



**Driving Innovation
Through the Information
Infrastructure**

SPRING 2011

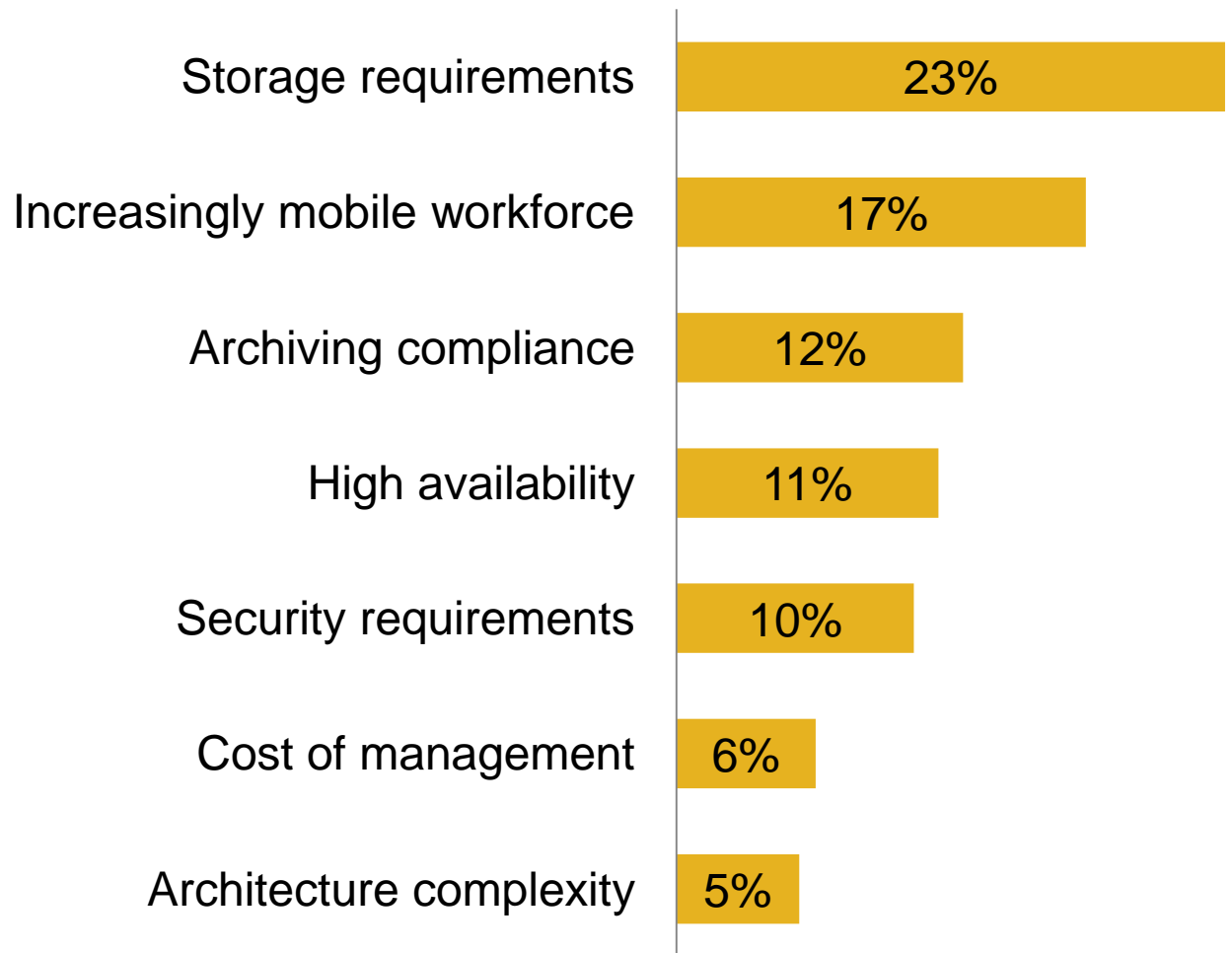
Turnkey Storage to Accelerate Exchange 2010 Deployments

