

How to be a ROBO Cop:

*Reducing
Business Risk with
Remote Recovery
Management*

Patty Then

Frank Jablonski

April 2008

INTEROP[®]
LAS VEGAS | APRIL 27-MAY 2, 2008

ca Transforming
IT Management

Objective



- > Facts about ROBOs
- > Unique Challenges and Risk Factors
- > Building Block of the Ideal Solution
- > Available Technologies
- > Shared Efficiencies for Disaster Recovery
- > Best Practices

FACTS about ROBOs



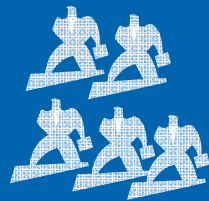
- > Growing Trend of ROBO Expansions
- > Reasons Companies Decentralized Operations
 - Operational Efficiency
 - Be closer to their customers (points-of-service)
 - Cost Savings
- > More and more employees are working remotely
 - 75% of employees work outside of HQ

U.S. Census Bureau states: > 1 million remote branch offices in the U.S. alone

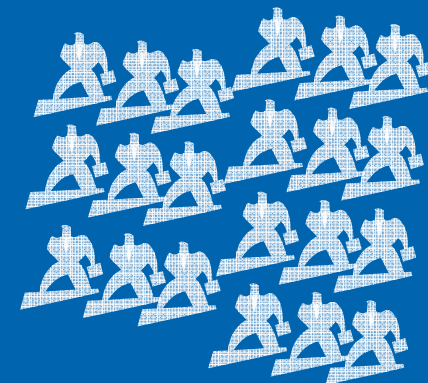
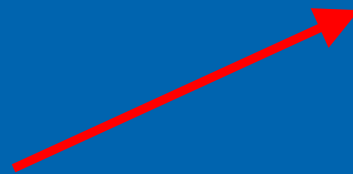
Facts: What CIOs, CSOs and CFOs are Saying

- > Remote locations are generating vast amounts of data
 - Between 60% -70% of data resides at ROBOs
- > Companies cannot keep up with the data explosion
- > Responsibilities to shareholders require better data protection – compliance for both on and off-site data.

Remote & Mobile Workforce is on the Rising Trend



Today

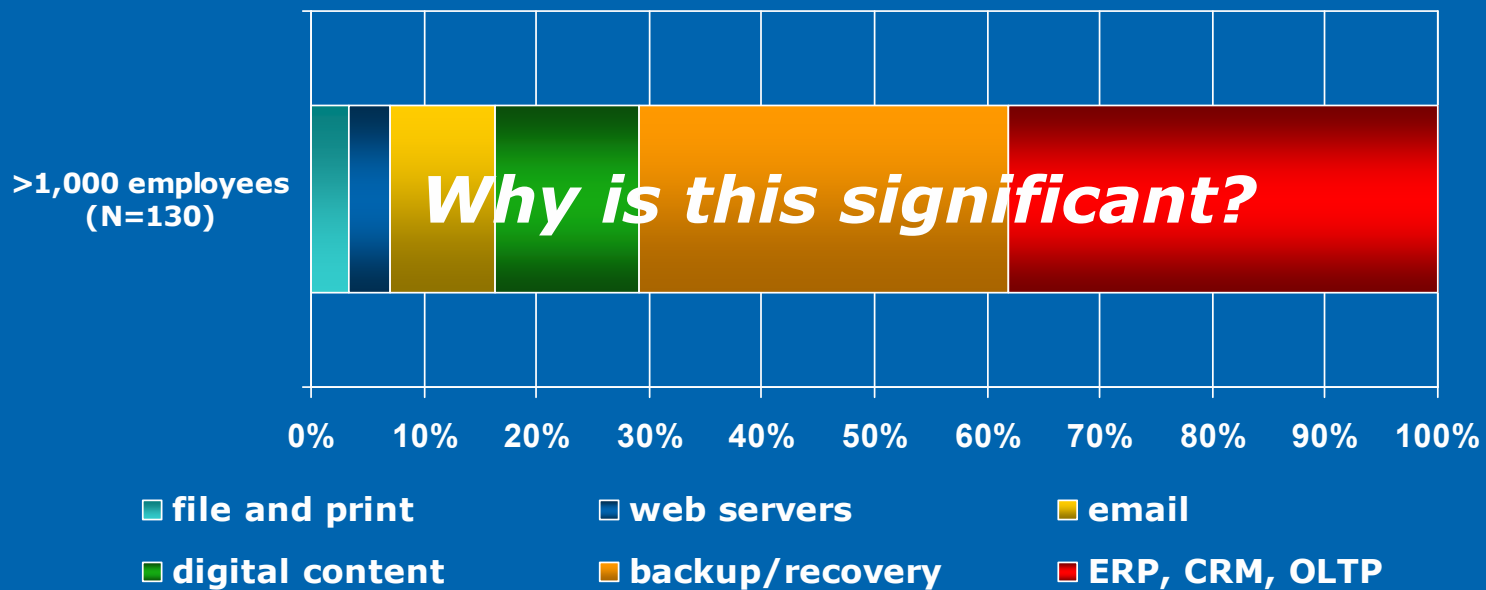


Tomorrow

More Data - Application and Content Expansion: Changing Mix of Data Types

Companies are storing more information, and more types of information and proliferation of ROBOs increases data management complexity of: **Compliance, Governance, BCDR**

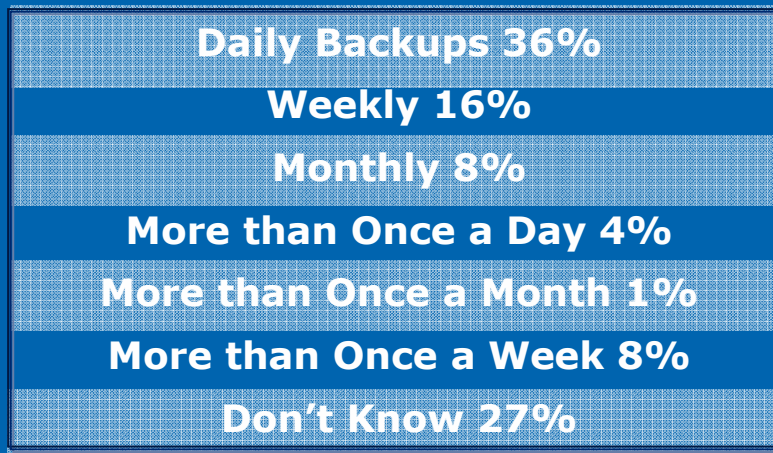
Disk Storage Capacity Allocated to Different Applications



