



z Systems - It's Been a Bumpy Ride

Paul R. Robichaux

Thursday, August 13, 2015

10:00 AM - 11:00 AM, Dolphin, Europe 2

Session 17788



#SHAREorg



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Abstract and Speaker



- One of the primary missions of those charged with the responsibility to enhance and sustain the operational availability and integrity of the z Enterprise and its z Systems is to maintain their currency in both overall IT Server Market Trends and changes that specifically impact the z/OS environment. Such individual currency helps organizations adapt their IT strategies in ways that best fit the needs of all IT users and aids them in their long term effort towards reducing the Total Cost of z Systems Ownership (zTCO).
- This presentation, an update to one presented at SHARE in San Francisco and the IBM zUniversity in New Orleans in 2012/13, will provide fresh insight into the “Ups and Downs” experienced by hardware, software and business service providers as they manage the shift to “Hyper-Scale”, increasing Cloud-based Systems of Record, all in an effort to satisfy the apparent, insatiable demand for service that is resulting from the never ending introduction of global systems that intend to engage users at every possible commercial and/or social entry point.
- Paul R. Robichaux is CEO and co-founder of NewEra Software, Inc. He served as the Chief Financial Officer of Boole and Babbage for the ten years immediately preceding his co-founding of NewEra in 1990. He holds a BS in Accounting and a Masters in Business Administration from a Louisiana State University and is a Certified Public Accountant.
- The corporate mission of NewEra Software is to provide software solutions that help users avoid non-compliance, make corrections when needed and in doing so, continuously improve z/OS integrity.

z Systems - It's Been a Bumpy Ride

Hello! My name is Paul.

*I am a Mainframer
and
Very proud of it!*

*I like to think of myself as
a citizen
in the z Community!*



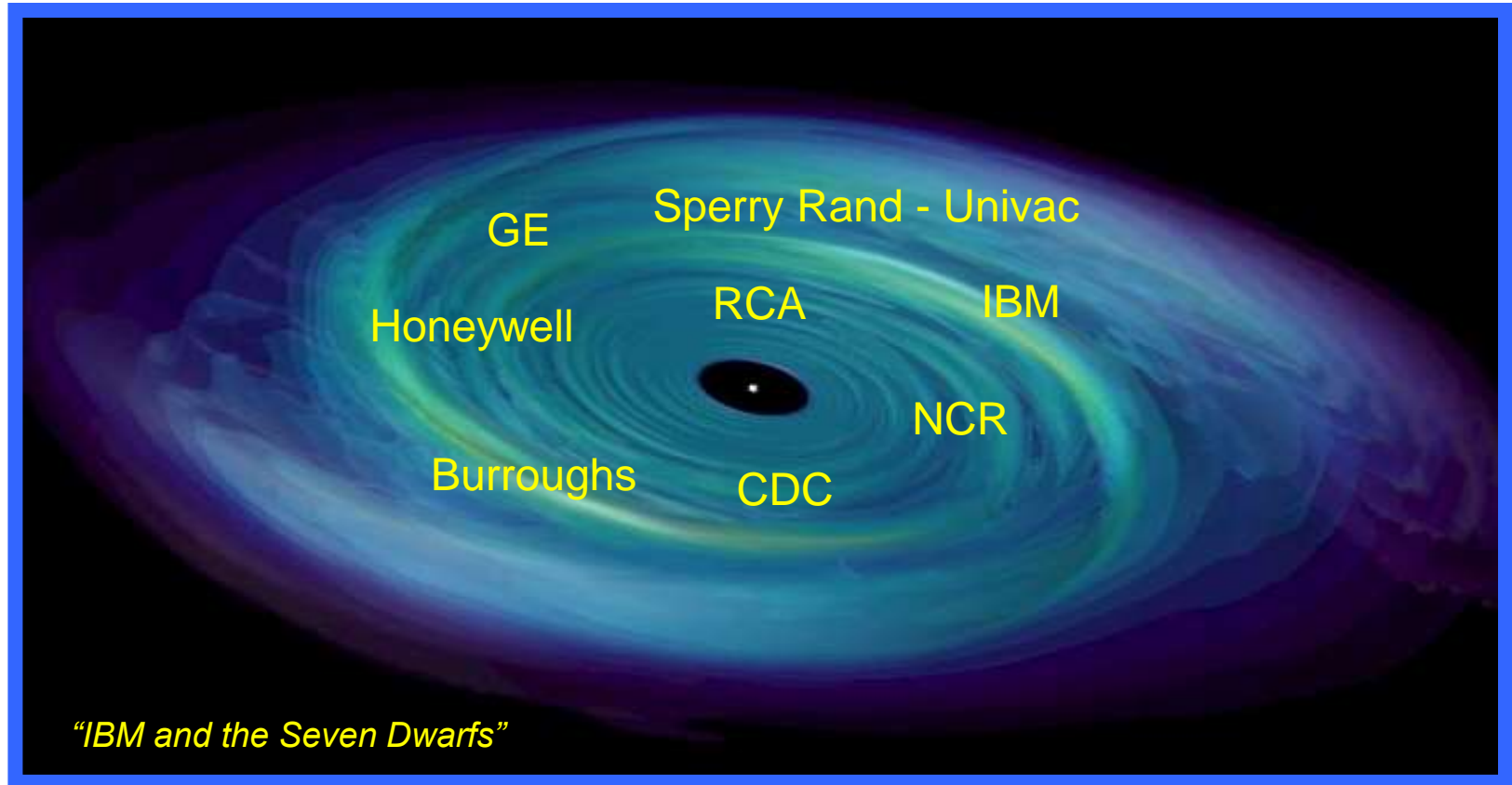
z Land as I see it!

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Thursday - 7/29/2015 - 10:00/11:00 - Dolphin - Europe

z Systems - It's Been a Bumpy Ride

zEnterprise Management - Some Things Old are New Again!



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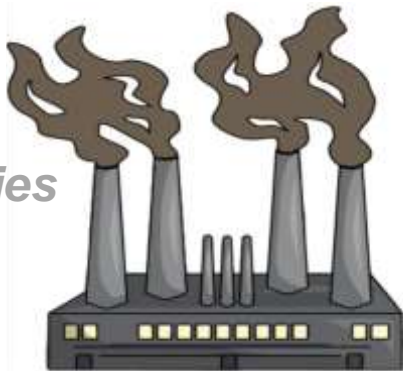
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z Systems - It's Been a Bumpy Ride