Dean Steadman
Product Manager
HP StorageWorks

TONS OF

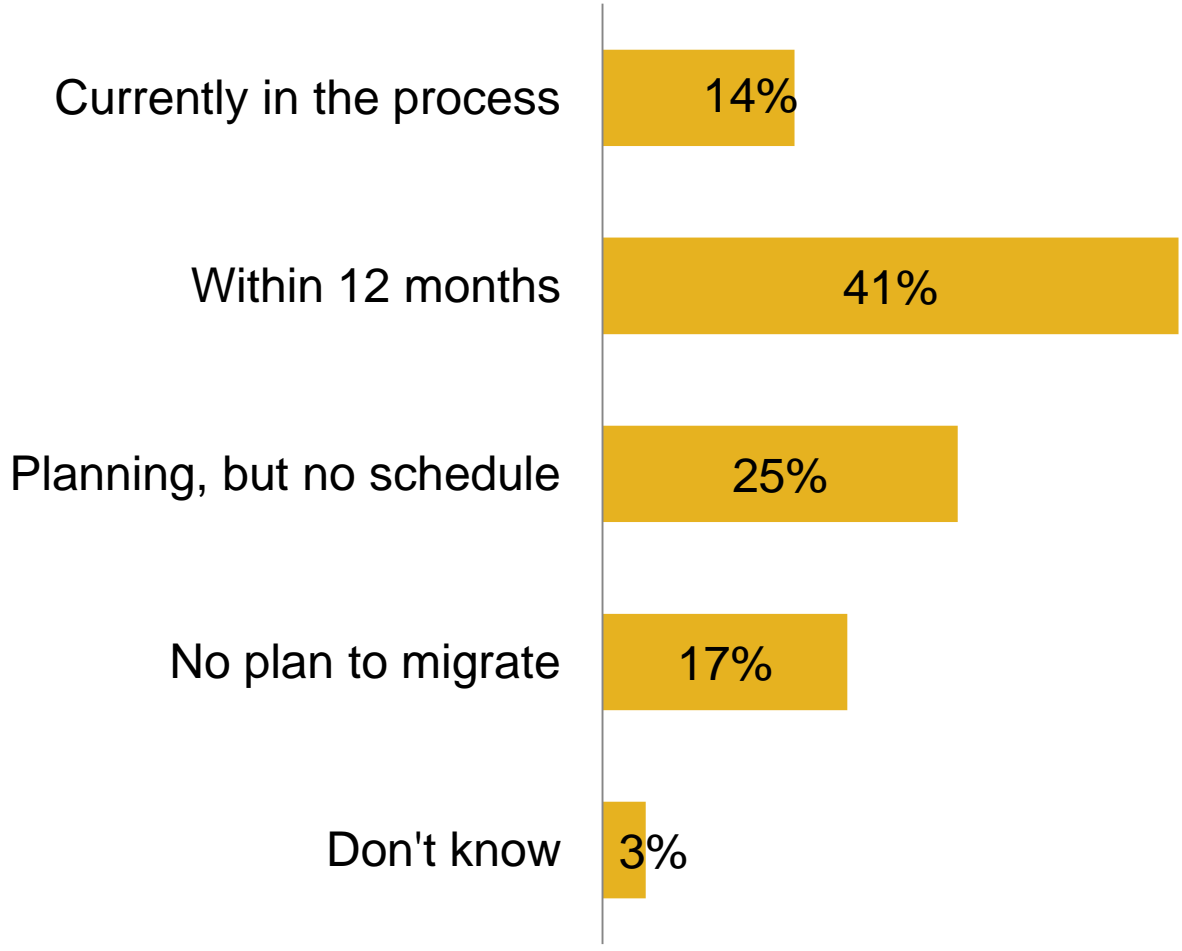
YOU'VE GOT MAIL

Customer Challenges



Source: Commissioned study conducted by Forrester Consulting on behalf of HP and Microsoft, January, 2011

