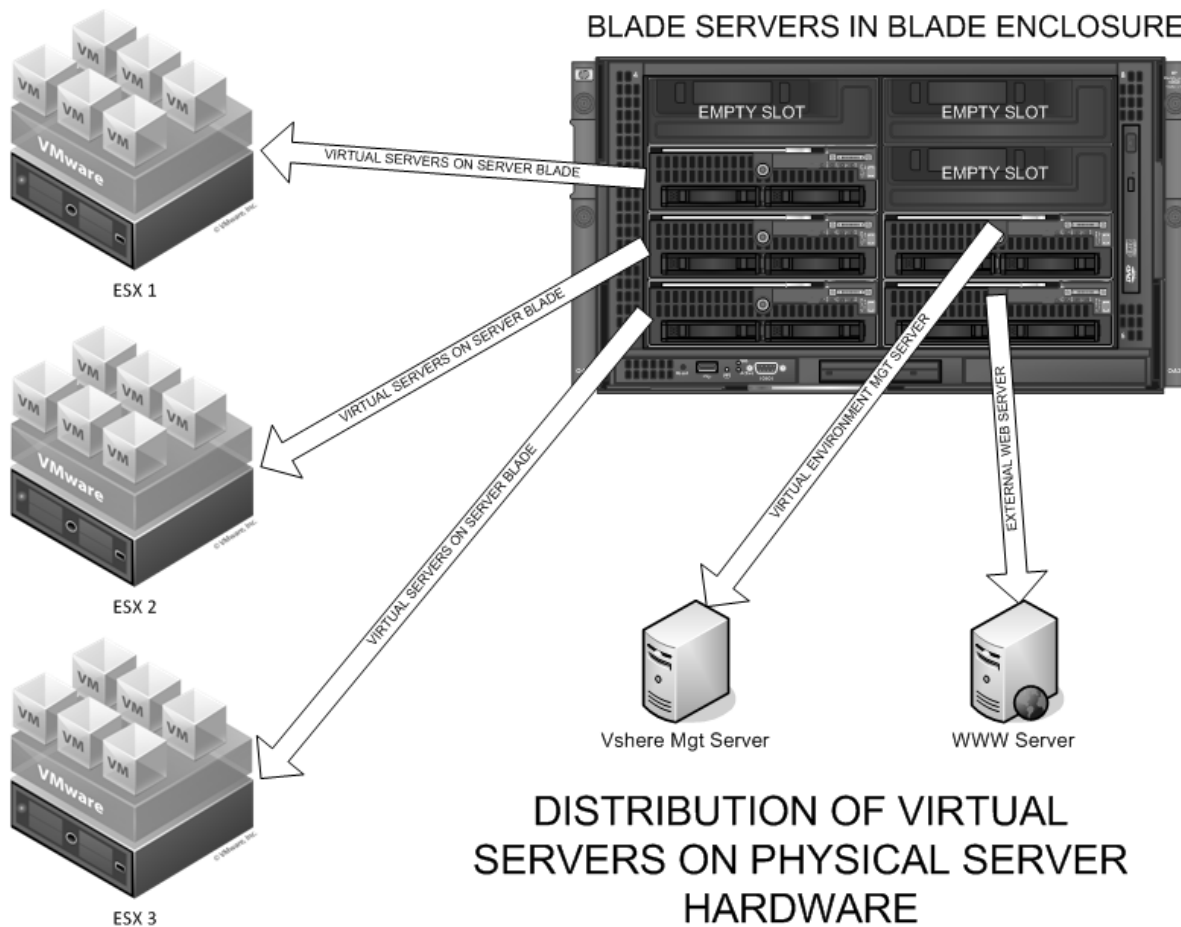
- Virtualization is a **GREEN** technology
- Reduced hardware footprint
- Higher utilization of hardware
- Reduced electrical usage
- Reduced cooling needs in Data Center
- We will still have the same number of servers to manage, however they will be virtual servers
- No adverse affect on system security

# Virtualization equals less hardware



- Full 19"x6'6" rack replaced by server enclosure just 19"x10"
- Electrical and cooling loads will be reduced
- Less hardware to support

# What is Virtualization?



- Multiple virtual servers run on each of three physical server blades
- One server blade for management
- One server blade for external web server

# Other options

- Purchase all physical servers at roughly 20% higher cost.
- Cloud servers...not this time...initial estimates indicate it would cost nearly \$450K over five years not including significant upgrades to our Internet bandwidth that would be required to support the cloud option.
- Doing nothing is not an option. Our existing systems are nearly six years old, out of warranty and showing signs of their age.

# Questions?

