**na**
**es Leader, System Storage**
**ets Unit**

# g the Information
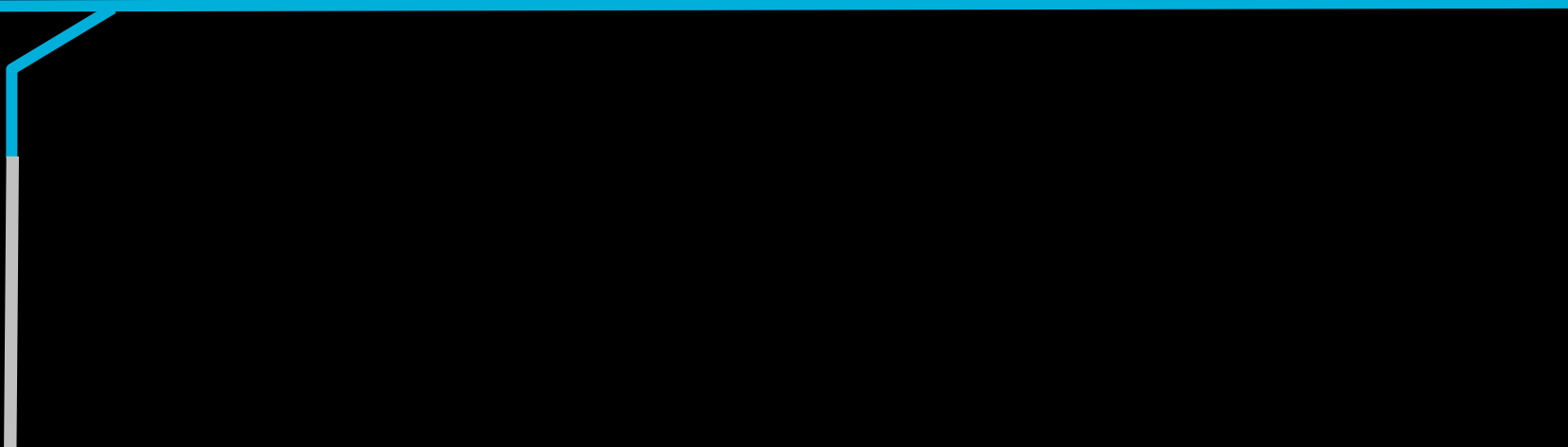sion

**decade or so in
uting, there is a chance
efine the playing field.**

e in that phase of redefinition no

**is changing the game**

**and complexity bring new challenges**

**ter systems for a smarter planet**

**7 out of 10 companies**
in the Global 1000 will need to modify their data centers to meet increased power and cooling requirements.

**70 cents per dollar**
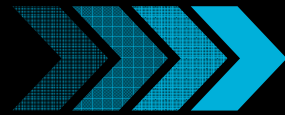is spent maintaining current IT infrastructures rather than adding new capabilities.

**78% of CIOs**
want to improve the way they use and manage their data.
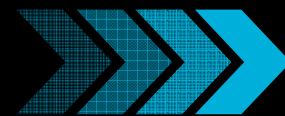
# complexity bring new challenges

*lanet requires real-time data analytics and*
*unprecedented scale and complexity*
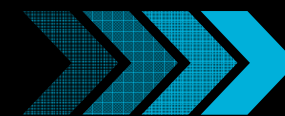
Terabytes of structured online data ⟩⟩⟩ Petabytes of uns data including re streams