Front-End ↔ Somewhere in Between ↔ Back-End



Utilities



Transportation

Retail



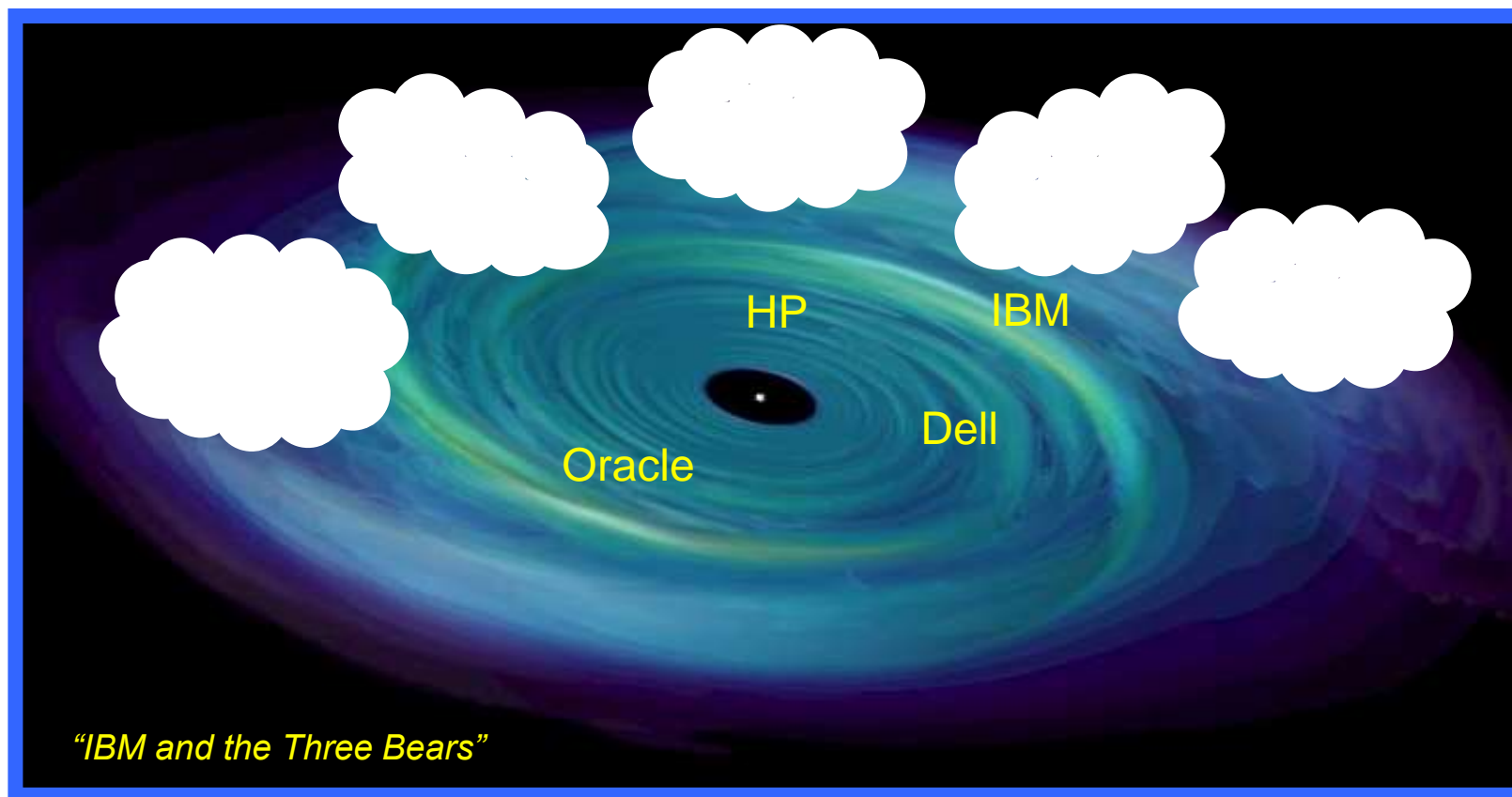
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zEnterprise Management - Yesterday, the Cloud was the New Normal!



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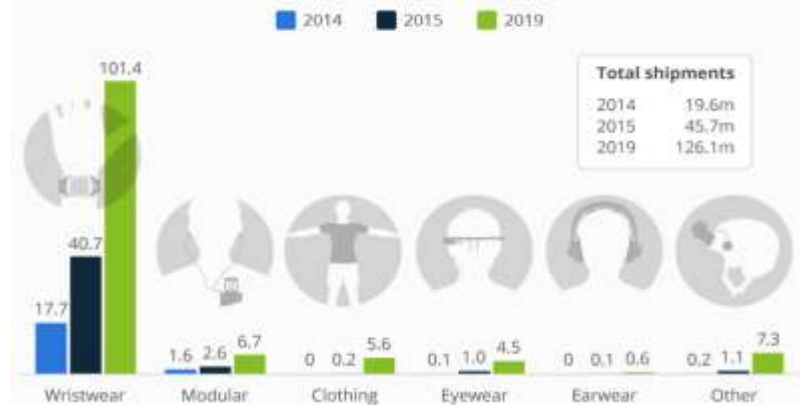
These Countries Have The Fastest Internet Speeds

Average internet connection speed in Q2 2014



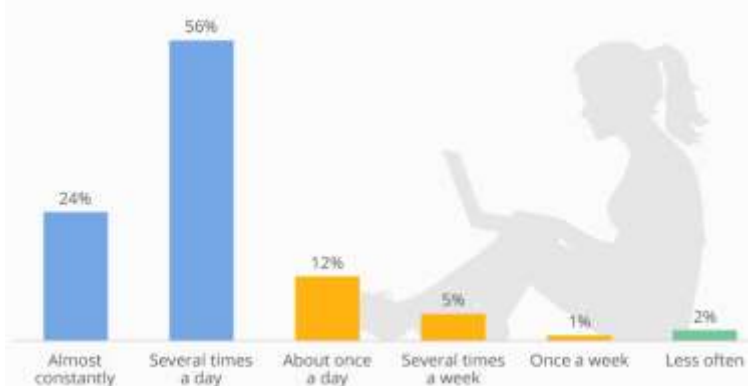
The Predicted Wearables Boom Is All About The Wrist

Worldwide wearable device shipment forecast (in million units)



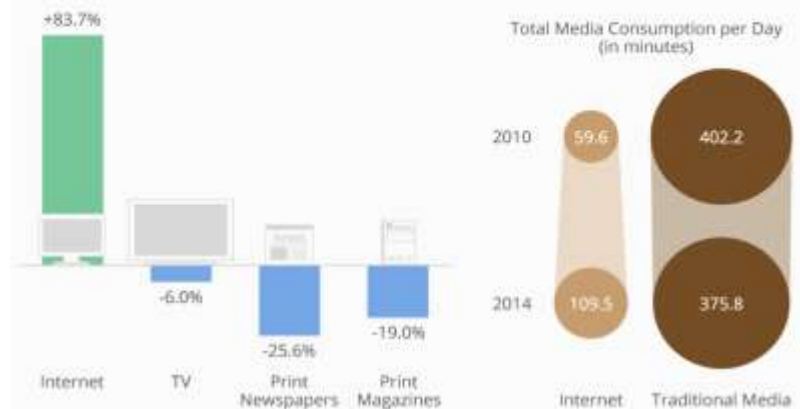
1 in 4 Teens Are Online Almost Constantly

% of teenagers in the U.S. who use the internet with the following frequency



The Internet Is Gradually Replacing Traditional Media

Change in time consumers spend with selected media per day between 2010 and 2014



z Land as I see it! Source: [The Statistics Portal](http://TheStatisticsPortal.com)

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zEnterprise Management - Today, Disruption is Everywhere; Nothing is Normal!

Freeform Structured

Two
Data Types

How Big Is Data?

2005 -12 : 2,000 X

By 2020 : 14 X/Yr



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Front-End ↔ Somewhere in Between ↔ Back-End



← Engagements → Think Platform ← Systems of Record →

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Critical Success Factors:

- ☐ *Total Cost of Ownership*
- ☐ *System Performance*
- ☐ *The User's Trust*



Failure Results in Disintermediation:

“Disintermediation occurs when a buyer, having connected with the seller, circumvents the platform and talks to the seller, eventually doing her deal directly with that seller. As a result, the platform owner is then unlikely to get her revenue share. This may be considered a new form of disintermediation.”

[More about Disintermediation](#)

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Execution against Financial Dreams

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Execution against Financial Dreams

zEnterprise Management - Economic Performance – Key Players - The IBM Story



Virginia M. Rometty, President and CEO
Samuel J. Palmisano, Chairman of the Board

Key Drivers for 2015 EPS Road Map

Revenue Growth

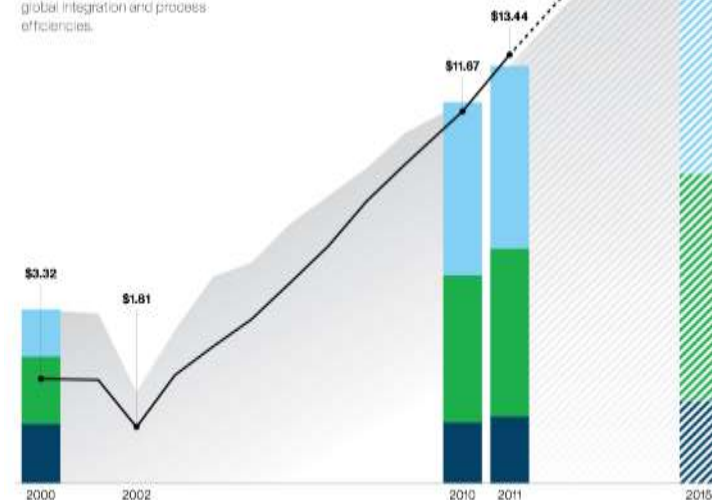
A combination of base revenue growth, a shift to faster growing businesses and strategic acquisitions.

