



7 Kasım 2012 - Çırağan Palace Kempinski

IBM Connected 2012 Istanbul

Learn. Collaborate. Innovate.

Esnek ve Yönetilebilir Veri Depolamaya Geçiş

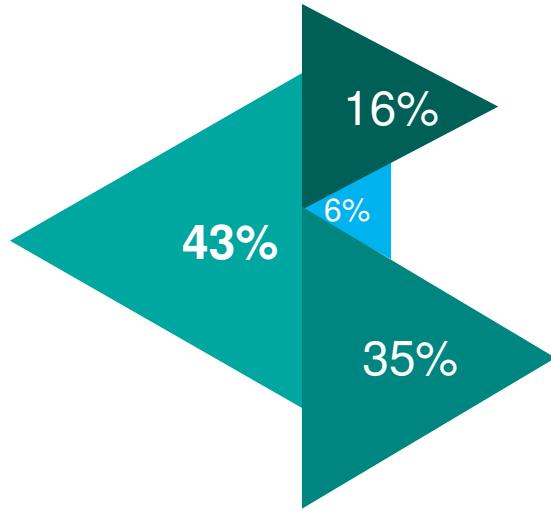
Alpay Ozer

Veri Depolama Satış Müdürü, IBM



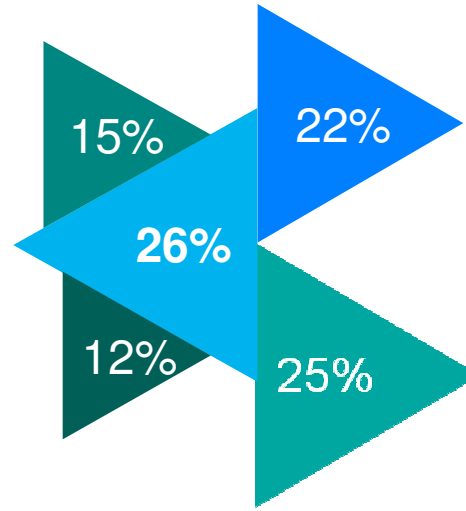
Yüz yüze 3,000 CIO ile yapılan araştırmanın analizi

71 ülke



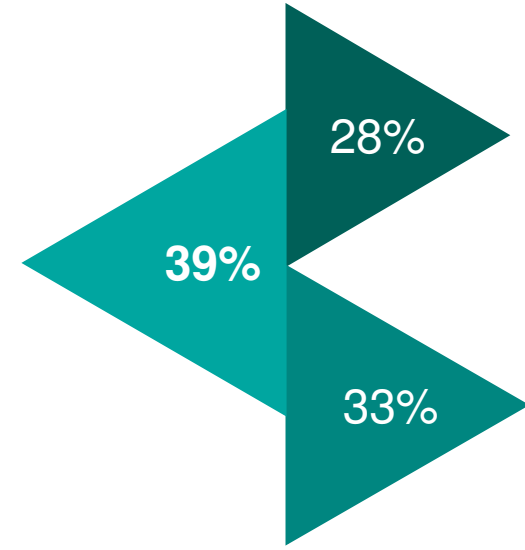
- ▲ 6% Japan
- ▲ 16% North America
- ▲ 35% Europe
- ▲ 43% Growth markets

18 Endüstri



- ▲ 12% Communications
- ▲ 15% Public
- ▲ 22% Financial Services
- ▲ 25% Industrial
- ▲ 26% Distribution

