



Remote and Branch Office Data Protection

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ROBO IT priorities*

1. Reducing site OpEx/CapEx (21%)
2. Improving DR (18%)
3. Managing data storage growth (18%)
4. Reducing WAN expenses (18%)
5. Application deployment/upgrades (14%)

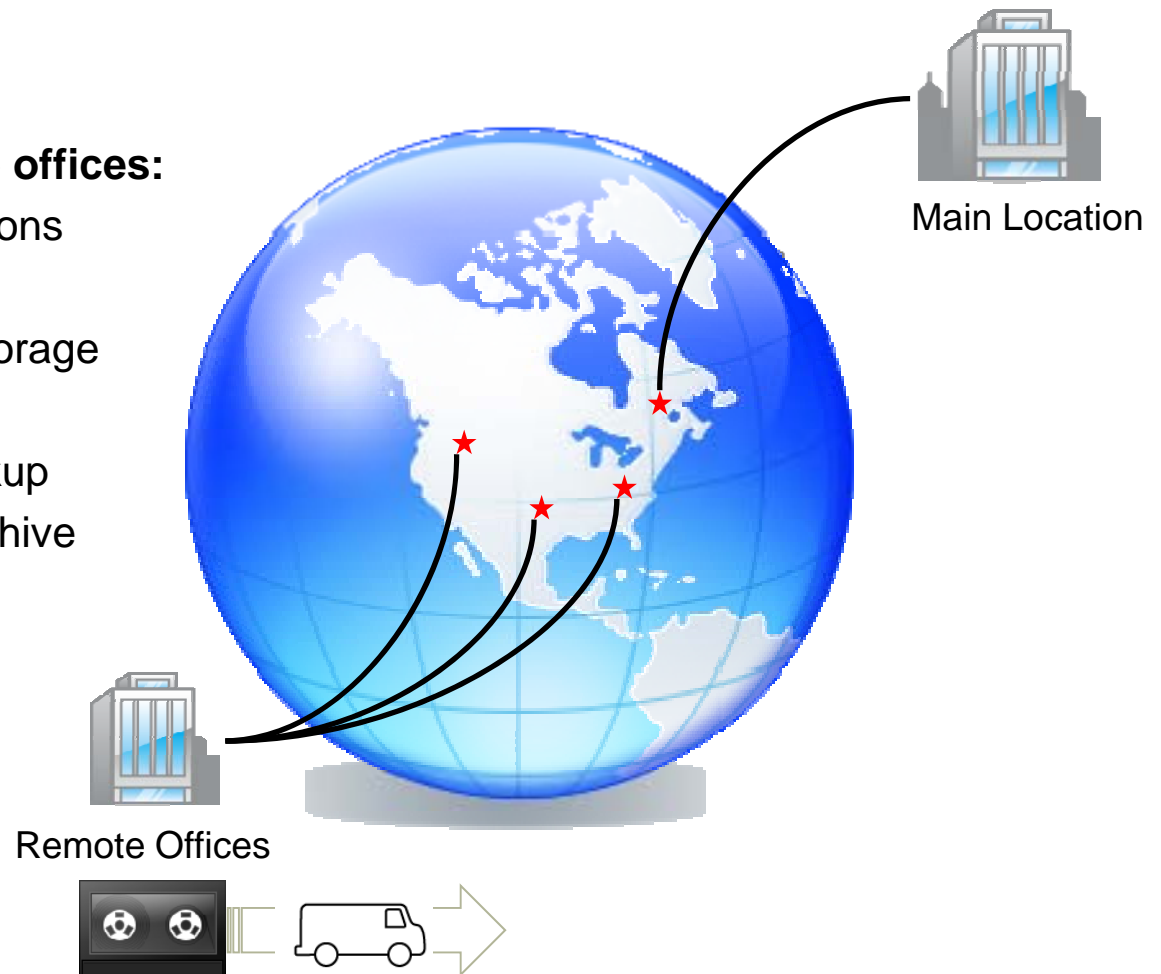
*ESG Research Report, *Branch Office Optimization*, January 2007



Customer overview

Three remote offices:

- 5 applications
- 5 servers
- Internal storage
- Switch
- Tape backup
- Offsite archive