Simple online transactions with back end processing ⟩⟩⟩ Complex transac integrated with re analytics
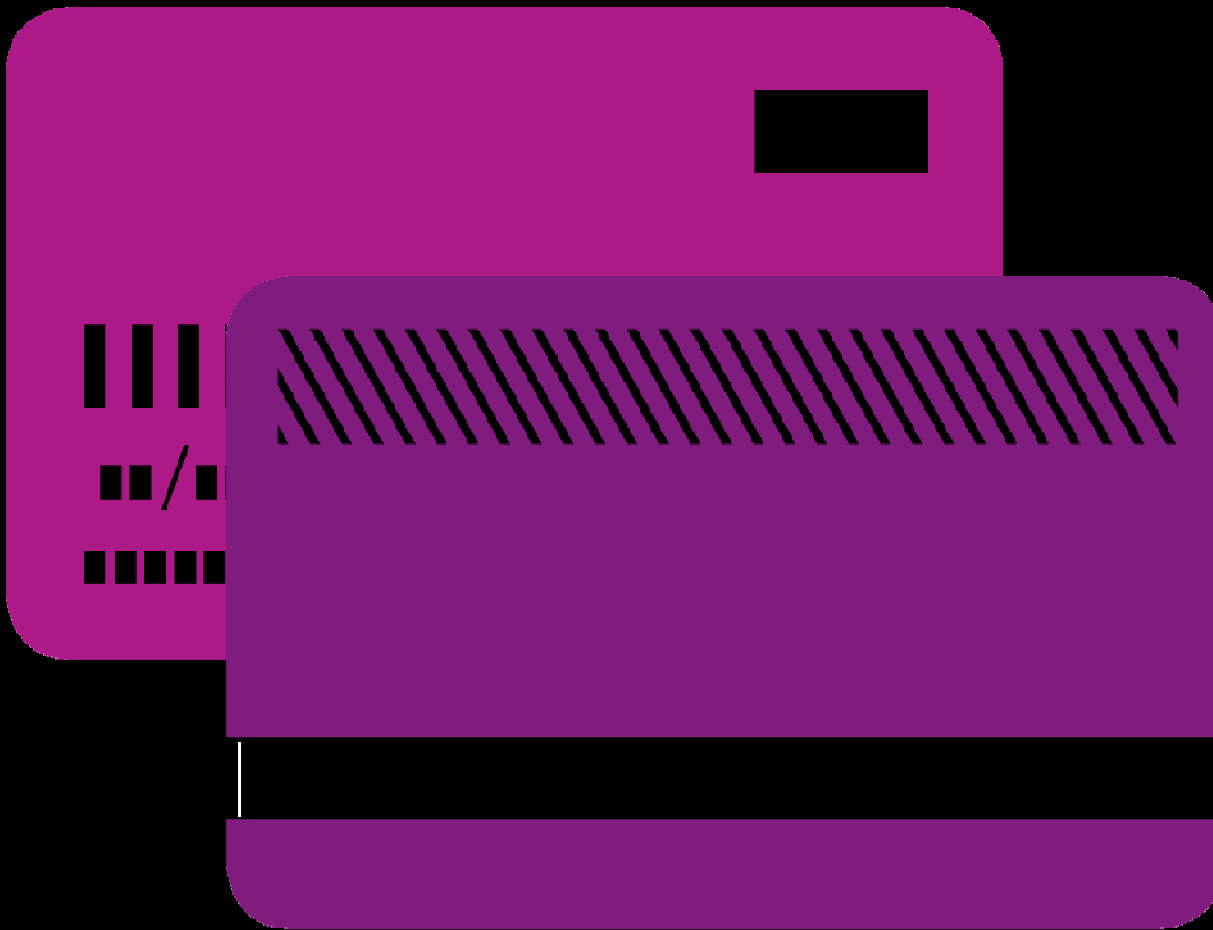
Online data security and intrusion detection ⟩⟩⟩ Security analytics intrusion predicti prevention

workloads are changing

lit card company BC Card has **40M cardholders**
**tions a year** – and processes **10M authorizat**

lion

3 billi

**transaction**

workloads are changing

ts will dramatically change workload:
aud analytics and the addition of billions of mobil