Şirket Büyüklükleri

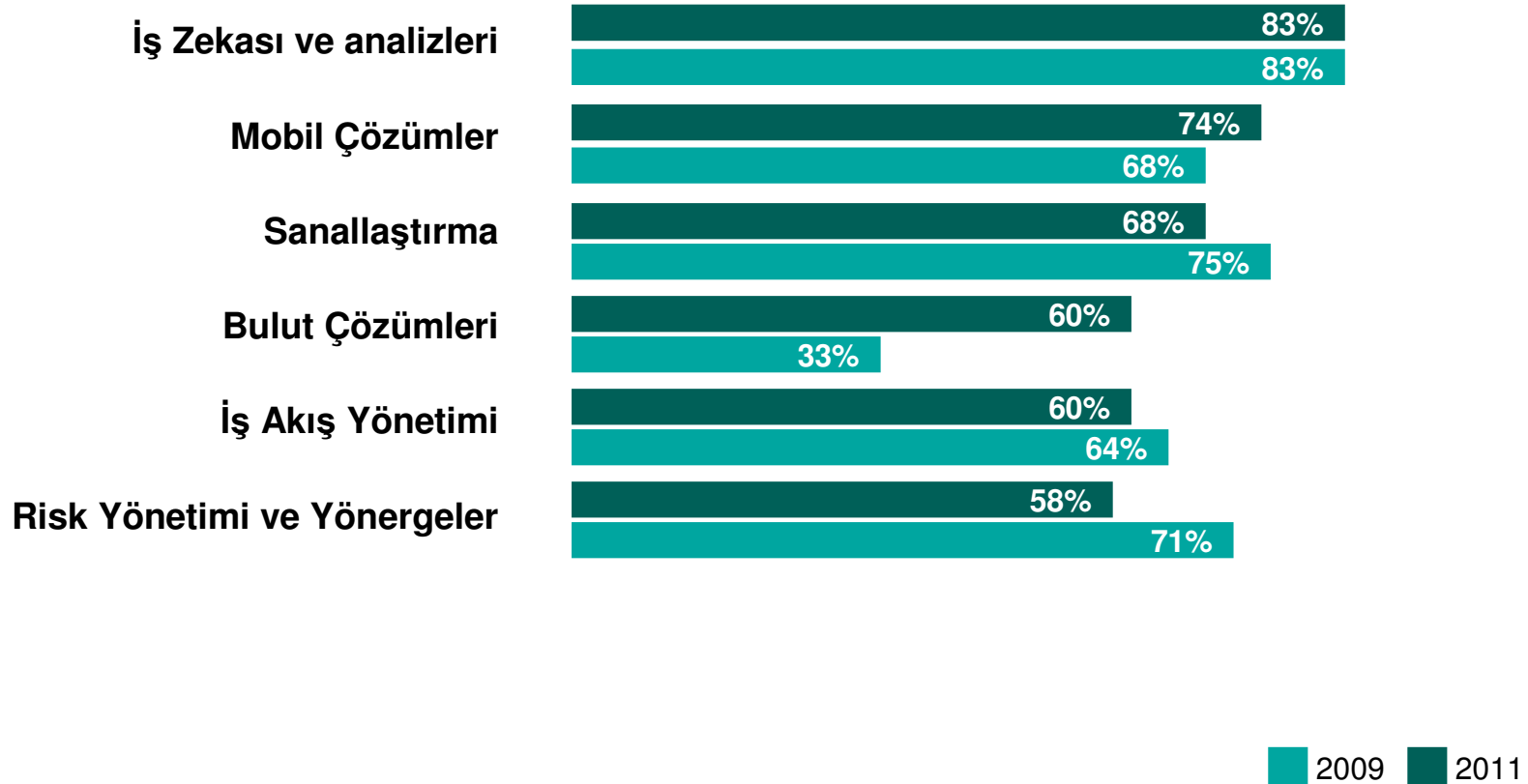


- ▲ 28% <1,000 employees
- ▲ 33% >10,000 employees
- ▲ 39% 1,000 to 10,000 employees

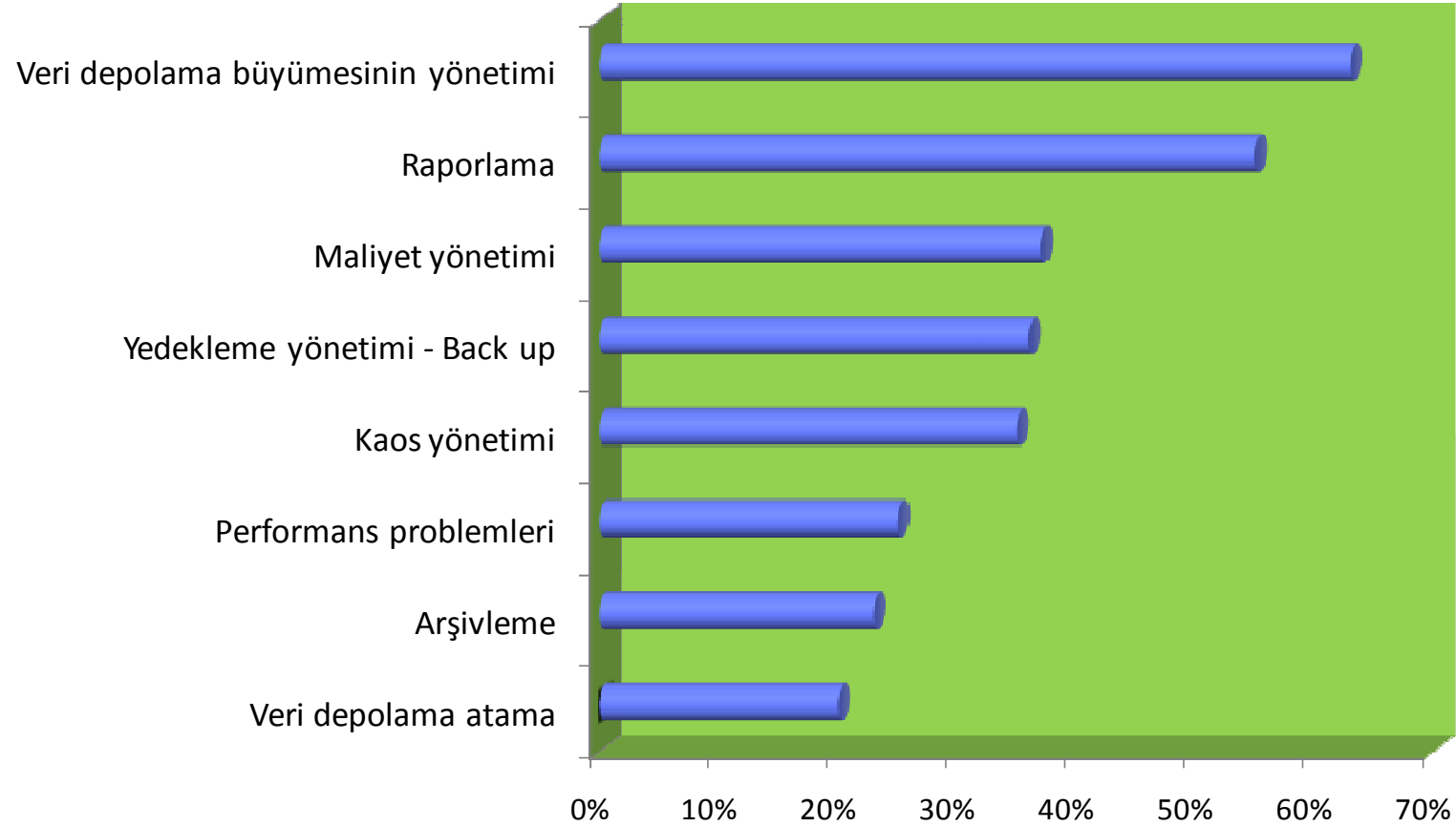
Note: Growth Markets include Latin America, Asia Pacific (excluding Japan), Central and Eastern Europe, Middle East and Africa

Yüz yüze 3,000 CIO ile yapılan araştırmanın analizi

En Önemli Gelecek Planları



Veri depolama yöneticilerinin gördüğü zorluklar



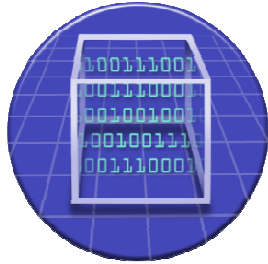
Müşterilerimizin Yaşadığı Zorluklar

- Maliyetlerin artması
- Disk altyapısının yönetim ve kullanım zorlukları
- Yeni donanımların devreye alınma süresinin uzun olması ve zorlukları (*Eski donanımların devreden çıkarılma süresinin uzun olması ve zorlukları*)
- Kapasite planlamasının zorlukları

Katmanlar – Kullanılan Sistemler

- Production
- Test ve Geliştirme
- Arşiv
- Yedekleme

Önerilen Yöntemler



Mevcut Ortam ile Daha Fazla Veri Depolama

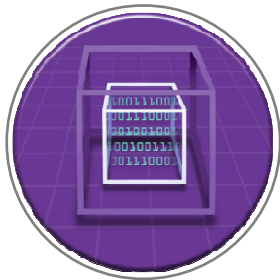
- Disk Sanallaştırma
- Thin Provisioning