Share Repurchase

Leveraging our strong cash generation to return value to shareholders by reducing shares outstanding.

Operating Leverage

A shift to higher-margin businesses and enterprise productivity derived from global integration and process efficiencies.



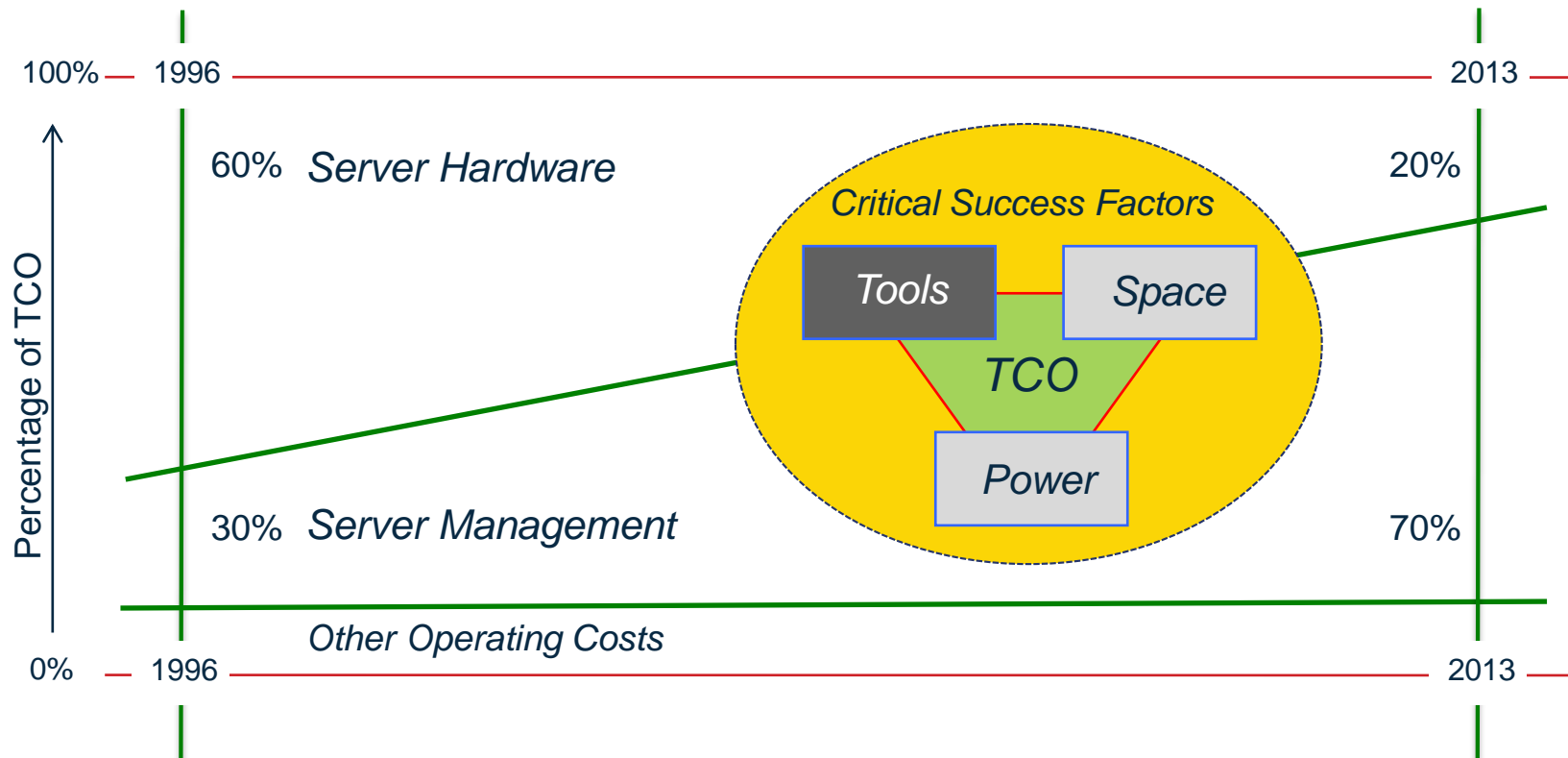
Source: IBM 2011 Annual Report - http://www.ibm.com/investor/pdf/2011_ibm_annual.pdf

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Execution against Financial Dreams

zEnterprise Management - Economic Drivers – Total Cost of Ownership



¹ Source: Dr. John Shedletsky – IBM Technical World – San Francisco – April, 2012

Execution against Financial Dreams

	HP (30)	Dell (15)	Oracle (6)	IBM (30)
1	Down 10% in 2011 and 23% in most recent quarter. Lenovo a Threat? ↓	Still growing but pace has slowed. Large enterprise revenues up 5%. ↑	Hardware is shrinking, plan to give up on unprofitable businesses. ↓	High-end leader, business very profitable. Growth is modest. ↑
2	Disclosure of apparent accounting fraud latest humiliation of tech giant. ↓	PC eroding, enterprise division not enough to support company, use cash to acquire growth. ↓	Better-than-expected software sales help tech giant beat expectations ↑	Risk to exceeding 2015 projections: global slowdown, delayed or cancelled projects. ↑
3	Board survives ouster attempt - 3.21.13 - Ray Lane out as Chairman - 4.5.13 - ↓	Once one bidder, now three . What appeared simple - now complex, enchanting, and flawed. ↓	Flat Q1 Earnings Continued decline in Hardware, No growth in Software. ↓	Solid start, good client demand - did not close software/mainframe deals - Second Quarter. ↓

¹ SHARE 08/12 - Financial Times – Friday, June 1, 2012 and (xx)Percentage Market Share – Q3 2011 - IDC

² SHARE 02/13 - SJMN 12/19/2012 and Business Insider 11/2012 and <http://seekingalpha.com/article/302020> & 821141

³ zSymposium 05/13 - NASDAQ/NYSE - Business Wire - SJMN - <http://channelnomics.com> - <http://www.forbes.com/>

Execution against Financial Dreams

Market Capitalization: Common Share Price X Common Shares Outstanding

As of Q1 2013



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Execution against Financial Dreams



Global Market Factors - Head Winds:

- ✓ Slowing Growth - CEO Uncertainty
- ✓ Falling Margins - Hardware Price Increase
- ✓ Share gains for low-cost providers
- ✓ Questionable Macroeconomic Trends

Near-Term Factors:

- ✓ HP - Cleanup the Acquisition Mess
- ✓ Dell - Work with Hedge Funds, go Private
- ✓ Oracle - Acquire SaaS Clouds - Eloqua
- ✓ IBM - Stay the Course, Invest in Tools

Source - Financial Times – Friday, June 1, 2012 and (xx)Percentage Market Share – Q3 2011 - IDC

Source - SJMN 12/19/2012 and Business Insider 11/2012 and <http://seekingalpha.com/article/302020> & 821141

Source - NASDAQ/NYSE - Business Wire - SJMN - <http://channelnomics.com> - <http://www.forbes.com/>

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Execution against Financial Dreams

















Relative Stock Market Performance - 8/2012 - 4/26/13¹



¹ www.nasdaq.com – Relative Performance – IBM, HPQ, ORCL, DELL

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Execution against Financial Dreams

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1	Down 10% in 2011 and 23% in most recent quarter. Lenovo a Threat? 	Still growing but pace has slowed. Large enterprise revenues up 5%. 	Hardware is shrinking, plan to give up on unprofitable businesses. 	High-end leader, business very profitable. Growth is modest. 
2	Disclosure of apparent accounting fraud latest humiliation of tech giant. 	PC eroding, enterprise division not enough to support company, use cash to acquire growth. 	Better-than-expected software sales help tech giant beat expectations 	Risk to exceeding 2015 projections: global slowdown, delayed or cancelled projects. 
3	Board survives ouster attempt - 3.21.13 - Ray Lane out as Chairman - 4.5.13 - 	Once one bidder, now three . What appeared simple - now complex, enchanting, and flawed. 	Flat Q1 Earnings Continued decline in Hardware, No growth in Software. 	Solid start, good client demand - did not close software/mainframe deals - Second Quarter. 
4	Splits in 2 by EOY/15. Q2/15 Nearly every business unit had declined in revenue. 	Private. Dell Cloud Marketplace, will do for buying cloud services what Priceline did. 	4 th Q/15 Earnings fall. 17% decline, core S/W. Acquired Datalogix for SaaS Cloud analytics. 	Abandon \$20 target. Invest heavily in areas of growth, despite near-term financial setback. 