Much of this data resides on unprotected on servers at ROBOs, Desktops and Laptops "everywhere"

Facts on Branch Office Backups

- > Studies confirm that data at Branch Offices on servers, desktops and laptops are not afforded the same protections as data on corporate servers



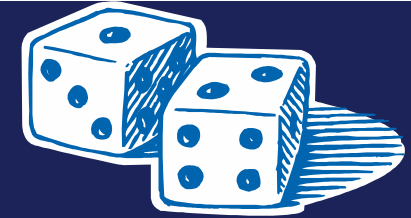
60% of ROBOs have at least 25 servers that house critical business data that they need to protect

according to a study performed by Security Park

No routine methodology for backups

Study cited in Computerworld Article: **How to Back Up you Branch Office**, by Russell Kay, October 16th 2006
Computerworld study to IT Management *Computerworld's* Exclusive Survey of 287 IT Professionals, August 2006

ROBO Risk Factors



- > Broad Distribution and Decentralization of Data presents major business risks: **Security, Compliance, Disaster Recovery**
- > Protecting Large Amount of Disparate Data generated at ROBOs
- > Most ROBOs have limited IT staff
 - Don't maintain the same rigorous controls as the data center
- > Business becomes exposed to data loss resulting from:
 - Equipment failure, extreme weather, fire, and other contingencies
 - Lost tapes: liability and cost to mitigate damage for data that has been compromised

More than **70%** of Critical Business Data resides at ROBOs

The Risk Exposure is High

FACT: Data Protection on Remote Servers, Desktops and Laptops does not comply with corporate governance regarding data protection policies



USA TODAY

**Lost Digital Data
Cost Business
Billions**

by Stephanie Armour June 16, 2006

Considerable time and energy lost
when forced to recreate lost data

Cost of Data Loss is Too High

Quotes on Risk at ROBOs

- > "Remote offices are overburdened with many challenges. Factors such as scarce IT resources, lack of control, length recovery time, etc. are impeding the growth prospects of data protection techniques in these locations." *Analysts Perspectives – Remote Office Data Protection IT Business Edge*
-

"The SEC doesn't care if the data was created in a branch location, or created in headquarters, Arun Tenaja."

No Easy Fix for Branch Office Blues, James Rogers, Byte and Switch

Top 5 ROBO Challenges

- > Centralized control and consolidation of data
- > Security and transport
- > Continuous remote accessibility
- > Consistent compliance with corporate data protection policies
- > Management of data growth

Addressing the Challenge

> Companies need a solution that combines security, data transport and recovery management technologies that allows IT to enforce corporate policies across all locations



- > Multi-layered protection to cover both BC and DR
- Protect according to the value of the data and application to the business
 - Must define RPO and RTO requirements
 - Centralize Recovery Management