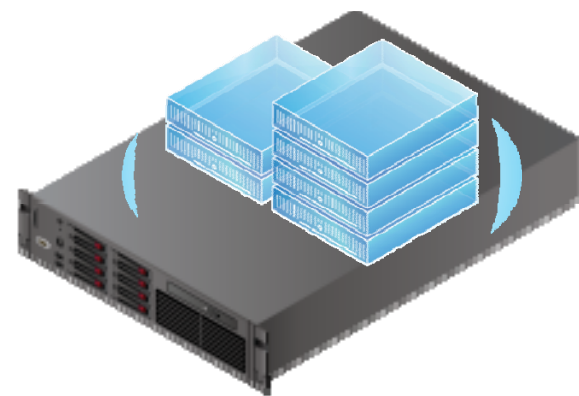
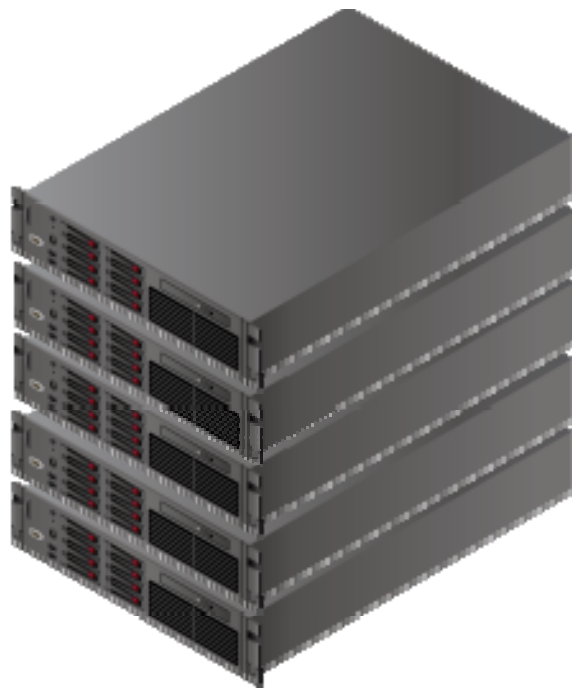
PROBLEM:

Cost, complexity, risk

- Underutilized resources
- Server support costs, power/cooling
- 15 servers to manage hardware F/W
- Inconsistent backup process
- Complex recovery process
- Lack of onsite resources

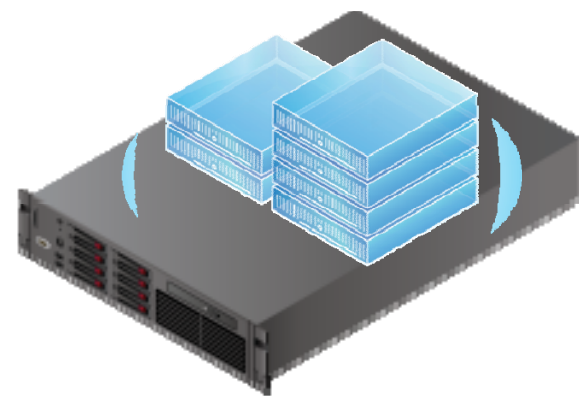
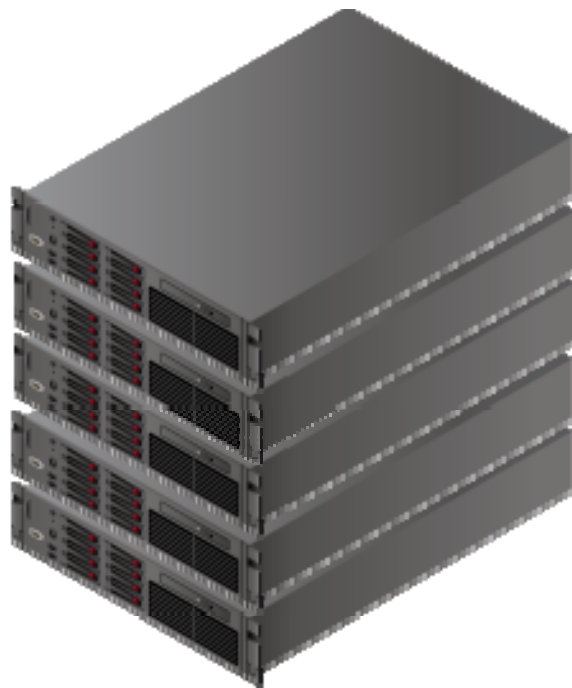


Virtualize to eliminate servers





Virtualize to eliminate servers





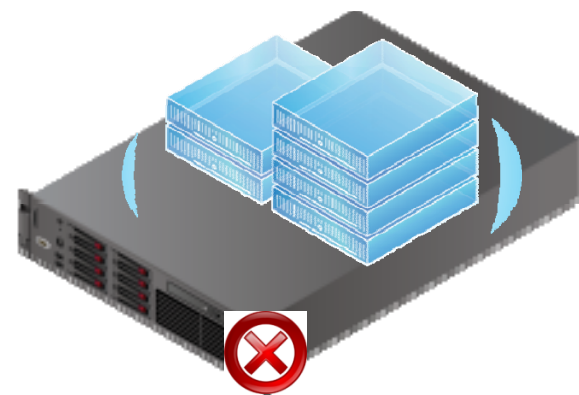
PROBLEM:

Application availability



Server failure!

