

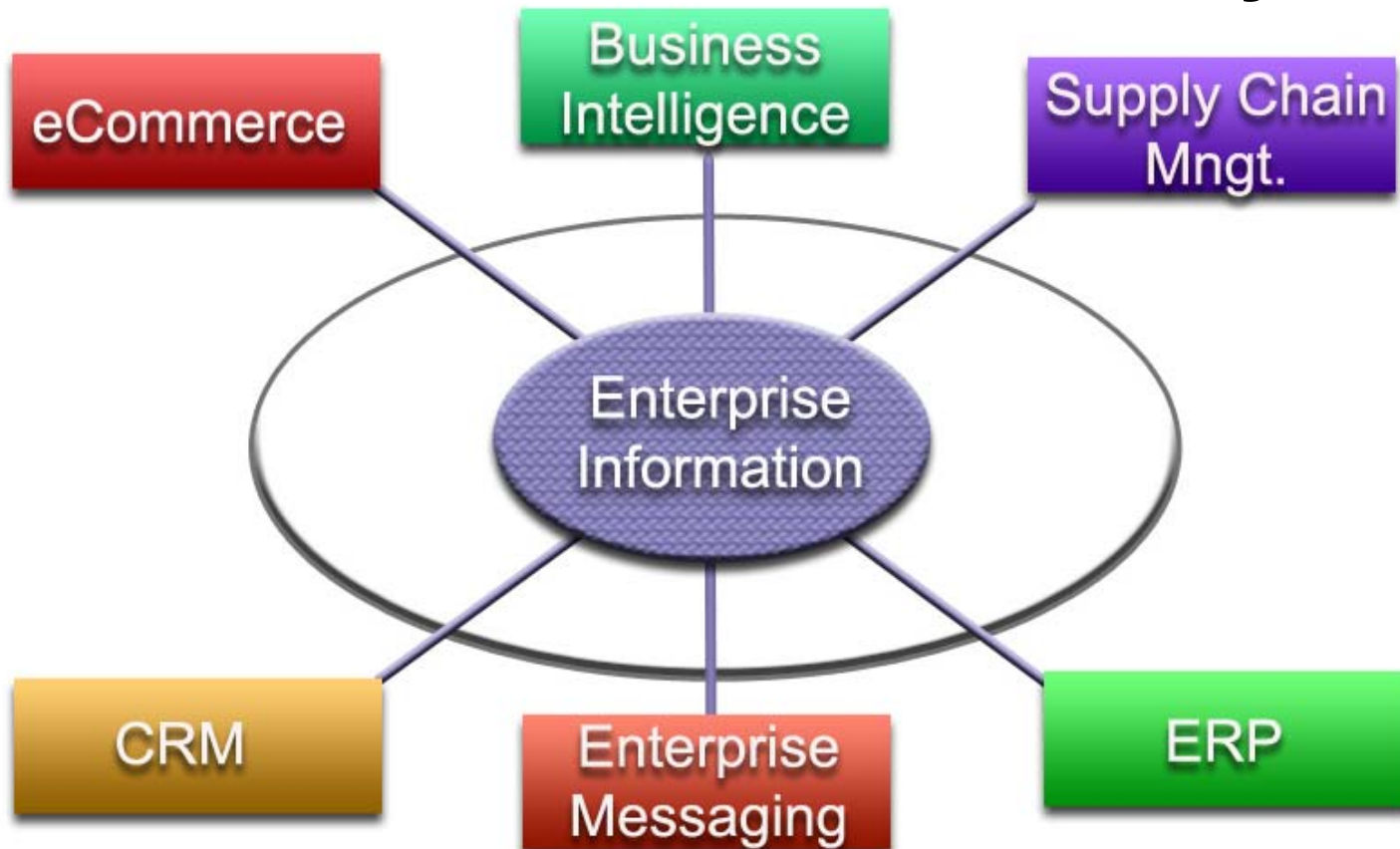
Enterprise Application Availability – An Unsolved Problem

Monitor. Remedy. Proceed.

