

SCO FORUM

THE LEGEND CONTINUES

2005



H.A. Clusters™ for SCO from



LAKEVIEW TECHNOLOGY

SCO GROWS YOUR BUSINESS



Working Together



How High Availability Will Protect Customer Environments, and Add Value to Your Sale



LAKEVIEW
TECHNOLOGY



SCO®

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Agenda

- Who is Lakeview Technology?
- How High Availability benefits users, and creates demand for partner value added products and services?
- Why market High Availability?



Introduction



LAKEVIEW
TECHNOLOGY

Rick McNees

Vice President Marketing
& Business Development

Headquarters: Oak Brook Terrace, IL

Worldwide Offices:

Rochester, MN **Burlington, MA**
Waltham, MA **Leuven, Belgium**
Hong Kong, SAR China





Established Market Leader

- Founded in 1990
- Global organization
- Leader in availability solutions
- 3000+ customers worldwide



Financial Strength and Stability



Fifteen Years of....

- Continuous Innovation
- Operational Excellence
- Consistent Profitability
- Financial Stability - Strong Revenue Growth, Zero Debt



Availability Is Our Business



We offer:

High Availability & Disaster Recovery Solutions

Information Sharing Solutions

Network Optimization Solutions

Consulting & Training Services



Infrastructure Software
for the Information Enterprise



Availability Market Leader



Customers Worldwide

Across all industries

Across leading applications

Across all geographies

70 countries

200 major business centers

Across all company sizes

– SMB to Enterprise



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Key Information Availability Concepts



High Availability

Generally regarded as greater than 99.9% uptime per year
(.1% downtime from all causes, planned or unplanned)

Recovery Time Objective (RTO)

The maximum length of time your business can tolerate
applications or servers being unavailable (down)

Recovery Point Objective (RPO)

The maximum acceptable data loss resulting from a
downtime event, expressed as a quantity of transactions or
as a point in time. A 'roll-back' point

Cost of Downtime

Tangible and intangible costs associated with data loss and system / application unavailability.

Consider the True Total Costs of Downtime:

- **Lost revenues**
- **Idled employees**
- **IT employee productivity loss**
- **Lost or spoiled inventory, manufacturing process recovery/rebalancing**
- **Fines, fees and/or compensatory payments against SLAs and compliance obligations**
- **Sales and marketing efforts to recover revenues, lost customer loyalty, reputation and/or goodwill**



How High is High?



Compare:

Fault Tolerant

Minimum of 99.999% uptime
= 5 minutes/year downtime

High Availability

Minimum of 99.9% uptime
= 8.7 hours/year downtime

Conventional "Reliable" System:

99% uptime = 87 Hours (3.5 days)/year expected downtime



About Clustering



Cluster: A collection of interconnected servers

- Cooperating independent systems ('Nodes')
- Loosely coupled, mutual monitoring of operational status
- Appear to users as a single system
- Shared data / Partitioned data

Failover: Automated switching of application processing from a failed server to its alternate server within the cluster

Key Clustering Solution Requirements: Speed/accuracy of fault recognition, speed and transparency of failover

Who Needs High Availability Clustering?



High Availability Clustering is for any business that relies upon its information systems for continuous operations

High Availability Clustering is protection against downtime for:

- Database Servers
- Data Mart/Data Warehouse Servers
- Business Critical Application Servers
- Intranet Web-Application Servers
- Corporate Internet Web Servers