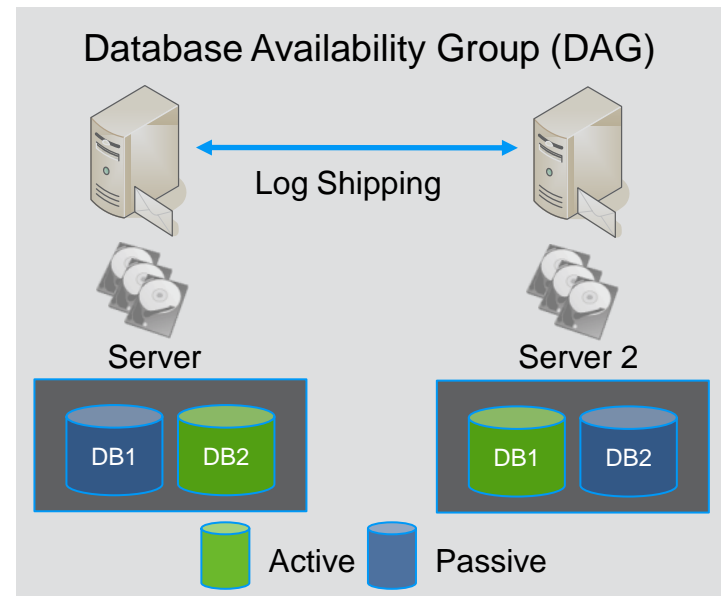
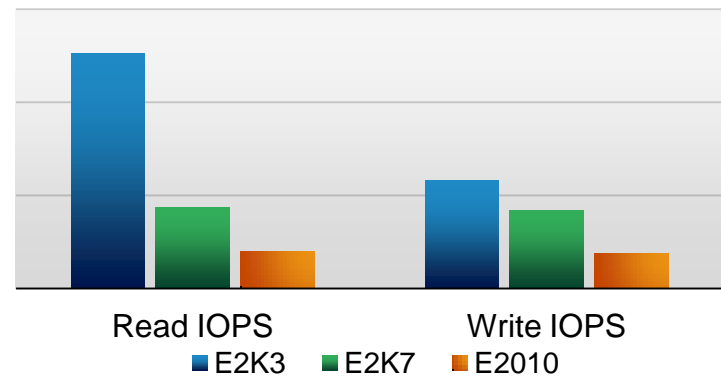
Market Timing



Source: Commissioned study conducted by Forrester Consulting on behalf of HP and Microsoft, January, 2011

Exchange 2010 Storage Improvements

- Better performance with new IO patterns
- Built-in high availability
- Centralized archiving
- Storage flexibility



Storage Flexibility



Storage area network (SAN)

Microsoft®
Exchange Server 2003



Direct attached
w/SAS disks

Microsoft®
Exchange Server 2007



Direct attached
w/ MDL SAS &
SATA disks



JBOD (no RAID)