Goals – Focus on recovery

Backup is not always enough

Classify

- **Group data by business value**

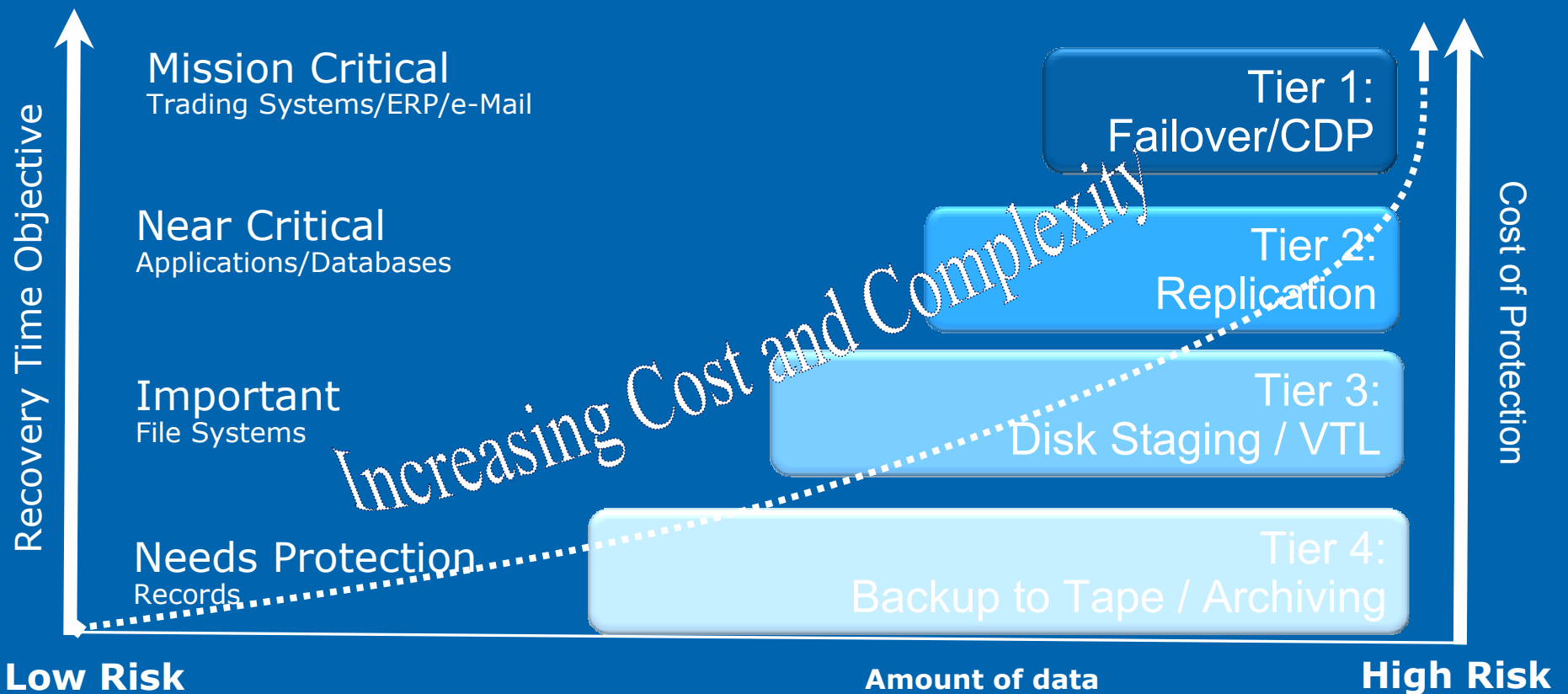
Set SLA's

- **Identify 'Recovery Point Objective – RPO' and 'Recovery Time Objective – RTO'**

Solution

- **Deploy combinations of Backup, Replication, CDP, & Failover**

Balancing Risks, Cost, and Complexity



Components of RM for ROBOs



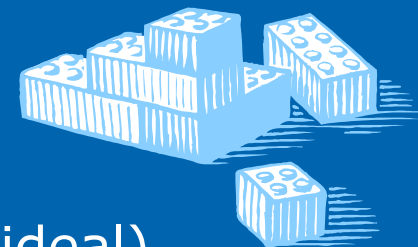
Choose Solutions that Provide:

- > Enterprise-wide management and reporting for flexible, granular control of information and recovery management
- > Consolidation of remote data in corporate data centers or other designated locations
- > Business Continuity for mission-critical applications
- > Ongoing disaster recovery site testing, providing IT executives with much needed confidence

Building Blocks of the Ideal Solution

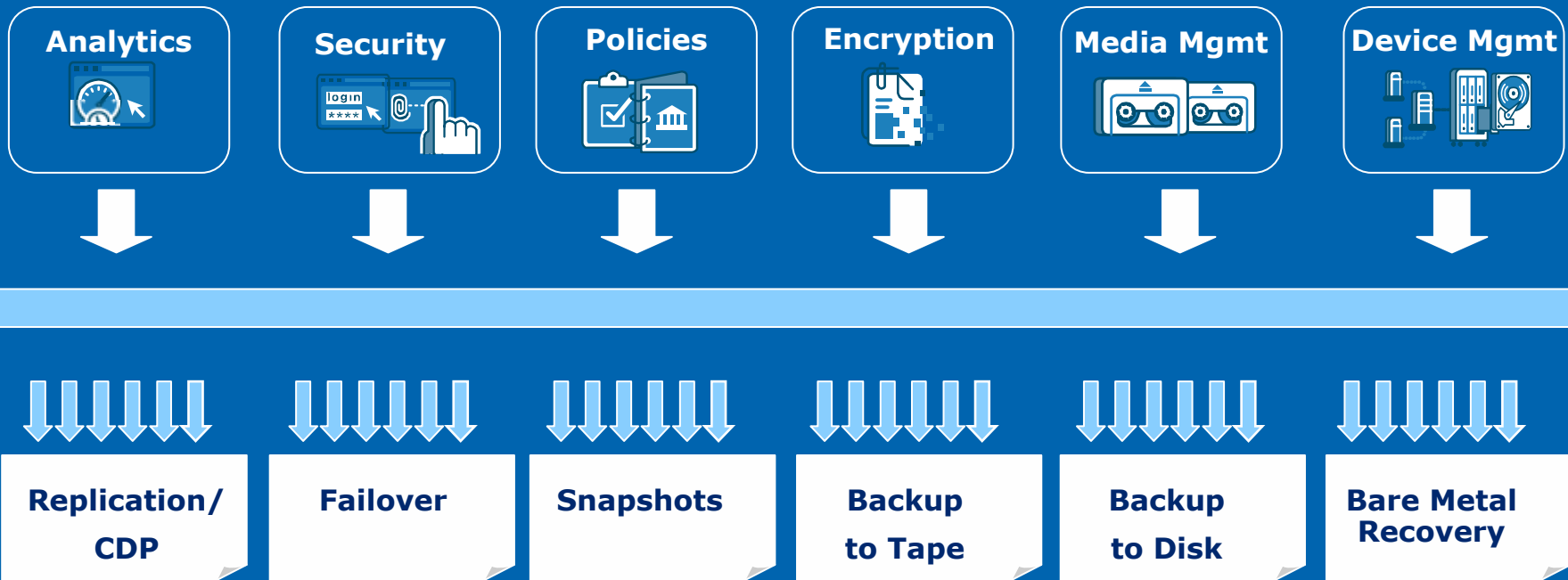


- > Replication / Failover and Failback
 - For Business Continuity and Disaster Recovery
- > Backup - Consolidation of Data at Central Location
 - Tape-less ROBOs
 - Centralize Management
- > Continuous Data Protection (CDP)
 - Integrated TRUE CDP w/ replication (ideal)
 - Continuous Backup
 - Provide Rapid Recovery
- > Non-Disruptive DR Testing