Value of High-Availability Clustering



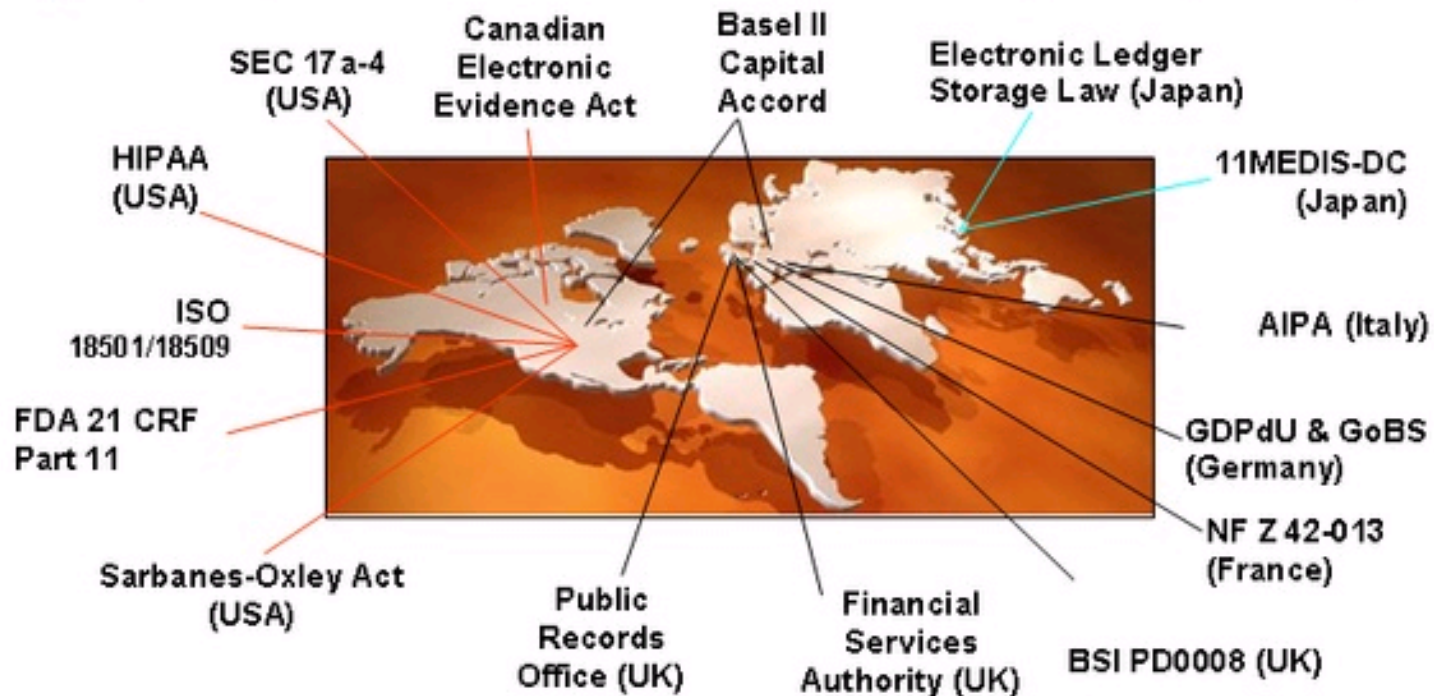
Protect Your Business Against Downtime

- Eliminate Unplanned Downtime
 - Instantly fail over when server goes down due to:
 - Hardware or software failure
 - Human error
- Reduce Planned Downtime
 - Switch workload to another node to minimize application downtime
 - Scheduled maintenance
 - Hardware upgrades and replacement
 - Software upgrades and fixes

Value of High-Availability Clustering



High Availability Clustering helps achieve compliance for HIPAA, Sarbanes-Oxley, Basel II, 21 CFR Part 11, etc.



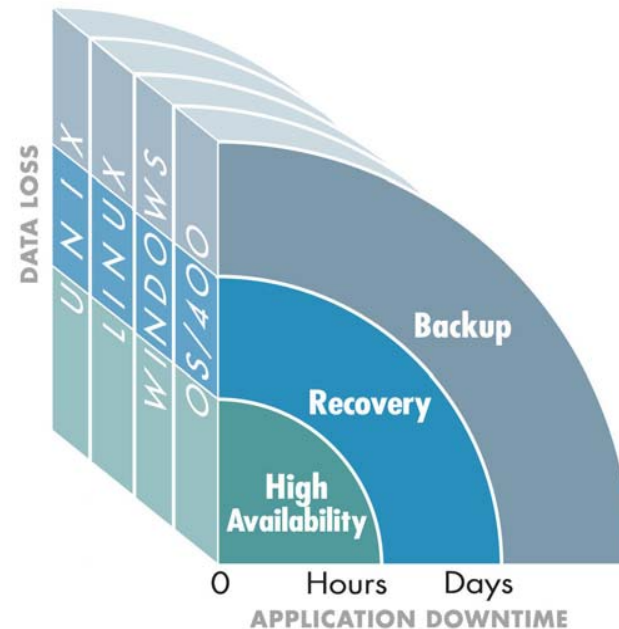


Announcing H.A. Clusters for SCO OpenServer 6



And Continued Support for:
Open Server 5.0.0 / 5.0.5
Unix Ware 7.1.4 & 7.1.3

Availability Solutions



Information Availability Solutions for SCO



H.A. Clusters provides:

- High-Availability

- For automatic failover of applications / services in cases of failure
- For controlled, transparent switching to alternate node(s) for planned events