Verinin Doğru Katmanda Tutulması

SANALLAŞTIRMA

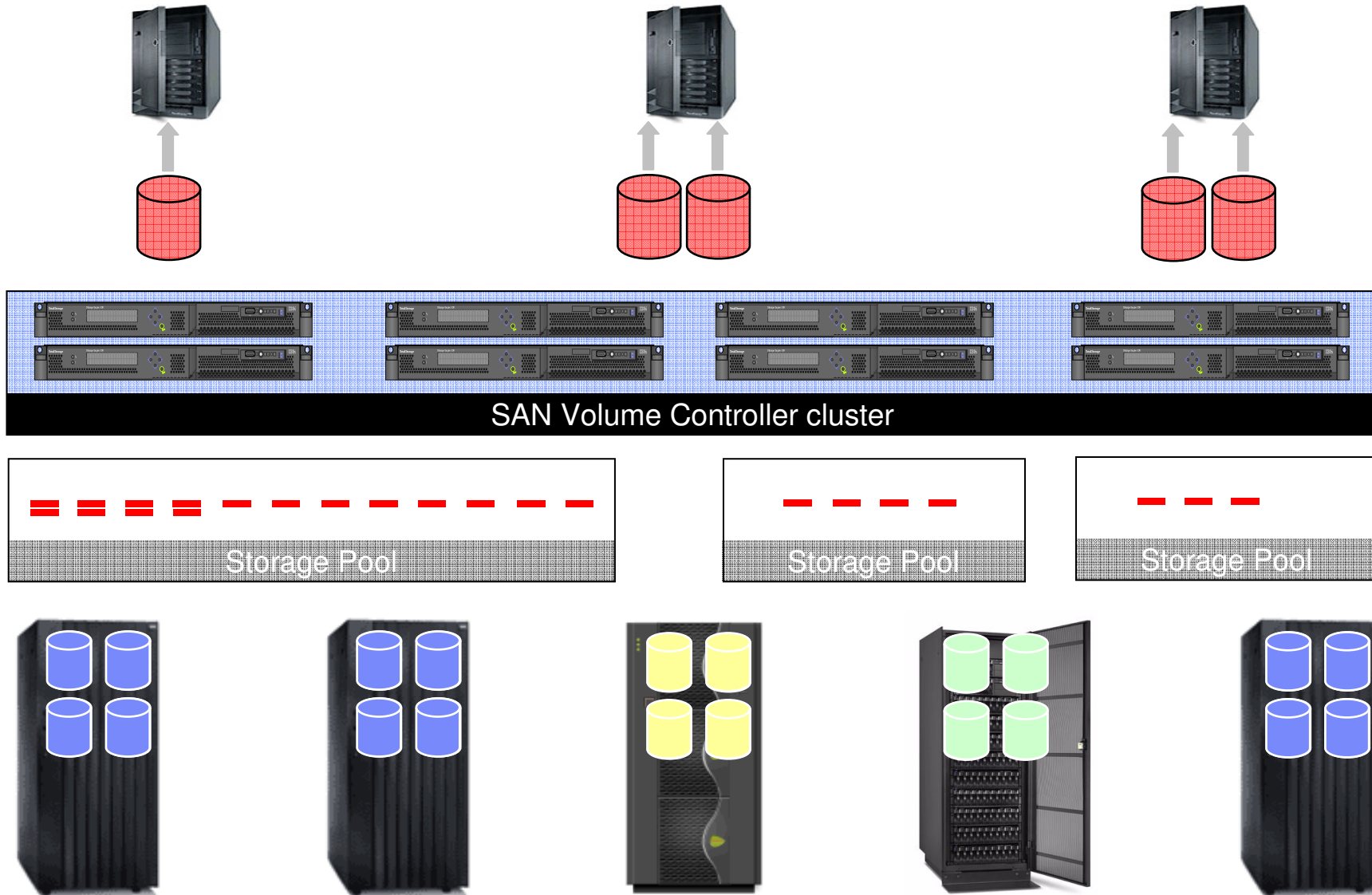
- Sanal Makinalar
- Otomatik Veri taşıma



Depolama alanlarının azaltılması

- Veri Sıkıştırma
- Veri Tekilleştirme

IBM SAN Volume Controller



DS8870 system characteristics

- P7 processor upgrade (cost and performance)
 - JupiterIOC
 - 3.55Ghz processor cores
 - 4 core modules for 2,4 and 8-way configs, 8 core module for 16-way configs.
 - 16GB – 1TB system memory (8GB to 512GB per CEC)
 - Industry Standard DDR3 memory
 - P7IOC GX++ 3 port PCIe adapter (Sturgis)
 - Single port PCIe adapter (Hardy)
 - I2C CEC to RPC adapter (Smallwood / Elowsky)
 - CEC to RPC Serial adapter (Gagnon)
- Power system upgrade (cost and efficiency)
 - Redesigned Rack power control card (Wagar)
 - Energy Star power reporting
 - Difference in phase loss management
 - Not actual power supply. Provides full wave rectified power.
 - Extending PLD ride through from 30ms to 4 seconds (actual will be up to 10 second)
- Storage enclosure (Gigapack) carries forward
- I/O Bay (Caisson) carries forward
- HA and DA Adapter cards carry forward.
- Max drives 1536 carry forward from DS8800

