

# IT Infrastructure - Creating Golden Opportunities for CSPs and MSPs

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IBM

# The Data-Driven World

**Live**



**Interact**

**Consume**



**Work**

**Do business**



**34 billion** connected  
devises by 2020

**45 Zettabytes** of data  
by 2020

**33%+ data will pass through the  
cloud**  
by 2020

# The Data Advantage



## Big Data At Caesars Entertainment – A Once Billion Dollar Asset?

The most valuable of the individual data points collected over the last 17 years through Caesars Total Rewards loyalty program, which has earned a reputation as a pioneer in Big Data-driven customer service. Total Rewards is **estimated to be worth over \$1 billion.**



## The New York Times

### What Wal-Mart Knows About Customer's

... data and found that the stores would sell more products -- and not just the usual flashlights. ... at that **strawberry Pop-Tarts increase sales by 20% above their normal sales rate**, ahead of a hurricane, ... Ms. Dittman said in a recent interview. "And the pre-hurricane **top-selling item was beer.**"



**What does this mean to Cloud Service Providers?**

# The Data Advantage



## Big Data At Caesars Ent

A One Billion Dollar App

The most  
collected ov  
Total Rewards  
reputation as a  
customer se  
worth ov



## The New York Times

## How About Customer's

**Cloud Service Providers who help clients harness the power of their data are better positioned to conquer competition.**

would  
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**Top-Tarts increase**  
**es rate**, ahead of a  
w. "And the pre-



## ... at cloud scale for every industry

### Cognitive Systems

Leadership in data-intensive workloads – deployed in all clouds.



### Flash and Software Defined Storage

Leadership in high-speed data performance and agility for the multi-cloud.



### IBM Z and LinuxONE

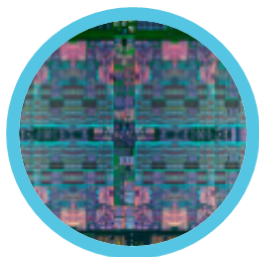
Leadership in secure blockchain transactions and instant payments



# Power Systems are designed for Cognitive

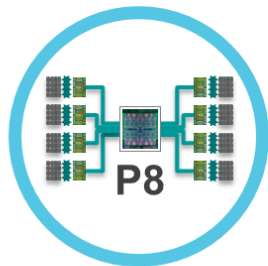
*Power high-performance core, bandwidth, accelerator differentiation*

As a compute-intensive workload, accelerators are key to Cognitive/AI economics



**High Performance Cores**

>2X vs. Intel



**Fast & Large Memory System**

4-5X Memory Bandwidth  
3X Cache vs. Intel



CAPI  
NVLink  
PCIe Gen3

**Fast PowerAccel Interconnects for Accelerators**

NVLink 1.0  
5x vs. Intel



OpenCAPI  
NVLink 2.0  
PCIe Gen4

**Faster PowerAccel Interconnect for Accelerators**

OpenCAPI / NVLink 2.0  
7-10x vs. Intel

Power partnerships with accelerator industry players:  
Nvidia GPU, Xilinx, AMD GPU, open to other options

# Award-Winning IBM Storage Portfolio

## Backup, Archive & Cloud

Backup



IBM Spectrum Protect

VM Data Availability



IBM Spectrum Protect Plus

Archive



IBM Spectrum Archive

## Management & Cloud

Monitoring & Control



IBM Spectrum Control

Container & VM APIs



IBM Spectrum Connect

Copy Data Management



IBM Spectrum Copy Data Management

Private Cloud



IBM Spectrum Access

Hybrid Cloud Disaster Recovery



IBM Spectrum Virtualize for Public Cloud

## Cluster Virtualization

High-Performance Computing



IBM Spectrum LSF

High-Performance Analytics



IBM Spectrum Symphony

New-Gen Workloads



IBM Spectrum Conductor

## Infrastructure



IBM Cloud Object Storage

Scale-Out Object



IBM Spectrum Virtualize

Virtualized Block



IBM Spectrum Accelerate

Scale-Out Block



IBM Spectrum Scale

Scale-Out File



IBM Spectrum NAS

Acceleration

High-end Server

Tape & Virtual Tape



Cloud Object Storage System



Storwize V5000F Storwize V7000F  
Storwize V5000 Storwize V7000



FlashSystem V9000



SAN Volume Controller



FlashSystem A9000



FlashSystem A9000R



XIV Gen3



Elastic Storage Server



FlashSystem 900



DS8884F

DS8884



DS8886F

DS8886



DS8888F



LTO8 & Tape Drives



TS7700 Family



TS2900 Autoloader



Tape Libraries

Available as



Networking



# IBM Storage Leadership



## LEADER

in 2016 & 2017,  
IDC and Gartner  
named IBM  
“leaders” in 8  
reports

Note: IBM named a “Leader” by Gartner, IDC, or both in 2016 or 2017 in markets served by IBM Spectrum Protect, IBM FlashSystem, IBM Spectrum Scale, DS8880, IBM Cloud Object Storage, Storwize and XIV

## #1

In Archiving, Mainframe  
Storage and branded Tape

## #1

in Analytics

## IBM Global Financing is the #1 IT financier in the world

Financing available for  
select storage products

## #2

IBM: the number 2  
storage company in the  
world

## 19 of 20

of world’s top banks by  
assets use IBM DS storage  
system solutions for  
availability, performance,  
and reliability