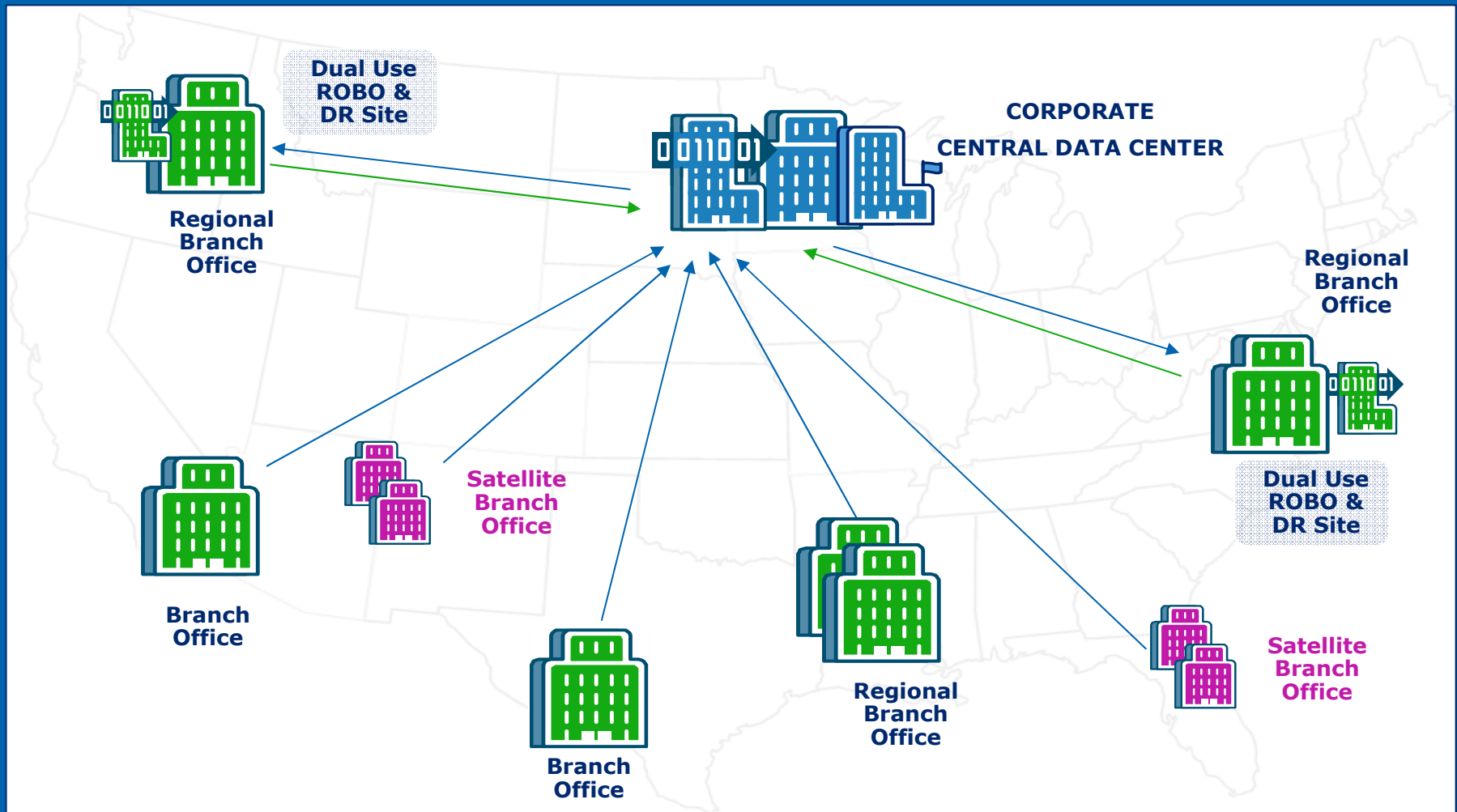
Recovery Management

Recovery Management Common Infrastructure

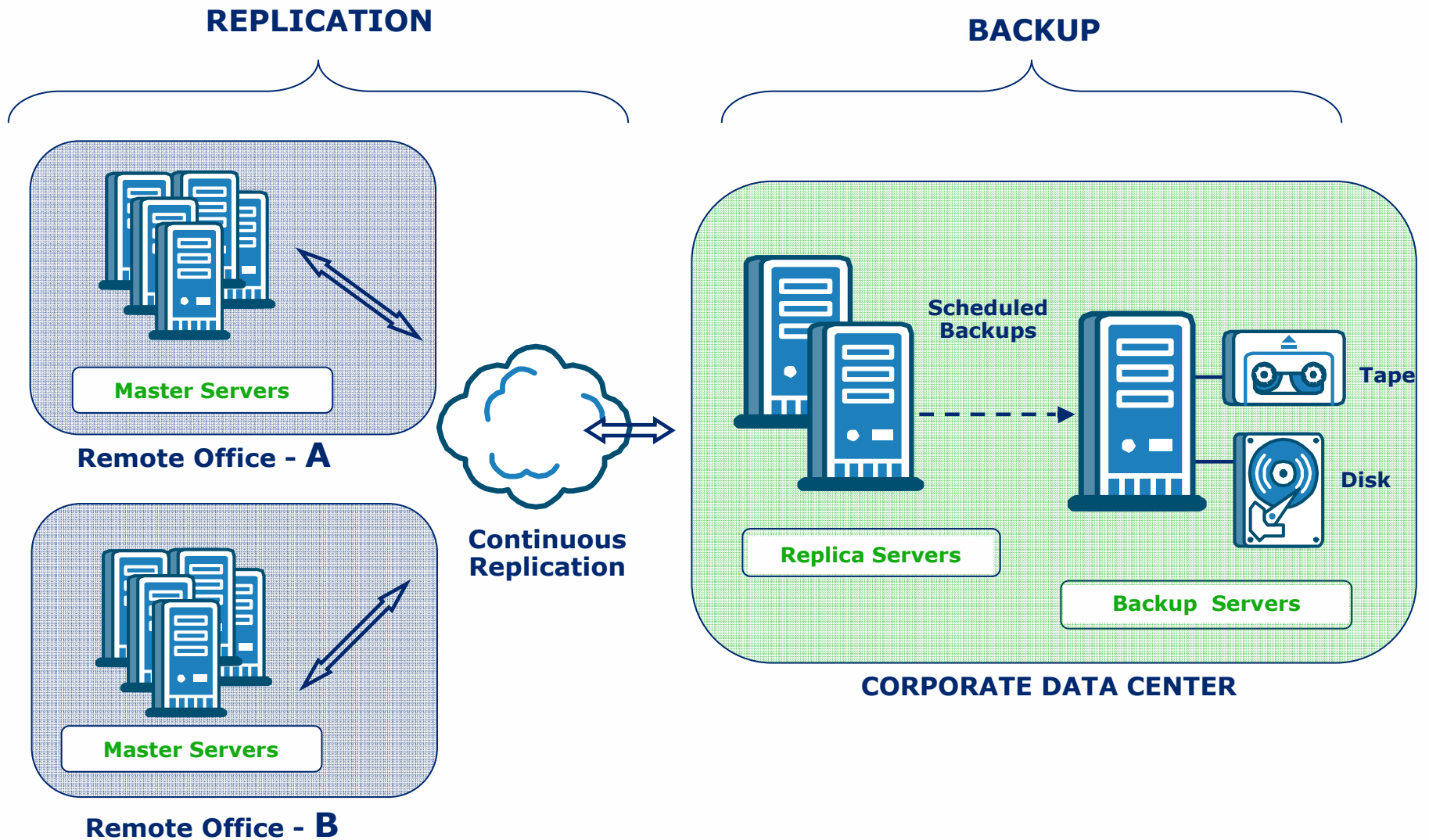


Modular solution with building blocks to meet RPO & RTO needs of business

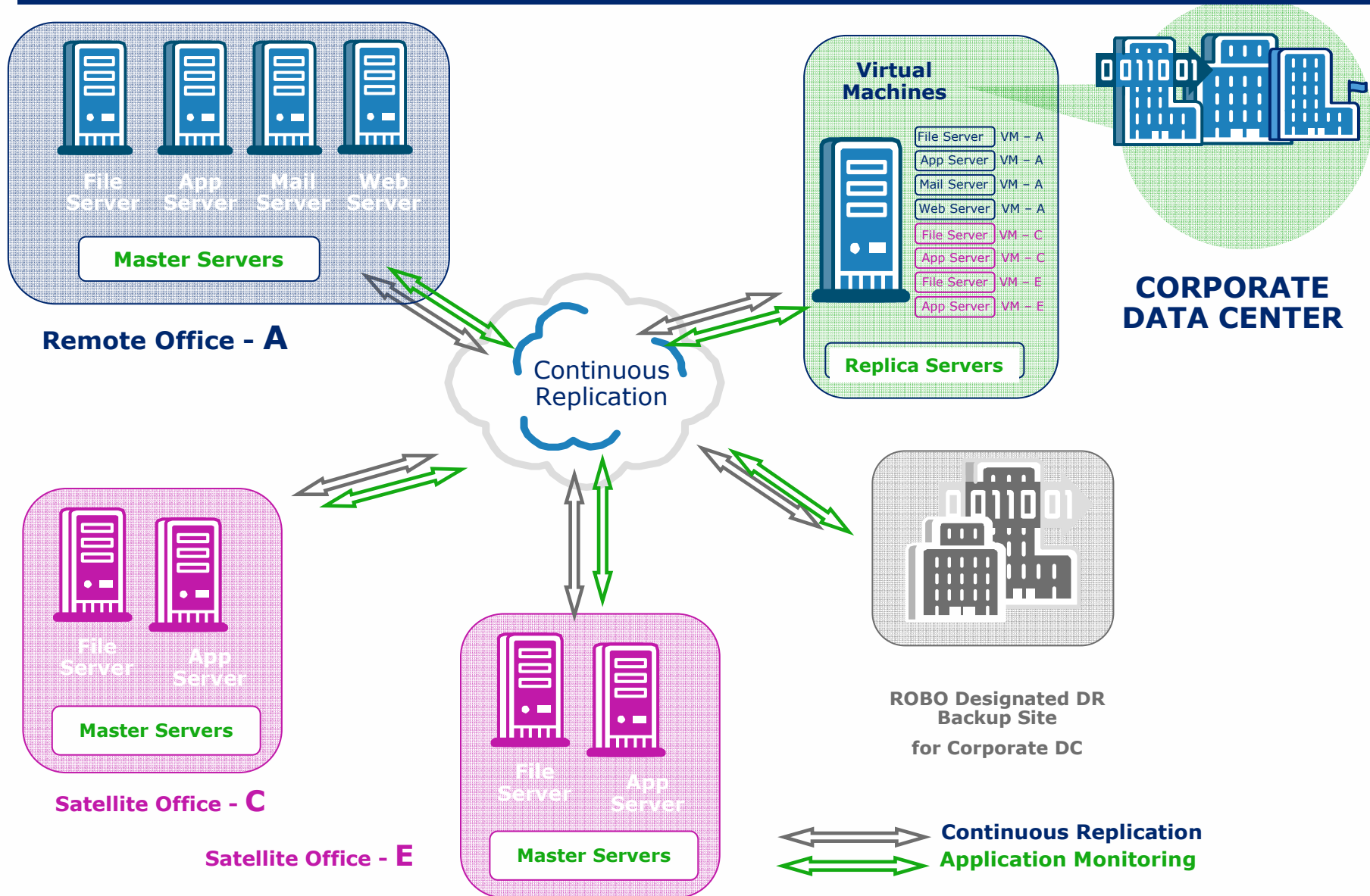
Multi Site Replication and DR



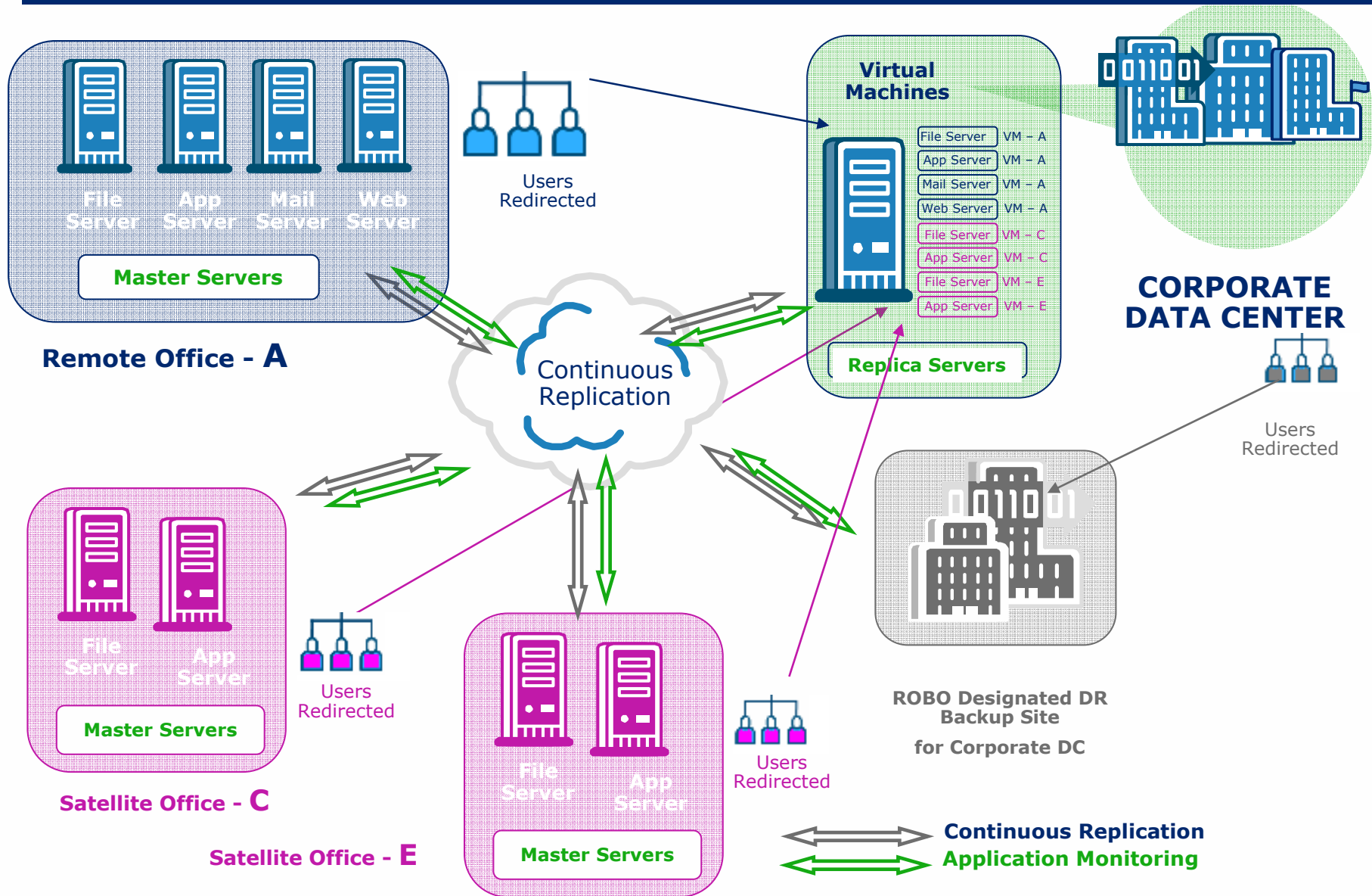
Integrated RM Solution Example



RM for ROBOs using Virtual Servers Solution for HA



RM for ROBOs using Virtual Servers Solution for HA



Recovery Management Issues Driven by Business Requirements

IT Issue	Business Need	Requirements
<i>Data protection</i>	Safeguard critical business information	A disaster recovery solution that offers replication over the WAN replication of files and databases such as Exchange, SQL, Oracle.
<i>Application availability</i>	Business continuity	A high availability solution that allows fully automatic failover and failback – and that provides continuous replication, failover and CDP.