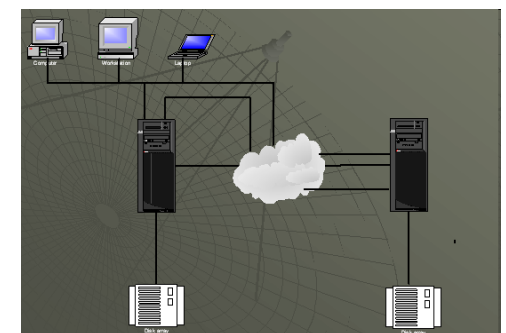
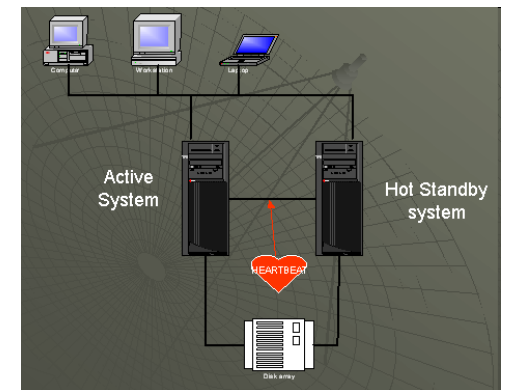
- High-Performance

- Achieve workload distribution / parallelism



H.A. Clusters High Availability Clustering for SCO OpenServer & Unix Ware

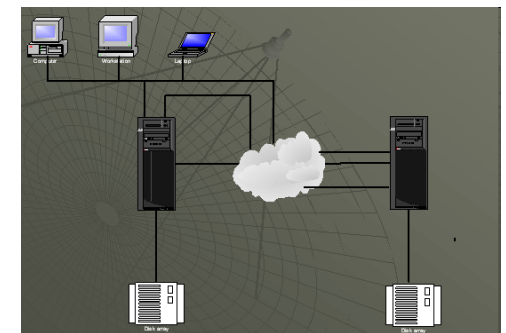
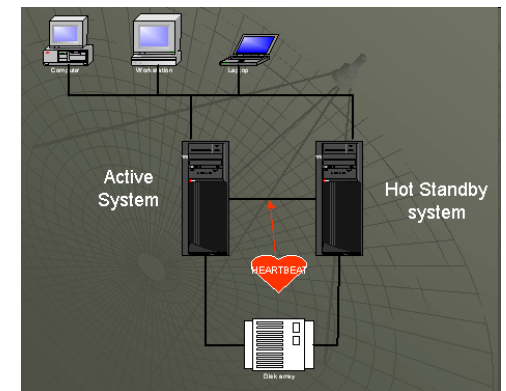
- Achieving 99.999 % uptime
- Fastest HA Cluster: Systems failure detection in as little as fraction of a second!
- Fastest Restore Time: 2 Seconds ← → 2 Minutes
- Shared Disk or Replicated Disk support for data redundancy
- Redundant Ethernet network heartbeat support