¹ SHARE 08/12 - Financial Times – Friday, June 1, 2012 and (xx)Percentage Market Share – Q3 2011 - IDC

² SHARE 02/13 - SJMN 12/19/2012 and Business Insider 11/2012 and <http://seekingalpha.com/article/302020> & 821141

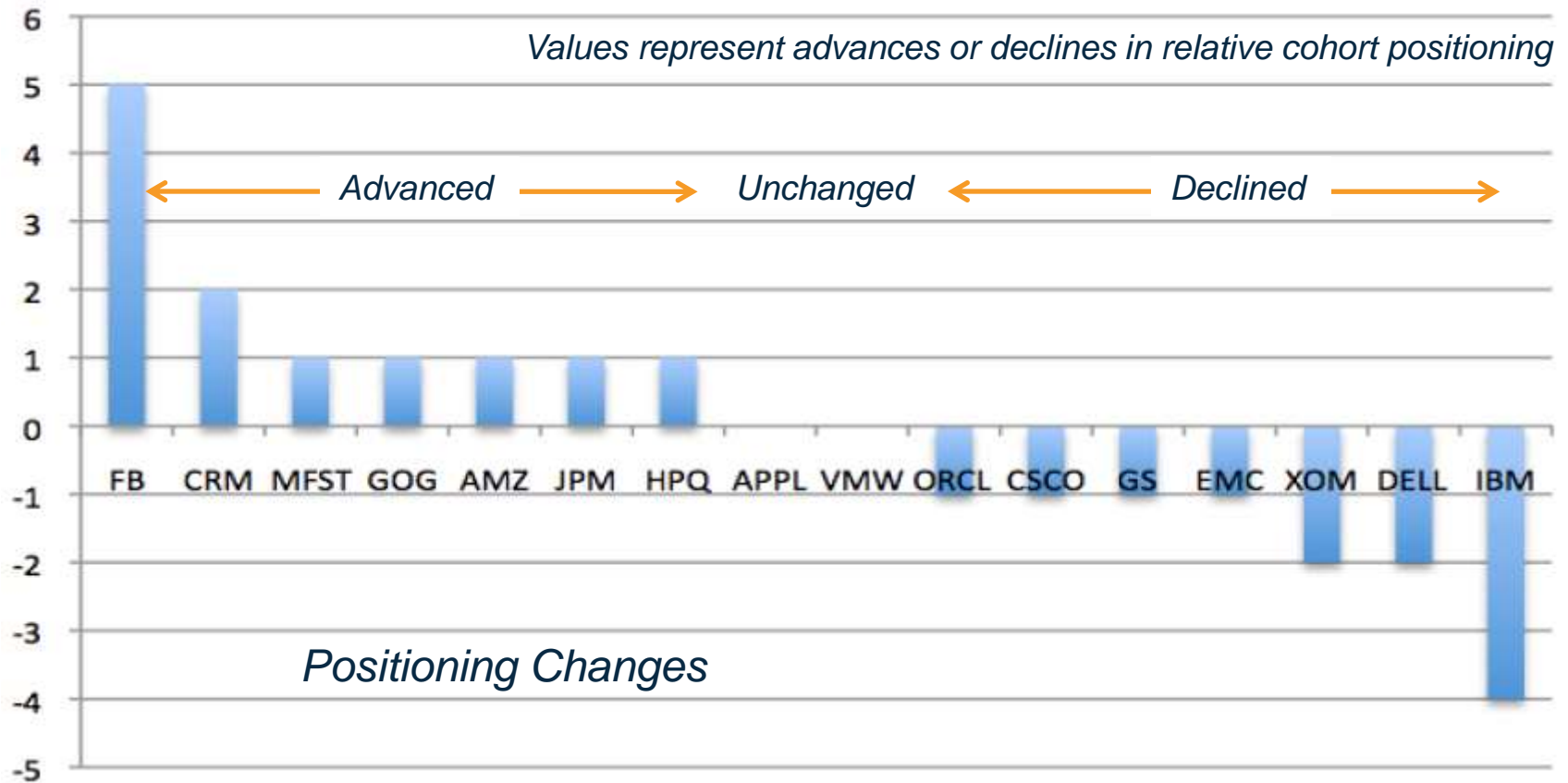
³ zSymposium 05/13 - NASDAQ/NYSE - Business Wire - SJMN - <http://channelnomics.com> - <http://www.forbes.com/>

⁴ <http://www.nytimes.com/2014/10/21/business/amid-a-shift-in-strategy-ibm-reports-weak-earnings.html>

Execution against Financial Dreams

Market Capitalization: Common Share Price X Common Shares Outstanding

Change in Position Q1 2013 to Q2 2015



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Execution against Financial Dreams

Market Capitalization: Common Share Price X Common Shares Outstanding
As of Q2 2015



Factoid - The US Government has approximately \$50b on hand

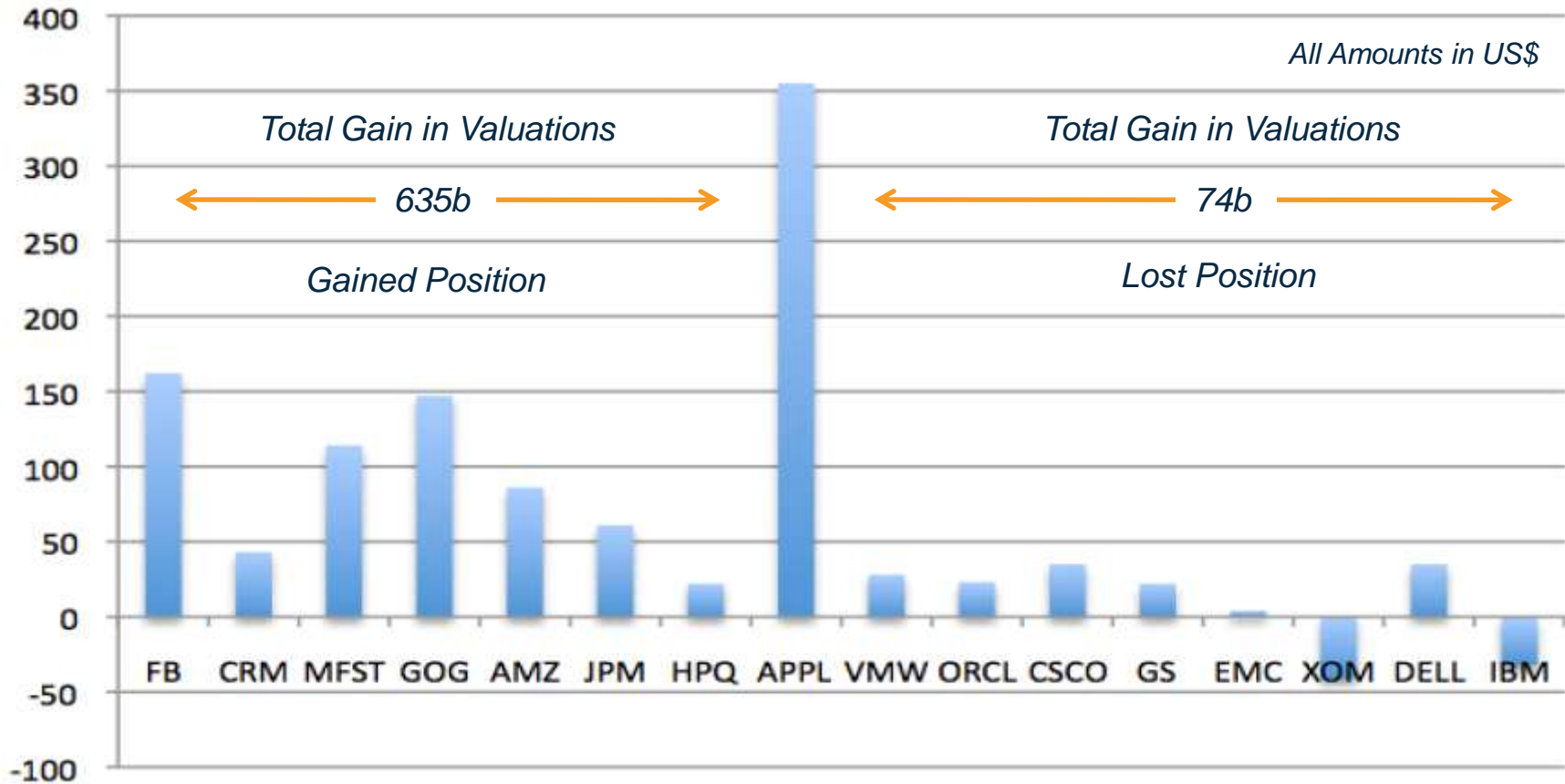
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Execution against Financial Dreams

