CLOUD AND BIG DATA
DRIVING
IT TRANSFORMATION

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EMC Corporation

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Megatrends in Information Technology

- Cloud & Big Data
- Top of mind with CIOs
- What about Mainframe?
- Your Leadership Required
- Business = Smart + Efficient

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Business Catalysts For Change

Budget Dilemma

Information Deluge

Cyber Security

CLOUD

BIG DATA

TRUST

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What's really behind all this Cloud Stuff?

Mainframe Thought Leadership

Virtual Machines

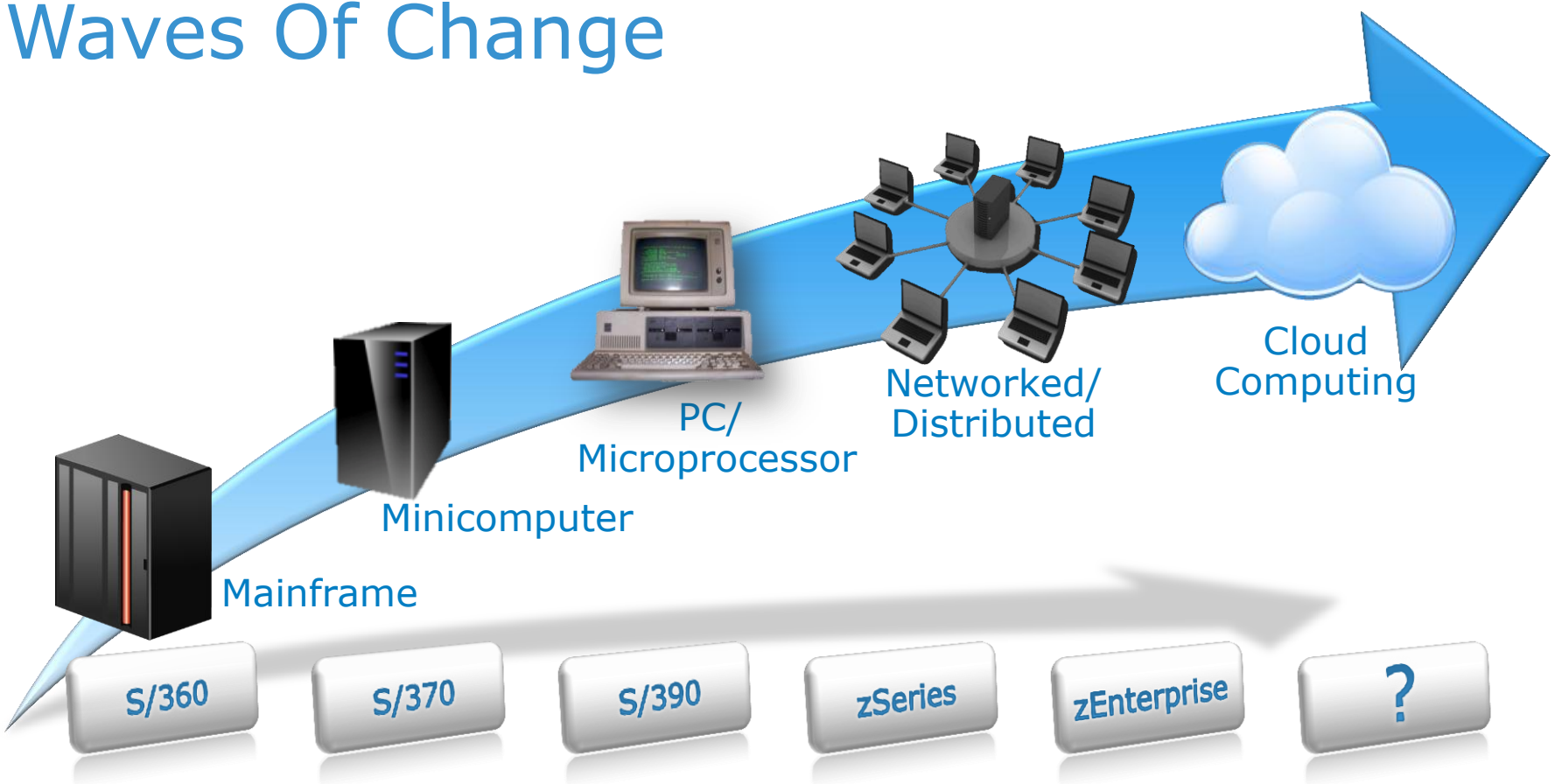
Application Mobility

Multi Tenant Partitioning

Unified Systems Management