Microsoft®
Exchange Server 2010



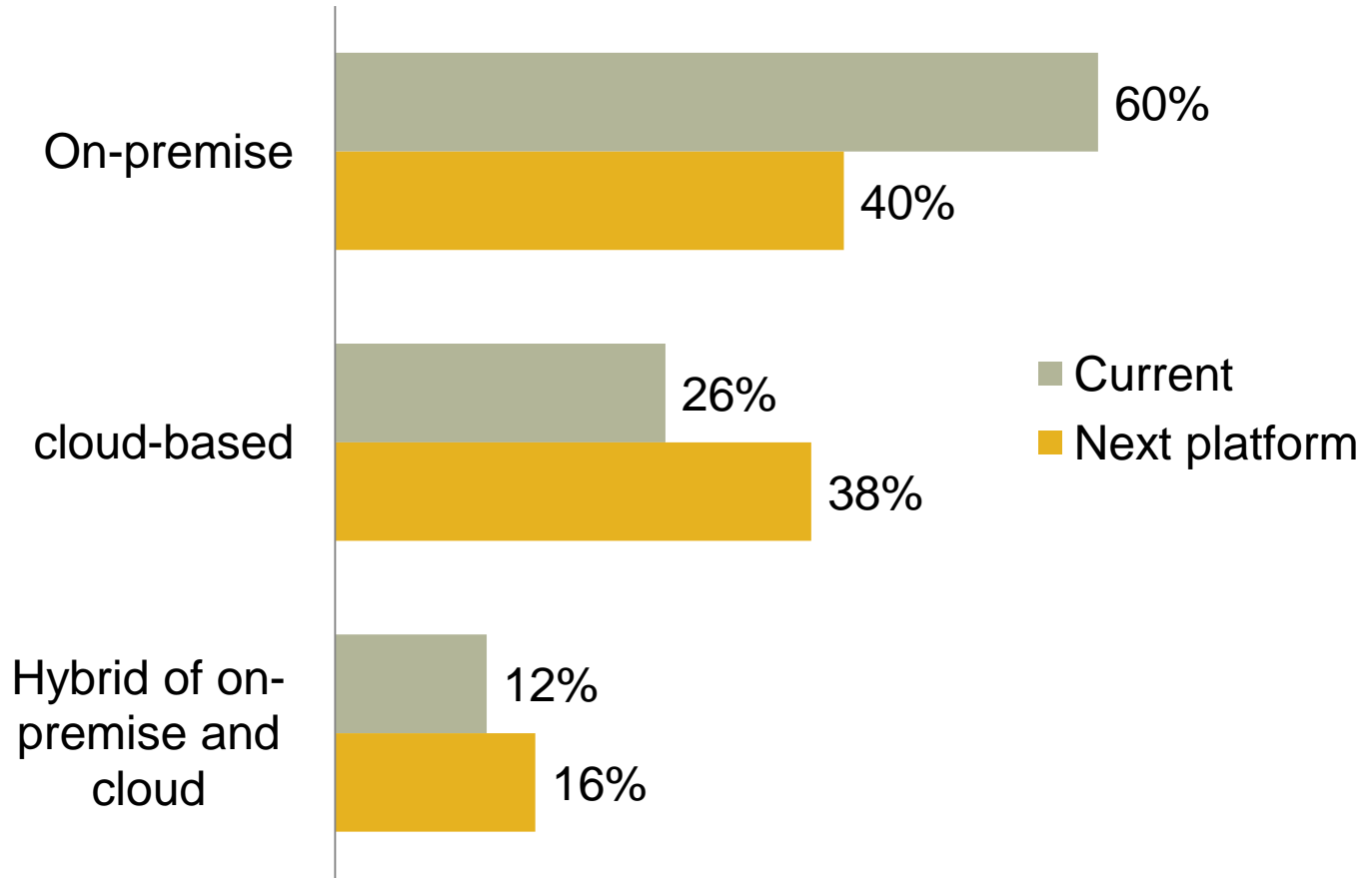
DEPLOYMENT OPTIONS

Cloud Mail

- Predictable costs
- SAS high availability
- Simplified management
- Integration with internal apps
- Compliance questions