**eeds to extract more value from data:**

and prevent fraud

customer loyalty

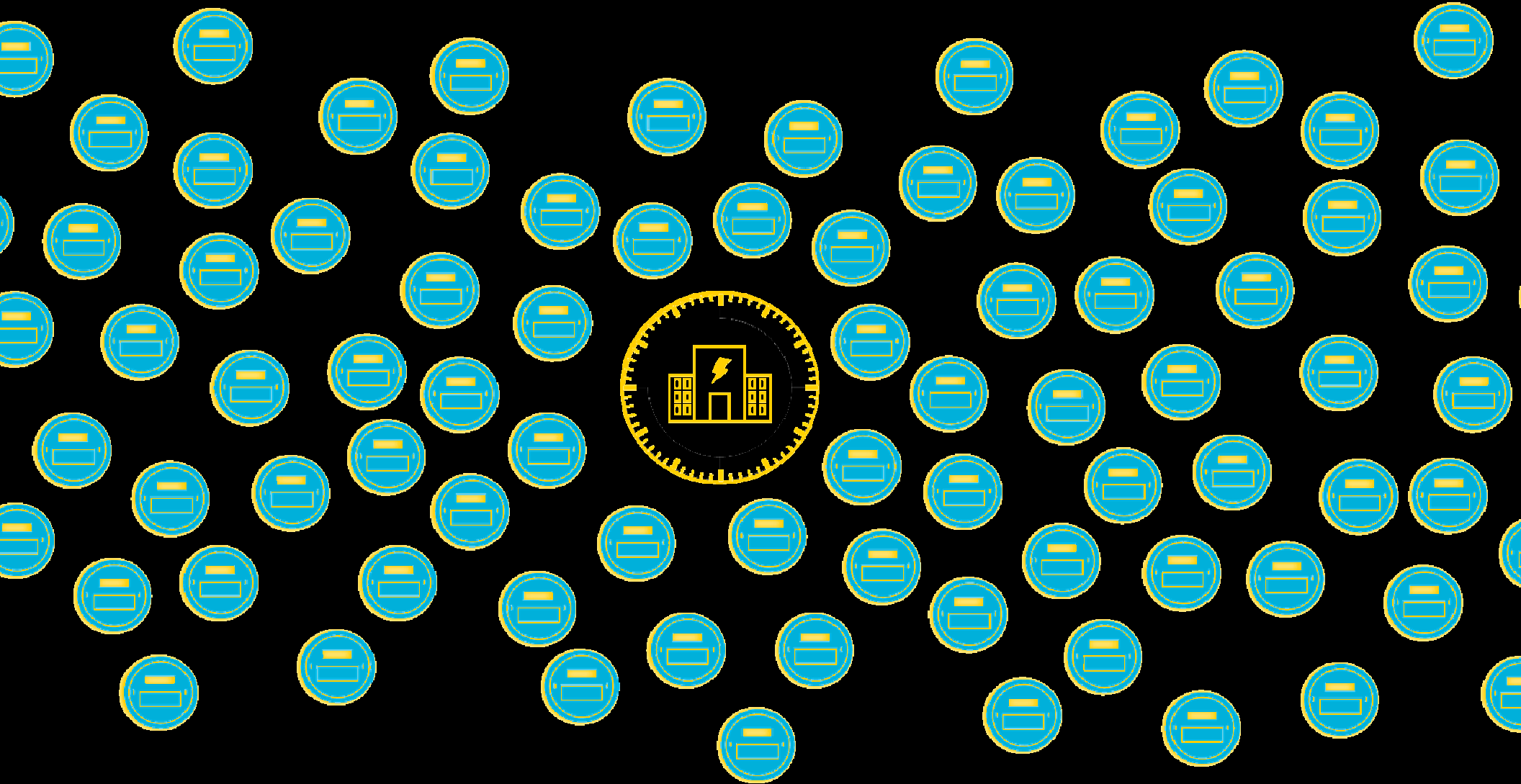ost per transaction by an order of magnitude

**l-time**
**d analytics**

**Mobile de**
**as credit**

# ads are emerging

t, a Houston-based utility, is ramping up to re
**smart meters** at **15-minute intervals.**