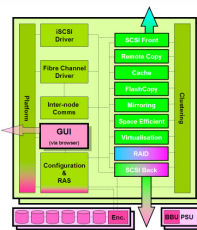


Storwize V7000



SVC:
▪ Sanallaştırma

IBM Storwize V7000



DS8000:
▪ RAID protection
▪ Easy Tier

XIV:
▪ Usability
▪ GUI design



Modular Scalability

Control Enclosures



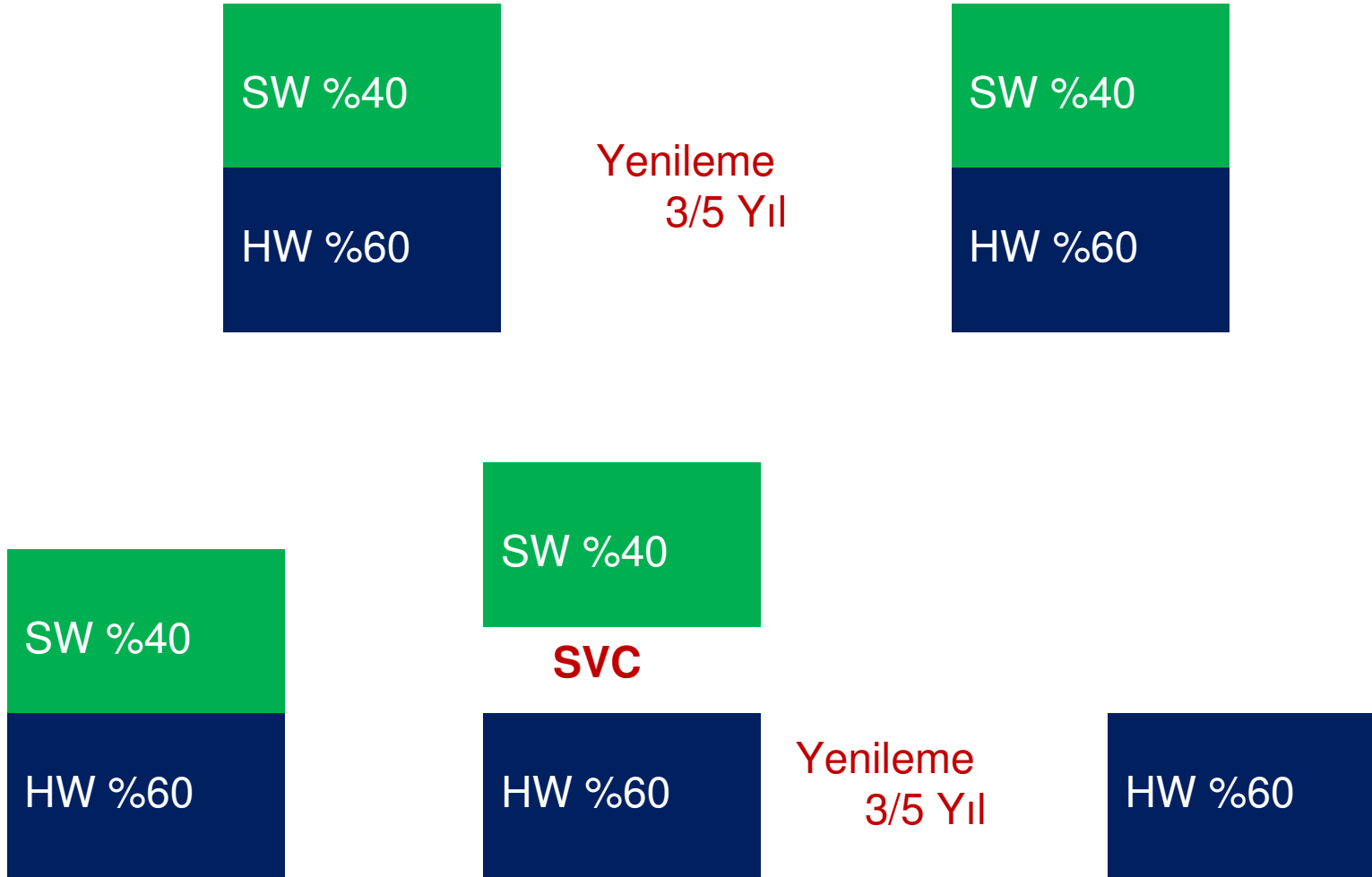
Expansion Enclosures



İlk satınalma maliyetlerinin azalması

Sistem Yenilemelerinde SW Yatırımı Tekrarlanmaz

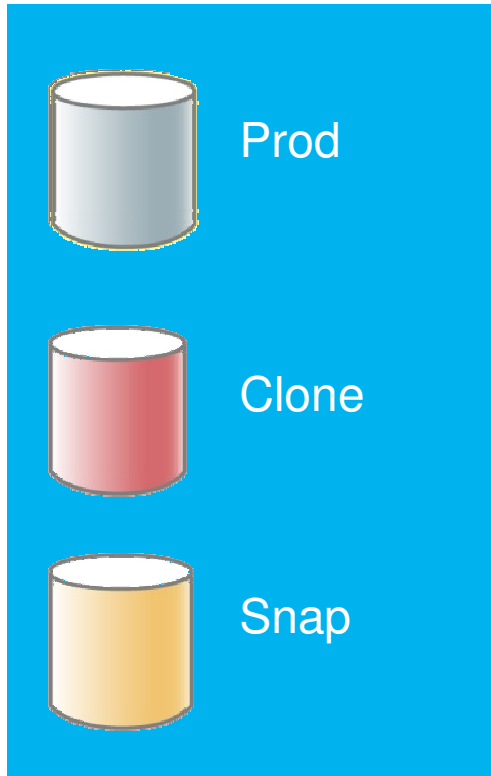
Geleneksel Yöntem



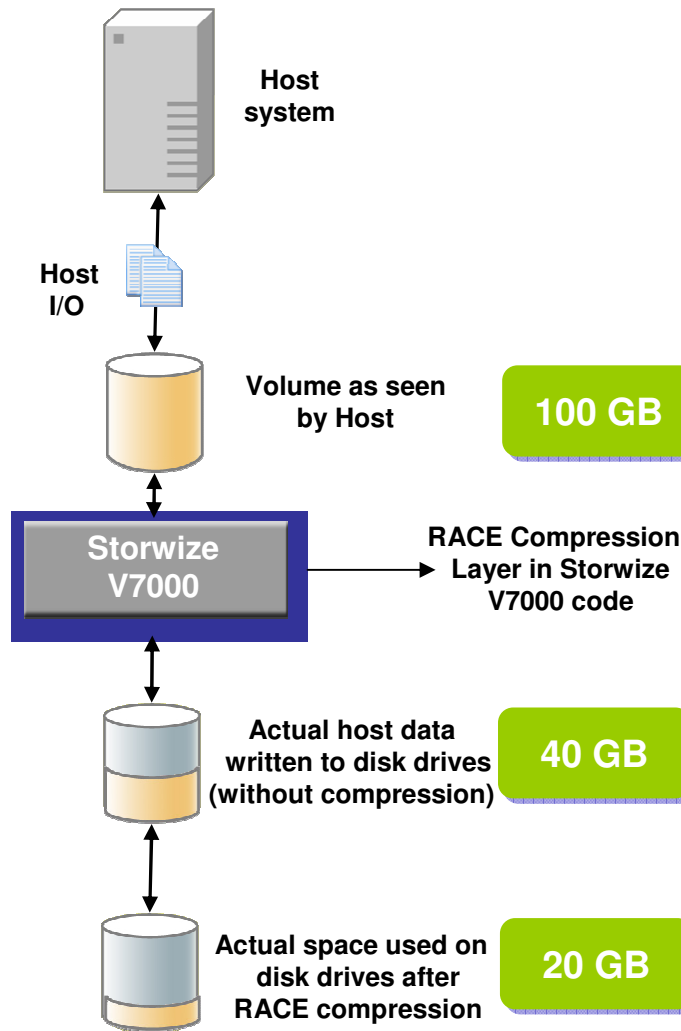
İlk satınalma maliyetlerinin azalması

Clone ve Snap kopyaları farklı sistemler üzerine alınabilir

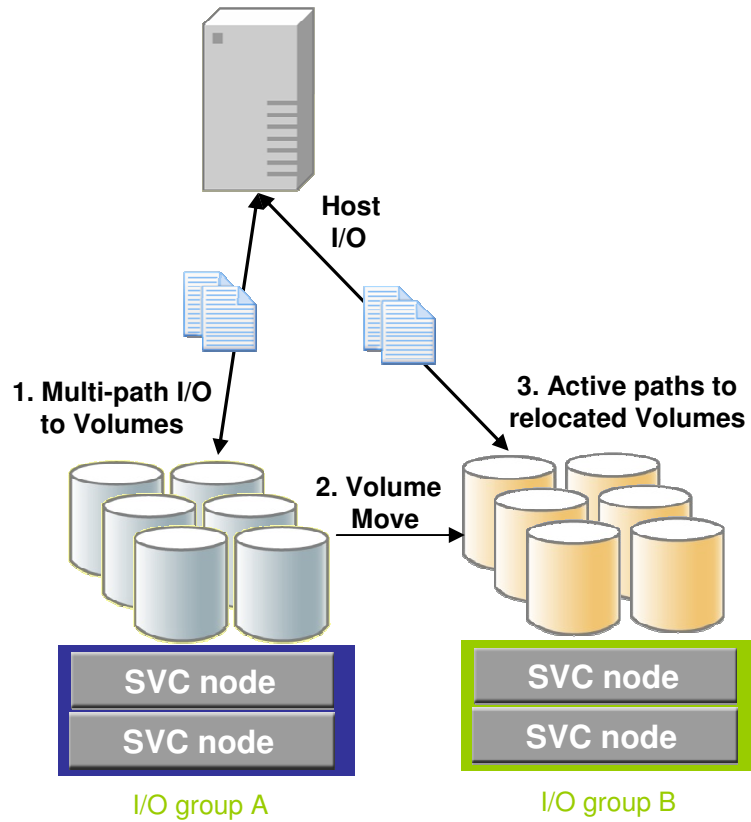
SVC



Sıkıştırma



Kesintisiz IO Grup deđiřimi



Toplam satınalma maliyetlerinin azalması

Kullanım kolaylığı

The screenshot displays the IBM SAN Volume Controller (SVC) web interface. The main navigation bar includes "Welcome, superuser" and links for "About", "Logout", "Help", and the "IBM" logo. The breadcrumb trail shows "SVC-72-73 > Home > Getting Started".

Suggested Tasks

The "Suggested Tasks" section features a workflow diagram with the following components:

- 4 Internal Drives and 2 External Storage Systems (grouped by a green bracket) pointing to 10 MDisks.
- 10 MDisks pointing to 5 Pools.
- 5 Pools pointing to 0 Volumes.
- 0 Volumes pointing to 0 Fibre-Channel Hosts (grouped by a green bracket).

Overview

Watch e-Learning: Welcome! The diagram represents icon in the diagram. For complete the task. To c icons in the left navigat

[Visit the Informa](#)

System Status

The "System Status" section shows a server rack with four I/O groups (io_grp0 to io_grp3). A tooltip indicates "Used Capacity 1.5 GB". The version is 72-73 (6.1.0.0).

Info VPD Manage

General	
Name	SVC-72
ID	1
Status	Online
Hardware	CF8
WWNN	500507680100A159
I/O Group	io_grp0 (0)