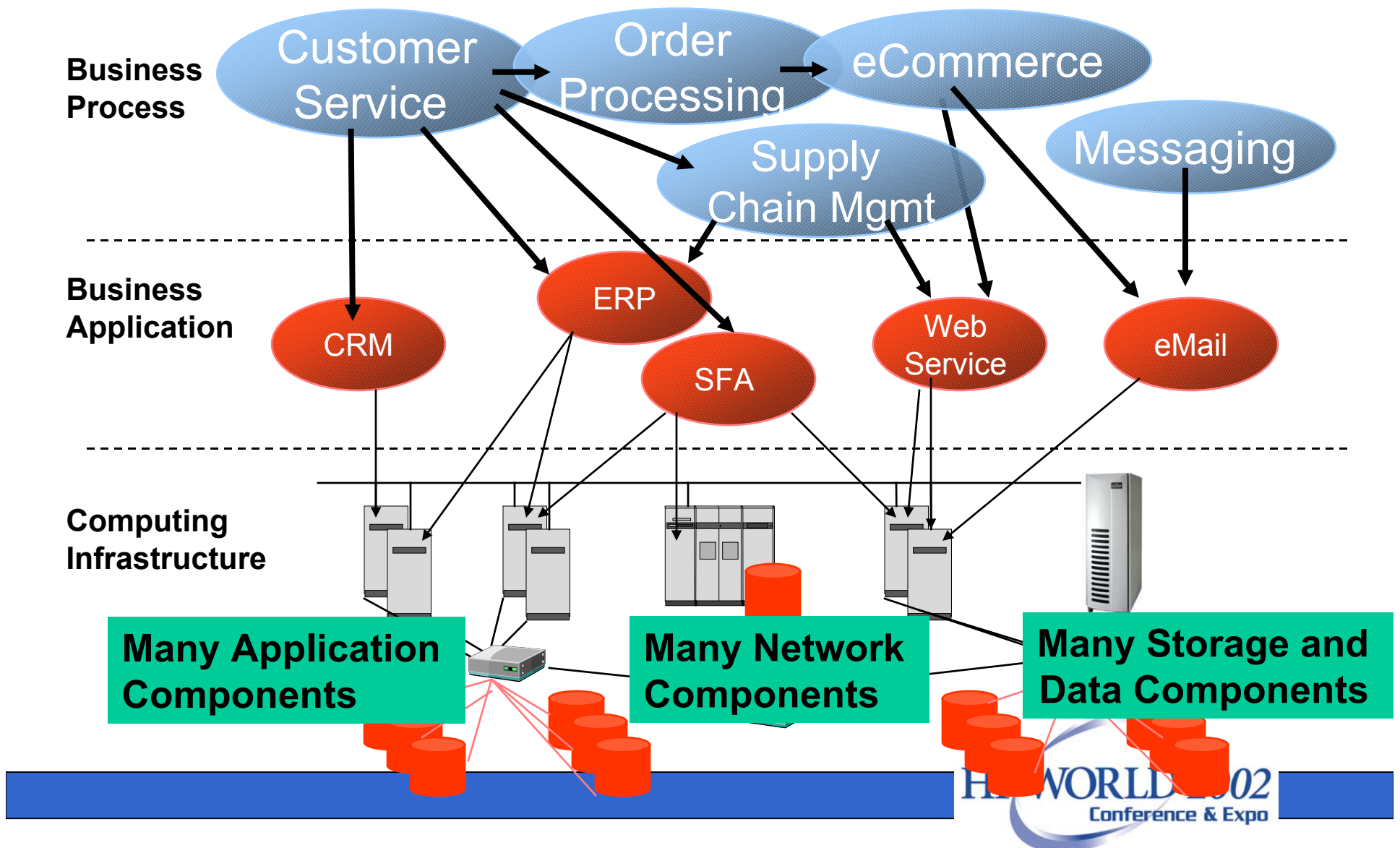
Presented by
Kelly Polanski, V.P.
Legato Systems, Inc.

What do you need for
Business Process Availability?

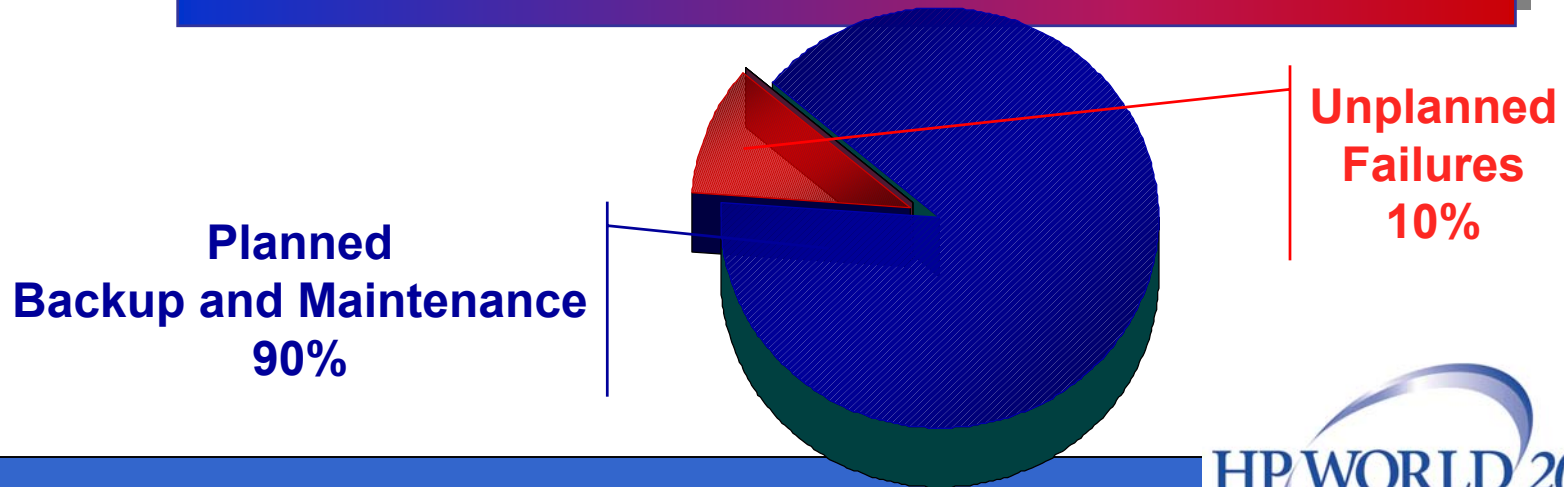
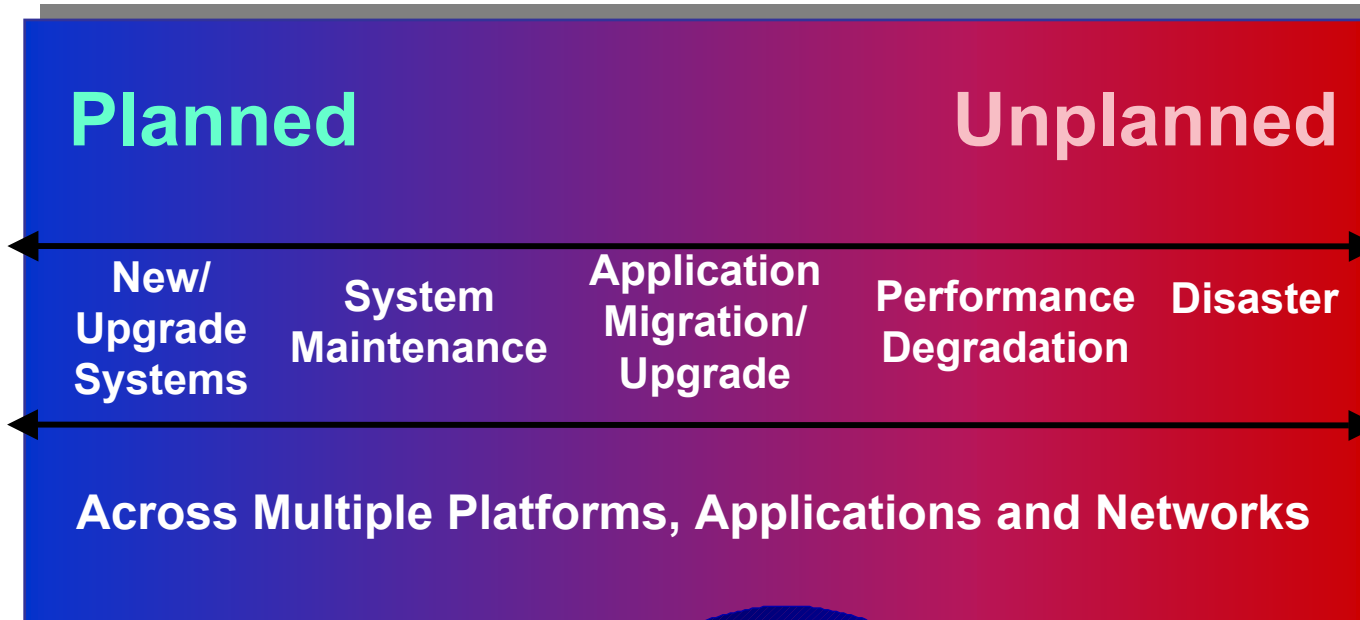
Business Process Availability