i & WebSphere on BladeCenter, CenterPoint

**Systems** to handle operational analytics and s

**ts generated will:**
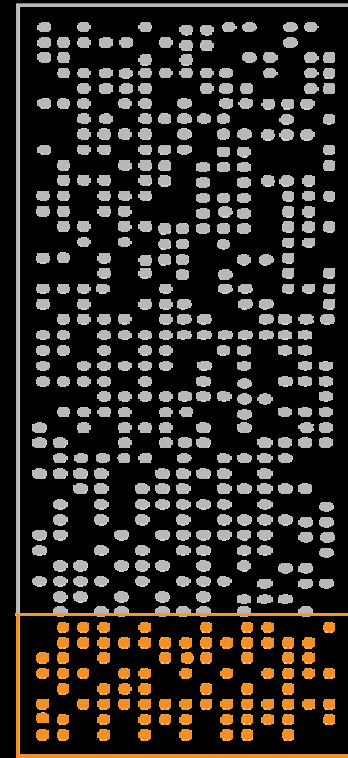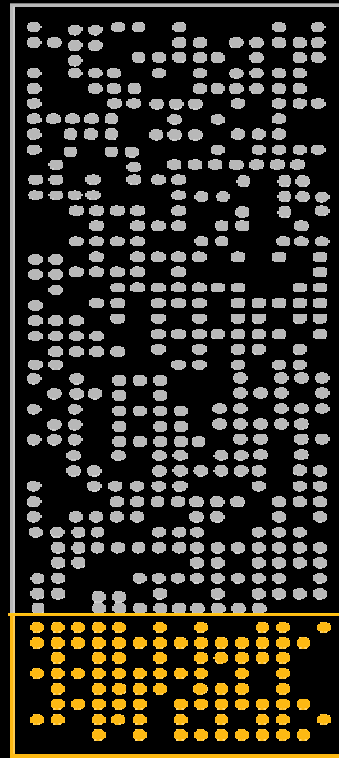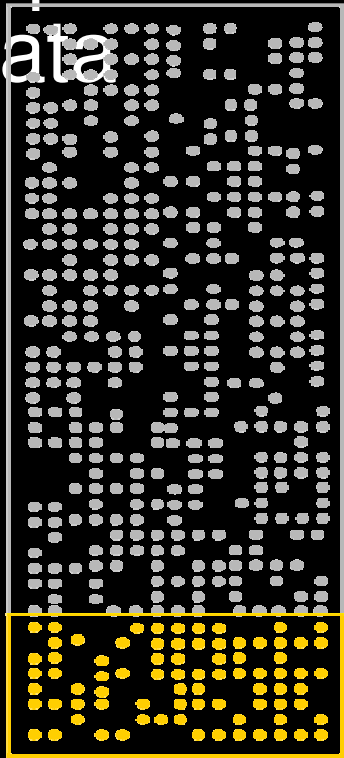
**billion** ct outages **8 terab**

**eads per year** **of data**
perational costs

nsumers to adjust consumption for optimum

odels are expanding

tes clinical images and electronic files from nearly 1M

nsume 500 terabytes of data—that must be available 2

sity Health Centre recently announced a five-year contra

e sites

ent a private storage cloud to secure and store a growin
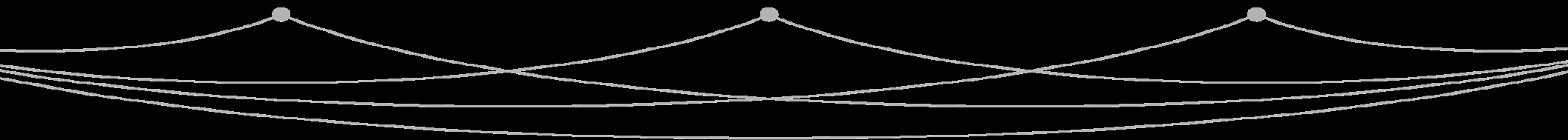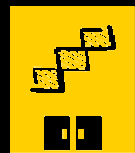
ient data

# odels are expanding

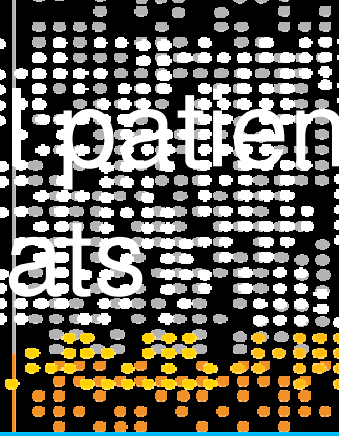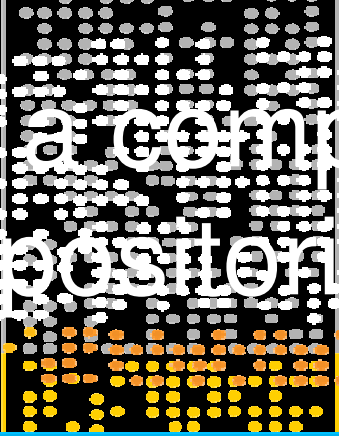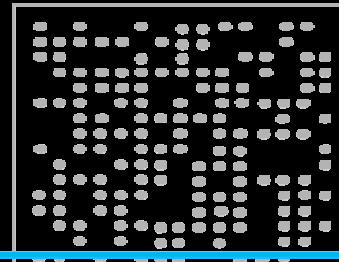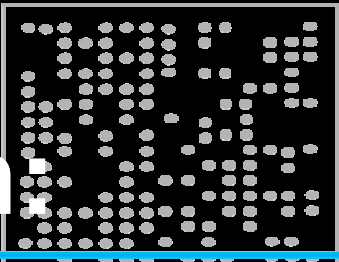alize and virtualize data into single storage environment.