Redundancy	
Configuration Node	No
Failover Partner Node	SVC-73

iSCSI

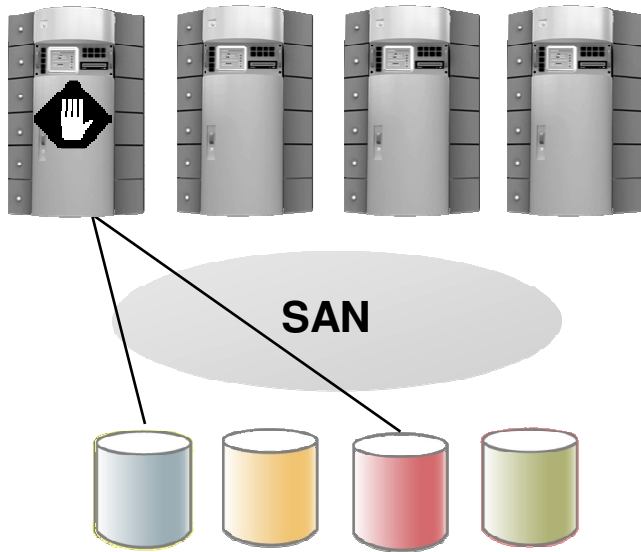
Connectivity

Toplam satınalma maliyetlerinin azalması

Kesintisiz Veri Taşıma

Geleneksel SAN

1. Durdur
2. Veriyi taşı
3. Bağlantıları tekrar yap
4. Uygulamayı Restart et



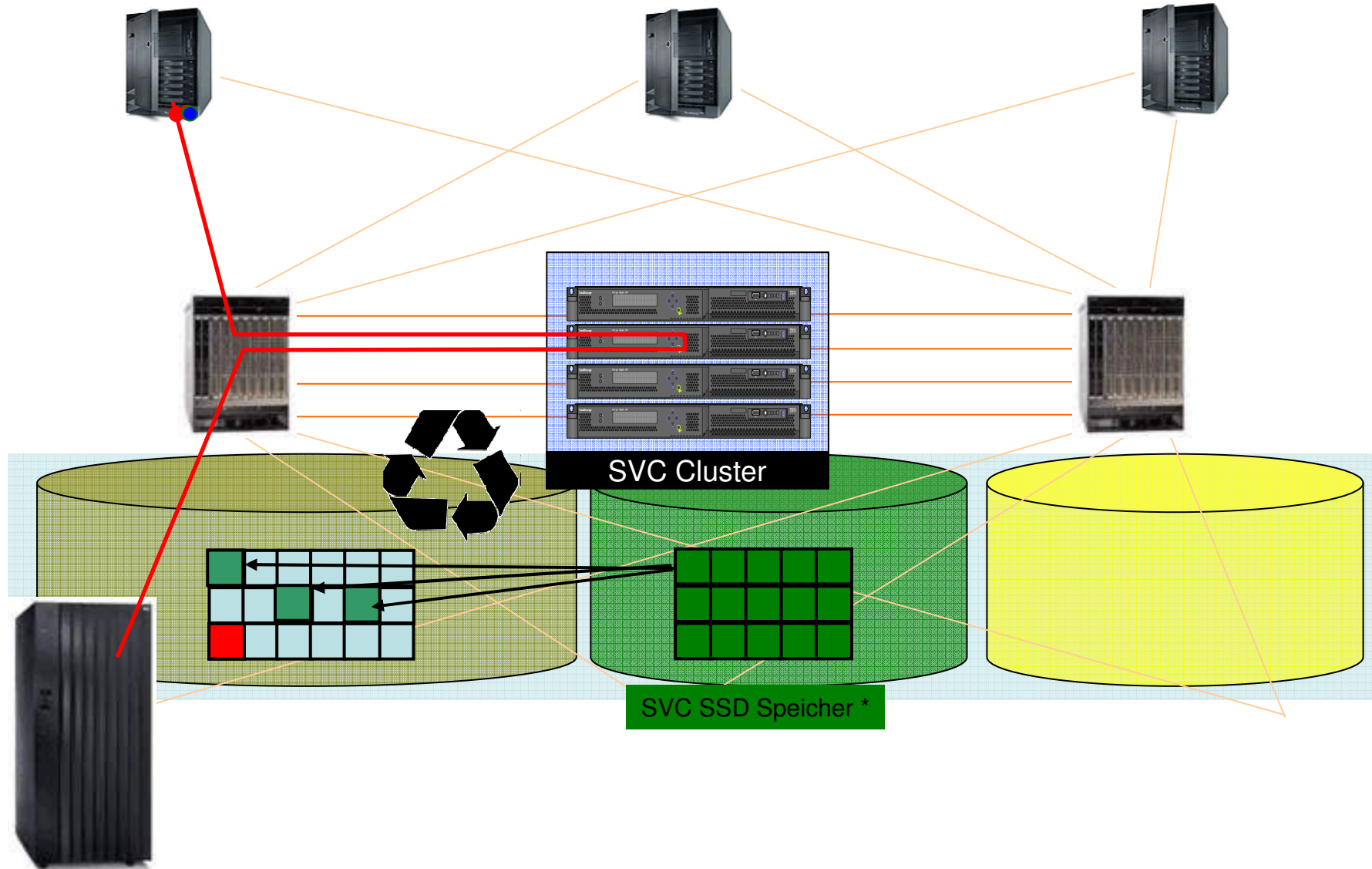
SVC

1. Sanal Diski seç
2. Hedef Diski Seç
3. Kopyalamayı Başlat
4. Son



Performans artışının sağlanması

Mevcut Ortamlarda performans artışı sağlar



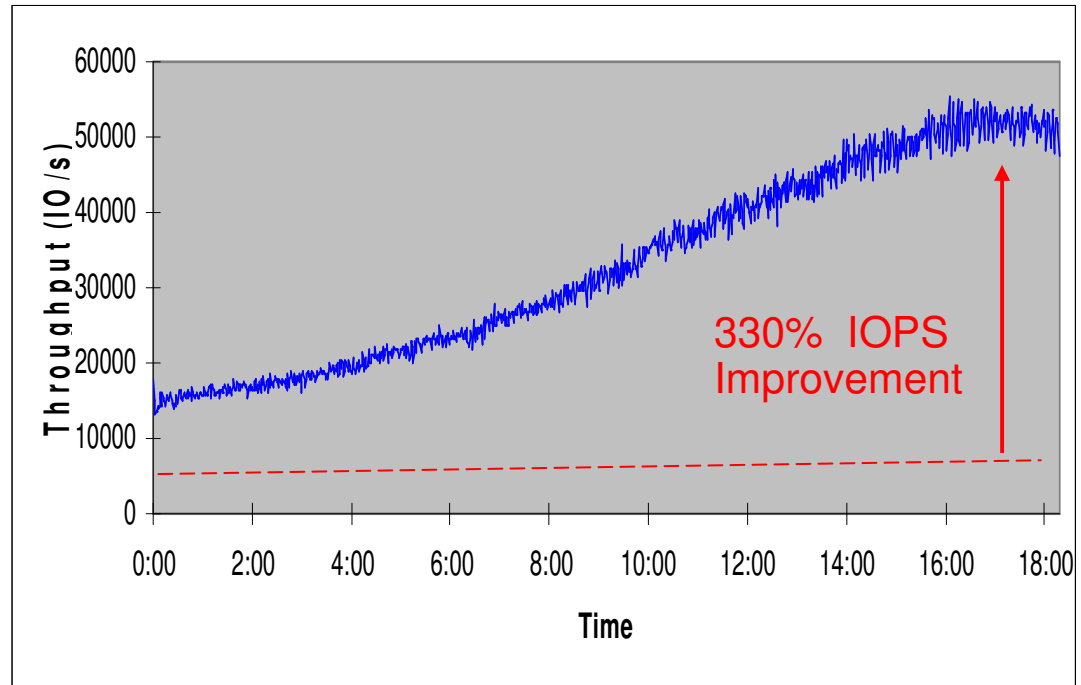
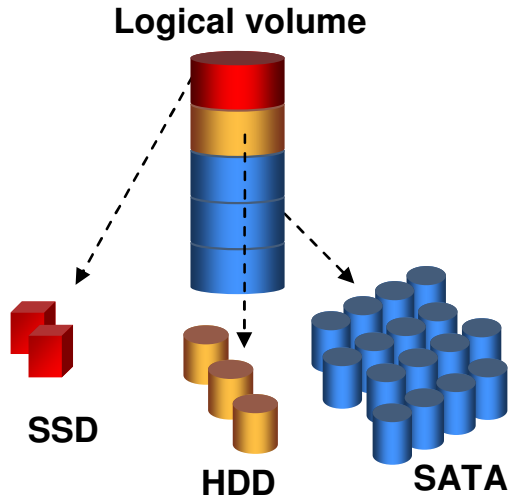
Performans artışının sağlanması