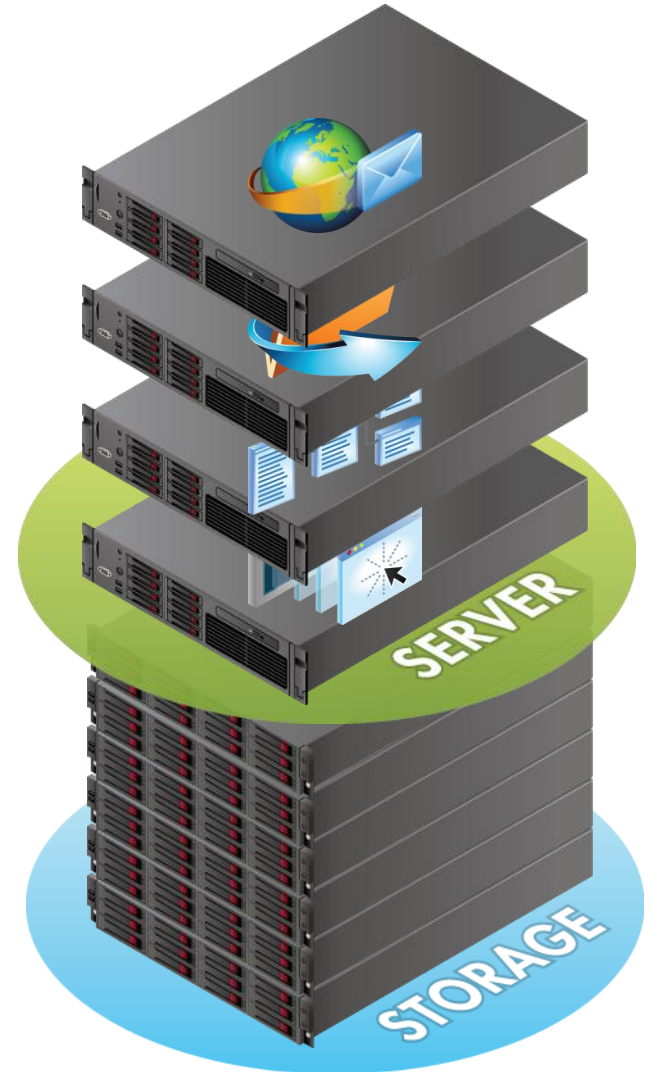
Cloud Adoption



Source: Commissioned study conducted by Forrester Consulting on behalf of HP and Microsoft, January, 2011

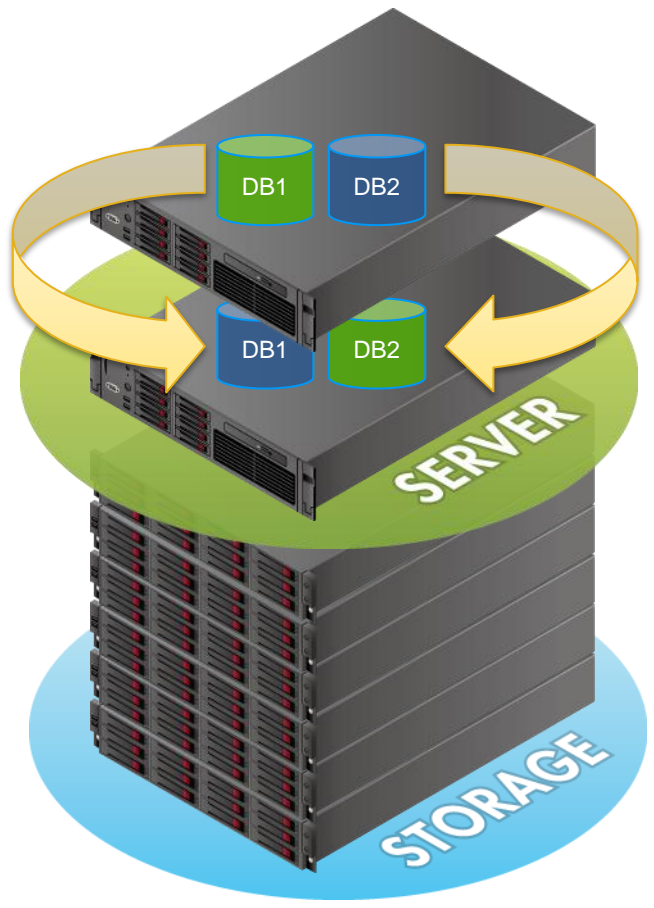
Shared Resources

- Servers with shared storage
- Virtualization options
- Storage efficiency
- SAN or DAG high availability
- Multiple management teams