**r can:**

ctors a comprehensive view of all patient data
le repositories and in many formats

y manage and consolidate storage resources

orage capacity easily and efficiently to meet f
s

**timize rkloads**

### Make the Data Center

### Manage the Data Center

### Make the Right Delivery Choices

## ance

- on and
  ation
- accelerators
- ory and flash

- cally adjust
- at sustained
- ance

## ciency

- s
- on
- ssion

## Virtualization

- Integration of servers, storage and networking

## Management

- Intelligent workload placement and mobility

## Security

- Trusted cloud and secure virtual infrastructure

## Availability

- High availability across

## Managed Services

- Managed Resiliency
- Server Managed

## Outsourcing

- Data Center
- End User Support

## Cloud

- Storage
- Development and Te

## Pre-integrated

- Smart Analytics Syst
- PureScale Applicatio

s changing the game

and complexity bring new challenges

er systems for a smarter planet

## ary

### Systems

egration and
tion at every
5X performance
power efficiency
WER7

## March

### System x

System level innovation
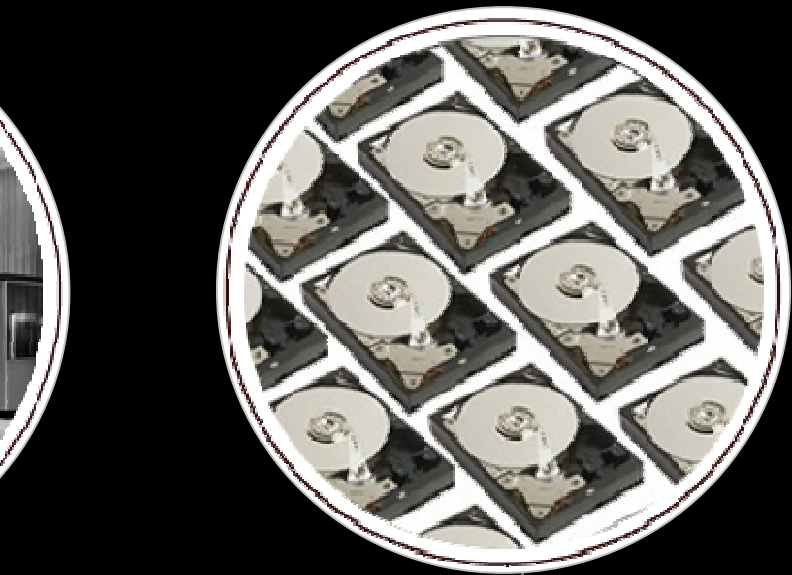for x86 computing
through
5th generation of
Enterprise X-Architecture

## July

### zEnterprise

Highly virtualized,
inherently resilient,
secure environment
and industry's first
multi-architecture
platform