Market Capitalization: Common Share Price X Common Shares Outstanding

Change in Fortunes Q1 2013 to Q2 2015



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IBM (IBM) [Add to Watchlists](#) [Create an Alert](#)

158.87 ▼ -0.88 -0.55% NYSE Jul 27, 14:58 Delayed 2m USD

[Quote](#) [Fundamental Chart](#) [Technicals](#) [Key Stats](#) [Financials](#) [Data](#) [Estimates](#) [News](#) [Events](#) [Y-Ratings](#) [Performance](#) [Valuation](#) [Multi](#)

IBM Debt to Equity Ratio (Quarterly): 2.826 for June 30, 2015

View 4,000+ financial data types

Add

Browse...

IBM Debt to Equity Ratio (Quarterly) Chart

[View Full Chart](#)

1d 5d 1m 3m 6m YTD 1y 5y 10y Max

[Export Data](#) [Save Image](#)

For advanced charting, view our full-featured [Fundamental Chart](#)



IBM delivers \$12.5 billion a year in free cash flow. There's isn't any solvency risk.

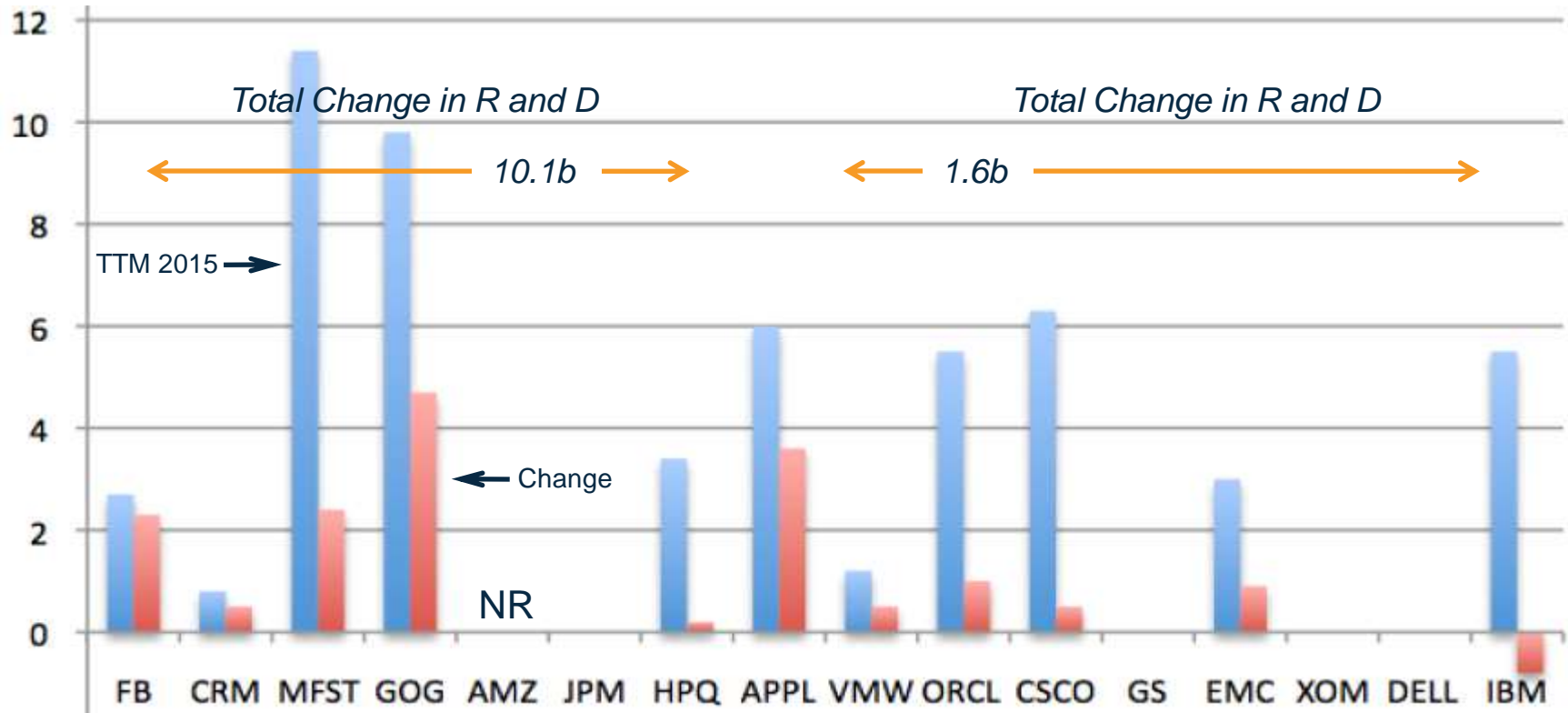
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Execution against Financial Dreams

Total R and D Expenditures 2015 (TTM) and Change in Expenditures

Change in Fortunes 2011 to 2015 (TTM)



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Execution against Financial Dreams

Relative Stock Market Performance June/12 - July/15



Q2 2015

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Adapting to Predicted Realities

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Adapting to Predicted Realities

