

Safeco Insurance
Using Disaster Recovery and
Business Continuity Planning to
Drive Virtualization in the
Production Datacenter

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Agenda

- About us
- Pre Business Continuity Program (BCP) snapshot
- BCP and the VMware value proposition
- Building the case for VMware at Safeco
- Designing and implementing our VMware solution
- Delivering BCP results
- Optimizing our VMware investment now and into the future
- Questions

Who is Safeco?

■ **Our business & organization -**

- Four operating segments: Safeco Personal Insurance, Safeco Business Insurance, Surety, and Property and Casualty Other
- The company markets its products primarily to drivers, home owners, and small- and mid-sized businesses through independent agents and brokers
- Safeco Corporation was founded in 1923 and is headquartered in Seattle, Washington

■ **Our technology environment -**

- **Multi-platform, multi-tier applications**
- **Revenue generating systems**
- **Availability/Recoverability**
- **1600 Wintel Servers, 10,000 desktops**
- **Dual data centers**
- **Multiple environments (Dev, Lab, Prod)**

Pre-BCP Snap Shot

- Limited BCP programs- Infrastructure only (Before 2004)- RTO 72 hours
- Tape Recovery
- No second data center for Recovery
- Proof of concept pilot for vmware

BCP Drivers

- Disaster Recovery Journal estimates that 1 out of 500 data centers will have a major outage each year
- Gartner estimates that 80% of all data centers will have one major event every 5 years
- 20 year survey of Fortune 500 crisis readiness by University of Southern California's Center for Crisis Management (July 2003) - 2 conclusions:
 - Incidents of intentional damage to corporate assets has risen markedly over the past 10 years
 - Between 75 – 85 percent of Fortune 500 companies are not prepared to respond to a new type of crisis
- Business Drivers for Safeco
 - Business Impact Analysis (BIA) – Completed late 2004
 - Sarbanes-Oxley (Sox)
 - No Disaster Recovery Program

Requirements for Disaster Recovery

- 1st- RTO - Recover all vital & Critical Apps within 72 hours with 24 hours of data loss by June of 2006
- 2nd- RTO - Recovery all vital & Critical Apps within 24 hours with 4 hours of data loss by December 2006
- High availability
- Highly automated
- Recoverability without regular support staff
- Support 100% of Production Load
- Cost effective
- Timeline of one year

Applications at Safeco

- Over 850 Apps- various nature (Mainframe and Distributed)
- 200 vital & Critical (Example: Q & I, CVO, Email)
- 250 Important & Essential – (Example: FileServers, Internal dept. web sites)
- Never attempted Recovery Before

The VMware Value Proposition

- Server Consolidation
 - Pilot program-June 2004
 - Familiarization
 - Proof of concept- 32 vms on 3 hosts
- Recoverability-
 - Timing with BCP
 - Reducing program costs
 - Automate and simplify recovery

Building the Case for VMware at Safeco

- cDat (Performance Data Collection tool) study & Analysis
 - 70% of vital & Critical systems were less than 5% utilized
 - Recommendation
- Gaining executive support-present Analysis & Recommendation
 - Present to BCP project Management
 - Present to the 2nd level management
 - Present to the Directors (Apps, IT, BCP)
- Gaining developer and application owner support- 😊
 - Info Exchanges
 - Q & A and 1 on 1 sessions
 - Provide a solid Test Environment
 - Test Apps and Document the Results

Example of App Performance After Migration to VM

- CVO-Claims virtual office
 - 4.5 hours per user for the first two days
- Other Benefits achieved
 - Clone & deploy new servers in minutes then Months
 - Recovery
 - High availability

