



**Case Study: IRS**  
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# Planning for Virtualization?

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# Deployment Scenarios

- Server Consolidation
- Business Continuity
- Dynamic Resource Allocation
- Test and Development

# Server Consolidation

- Physical consolidation
  - Improve and maximize hardware utilization
  - Consolidate workloads onto fewer highly scalable and reliable enterprise class servers
- Reduce TCO
  - Physical Resources
    - Reduce power consumption
    - Reduce U Space (rack space)
  - Server Management
    - Simplify management and lower overhead by moving to a common platform.
    - Increase flexibility with a dynamic platform.

# Business Continuity

- Business continuity provides the following:
  - DR
  - Business resumption in the event of geographic disaster
- Potentially:
  - Reduces/eliminates maintenance disruptions
  - Potentially builds in high availability with less complication
  - Improves disaster and business resumption posture

**\*\* Important Note: Please ask me about SAN requirements \*\***

# Dynamic Resource Allocation

- Eliminate Wasted Resources
  - Ensure resources are appropriately scaled
    - Ability to add/remove resources
  - Support and enhance business requirements
    - Scale for users during day
    - Scale for number crunching at night
  - Maximize hardware utilization
- Reduce complexity and administration
  - Rapidly allocate resources
  - Provision dynamic scalability
  - Automate deployment

# Test and Development

- Use what you need
  - Everything doesn't always have to be powered on in the sandbox
  - Support is not as crucial with throwaway environment, so everything is on the table
- Blow it up. Who cares?
  - Redo disks are awesome! It's like a mulligan in golf, only better.....
- Streamline test and development efforts
  - Reduce time to allocate and provision
  - Easily reproduce environments with canned loads
- Contain and protect with virtual switching

# Reality

- Everything is not a good fit for virtualization
  - DB's
  - Email
  - AD Controllers
  - Large application

**\*\*There are limitation on CPU and Memory allocation\*\***

# Supportability

- Best level effort support guarantee
- If you can't fix it with the best level effort you will have to duplicate in a physical environment
- Certain products are not supported read your OEM support contacts carefully

# Production Do's

- Throw away service servers
  - File and Print
  - DNS
  - DHCP
  - Web Apps servers in a pool

# Production Don'ts

- Domain Controllers
- Things that need to scale PAST 4 CPU's, or are memory intensive
- Databases
- AD Controllers (if you must not FSMO servers)
- Applications you require a lot of vendor support for
- Complicated network configuration