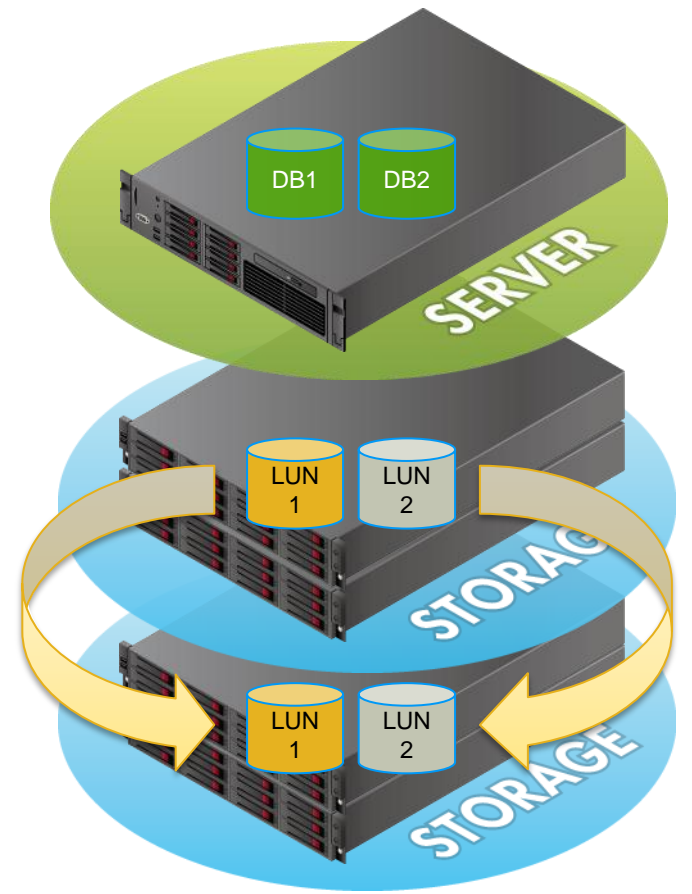


Replication Options

DAG



SAN



 Active  Passive

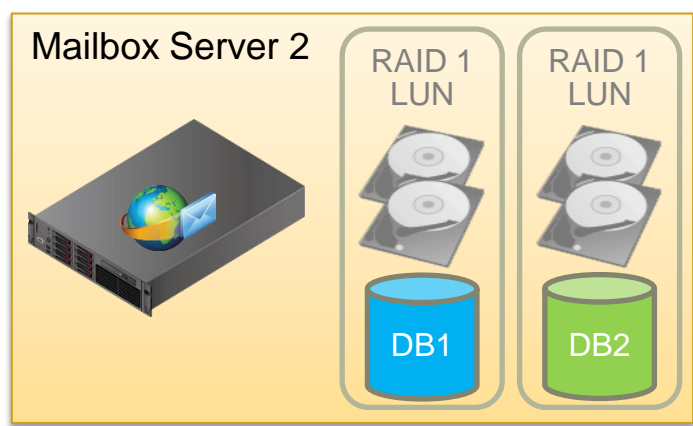
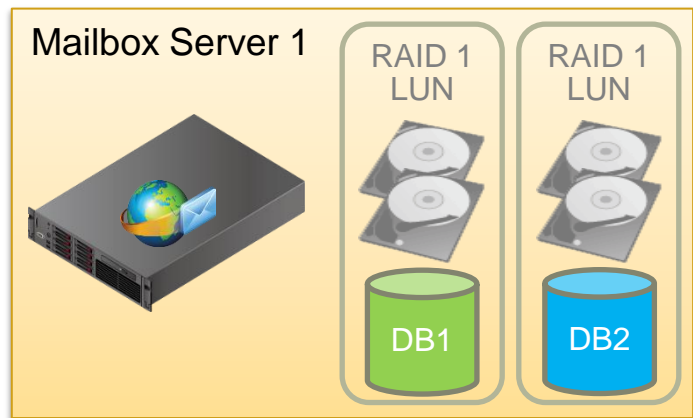
Dedicated Hardware

- Servers with direct attached storage
- DAG high availability
- Application isolation
- Managed by application team