<i>Data distribution and consolidation</i>	Consistent treatment of business information anywhere across the enterprise	A Branch Office solution that provides data consolidation and distribution policy-driven backup, and consolidation of data to any location (s) of choice.
<i>DR compliance</i>	Best-practices governance of DR measures	A testing solution that allows frequent automated testing of DR sites located at branch or satellite offices. Ensure that failover will occur in the event of a disaster.
<i>Continuous data protection</i>	Accelerate recovery and minimize data loss	Continuous replication of all changes that allows for rapid recovery from corruption for databases and file servers.

Decision Criteria

What solution is right for you?

Weighted Factors

	Weight	A	B
COST	20		
Functionality	30		
Interoperability	35		
Investment Protection	10		
Risk	5		
TOTAL	100		

Assess

Identify Critical Data
Perform Risk & Cost Benefit Analysis

Design

Take a Multi-layered approach
Protect based on Data characteristics

Implement

Protect "all" data regardless of location

Optimize

Test your plan
validate frequently

Available Technologies

Replication	CDP	WAFS	Offsite Storage	De-Dup
CA XOsoft Microsoft DPM ☆ Storage Array based Replication ☆ EMC Replistor ☆ LeftHand ☆ IBM CommVault ☆ XIOtech, ☆ Snapserver (Adaptec)	CA XOsoft Data Core ☆ SonicWALL (Lasso) ☆ Revivio TimeSpring (Doubletake) ☆ Kayshya (EMC) Bakbone ☆ SnapVault (NetApp) IBM CDP for Files IBM Tivoli (CDP)	☆ Brocade ☆ Cisco ☆ McData Avail (GlobalScape) ☆ Riverbed ☆ Tacit Networks Citrix ☆ HARDWARE SOLUTIONS	RackSpace LiveVault (Iron Mountain) Asigra EVault Dell (SMB) Remote Backup Systems	☆ ExaGrid ☆ FalconStor ☆ Data Domain ☆ Avamar (EMC) ☆ Dilligent Technologies All VTL vendors

The Benefits of Integrated RM

- > Eliminates the cost of separate DR facilities
- > Reduces Risks associated with non-IT staff managing backups
- > Mitigates Security Risk by eliminating physical data transport (no lost tapes @ ROBO site)
- > Alleviates legal and financial risk by protecting distributed Intellectual Property (IP)
- > Mitigates negative business impact with dual BC/DR approach for ROBOs
- > Go Green and Improve Efficiency with Server Virtualization
 - Reduce infrastructure costs for both data center sites and designated DR ROBO site