What is a Business Process?

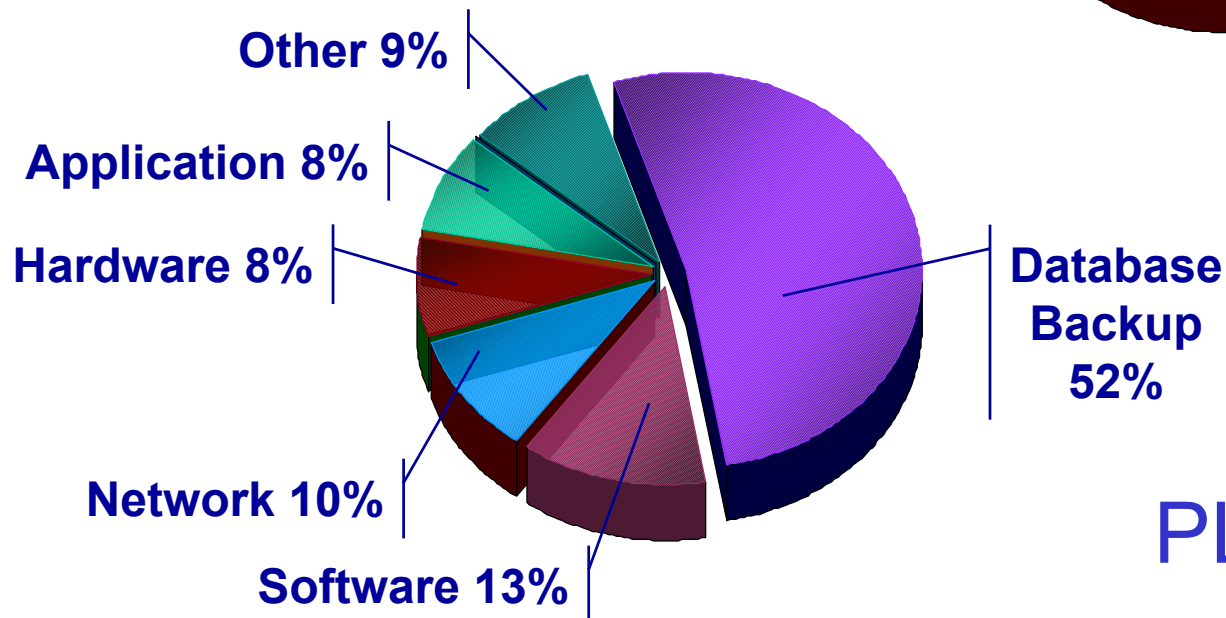
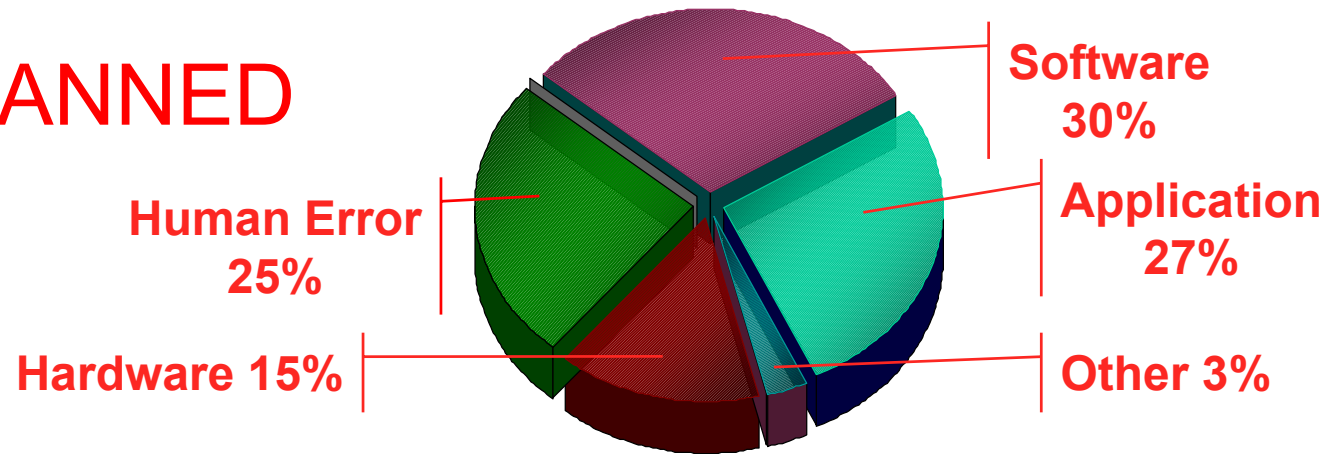