System Resource Management

Waves Of Change



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EMC and Mainframe

INNOVATION
45,000 MIPS

PARTNERSHIP
1,000,000 DASD

INVESTMENT
$1,000,000,000

RUNNING THE WORLD'S MOST CRITICAL APPLICATIONS FOR 25 YEARS

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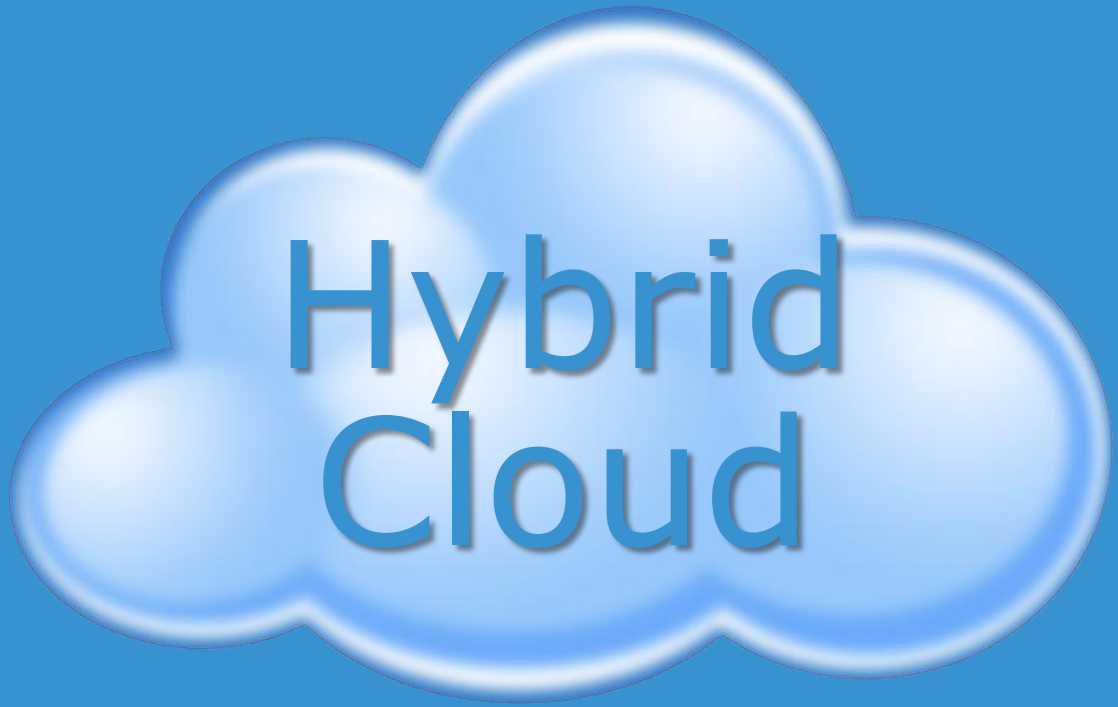
Mission Critical Systems

Safe & Efficient

Public Cloud
colt
CERYX
OMNILOGIC
orange Business Services
redstor
rackspace
amazon web services™
CABLE & WIRELESS
Cincinnati Bell
bluemile
NTT Communications
QTS
TELECOM ITALIA
ENGINEERING
bluelock
SUNGARD
verizon
A C S
OpSource
peak 10 DATA CENTER SOLUTIONS
Capgemini
COBWEB
NYSE Euronext
Windstream
Bell
Google
TIVIT
HOSTING .com
CSC
UNISYS
SAVVIS
PAETEC
terremark