Customer Scenario - Florida Law Firm Cuts Backup Time, Ensures 100% System Availability and Stands Up to Hurricane Threat

The Challenge

- Backup Process slow across linked ROBOs
- Backup took > 30 hours
- Real gaps in data protection, not able to protect "all" of the firm's data
- Need DR site out of Hurricane path

The Environment

- Full Service Law Firm with 10 ROBOs across Florida
- 200 Attorneys, Total 500 staff
- 50 Windows Servers
- 600 Workstations & over 600 Email accounts
- 100 Million in Revenue

The Solution

- > CA XOsoft High Availability (Replication, Failover, & CDP)
- > Riverbed Stealhead WAN Acceleration

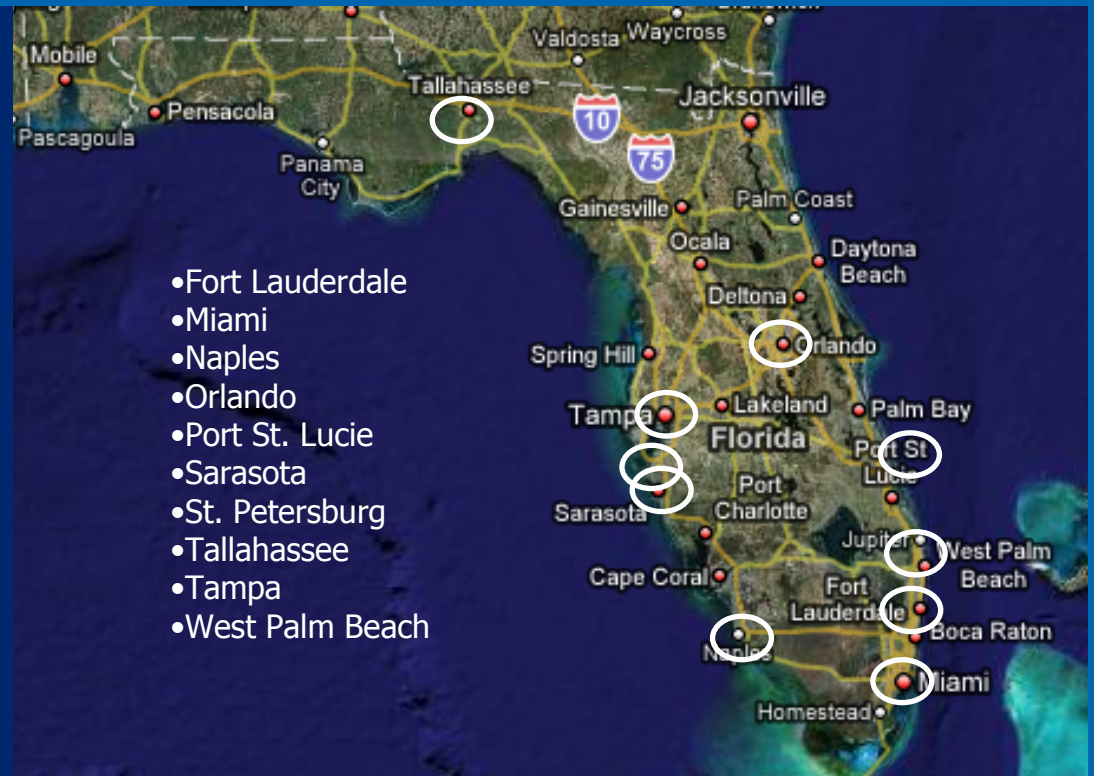
The Benefits

- During hurricane Wilma 5 offices hardest hit and completely shut down
"Business Never Missed a Beat"
- Closed gaps in data protection – 100% data and system availability of "all" business across all ROBO
- Backup Window Reduced <6 hours
- WAN Capacity Increase by 460%