Designing and Implementing Our VMware Solution

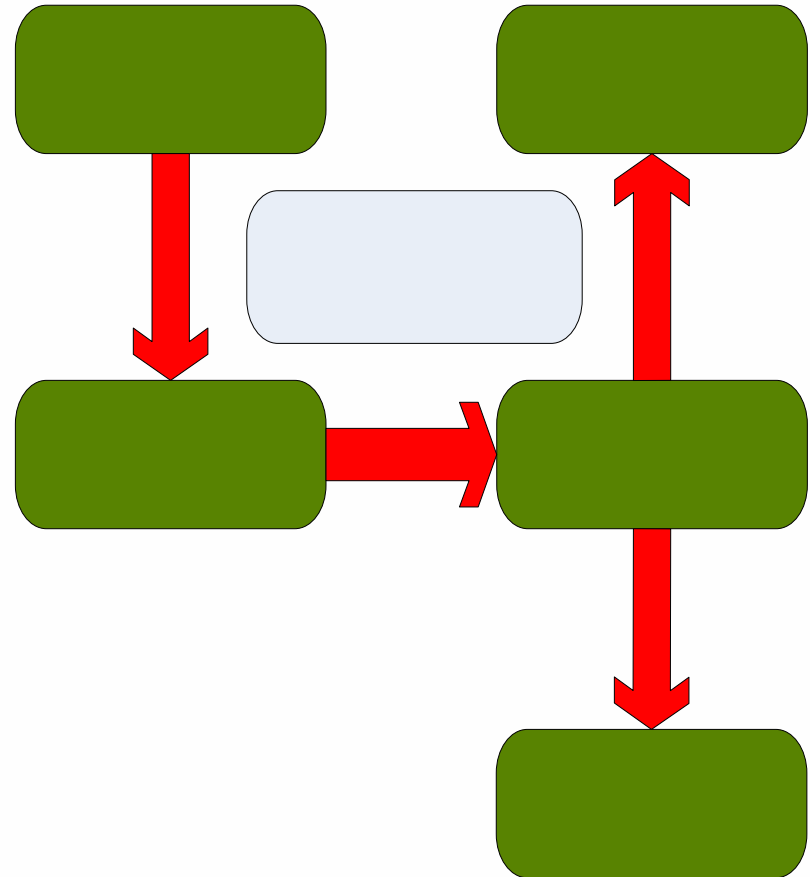
- Create a technical design
 - Resources
 - Research
 - Test-SRDF-A over FCIP & SAN to SAN Bake off
- Functional and system requirements
 - Applications on stand alone servers
 - Migrate data to SAN
- Aligning requirements with VMware capabilities
 - No performance impact
 - No application reconfiguration
 - Automated Recovery

Challenges

- IP addresses
- P2V migrations
- Short Timeframe
- Staffing Level
- Resource Constraints for app validation
- Two physical locations
- New hardware platform - (IBM 366, SAN, SRDF-A)
- Virtual Center Farm Naming Convention
- Performance Monitoring
- On going Education - (Support staff & customers)