## 87%

of the Fortune Global 100  
use IBM Spectrum Storage



# IBM Z and LinuxONE – Delivering Trusted Digital Experience for Computer Services Industry

Offer Pervasive encryption as the new standard in security



Pervasive Encryption is the New Standard

Differentiate by offering unique value



Machine Learning Illuminates Deeper Insights

Drive towards leaner operational efficiencies while meeting difficult SLA's

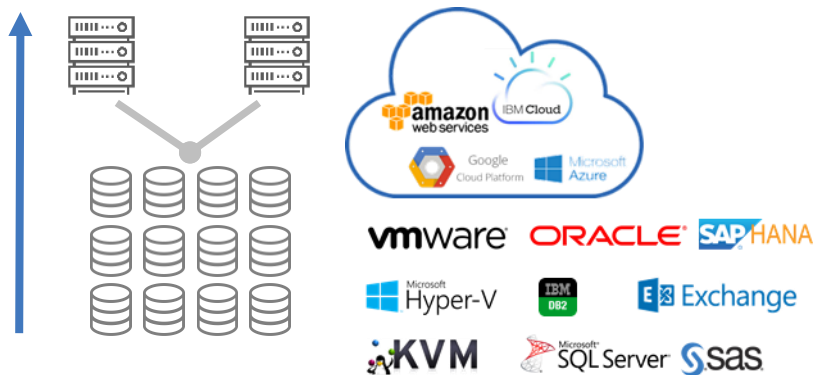


Open Enterprise Cloud to Extend, Connect and Innovate

# How You Move Forward



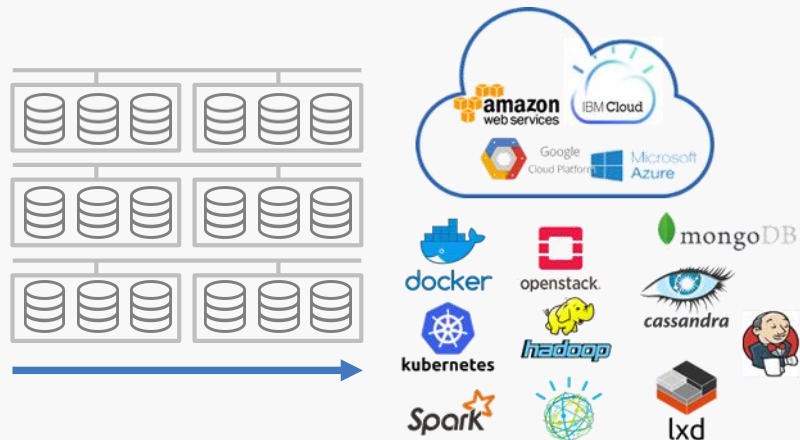
## Traditional Application Workloads



### MODERNIZE

Optimize and drive efficiencies, while continuing to deliver high levels of service delivery

## New Generation Application Workloads



### TRANSFORM

Deliver and operate new hybrid cloud application infrastructure to support new Cognitive and agile workloads

SAVE HERE



INVEST HERE

# illuminating a path to simplicity, efficiency and performance

**99.999%**

availability and encryption meets even the most challenging client needs

**2X**

storage performance of spinning disks at same price point offers a key selling point

**Delivers**

highly secure, available services that help clients comply with industry regulations

LIGHTEGE



*“Working with IBM and Ciber, we’ve tapped into new markets across the country, adding 75 percent to our customer base.”*

- Tom Prosia, Senior VP  
Marketing and Business  
Development, LightEdge

# Delighting business customers with first-rate private and hybrid cloud services

## Increases

internal operational efficiency facilitating more competitive pricing

## Fulfills

varied customer needs, with flexible, scalable infrastructure

## Offers

non-stop reliability and security for data-driven, privacy-conscious industries

The Clarinet logo is displayed in a bold, red, lowercase sans-serif font. It is centered within a white rectangular box that has a subtle drop shadow, making it stand out against the background. The background of the entire slide is a composite image: on the left, a cityscape at night with glowing lights and a network of white lines connecting various points; on the right, a more detailed view of a city skyline at night with similar network lines overlaid.

# clarinet

*“IBM Storage enables us to drive down our internal costs, giving us savings that we can pass onto our clients in the form of competitive prices.”*

—Gilles Gatineau, Core Infrastructure Architect for Systems and Storage, Clarinet

## Ensures that client data is always in safe hands

**40%**

saving on total cost of ownership for backup solution, enabling competitive pricing

### **Supports**

greater service continuity for enhanced client satisfaction

### **Provides**

a basis for a backup-as-a-service offering, helping HPS reach new customers

HIGH PERFORMANCE  
SYSTEMS

*“In choosing the IBM and Cristie solution, we decreased the TCO for backups by around 40 percent, a saving that helps us keep our prices competitive.”*

—Stefan Ledenstam, CEO, High Performance Systems

# Thank You!

- 1 Visit us @ Booth #A09
  - 1-on-1 meetings
  - Personalized solution demos
- 2 Explore IBM Systems solutions
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- 3 MSP Hub – discover helpful resources
  - Visit: [www.themsphub.com](http://www.themsphub.com)