What Interrupts Your Business?



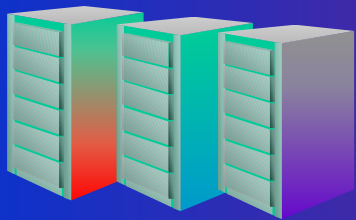
What Interrupts Your Business?

UNPLANNED



PLANNED

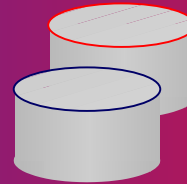
Fragmented Approach



Systems?



Networks?



Storage?



Applications?

A Discrete but Interrelated Set of Contributors to Downtime

Network
&
Systems
Mgmt
(NSM)

Storage
Mgmt

Two-Node
Failover
Clustering

Problems with Today's NSM

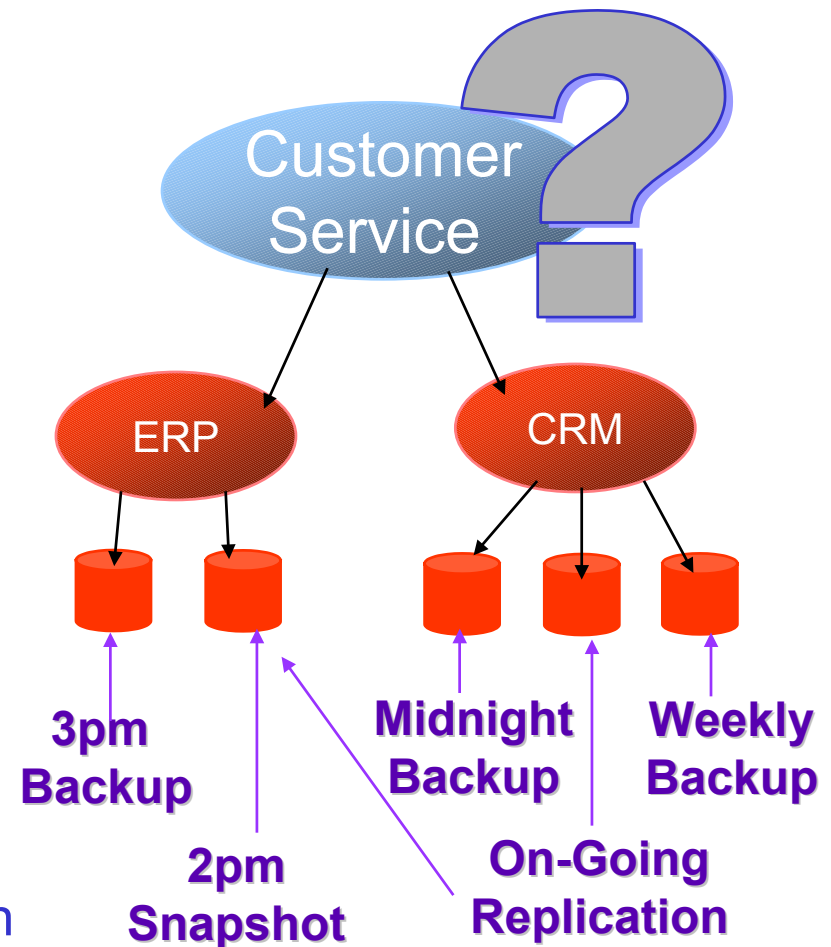
- NMS "Solutions" Today

- Passive Monitoring Consoles
- Little Built-In Application-Specific Knowledge
- No Effective Automation
 - ~95% of Automation is Event Notification
 - Waits for Manual Intervention and Recovery
- Heavy Reliance on Custom Scripting
- Expensive to Deploy and Maintain
- No Automated Resource Recovery
- No Data Protection
- No Connection to Storage Management



Problems with Today's Storage Management

- Data Coherency, Consistency and Synchronicity Across a Business Process
- How do You Manage?
 - Do you back up all of the data at the same point-in-time?
 - If you're not, then how can you restart the business process?
 - Will different data sets have different information for the same customer? Order?
 - How do you coordinate recovery?
 - Are all components of your information protection coordinating their handling of data?



Problems with Today's Clustering: Why Wait for Failure?