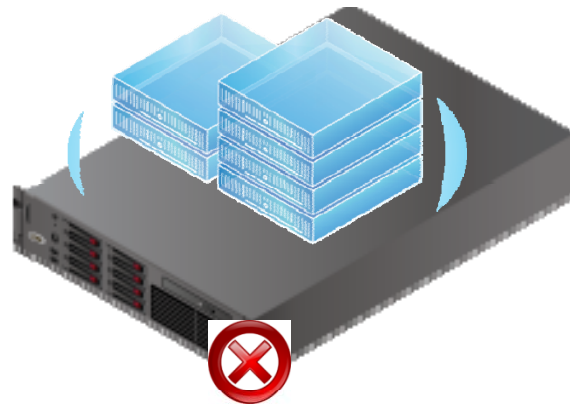
- 1 application goes down
- 1 app per server



Server failure!

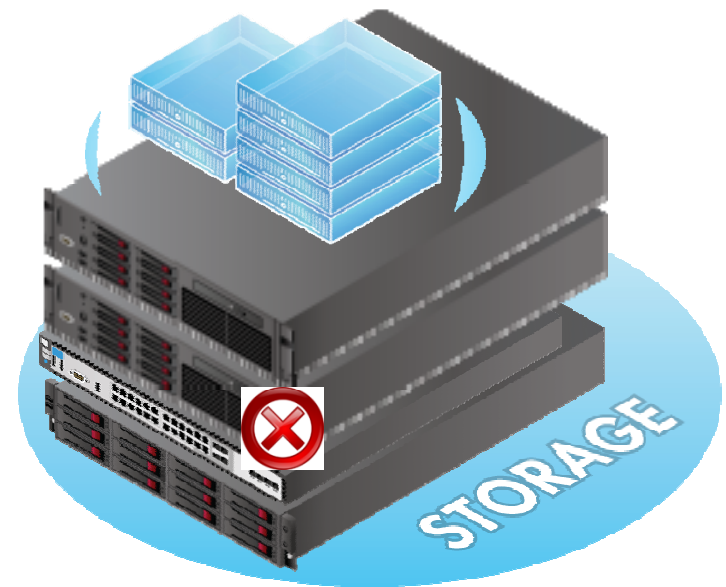
- all applications goes down
- 5 apps per server

Implement virtual server HA



Server failure!

- all applications goes down



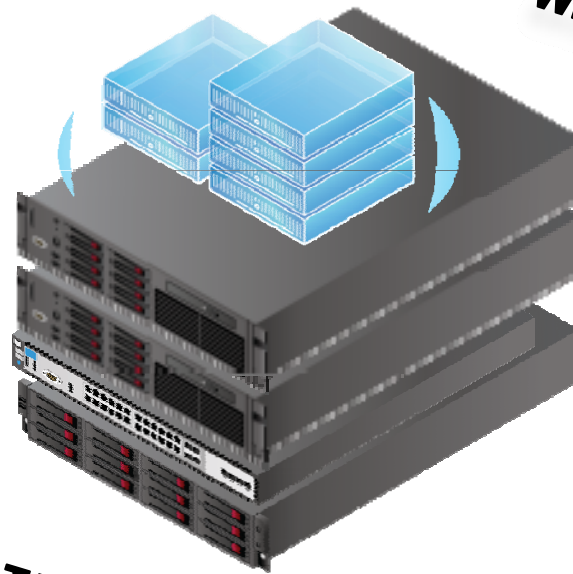
Server failure!

- Applications remain online



PROBLEM:

Backup complexity and reliability



What about replication and DR?

WHAT IS THE NEW BACKUP WINDOW?

New process for networked storage?



Use hyper visor functionality?

Do you backup physical server or per VM?

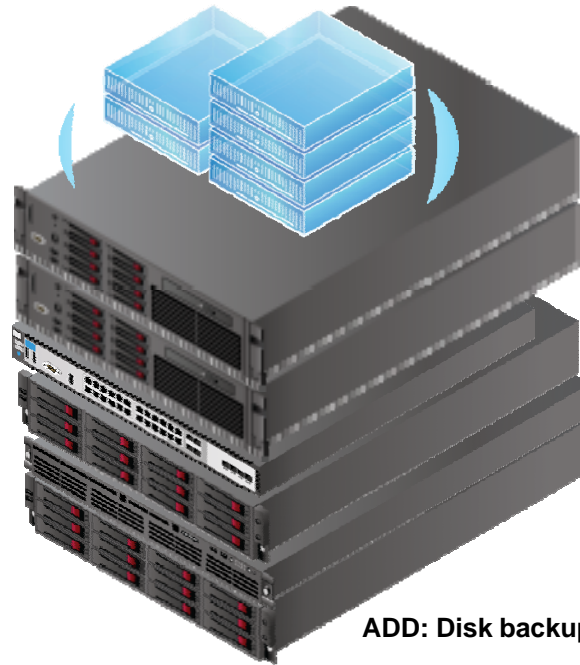
IS TAPE SUFFICIENT?

Can backup be managed remotely?

Expertise required to restore?