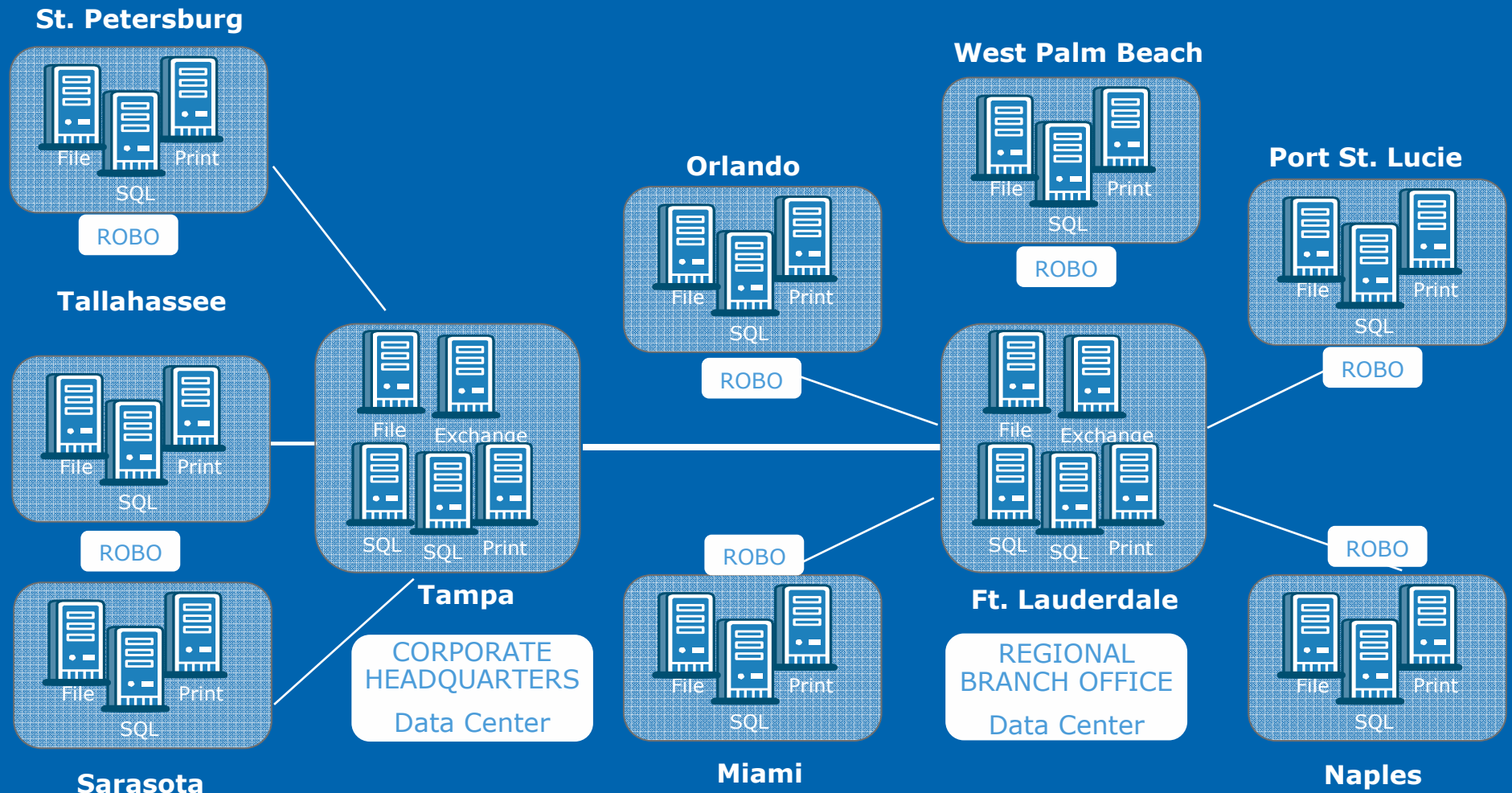
Florida Law Firm

The Environment

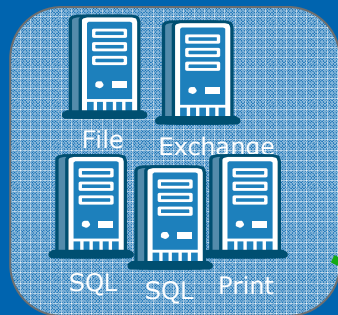
- > 50 x Windows Servers
- > 1.5 Terabytes of Data
- > MS Exchange (600 mailboxes)
 - 6 GB/day change rate
 - Average mailbox = 750MB
- > DMS (2 million documents)



Before Consolidation & WAN acceleration

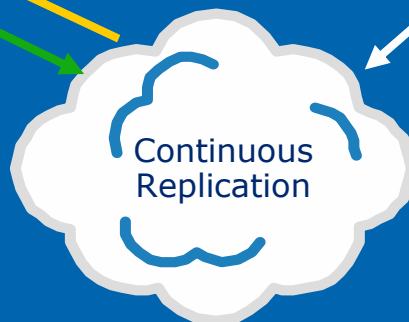


After Consolidation & WAN acceleration



**Chicago
DR Site**

- Fort Lauderdale
- Miami
- Naples
- Orlando
- Port St. Lucie
- Sarasota
- St. Petersburg
- Tallahassee
- Tampa - **HQ**
- West Palm Beach



REGIONAL BRANCH OFFICE
Central Corporate Data Center

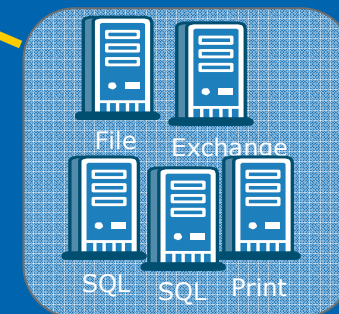
WAN Acceleration Appliance

Installed at both end-points
Enabling Consolidation of Key Servers

1. Reduced WAN traffic
2. Eliminating Storage Redundancy
3. Accelerating all TCP based Applications

Replication & High Availability Software Installed at Central Data Center

1. Reduced Business Risk
2. Consolidation & Centralization provided operational efficiency, freed up essential resource, improved productivity & Saved Money



Ft. Lauderdale

Summary – Remote Data Protection *Gives you peace of mind*

> Reduces Business Risk

- Protect corporate intelligence with centralized backups
- Securely transmit encrypted data protection for remote workforce regardless of location
- Integrate backup and restore operations across your enterprise for multi-level protection

> Reduces Cost & Complexity

- Use Existing Infrastructure at ROBOs for BCDR
- Take advantage of Virtual Machines
- Save on bandwidth and growing storage hardware costs with optimized solutions – replicate only what changes

> Improves Operational Efficiency

- Use a solution with Centralized Management capabilities
 - Manage multiple servers across multiple location from single console



References



The Ultimate Backup Guide Ellen Fanning, October 16, 2006 (Computerworld)
Best practices, from the desktop to the data center
<http://www.computerworld.com/action/article.do?command=viewArticleBasic&articleId=266715#toc>

How to Back Up Your Branch Office Russell Kay October 16, 2006
(Computerworld)
<http://www.computerworld.com/action/article.do?command=printArticleBasic&articleId=264617>

ROBO Cop: Reducing Business Risk with Remote Recovery Management by Patty Then and Frank Jablonski, Oct 19th, 2007
http://www.snwonline.com/articles/recovery_mgmt.asp

Organisations fail to back up remote office data to a central location
because of a lack of IT resources 29/11/2006 www.securitypark.net

CDP Buyers Guide Sept 2006 SNIA.org
http://www.snia.org/about/resources/CDP_Buyers_Guide_second_edition.pdf

Q&A

- > Contact Information
- > “Patty” Giota Vavasis Then – giota.then@ca.com
- > Frank Jablonski – frank.jablonski@ca.com

Copyright © 2008 CA. All rights reserved. No copying or distribution without CA's prior written consent. All trademarks, trade names, service marks and logos referenced herein belong to their respective companies.