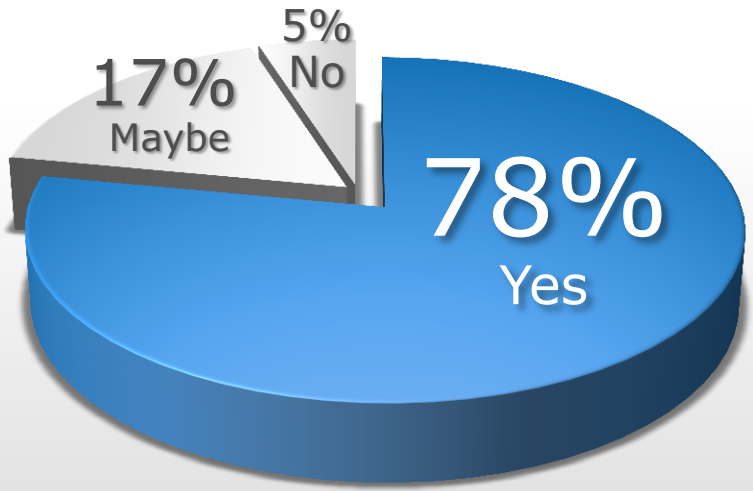
PHONE
amazon
web services™
Google


Hybrid
Cloud

YOUR
DATA
CENTER
DISSOLVE
DISTANCE
YOUR
SERVICE
PROVIDER
CSC
NYSE
colt
SingTel
CBTS
TECHNOLOGY SOLUTION ARCHITECTS
ACS
A xerox Company
rackspace
MELBOURNE IT
SAVVIS
salesforce.com
Success On Demand

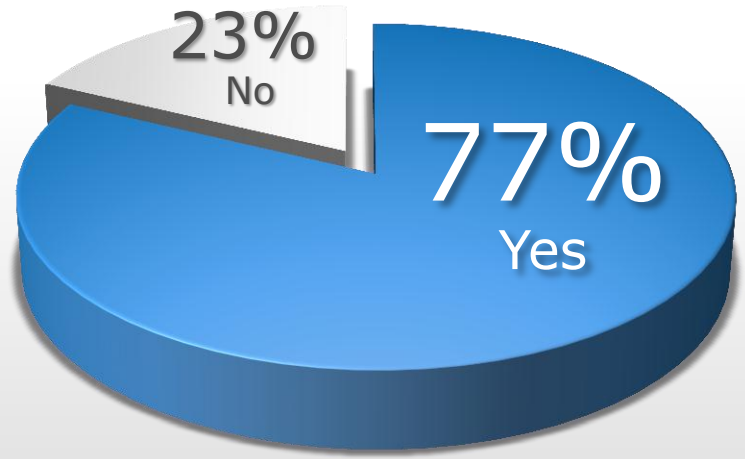
Private? Public? The Answer Is **HYBRID**

"Will You Pursue A Private Cloud Strategy By 2014?"



Source: Gartner, "Top Five Trends for Private Cloud Computing" February, 2012

Companies Using Public Cloud Services in 2011



Source: IDC Fall 2011 CloudTrack survey of 603 companies of various sizes in North America, June 2011

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EMC IT Transformation

EMC CLOUD DATA CENTER

D U R H A M

$112M	CAPEX Savings
$66M	OPEX Savings
46%	Reduction in Power Consumption
95%	Virtualized Mission Critical Apps
100M	Pounds of CO_2 Reduced

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CLOUD IS BIG.

WHAT COULD POSSIBLY BE BIGGER ?

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BIG DATA TRANSFORMS BUSINESS

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DATA
IS THE NEW
CENTER OF GRAVITY

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BY 2020 THE DIGITAL UNIVERSE WILL BE

35 ZETTABYTES

35,000,000,000,000,000,000,000

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What's Driving The Data Deluge?

Mobile Sensors

FACEBOOK GROWS
250MILLION
PHOTOS / DAY

Social Media

Video Surveillance

Video Rendering

READING METERS
EVERY 15 MINS. IS
3,000X MORE
DATA INTENSIVE

Smart Grids

ONE OIL
RIG OFFERS
25 THOUSAND
DATA POINTS/SEC

Geophysical Exploration

Medical Imaging

COST TO SEQUENCE
ONE GENOME
HAS FALLEN FROM
$100M IN 2001
TO $10K
in 2011

Gene Sequencing

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BIG DATA Transforms Business

Every Industry Will Require Big Data Analytics

Financial

NYSE · Fidelity · Bank of America

Telecom

docomo · at&t · verizon · france telecom

Retail

Walmart (Save money. Live better.) · CVS pharmacy · STAPLES

Energy

ExxonMobil · SILVERSPRING NETWORKS · BR PETROBRAS

Insurance

Liberty Mutual · ZURICH · STATE FARM INSURANCE

Government

IRS

Healthcare

BlueCross BlueShield · National Institutes of Health

Cyber Security

Advertising

amazon.com · Google · monstermedia

Gaming

MGM MIRAGE · CAESARS ENTERTAINMENT · Sands LAS VEGAS SANDS CORP. · THE LOTTERY

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Data Sources Are Expanding

Source : 2011 IDC Digital Universe Study

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Massive Numbers of Massive Files