### S

E
a
f
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c

## 1993

### Distributed storage

IBM 9337 Disk Array Subsystem is first reliable storage system using multiple, low-cost disk drives as single logical unit.
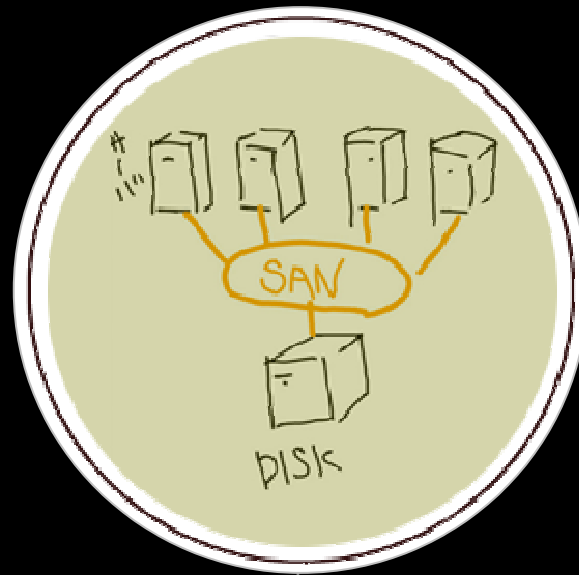
## 2003

### Storage network virtualization

IBM SAN Volume Controller provides single, centralized point of control over data in heterogeneous storage environments.

### agnetic hard ive

RAMAC (Random ethod of Accounting rol). Capacity of the wo-foot diameter 5 megabytes.

### Fi da

IBI Tie mo fas rea urg

# ost complete line up of storage offerings

**torage**

Systems

and Drives

zation

tion

## Entry / Mid-range

DS5000

DS3000

N Series

## High End

DS8000

XIV

SONAS

**Ap**

Pro

Rea

SA

Eas

*nderpinned by continuous investments and innovati*
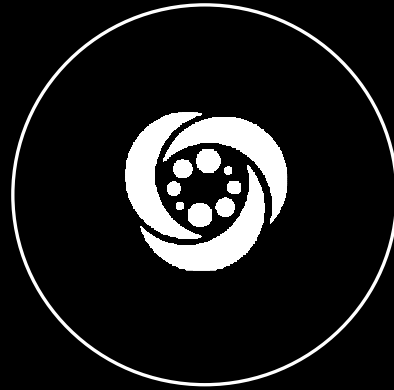
## Encryption

Tivoli Key Lifecycle Manager

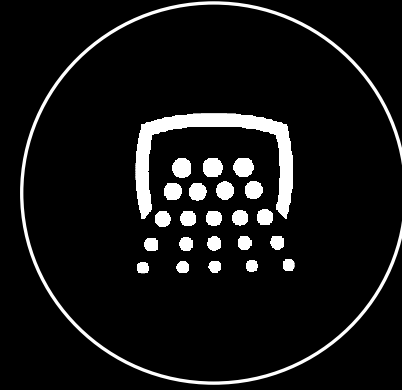IBM Institute for Advanced Security

Homomorphic encryption

## Compression

Real-time data compression from Storwize acquisition

Deep Compression for DB2

## De-duplication

ProtecTIER from Diligent acquisition

HyperFactor algorithms and in-line processing

**elated acquisitions**: 2007 Softek, Princeton Softech and Novus Consul
2008  XIV, FilesX and Diligent
2010  Storwize, Inc.

# New Announcements!

virtualization into the storage infrastructure

zation up to **30%** by pooling storage

nced functionality to your existing storage

migration virtually eliminates downtime

System Storage™ SAN Volume Controller
ted Graphical User Interface and support
storage systems.

**Volum**

**IBM**

*ed service provider, we can take advantage of the IBM*
*rage SAN Volume Controller's ability to cater to each*
*requirements individually, according to SLAs"*