Everybody knows Moore's Law is DOA

http://www.eetimes.com/document.asp?doc_id=1170748



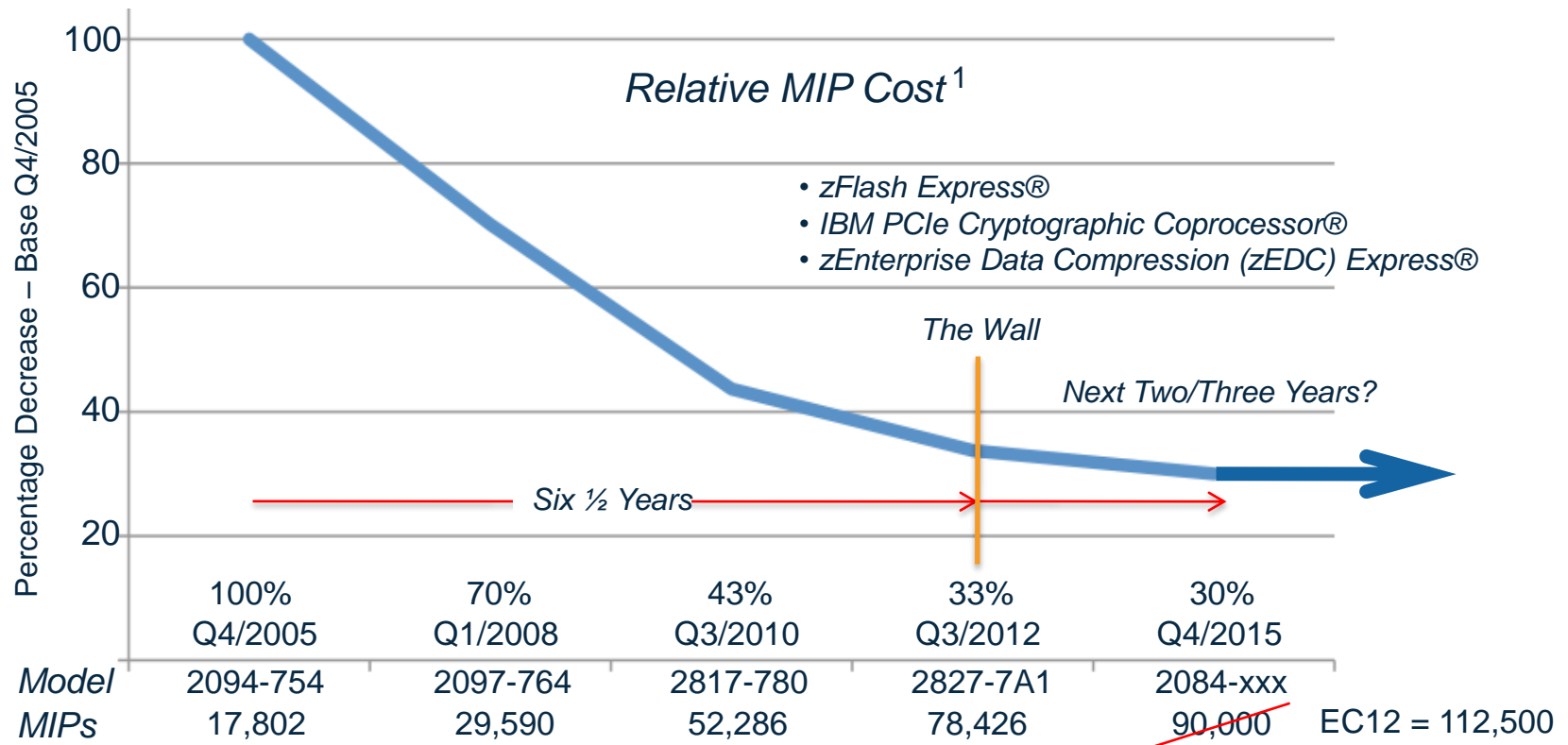
“...halving of the dimensions and doubling of speed of chips every 18 months--will run out of steam very soon - for certain in 10 years?”

“Only a very few high-end chip makers today can even afford the exorbitant cost of next-generation research and design, much less the fabrication facilities needed to build them.”

Two wolves: one good one bad; Which one do you feed?

Adapting to Predicted Realities

Everybody knows We've Hit the Wall



¹ [Source: http://www.tech-news.com/publib/pl2084.html](http://www.tech-news.com/publib/pl2084.html) | pl2094 | pl2097 | pl2817 | pl2827

Adapting to Predicted Realities

Everybody knows “IoT” is Coming Soon!

<http://time.com/539/the-next-big-thing-for-tech-the-internet-of-everything/>



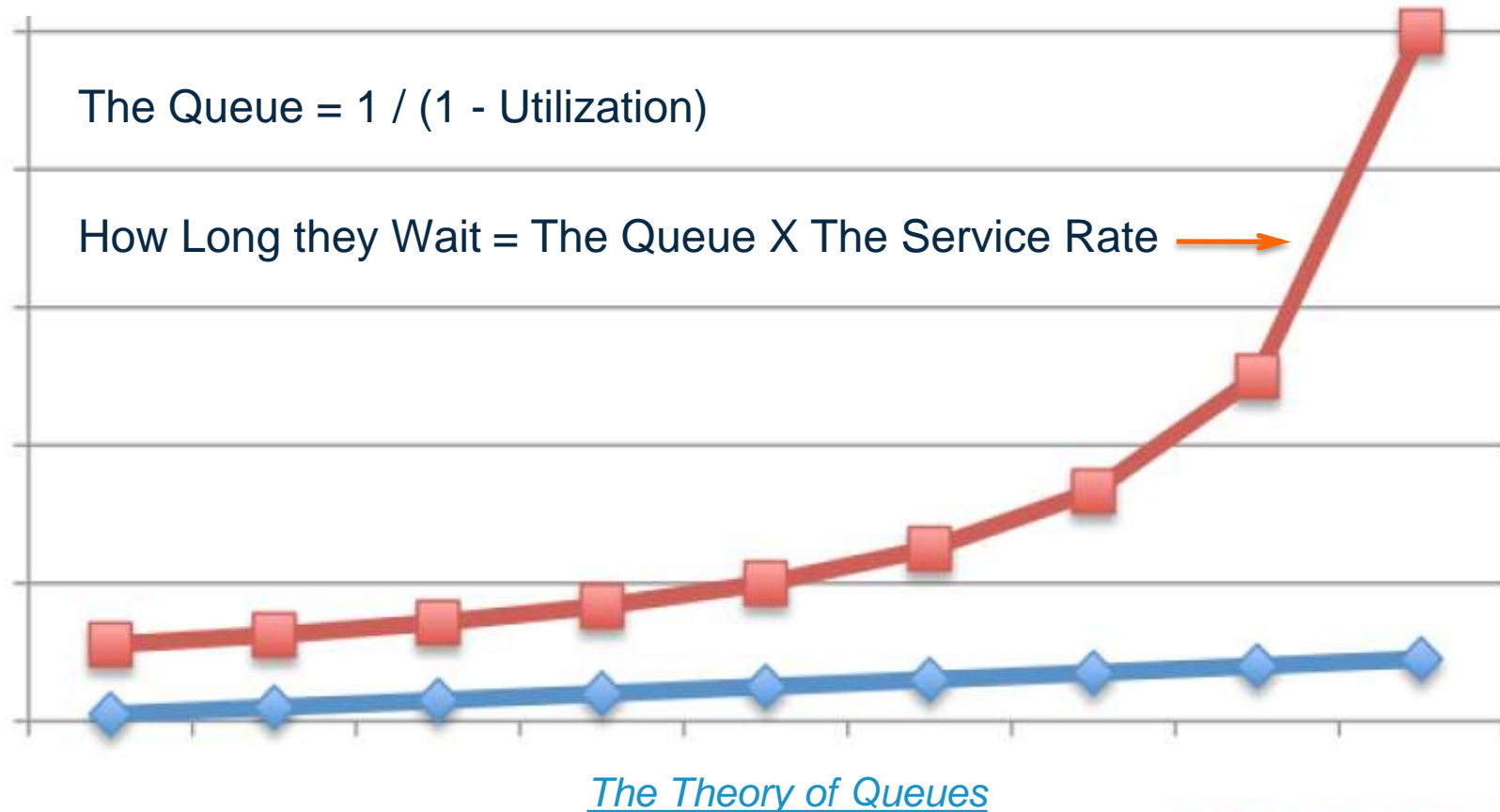
“...IoT is expected to generate large amounts of data from a diverse set of devices and locations, thereby increasing the need to better data indexing, storage and processing.”

“...estimated at \$5.0 Trillion it will have a dramatic impact on everything from city planning, first responders, military, health and other...”

What is The Internet of Things (IoT)?

Adapting to Predicted Realities

Everybody Knows Customers Won't Wait



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Adapting to Predicted Realities

10/2014 - IBM/GlobalFoundries make a deal!