- Failover
 - Only works when failures occur
 - Restarts applications on secondary servers
- Automation Gains More Benefits
 - Automatically manage resources
 - Based on Service Levels
 - According to business priority
 - To prevent and avoid failures BEFORE they happen
 - To minimize the impacts of unavoidable failures
 - To reduce the time required to manage resources

Failover Upon Failure

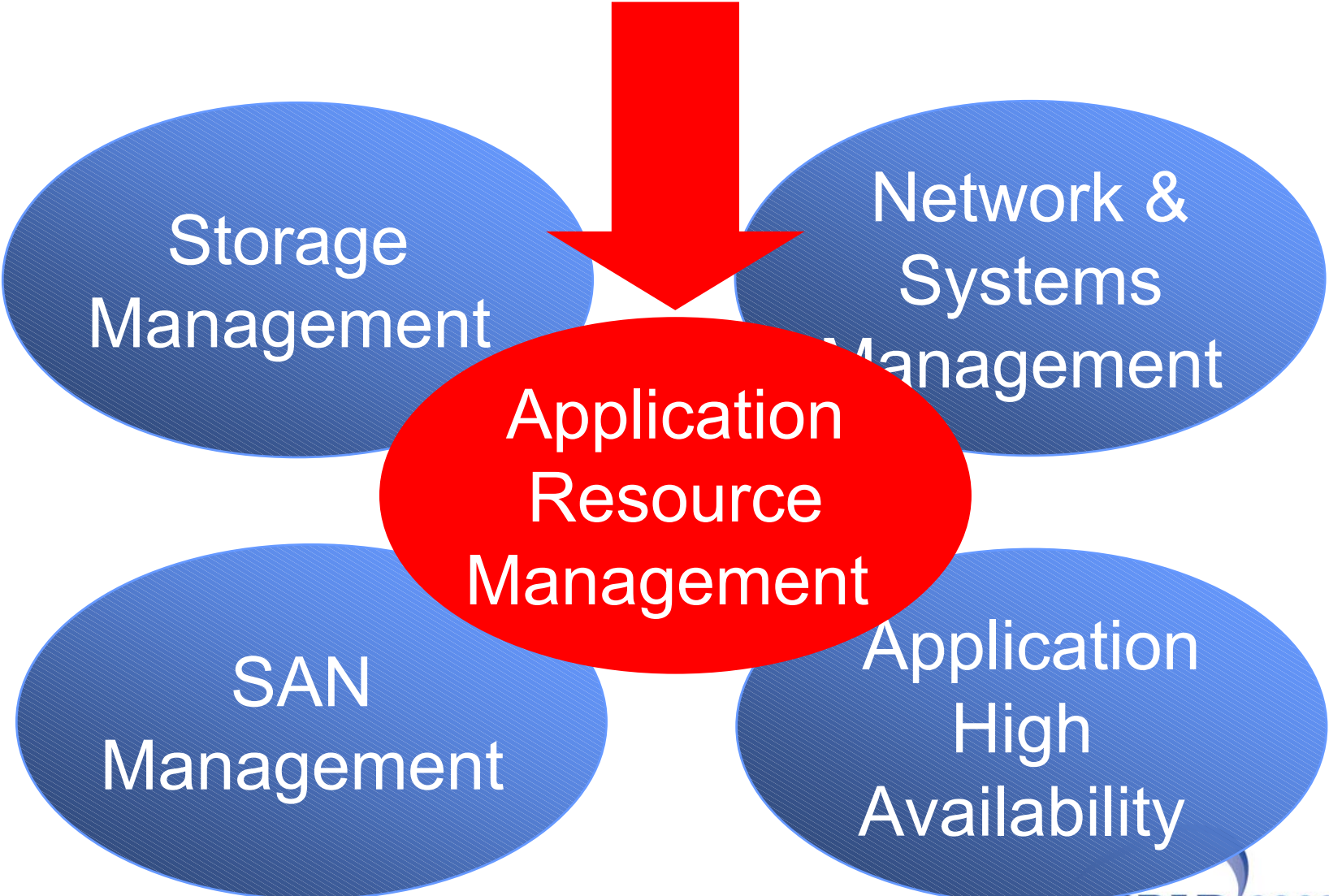


Automation Rules



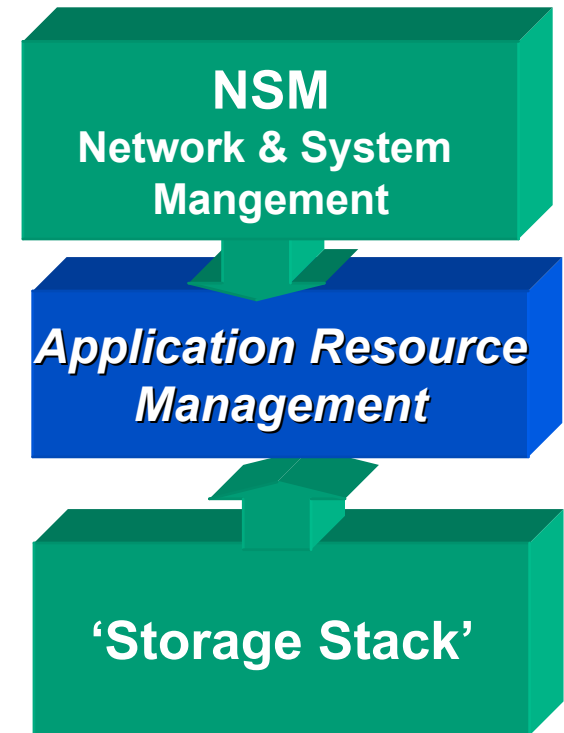
Business Process Infrastructure

The Missing Link



Advantages of Application Resource Management

- Built on HA Automation
 - Automated Failure Protection – No Custom Scripting Required
 - Automated Data Replication and Snapshot Management
 - Automated IP Address Management
 - Automated Applications-Specific Management
- Rapid Resource Recovery
 - Coordinated Across Applications, Systems, Networks and Data



Solution Requirements

$$X = (1/y) * C \quad A = (B^2) * D/L$$

A Quick Spec.