Mevcut Ortamlarda performans artışı sağlar

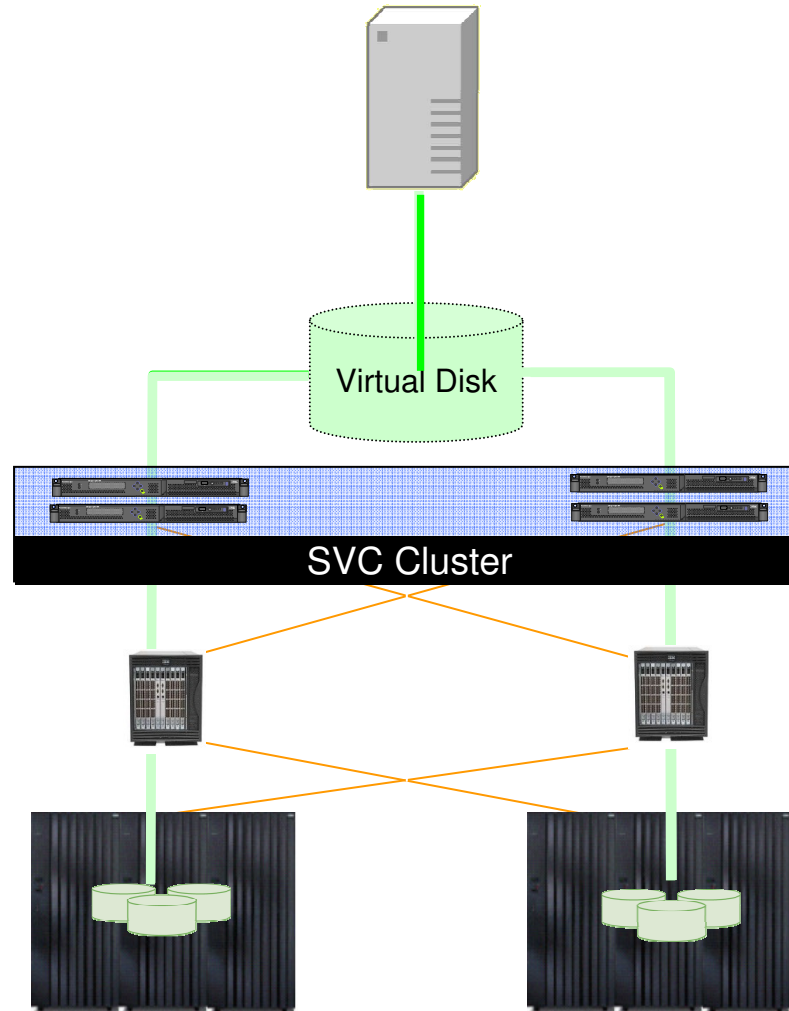
- SATA and SSD ile yapılan Tek (SPC-1) benchmark testi
 - Sistem konfigürasyonu: 2.3 TB SSD + 96 TB SATA