Implement data deduplication



ADD: Disk backup appliance

Backup process

- From weekly fulls to daily incrementals
- Meet new RPO's
- Simple, automated process
- Easy restore



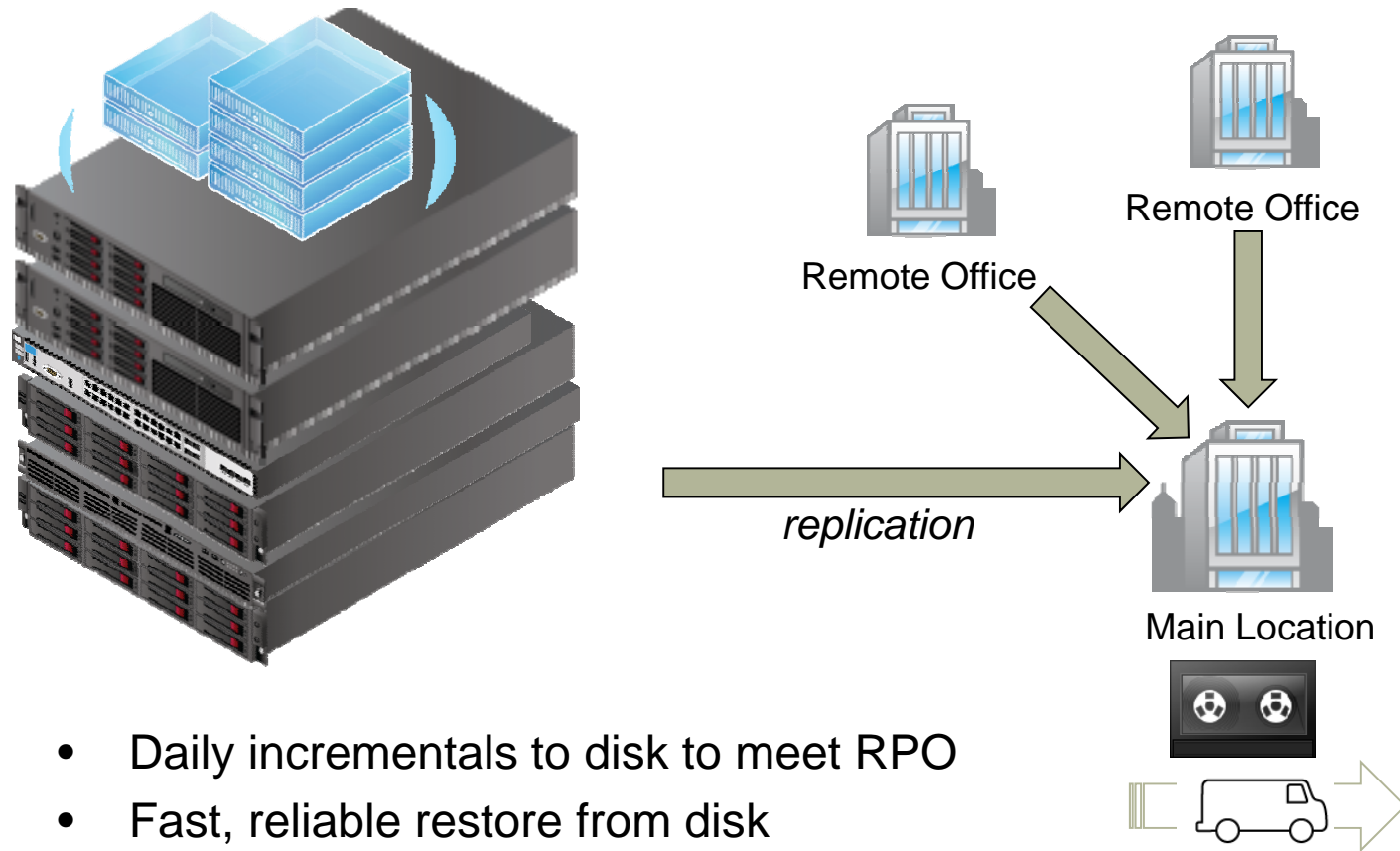
PROBLEM:

DR, archive, compliance

- Tape provides
 - Offsite copies for DR
 - Inexpensive, limitless capacity for archive to comply with industry regulations
- Options
 - Rely solely on disk backup, eliminate archive
 - Keep tape at sites for archive, complex
 - Central tape archive with replication



Replicate data offsite



- Daily incrementals to disk to meet RPO
- Fast, reliable restore from disk
- Nightly replication to main location from all remote offices
- Backup to tape where expertise resides
- Take tapes offsite for archive to comply with regulations