1. A Consistent approach across The application

4. Single Point of Management Without

2. Monitor

Monitor. Remedy. Proceed.

point

time,

service or business process

3. Highly Automated (Rules based)

6. Track Availability: Total, Planned and Unplanned

The Evolution of Availability

**Piecemeal
Failure
Recovery**

**Coordinated
Availability
Management**

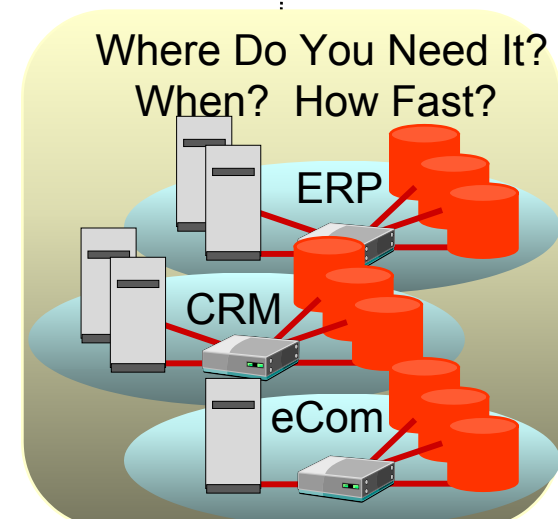
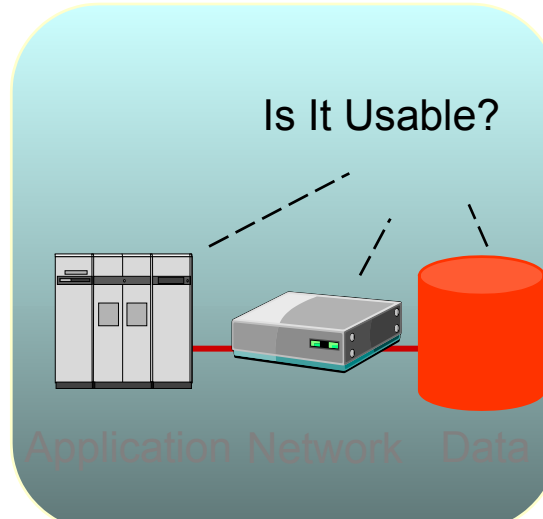
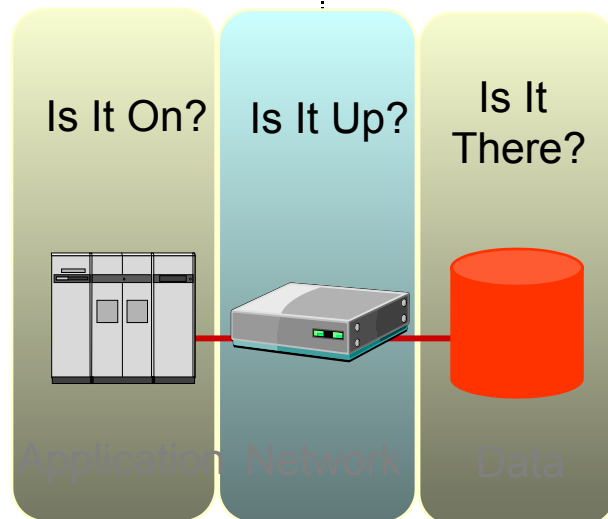
**Application
Resource
Management**