<http://www.extremetech.com/computing/192430-ibm-dumps-chip-unit-pays-globalfoundries-1-5-billion-to-take-the-business-off-its-hands>



“The Emirate of Abu Dhabi is the owner of GlobalFoundries through its subsidiary Advanced Technology Investment Company (ATIC).”

“IBM says that its previously announced \$3 billion investment in next-gen semiconductor research and development, over the next five years won’t be affected by the deal.”

Transaction closed June, 2015

[Who is GlobalFoundries?](#)

Adapting to Predicted Realities

Surprise! Moore's Law? Not dead just yet!

According to IBM, the alliance with GlobalFoundries, Samsung and others achieved a scaling improvement of nearly 50% over the currently most advanced technology, as well as introducing silicon germanium (SiGe) channel transistors and extreme ultraviolet (EUV) lithography integration.

IBM believes that the techniques and scaling could result in a 50% power-to-performance improvement in next generation mainframe and systems that power big data, cloud and mobile computing.

It is ironic that IBM had to pay GlobalFoundries \$1.5 billion to take ownership of its chip-making facilities in upstate New York. The transfer completed just last week. GlobalFoundries now owns chip-making plants in East Fishkill, N.Y., and Burlington, Vt., along with 16,000 patents, IBM's former chip customers and a 10-year contract to supply Big Blue with chips.

[Tiny Tiny Chips](#)

[More](#)

Adapting to Predicted Realities

5/2015 - Avago's \$37 B Broadcom Deal

The Deal and the Details



“...the largest deal ever in the \$300 billion semiconductor business. The combined company will have the most diversified communications platform in the semiconductor industry...”

“...deal creates new competitive challenges for Qualcomm and may force the world's largest mobile chip maker to radically rethink its own strategy.”

Who is Avago?

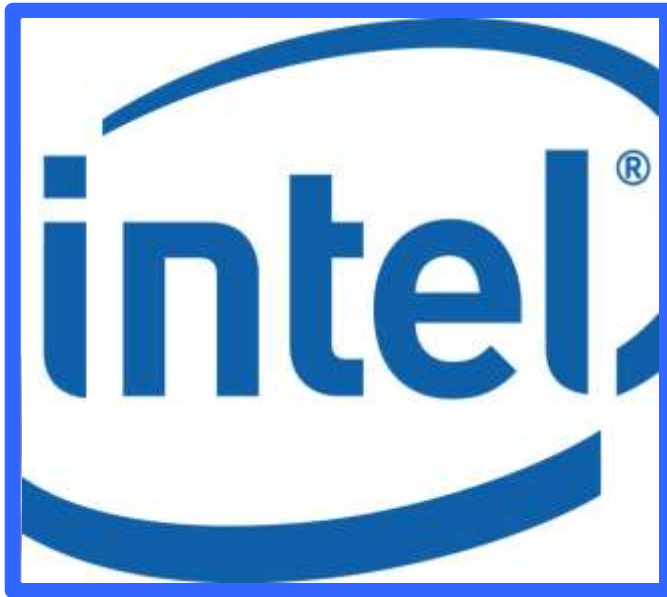
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Adapting to Predicted Realities

6/2015 - Intel's \$16.7 Billion Altera Deal

The Deal and the Details



“...Intel has been looking for growth beyond the struggling personal-computer market, which has been declining since it peaked in 2011...”

“...the combination is expected to enable new classes of products that meet customer needs in the data center and Internet of Things market segments...”

Who is Altera?

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Adapting to Predicted Realities

4/2011 - The Open Compute Project

<http://www.opencompute.org>



“...(OCP), one of the most important tech projects Facebook has ever created. OCP began in 2012 as a radically new way to build and buy computer hardware. It creates free and "open source" designs where anyone can contribute to the designs and use them for free, ordering them from a contract manufacturer.”

Liked by: Microsoft, Intel, Goldman Sachs, Rackspace and others.

<http://www.businessinsider.com/facebook-just-fired-a-huge-shot-at-cisco-2014-6 - ixzz3bNKjSy3Z>

z Systems It's Been a Bumpy Ride



Embracing Market Trends

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Embracing Market Trends

7/2013 - IBM Acquires SoftLayer Technology!

<http://www-03.ibm.com/press/us/en/pressrelease/41430.wss>



“...will enable IBM to deliver a marrying of the security, privacy and reliability of private clouds with the economy and speed of a public cloud.”

“...joins the more than a dozen strategic cloud acquisitions IBM has made since 2007, all of which are designed to accelerate its cloud initiatives...”

[Who is SoftLayer?](#)

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Embracing Market Trends

Different Chips but it's the Same Game!

And it will continue for sometime to come



Year	-	##
2015	-	5
2014	-	4
2013	-	9
2012	-	9
2011	-	8
2010	-	15
2009	-	7
2008	-	12

Recent Examples

Feb/14 - Clouant:

\$1B PaaS - DevOps - Bluemix

June/15 - BlueBox:

Will offer as cloud service.

Denotes shift away from on-premise solution targets.

June/15 - Portico:

Quickly build, test and deploy IBM Digital Experience Cloud

June/15 - Databricks:

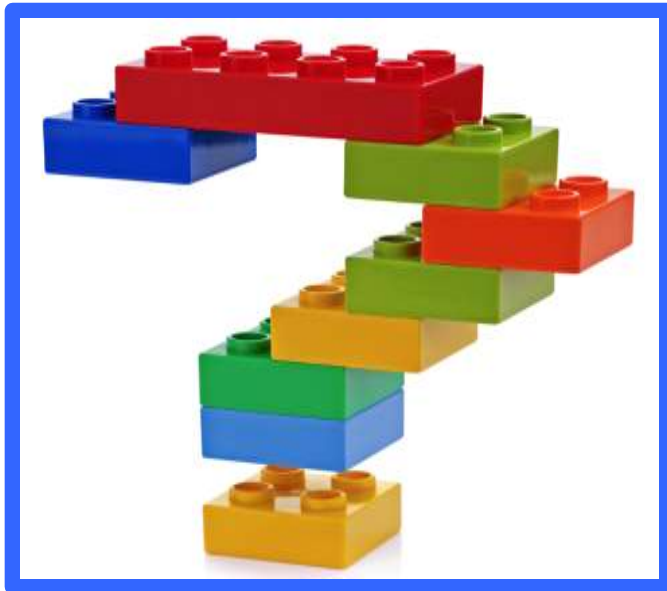
\$300M - More →

IBM Transformative Mergers and Acquisitions

Embracing Market Trends

6/2015 - Major Commitment to Apache®Spark

Most Significant Open Source Project of the Next Decade



“...Spark basically replaces older methods (Google MapReduce and Apache Storm) of working with the big data stored in Hadoop...”

More Than Money:

- Embed in Analytic Platforms
- Offer as Cloud Service - Bluemix
- 3,500 to Develop Applications
- Donate ‘IBM SystemML’
- Train/Educate 1 Million to Use
- Opened SF Technical Center

Spark In-Memory Processing. What is it?

Embracing Market Trends

7/2015 Partnership and Cooperation!

Big-tech incumbent International Business Machines Corp. and Silicon Valley darling Box Inc. are teaming up to boost each other's sales opportunities in corporate settings.



[Teaming with Box](#)

Apple has announced a strategic partnership with IBM that will see the enterprise giant transfer over 150 of their enterprise and IT apps and tools to Apple platforms natively, and will also have IBM selling Apple iPhones and iPads to its business clients all over the world.



[Teaming with Apple](#)

Is it working? Will it work?