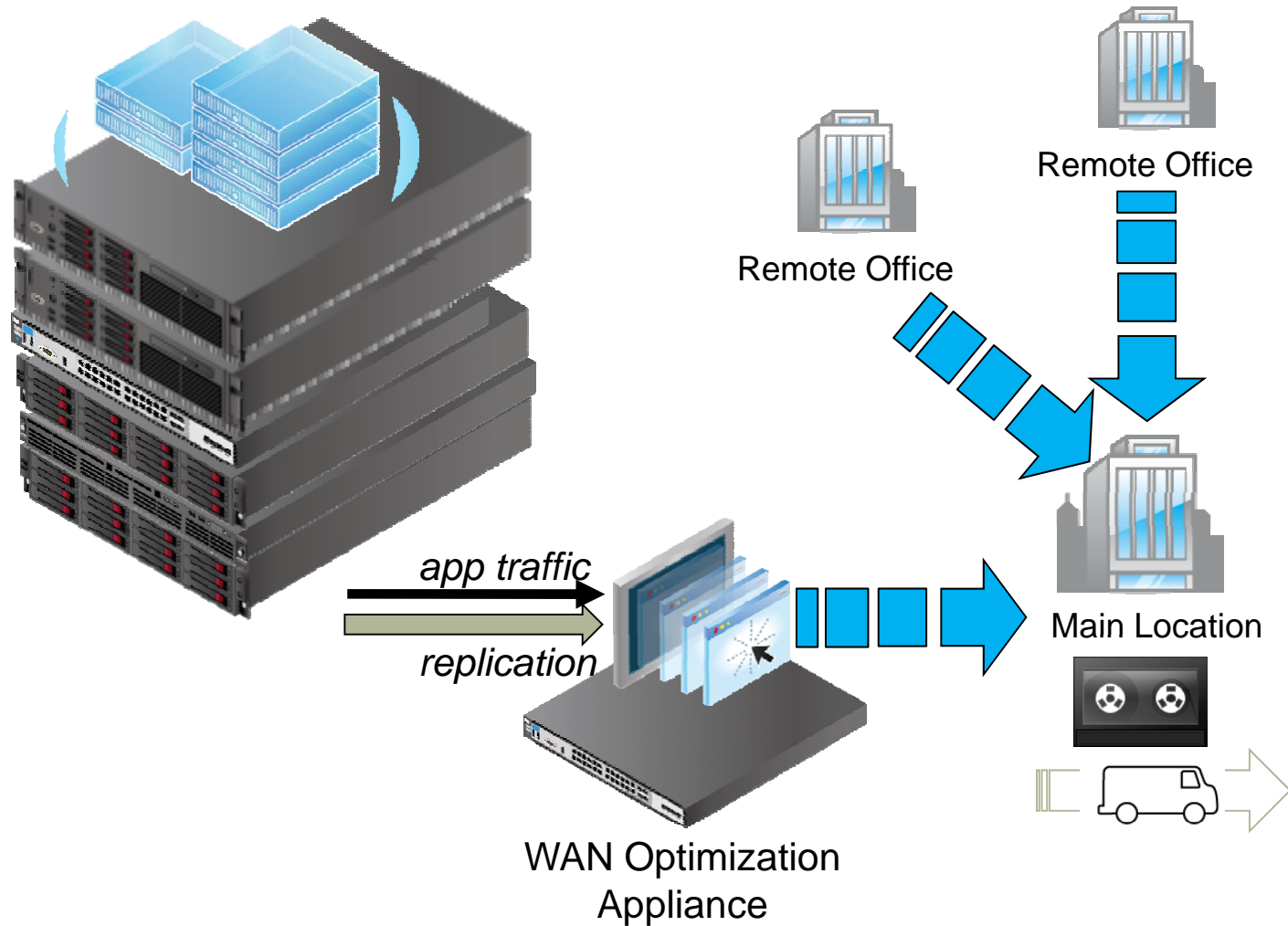


PROBLEM: Bandwidth

- Bandwidth considerations
 - Application performance
 - Replication impact determined by:
 - Amount of data
 - Change rate
 - Frequency
 - Time of day
- 24x7 call center uses centralized CRM system over WAN for customer service

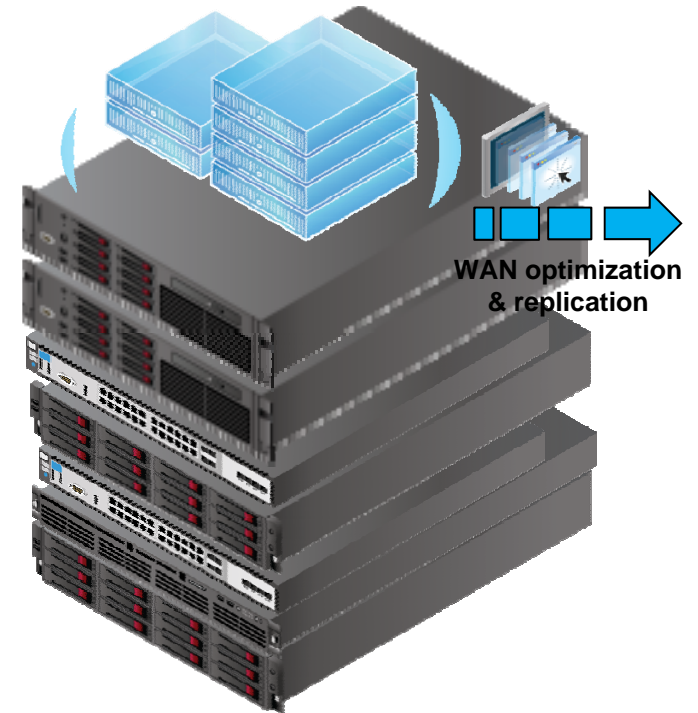


Implement WAN optimization





How are we doing?