1980s

1990s

This Morning

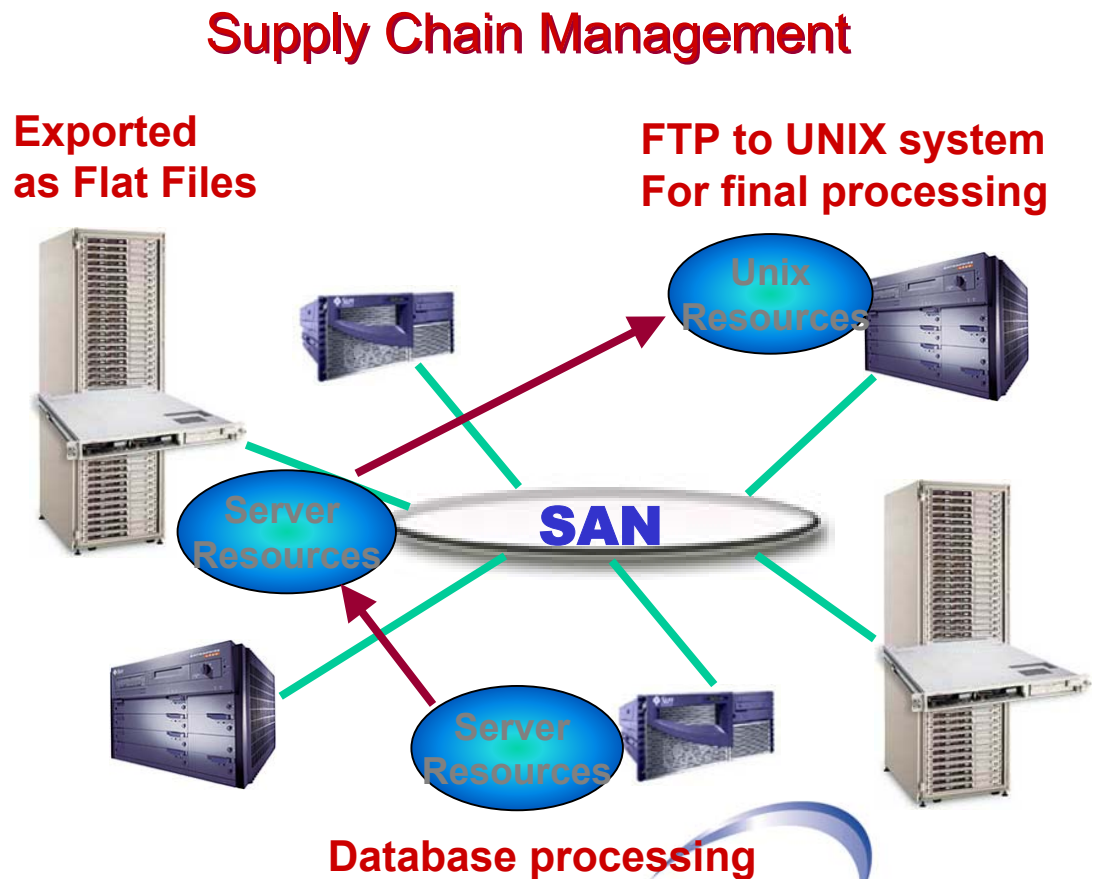
This Afternoon



Proof-Point: Large Micro-Chip Manufacturer

Increased Uptime for *business process*

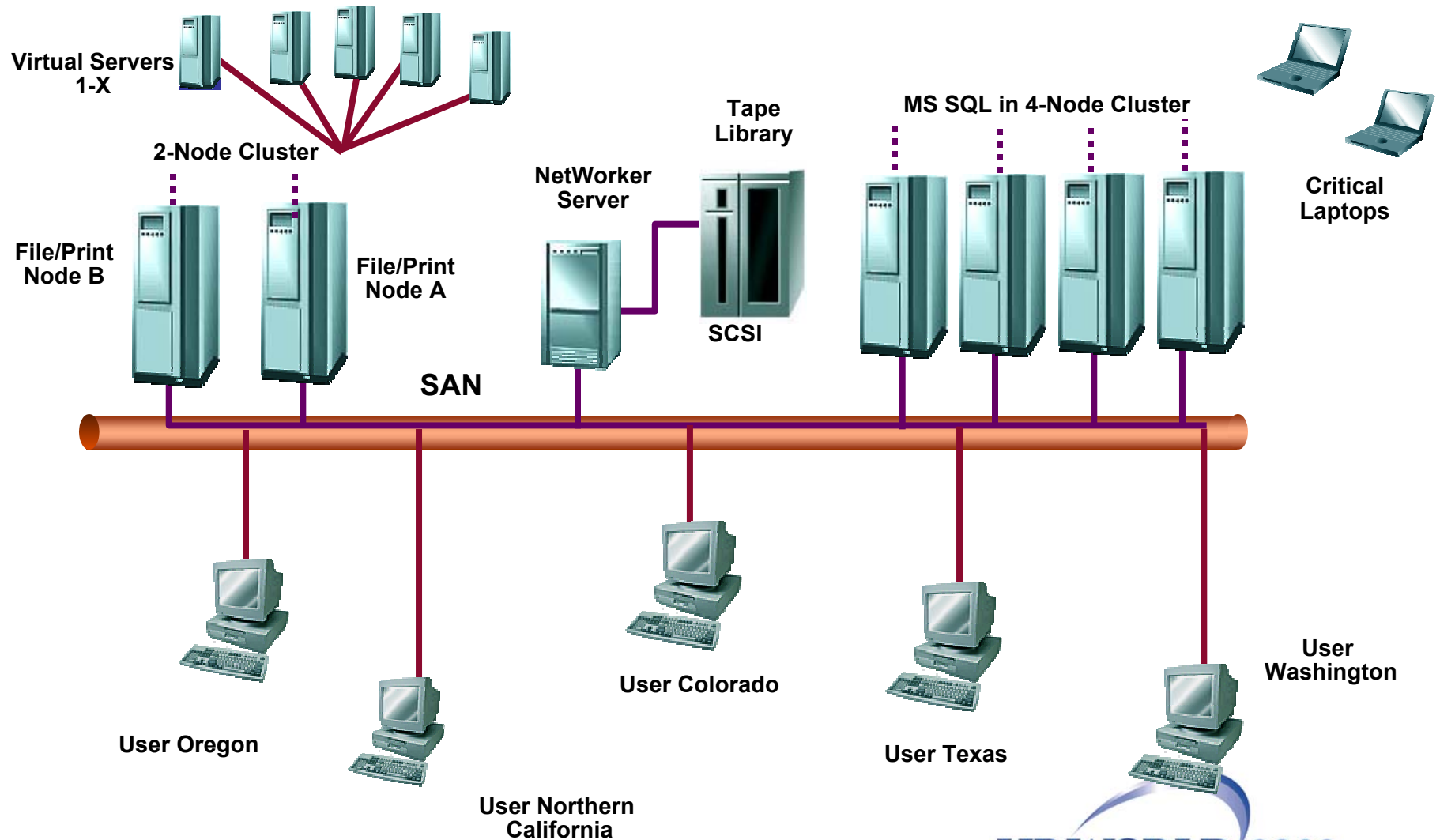
- Business process workflow often now spans:
 - Multiple applications
 - Multiple platforms
- Rules can monitor and automate this workflow consistently and reliably



Proof-Point: Large Micro-Chip Manufacturer ROI

- Reduced Management Cost of Supply Chain Management
 - Reassigned 16 System Administrators
 - Net Savings of \$1.8M USD per Year
- Increased Availability and Service Levels of All Applications
 - Installed Across 80 Servers
 - All Centrally Managed and Controlled
 - Automated to Ensure Data Coherency
 - Eliminated Downtime Impacts
 - No More Getting Out of Bed at Midnight
- *“Best investment a business can make!”*
Pete Lilianthal, Director IT