Files In The Digital Universe

500 Quadrillion

Big Data Applications

5+ TB

Source : 2011 IDC Digital Universe Study, EMC Customers

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Big Data - Finding the Right Needle

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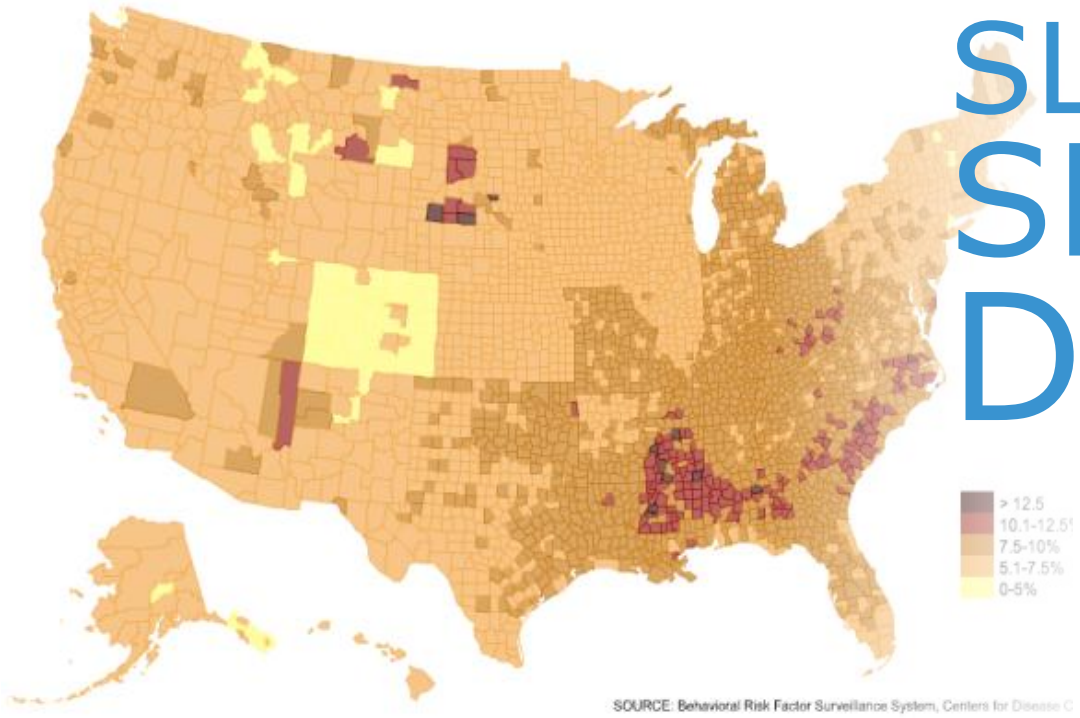
BIG DATA at Work



SLOWING THE SPREAD OF DIABETES

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LET'S TAKE A LOOK AT THE FUTURE

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LOAD THE JUMP PROGRAM

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CLOUD AND BIG DATA CUSTOMER

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HYBRID CLOUD REQUIRES CLOUDSCALE TRANSFORMATION

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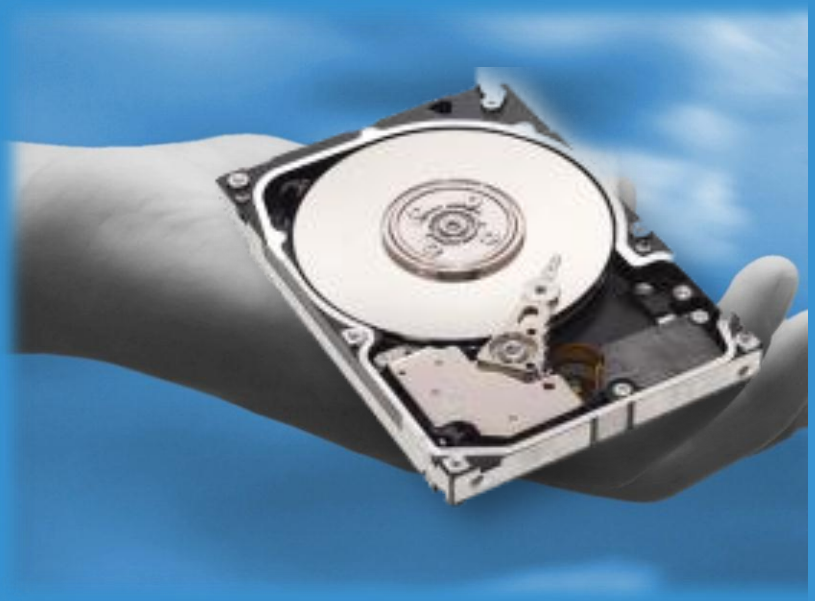
1956