# System Storage™ DS8800

## hancements

- mall form factor drives
- rives per enclosure
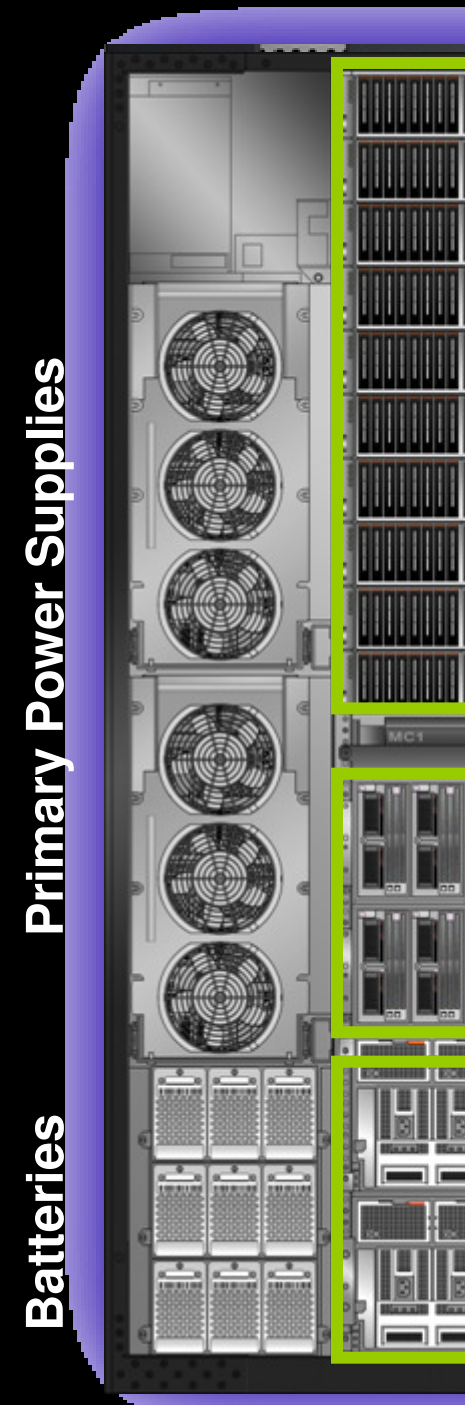- R6+ processors
- st and device adapters

## nefits

- better performance
- pace with nearly twice the drive density
- ts with up to **36%** less energy consumed
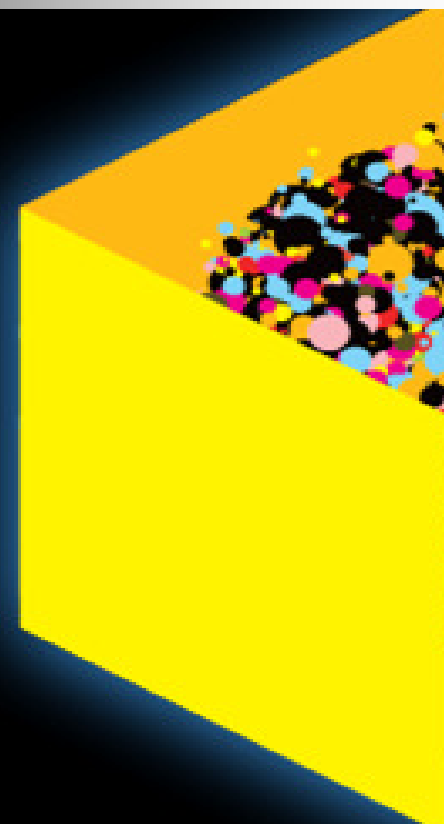
*1,000 drives on up to 40% less floor*

**Primary Power Supplies**

**Batteries**

**Front**

e was a Midrange Storage System that…

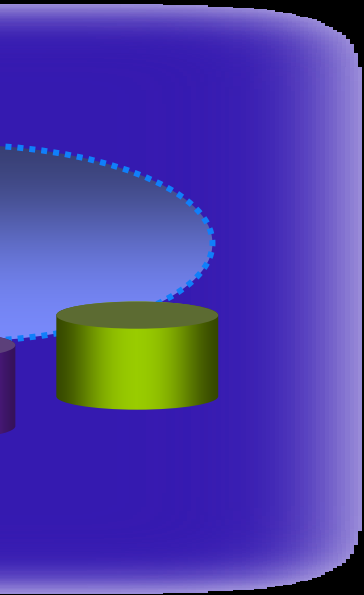as your needs grow

…es **high performance** with
**f use**

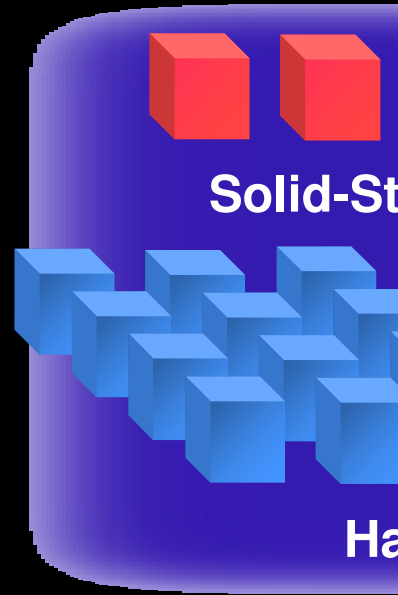s built-in advanced
**e efficiency** capabilities