Implementation Plan

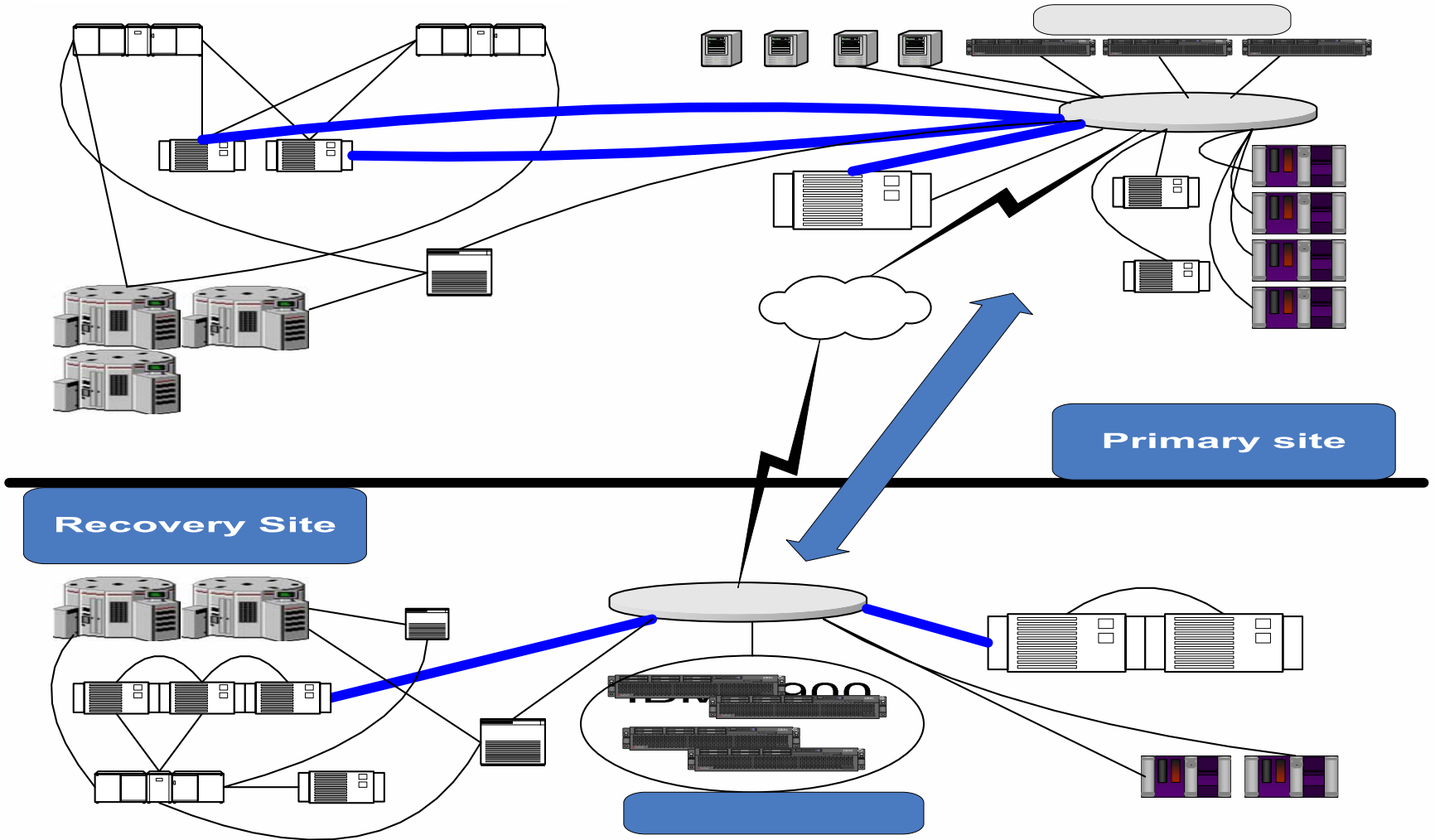
- Create a Implementation plan
- Determine the number of Servers to Migrate
- Select a good P2V tool
- Create Pre& Post P2V Checklist
- Align Resources
- Create & Communicate migration schedule
- Follow up with the customer after the migration
- Monitor the ESX Server Environment Closely
- Have a good Back out plan