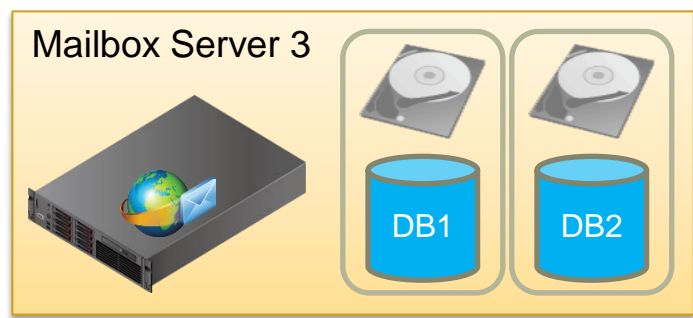
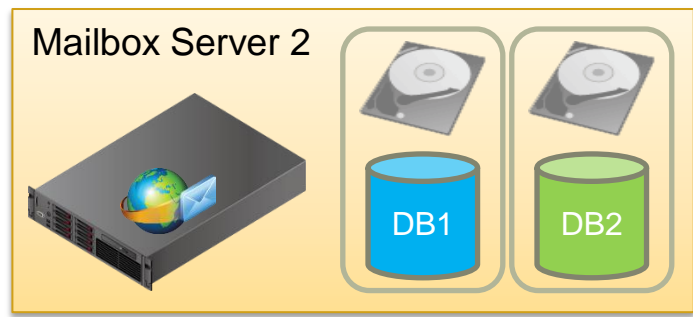
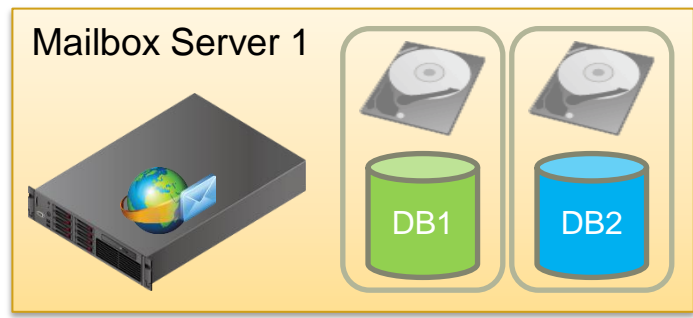
RAID or JBOD

RAID - 2 copy



 Active  Passive

JBOD – 3 copy



Deployment Considerations

App	<ul style="list-style-type: none"> • How do I size mailboxes? • How do I implement clustering? • Where does cloud fit? 	<ul style="list-style-type: none"> • What's my archive strategy? • What's required for disaster recovery? • How many mobile devices do I support?
Virtualization	<ul style="list-style-type: none"> • Should I virtualize Exchange 2010? • Will it impact performance? • How many VM's on the same server? 	<ul style="list-style-type: none"> • What is best practice VM configuration? • How do DAGs work with vMotion or live migration?
Network	<ul style="list-style-type: none"> • 1GbE or 10GbE? • FC, FCoE, or iSCSI? • Backup bandwidth? 	<ul style="list-style-type: none"> • Is a storage area network required? • What's the best way to implement redundancy? • WAN?
Servers	<ul style="list-style-type: none"> • What processor? • How much RAM? • How many disk drives? 	<ul style="list-style-type: none"> • Do I need a storage controller card? • Do I need to leave room for expansion? • What is best practice solution sizing?
Storage	<ul style="list-style-type: none"> • DAS or SAN? • How much capacity? • SAS or SATA? 	<ul style="list-style-type: none"> • What RAID configuration? • Do I need replication with DAG? • How does thin provisioning work?
Support	<ul style="list-style-type: none"> • How many support contracts will I have to • Do they have similar service levels? • How can I get all support contracts to co-terminate? 	<ul style="list-style-type: none"> • What about migration services? • How do I avoid vendor finger pointing?



APPLIANCE ADVANTAGES



Appliance Definition

- Single application focus
- All inclusive
 - Servers
 - Storage
 - Software
- Black box sizing
- Push button deployment
- Inclusive support & warranty

Designed to Exchange Best Practices

- Low cost direct attached storage
- Designed for use with Database Availability Groups
- Windows/Exchange clustering
- Dedicated MAPI & replication networks



Simplified Sizing

- Pre-sized for both performance and capacity
 - Send/receive volume
 - Mailbox capacity
- Validated in factory rather than in field





Quick Deployment

- Minimal hardware components
 - Reduced cabling
 - Efficient use of datacenter space
- Wizard based installation tools
- Predictable & repeatable process



All Inclusive Support & Warranty

- Single point of contact
- Covering the entire Exchange system
 - Hardware
 - Software





THANK YOU