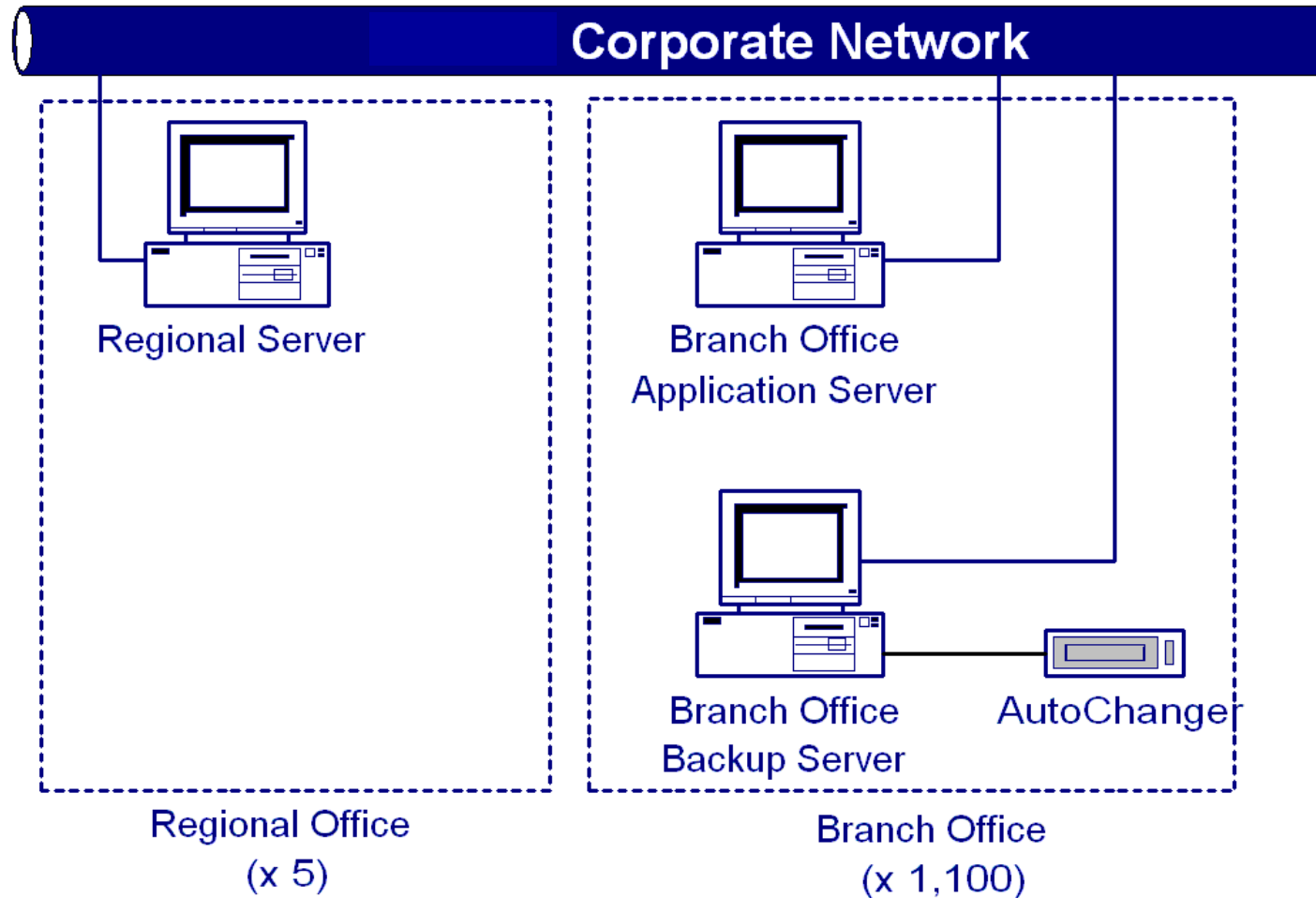
Proof-Point: Large Insurance Claims Handler



Proof-Point: Large Insurance Claims Handler ROI

- Customer's Claims Processed Without Interruption
 - Cost savings of millions of dollars for every 1/2 day of downtime
 - Customer Satisfaction Increased
- System Administration Time is Reduced
- Coordinated with NetWorker and Laptop to Meet HIPPA Regulations
- *“One of our servers blue-screened last week, and Legato AAM recovered it immediately. We didn't get a single customer complaint! Normally, I would have stayed the weekend to fix it.” Joshua Ryan, System Admin*

Proof-Point: Large Print Services Branch Office Business



Proof-Point: Large Print Services Branch Office Business ROI

**Eliminate Need for IT Branch Office Resources
Achieved Protection of Customer Data
for Each Branch Office**

Weekly Retention Period

Fully Automated Backup/Recovery and Verification Reporting

Centralized Control from Regional Data Centers

Automated Site Installation and Configuration

Achieved Backup Server Availability

What Can You Achieve?

- Increase Productivity
 - Increased availability of supporting applications and data resources
 - Elimination of human error
 - Handling and minimization of all events causing downtime
- Gain Rapid Resumption of Business
 - Manages Data and Application Resumption
 - Uses Data Snapshot and Replicas for Ultra-Fast Recovery
 - Coordinates Protection and Recovery of Inter-Related Applications and Data, for Ensured Business Process Continuance
 - Enables Policy-Management, Service-Level Prioritization, and Resource Allocation by Business Process
- Reduce Overall Total Cost of Ownership (TCO)
 - Automation of Data Management, Including Auto Provisioning and Data Movement
 - Automation of Applications Management, Including Applications-Specific Knowledge Base for Key Tasks and Recovery

Lowering TCO	1999	2002
Headcount reduction	80	64
Net difference		16
Average annual loaded rate per employee - \$120K/yr X 16 =		\$1.8M Per yr.

Thank You!