Meeting key requirements?

- Reducing OpEx/CapEx?
- Improving DR?
- Managing data storage growth?
- Reducing WAN expenses?
- Application upgrades/deployment?

no improvement

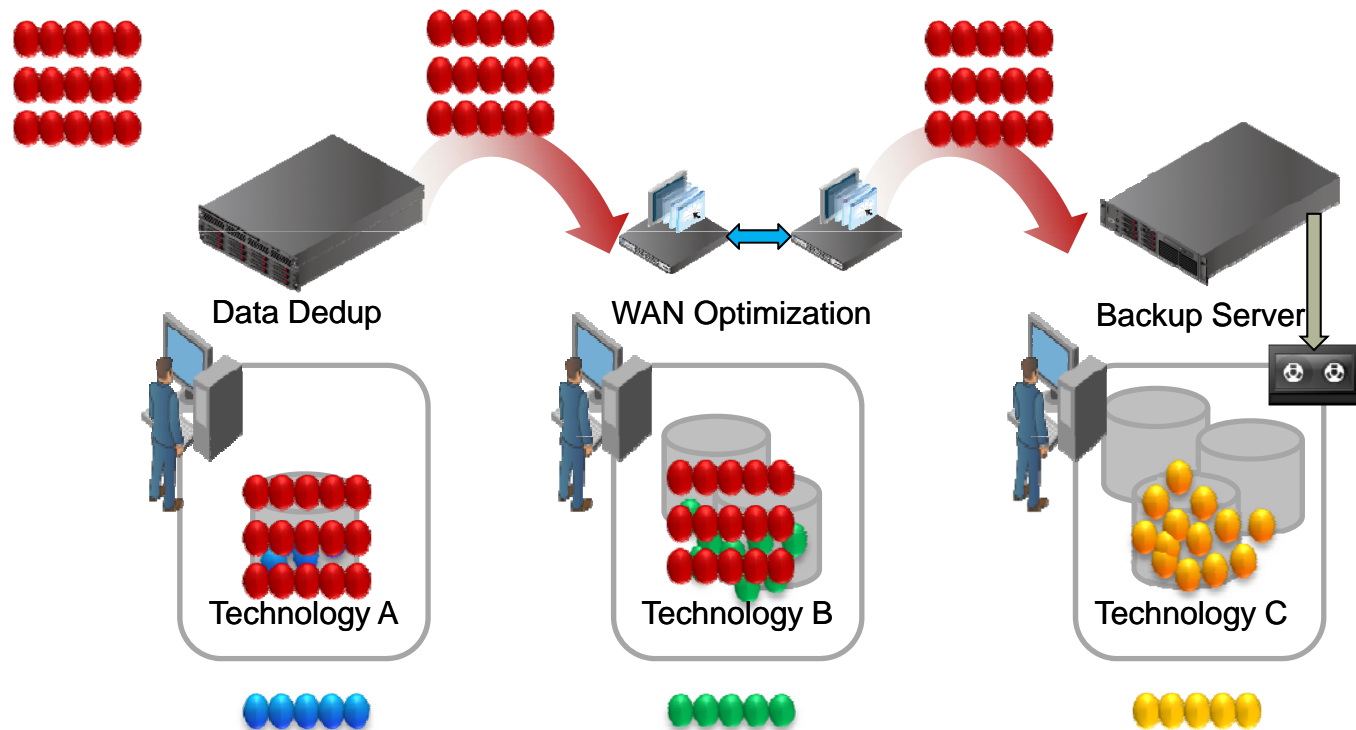
yes

more capability

more efficient

no improvement