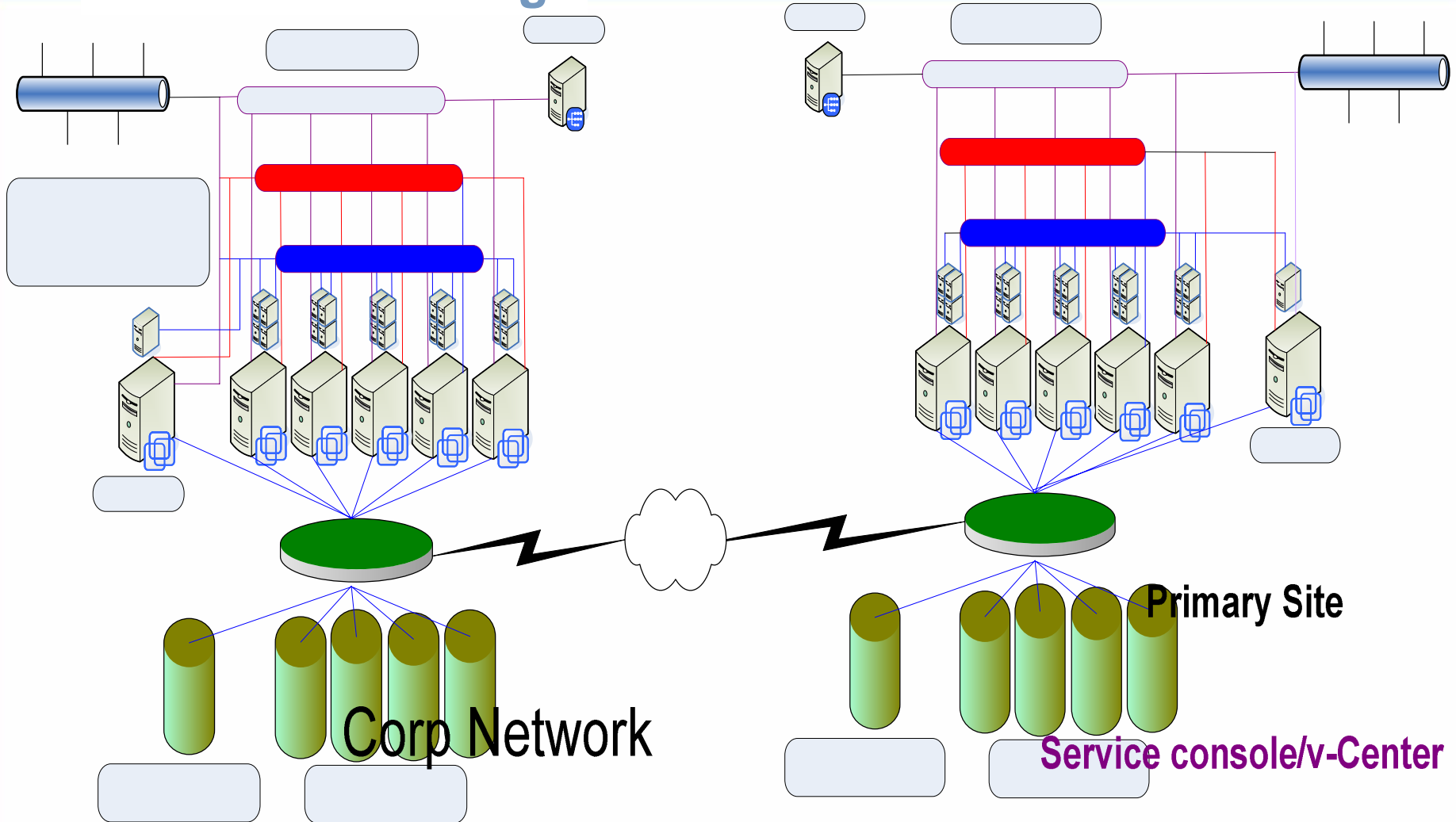
CVO Performance in VM

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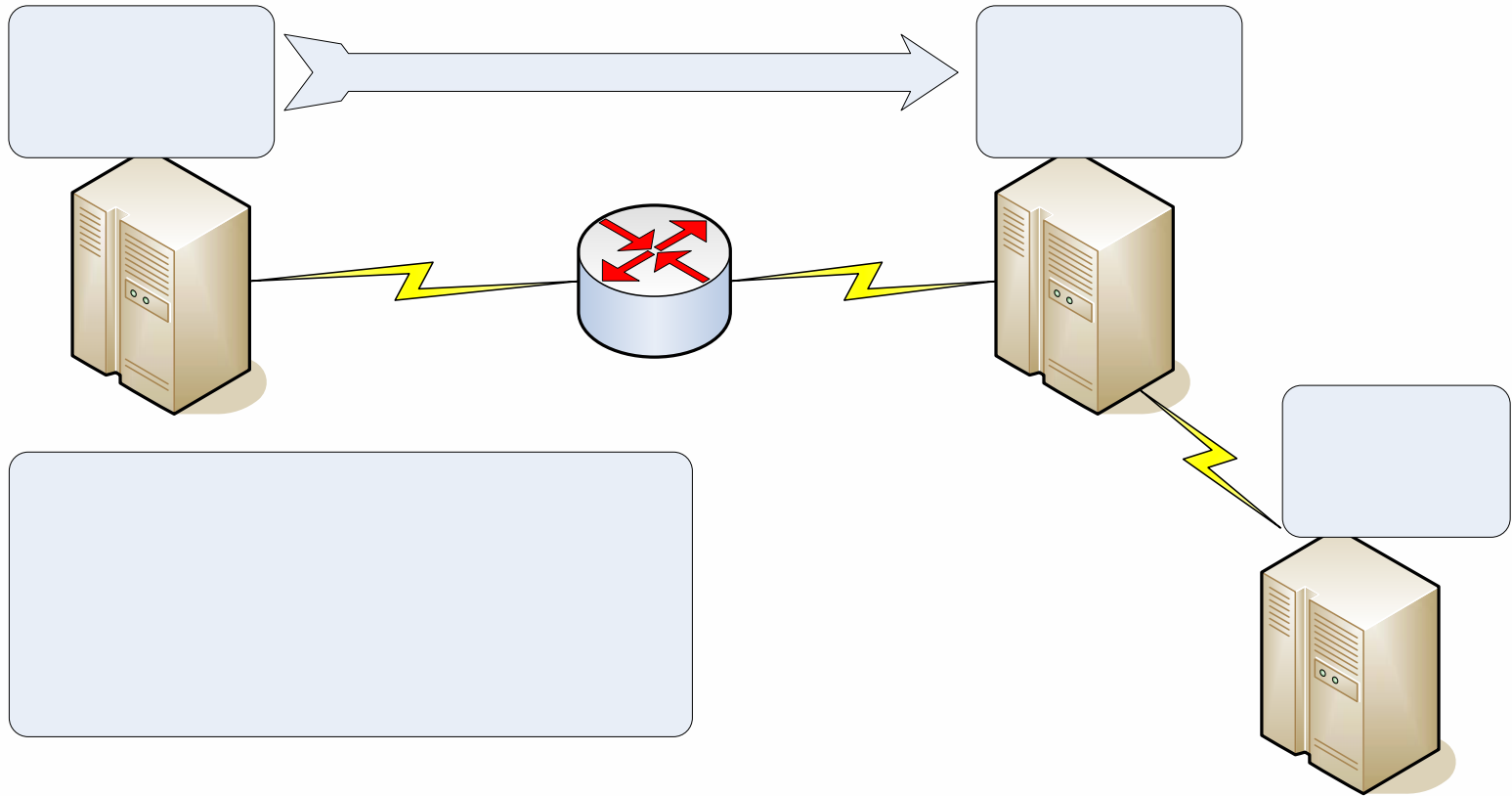
Over All BCP Design



VMware ESX Design



Asynchronous Replication



PrimarySite

How Testing is Conducted

- Isolate Recovery Site from the Primary Site
- Take a snap Copy data at Recover
- Run script to attach luns to the ESX Server
- Scan Luns on All ESX Host Servers-
- Copy vmx files from the Virtual Center server to each ESX host
- Register VMX files
- Power on vm guest

Delivering BCP Results

- BCP Achievements
 - First goal exceeded expectations by 36 hours
- Server infrastructure recovered in 4.5 hours
- Saved \$\$\$ in hardware cost and software licenses
- Projected recovery times
- P2V migrations 100% successful
- Recovery 100% success

Optimizing Safeco's VMware Investment

- Virtualization Strategy
 - Strategic goals/executive summary
 - Consolidation targets
 - Cost model
 - Demand management
 - Metric reporting

Questions?

- Open Q&A

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