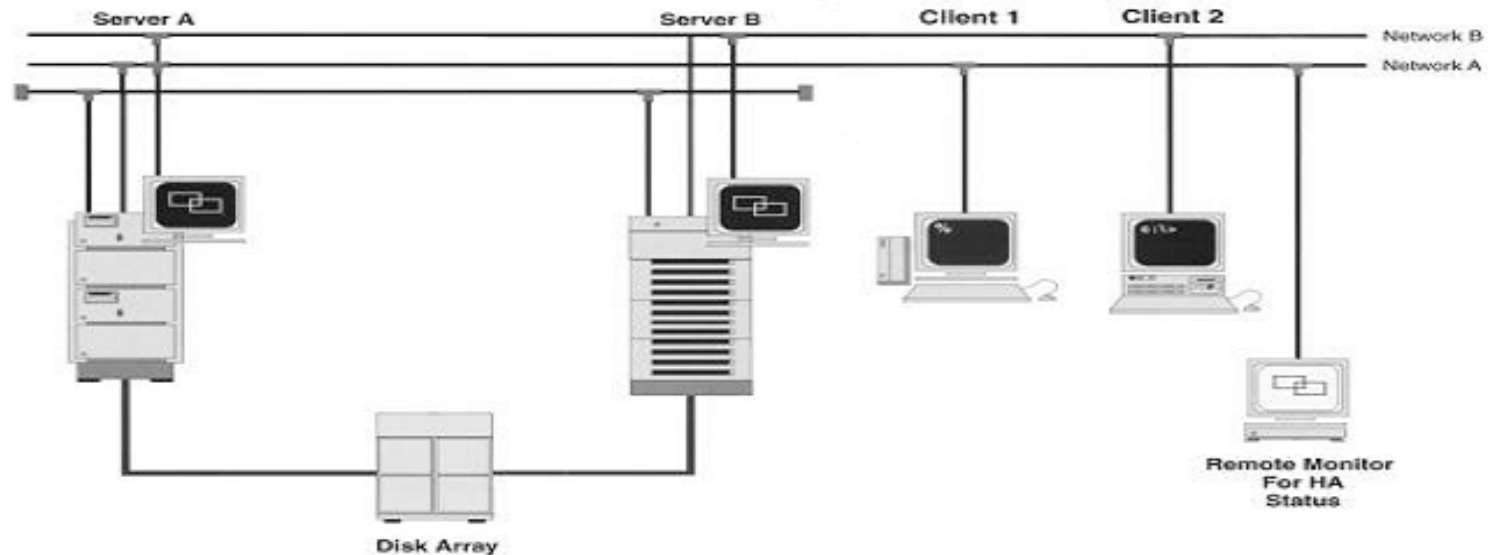


H.A. Clusters High Availability Clustering for SCO OpenServer & Unix Ware

- Programmable API for application diagnostic support
- GUI management screens with local or remote browser support
- Supports most applications and/or databases
- Up to 4 servers in a cluster with up to 5 jobs/applications per server

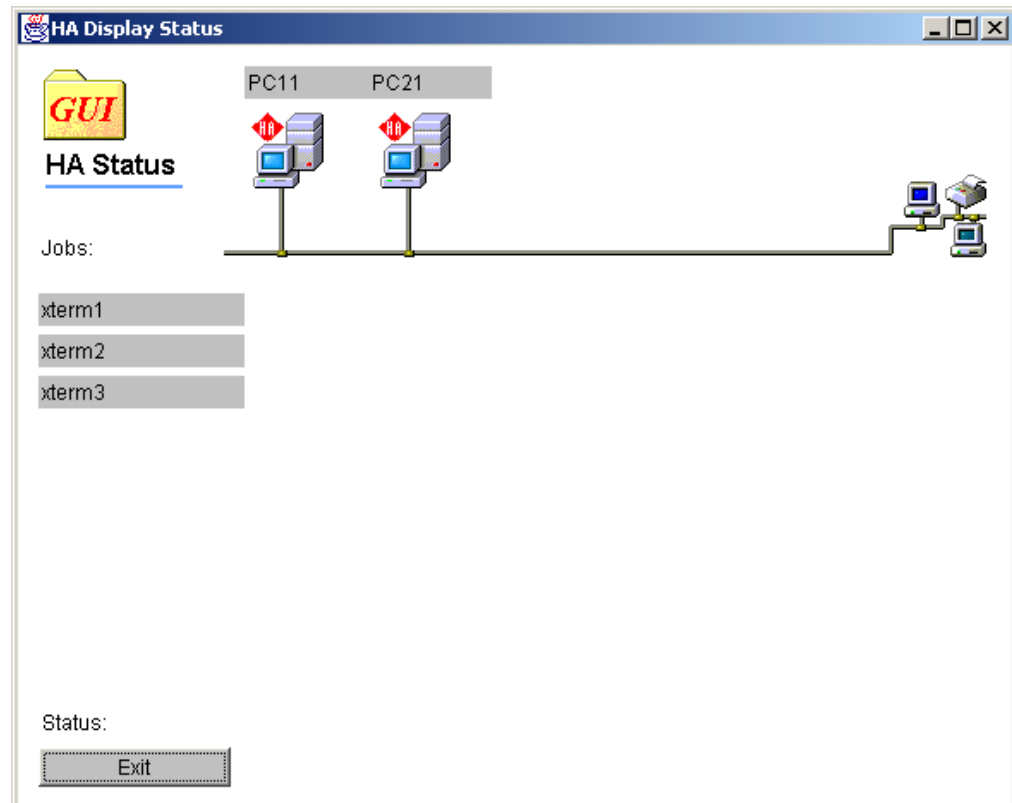
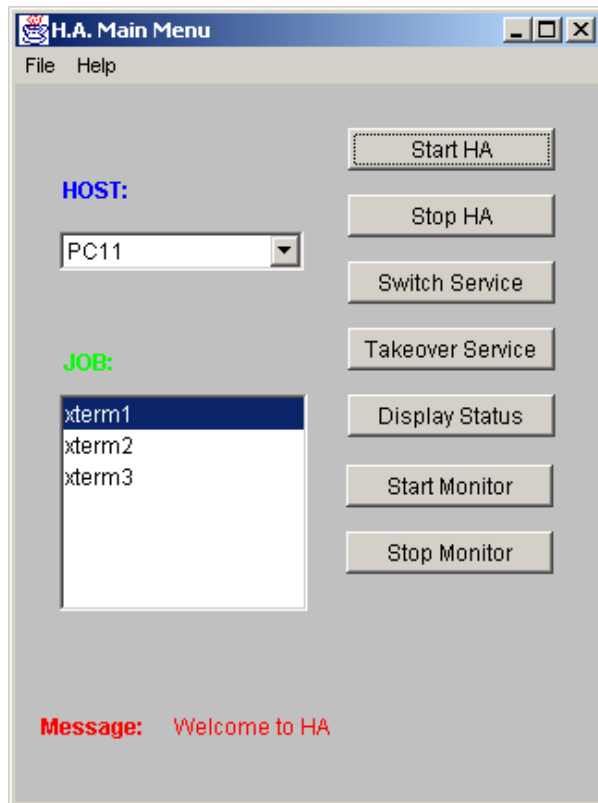