Storwize V70

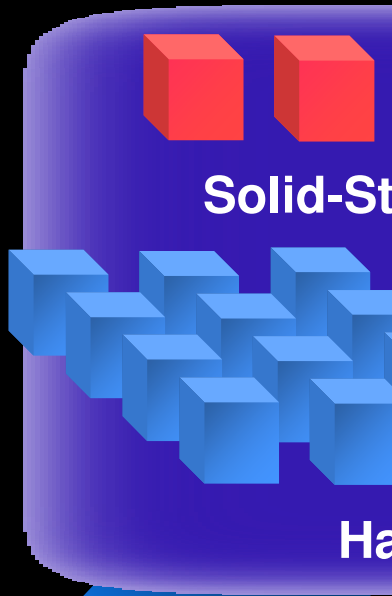# ...ent in storage efficiency technologies ...

**Incredible Ease
of Use**

**ge
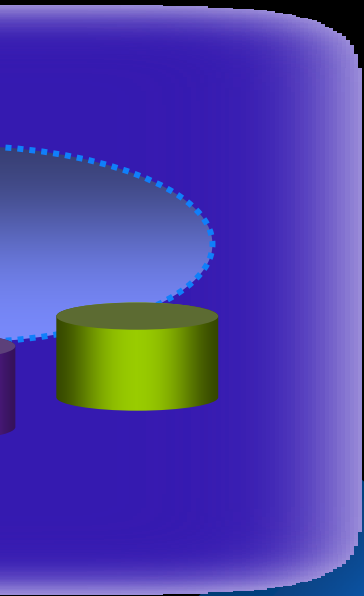ation**

**Solid-St...**

**Ha...**

# or the first time in a midrange offering

Solid-St

Ha

IBM Storwize

**Incredible Ease**

*midrange storage begins today…*

drange storage that grows with you

Enclosures

**mance** storage that is **Easy** to set up and
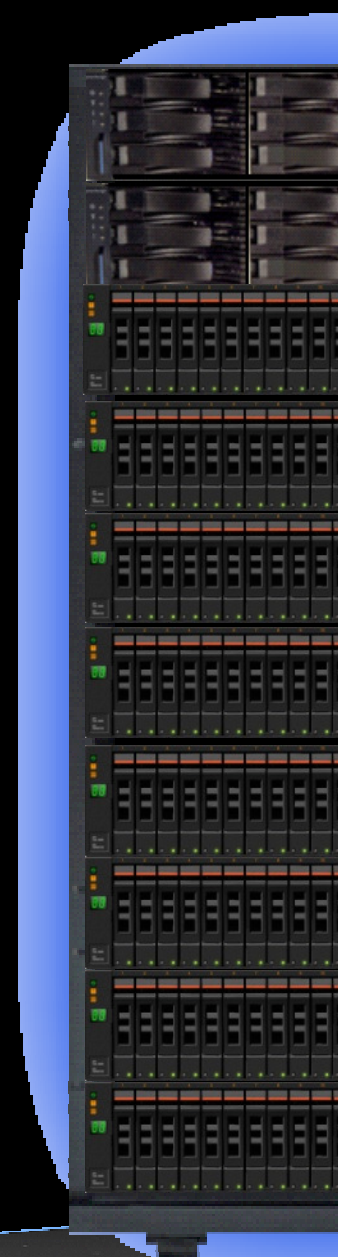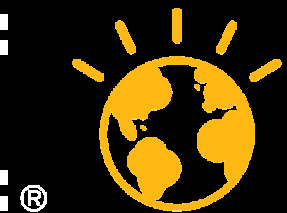
**GUI**

torage efficiencies

oning

Data Migration

tualization (Optional)

...nter is being transformed by the explosion of data, numb... ...ns and increasing concerns about security.

...full line of Smarter Systems that address client's immed... ...uture demands.

...ments in storage innovation provide the technologies to ... ...ses efficiently and effectively manage data for competitiv...

rage Solutions
t. Powerful. Easy.

ns for a Smarter Planet