- 5 MB
- 1 TON
- 4 FLOOR TILES
- $10,000,000 / GB

2012



- 5 TB
- 2.5 lbs
- PALM OF HAND
- $0.30 / GB

EMC Petabyte Club

The Next Decade : 100,000 Customers

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BIG DATA CREATES BIG GRAVITY

INFORMATION MUST BE ACTIVE AROUND THE GLOBE UPON CREATION

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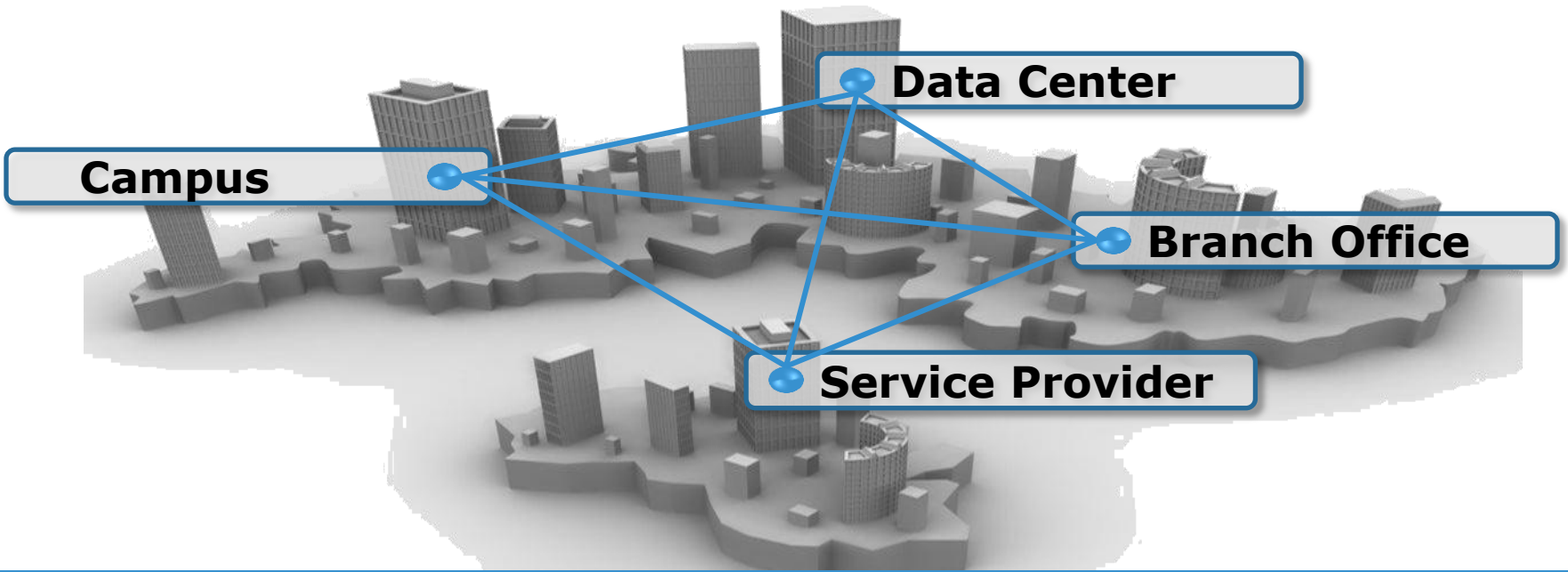
CONNECTING CLOUDS



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INNOVATION AT THE DATA LAYER IS CRITICAL