Easy, Straightforward Configuration



- A disk array attached to both servers so that data is available even when a job is failed over to another server.
- A heartbeat connection for H.A. Clusters to monitor both servers so that;
 - Server B can function as a standby or backup for server A or,
 - Server A can function as a standby or backup for server B or,
 - Each of the two servers can function as a standby server for the other server.

Intuitive, Direct Administrative Control



Web-Accessible and xWindow Interfaces



The screenshot shows a Microsoft Internet Explorer browser window titled "H.A. Web Monitor - Control Center". The address bar shows the URL "http://172.16.0.16:8015/control.html". The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The toolbar contains Back, Forward, Stop, Refresh, Home, Search, Favorites, History, Mail, and Print buttons. The main content area is titled "HA Status" and features a "Welcome to H.A. Control Center" banner. Below the banner is a diagram of a network topology with two server racks and two desktop computers. The interface is divided into three sections: "Job Status" with a list of job names (xterm1 through xterm5), "Node Status" with details for two nodes (fox-ha-technical-solution and asl-ha-technical-solution), and a control panel with buttons for "Start HA", "Stop HA", "Switch Service", and "Takeover Service". The status panel also includes dropdown menus for selecting a job name.

HA Status

Welcome to H.A. Control Center

Job Status

Job name: xterm1
Job name: xterm2
Job name: xterm3
Job name: xterm4
Job name: xterm5

Node Status

Node name: fox-ha-technical-solution Status: D: Heart beat: Down Disk: Down
Node name: asl-ha-technical-solution Status: D: Heart beat: Down Disk: Down

Start HA

Stop HA

xterm1 Switch Service

xterm1 Takeover Service

Working Together



How High Availability Will Protect Customer Environments, and Add Value to Your Sale



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Information Availability Solutions for SCO



Market Presence: Nearing sales of 1,000 Licenses for H.A. Clusters for SCO O/S

Industries: Banking / Healthcare Financial Services / Government Manufacturing / Distribution Retail / Hospitality & Gaming

Business Scale: SMB – Mid-Market – Enterprise Offerings



New Relationship, New Opportunities



Provide HA Cluster based solutions

- Leverage current market wave
- Differentiate your solution offering
- Gain competitive advantage
- Incremental revenue per sale
- Sell value added services
- Up-sell, cross-sell existing installed base
- Open up new markets

Working Together



Partnering for Success



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Client: County of York, PA

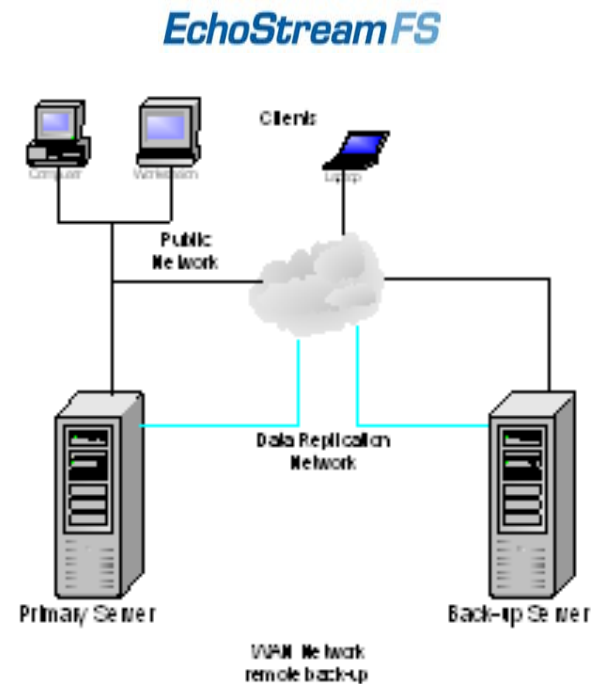
Business Need: Data Replication, Disaster Recovery & High Availability for County Government Information