TOMORROW'S PROBLEM: Rehydration



More resources
Complex
Higher risk

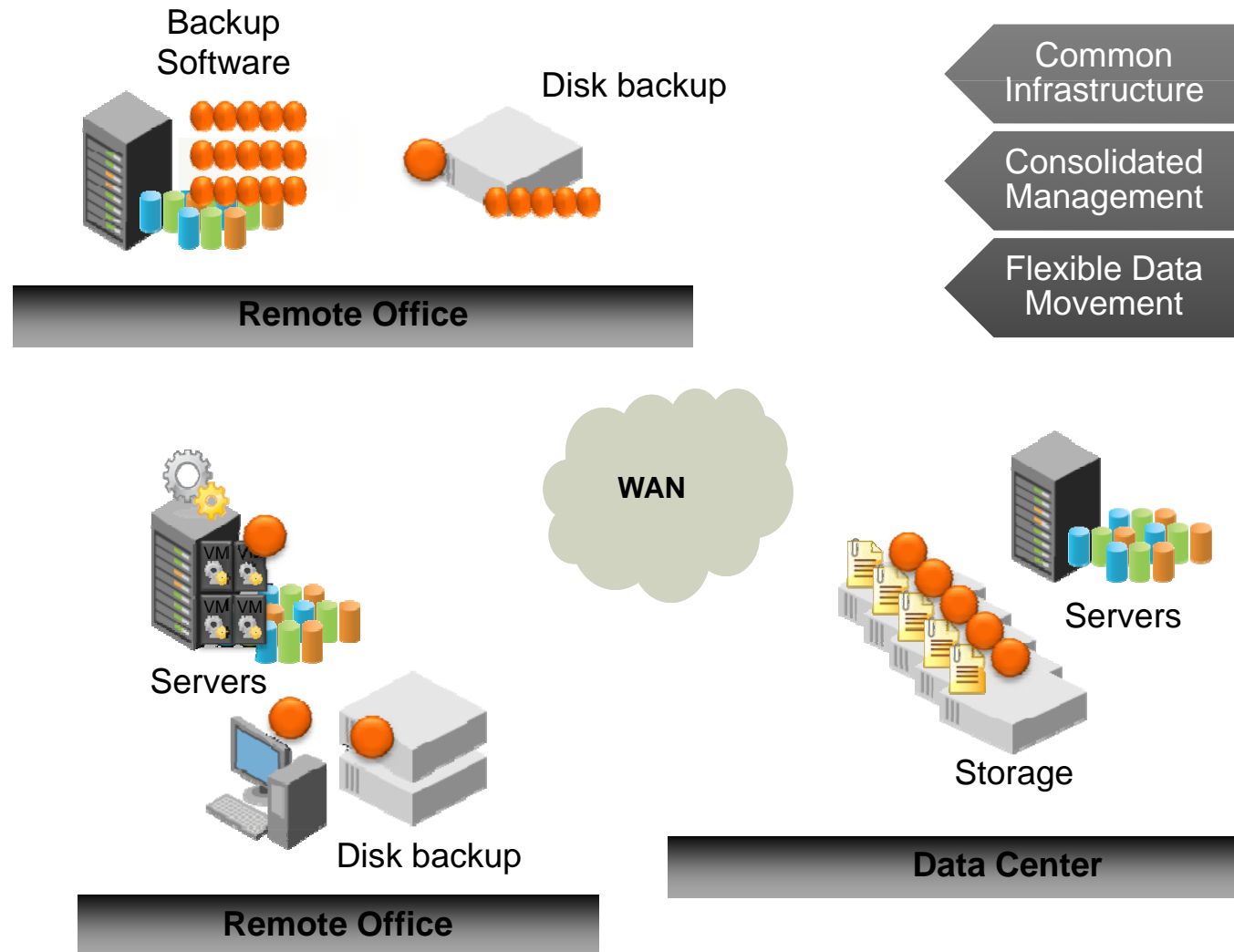
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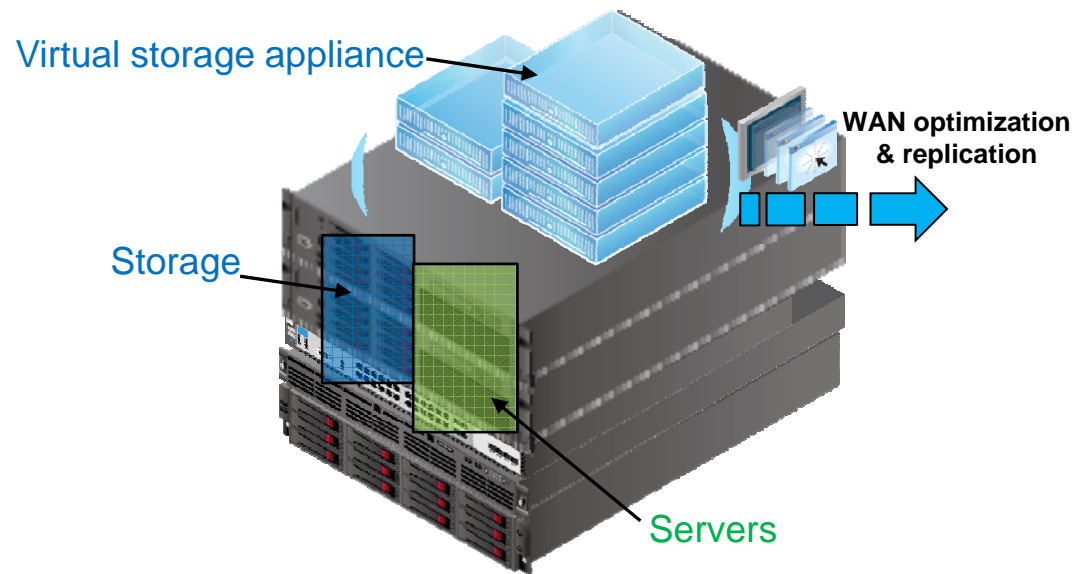
October 11-14, 2010
The Gaylord Texan
Dallas, Texas