A COMMON LANGUAGE AMONG PEERS NEEDS TO ARISE

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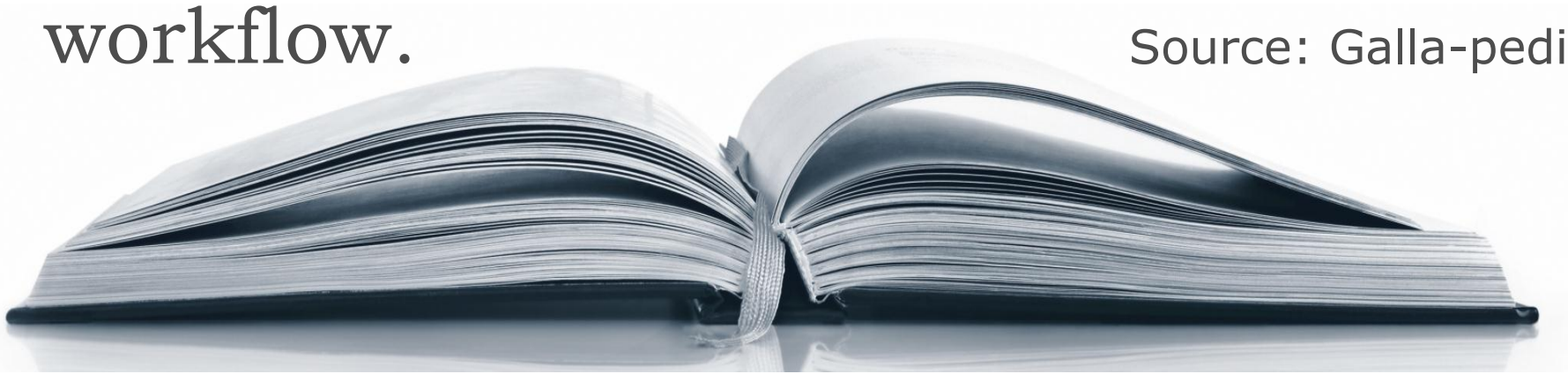
fed•e•ra•tion \ Aggregation and cooperation between disparate products or platforms that enables collaboration and facilitates seamless workflow.

Source: Galla-pedia



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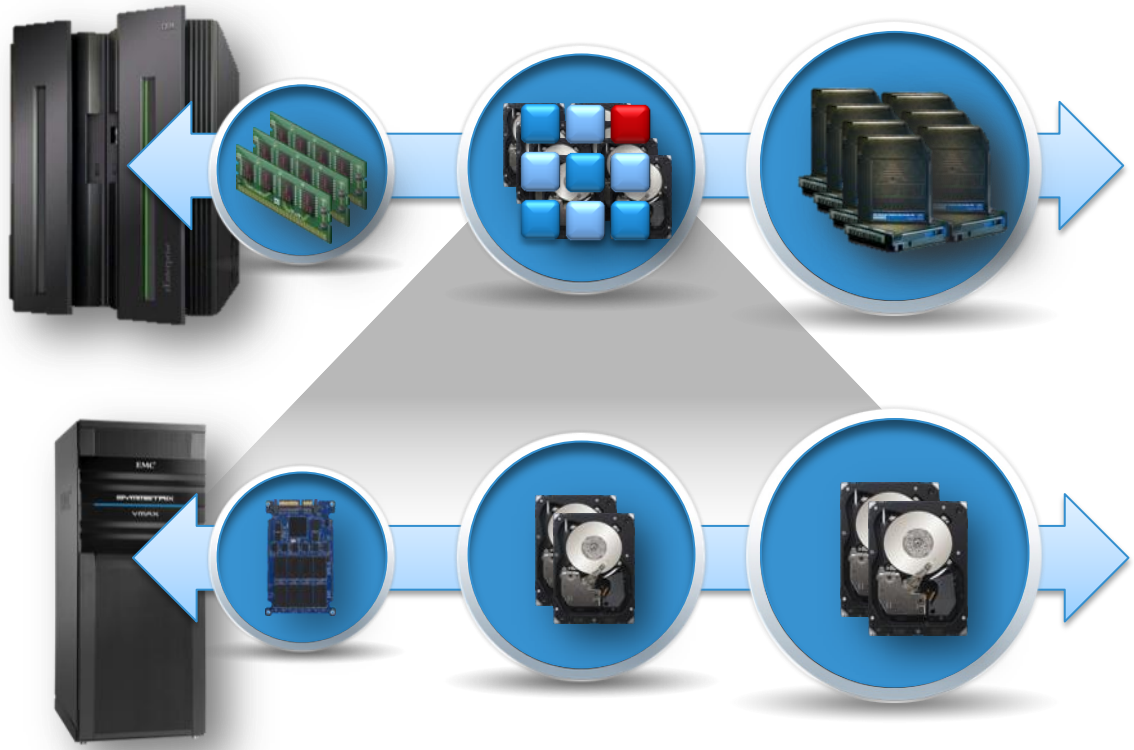
Automation at all Layers

SMS &
HSM
+
FAST VP



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Janet L. Sun
President, SHARE

Cloud and Big Data Offerings from EMC

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THANK YOU