Solution Profile:

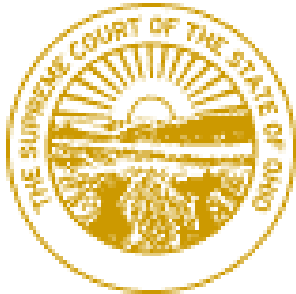
SCO: Unix Ware & Open Server

Lakeview: H.A. Clusters & EchoStream FS

SCO Reseller:



Information Availability Solutions for SCO



Client: Ohio Court System

Business Need: Protect Critical Court Records with a Replication Based

High Availability & Disaster Recovery solution in the event of a Server Outage or Loss.

Solution Profile:

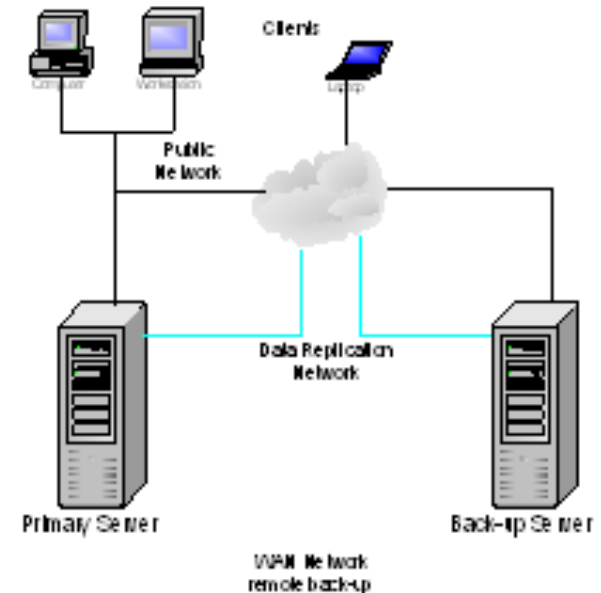
SCO: Unix Ware & Open Server

Lakeview: H.A. Clusters & EchoStream FS

SCO Reseller:



EchoStream FS



Information Availability Solutions for SCO



KFCC Bank

Client: KFCC Bank
(1300 locations)

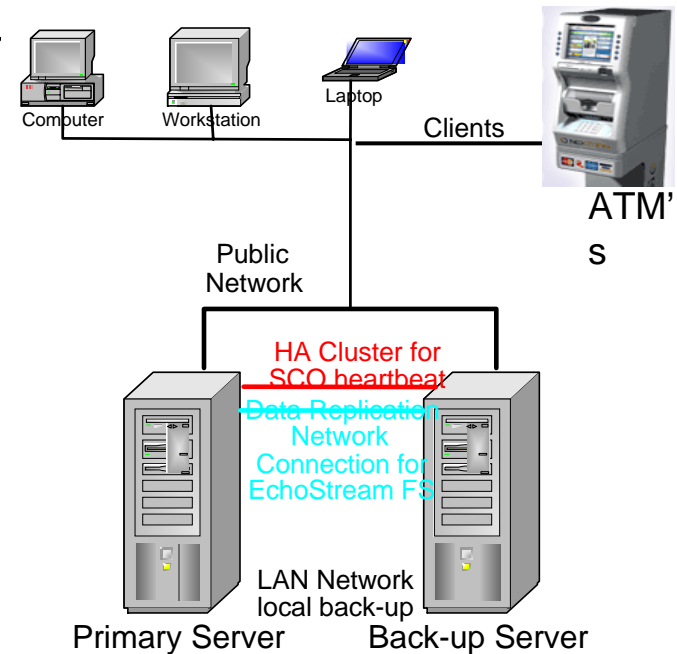
Business Need: Enable 24x7 highly available ATM & Internet account access across 1,300 locations and provide data protection, redundancy & Disaster Recovery.

Solution Profile:

SCO: Open Server

Lakeview: H.A. Clusters & EchoStream FS

EchoStream FS



H.A. Clusters for SCO



Thank You !



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