330%!
Performans Artışı

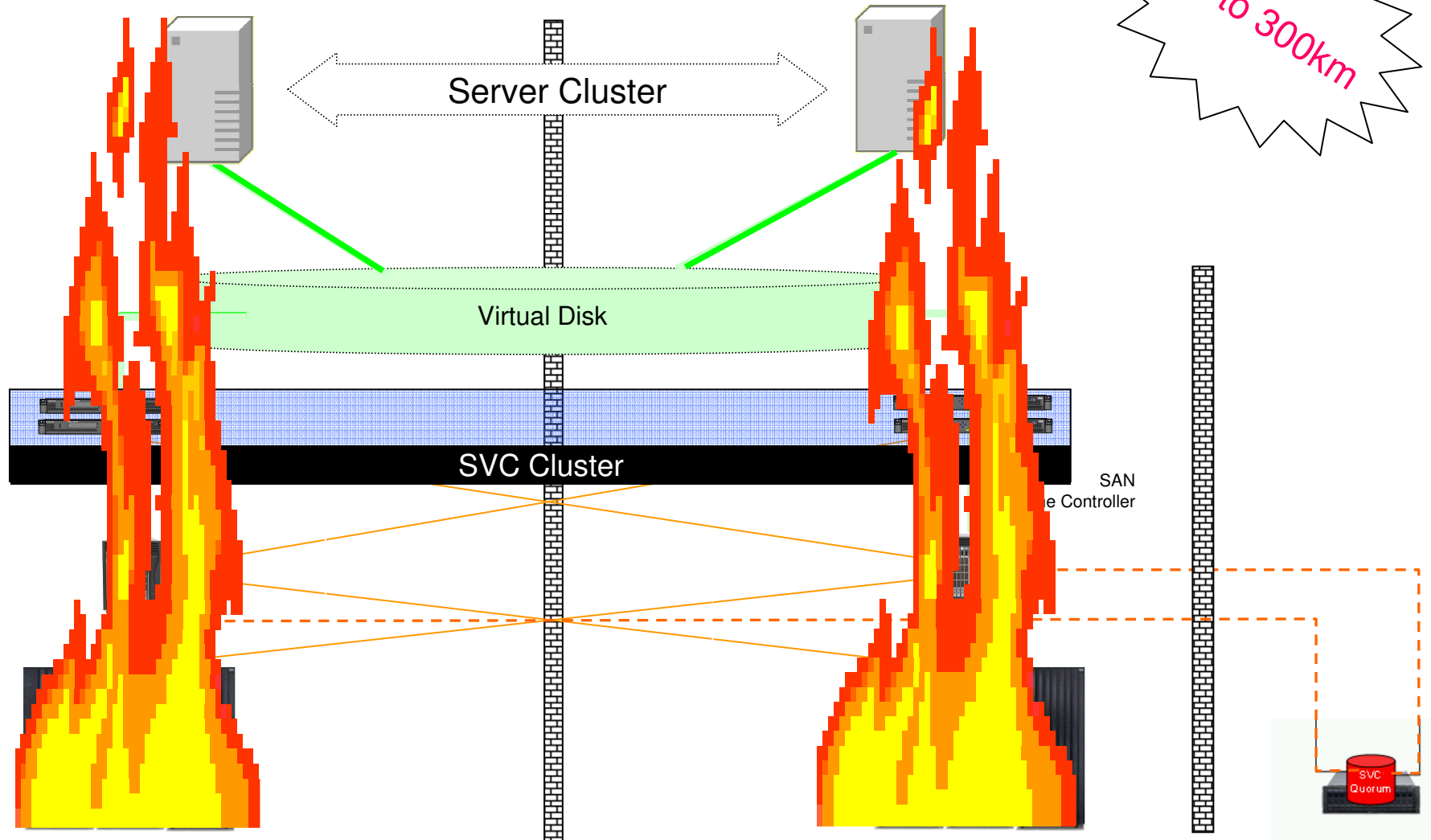
Easy Tier



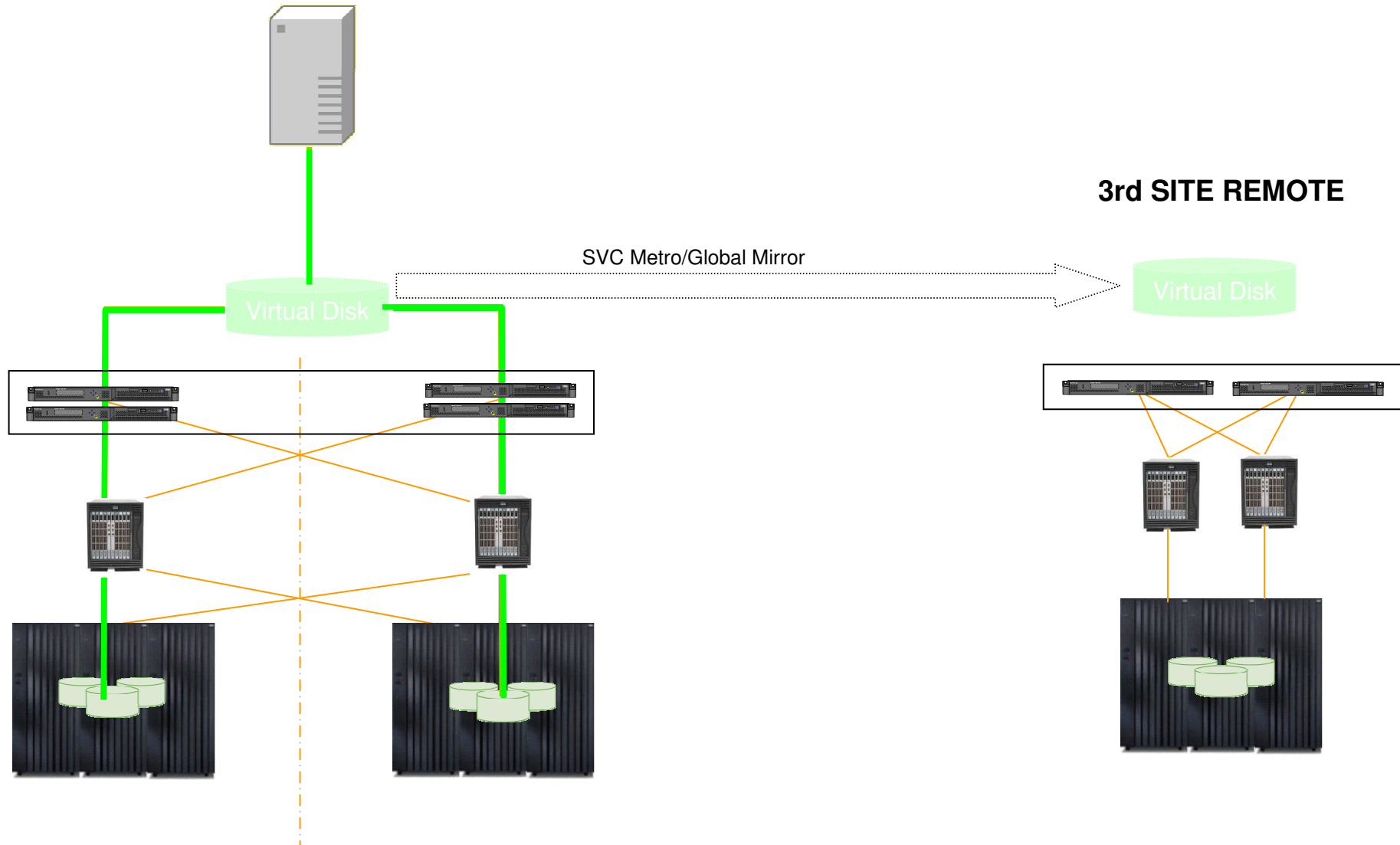
Yüksek Kullanılabilirlik - VDISK Mirroring



Felaket Kurtarma - VDISK Mirroring



Felaket Kurtarma (3 Site) - VDISK Mirroring



BROCADE SAN HEALTH FAMILY



SAN HEALTH

**A Fast and Easy Way to Improve
SAN Operations**

Disk Sanallaştırma Çözümlerinin Kazandırdıkları

- İlk satınalma maliyetlerini azaltır
- Toplam satınalma maliyetlerini azaltır
 - Yönetim maliyetlerinin azaltır
 - Atıl yatırım sürelerinin azaltır
 - Kapasite kullanım verimliliğinin arttırır
- Mevcut sistemlerde performans artışına yardımcı olur

IBM