A single deduplication engine





Next generation ROBO IT

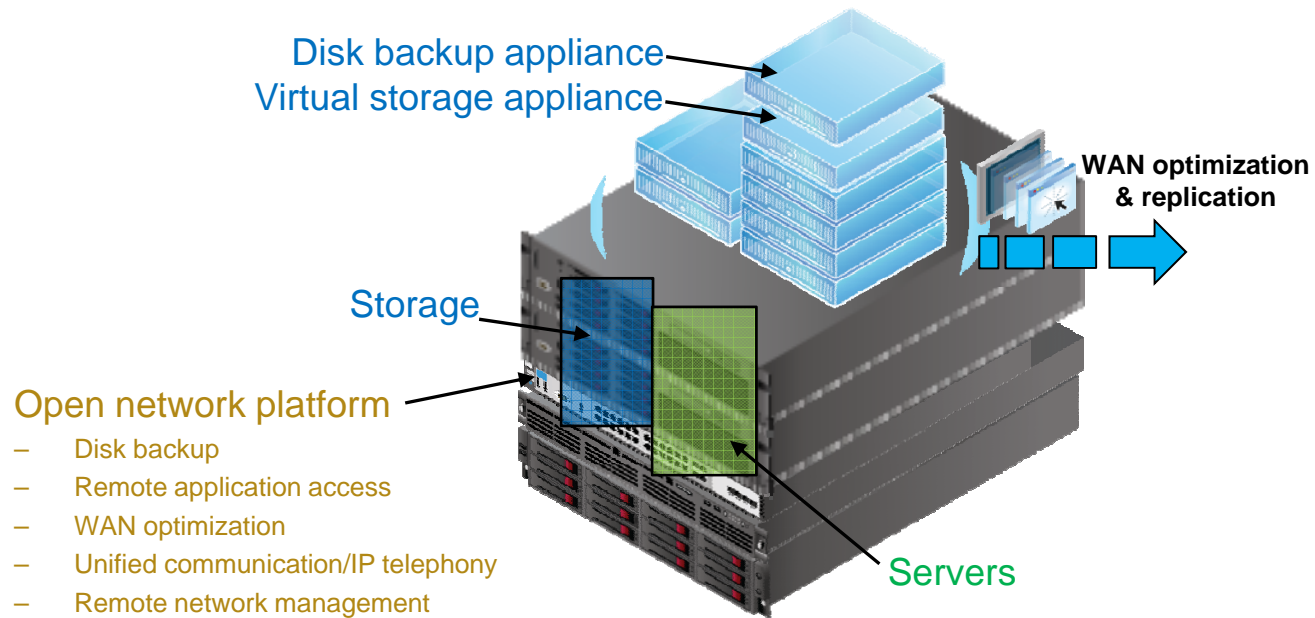


Solution requirement

- Converge servers and storage
- Consolidated HW mgmt framework
- Virtual storage appliance for storage HA



Next generation ROBO IT



Open network platform

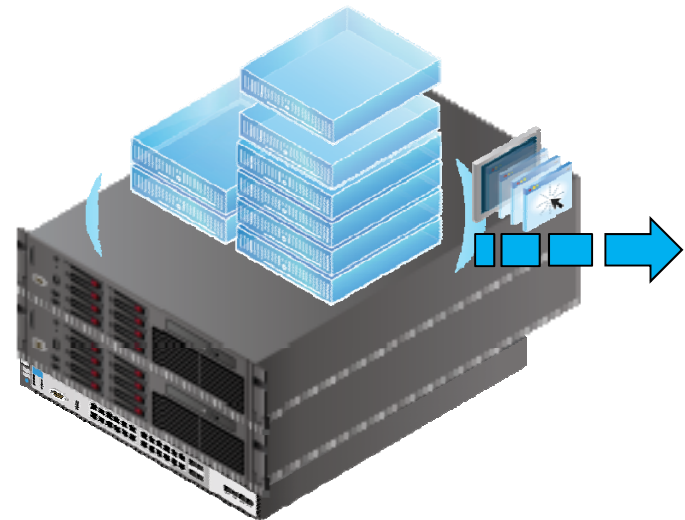
- Disk backup
- Remote application access
- WAN optimization
- Unified communication/IP telephony
- Remote network management

Solution requirements cont...

- Use virtual appliances and open networking platforms
 - Disk backup
 - Remote application access
 - WAN optimization
 - Unified communication/IP telephony
 - Remote network management
- Consolidate infrastructure SW framework



Now, how are we doing?



Meeting key requirements?

- Reducing OpEx/CapEx?
- Improving DR?
- Managing growth?
- Reducing WAN expenses?
- Managing upgrades/deployment?

Yes

Yes

More capability

More efficient

Yes

Guidance

- Converged hardware to reduce footprint
- Centralized management using common framework for servers/storage
- Virtualization (servers, storage, network) to optimize resource utilization
- Virtual appliances to reduce footprint
- Replication to centralized DR and tape
- Single deduplication engine to avoid rehydration
- Avoid hardware appliance proliferation and integration complexity





Questions?

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