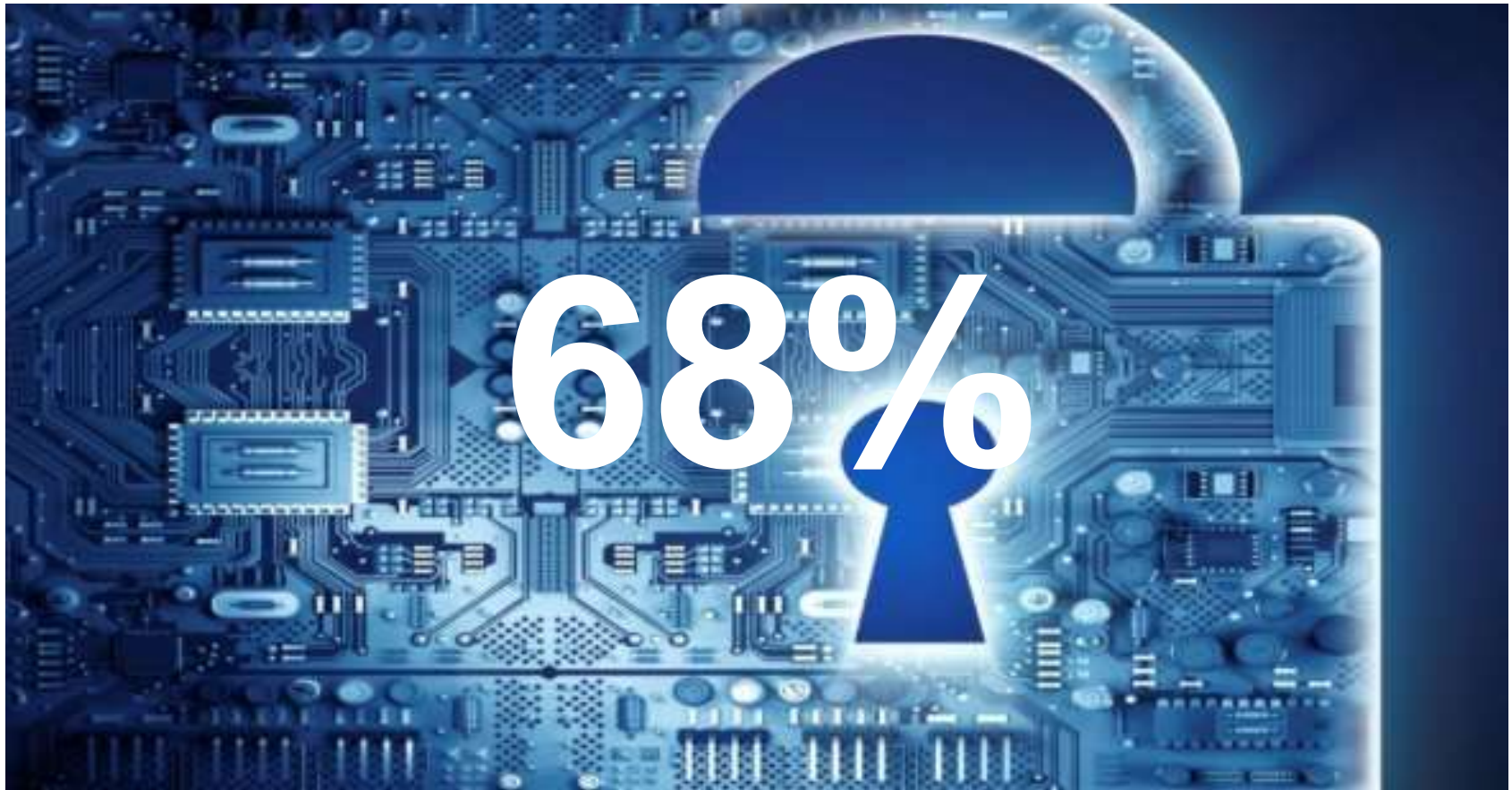
Big Tent! Could you Make Room for Us?

OpenStack Community



- IBM is listed as the company most likely to win Cloud business (18 percent), followed by Microsoft (11 percent) and Amazon Web Services (6 percent). [Link](#)

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Keys Under the Doormat

Winning with Illusions

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Are Consumers Satisfied with Security?

“Consumers have zero privacy so just get over it.”

Scott McNealy, 1999

“If you have something that you don’t want anyone to know, maybe you shouldn’t be doing it in the first place .”

Eric Schmidt, Recently

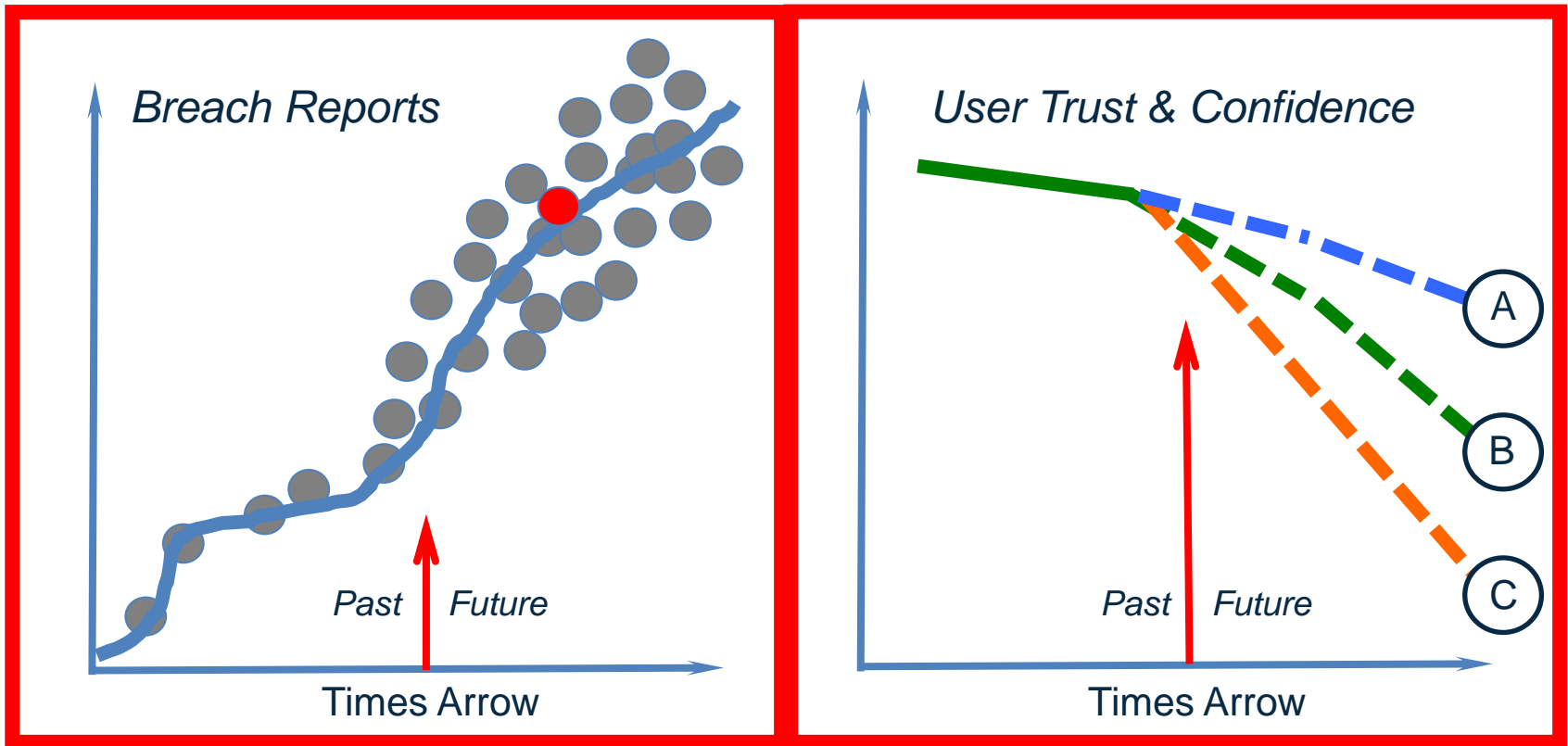
“Consumer attitudes are changing as they share more and more information on line.”

Mark Zuckerberg, Recently

San Jose Mercury News May 21, 2015

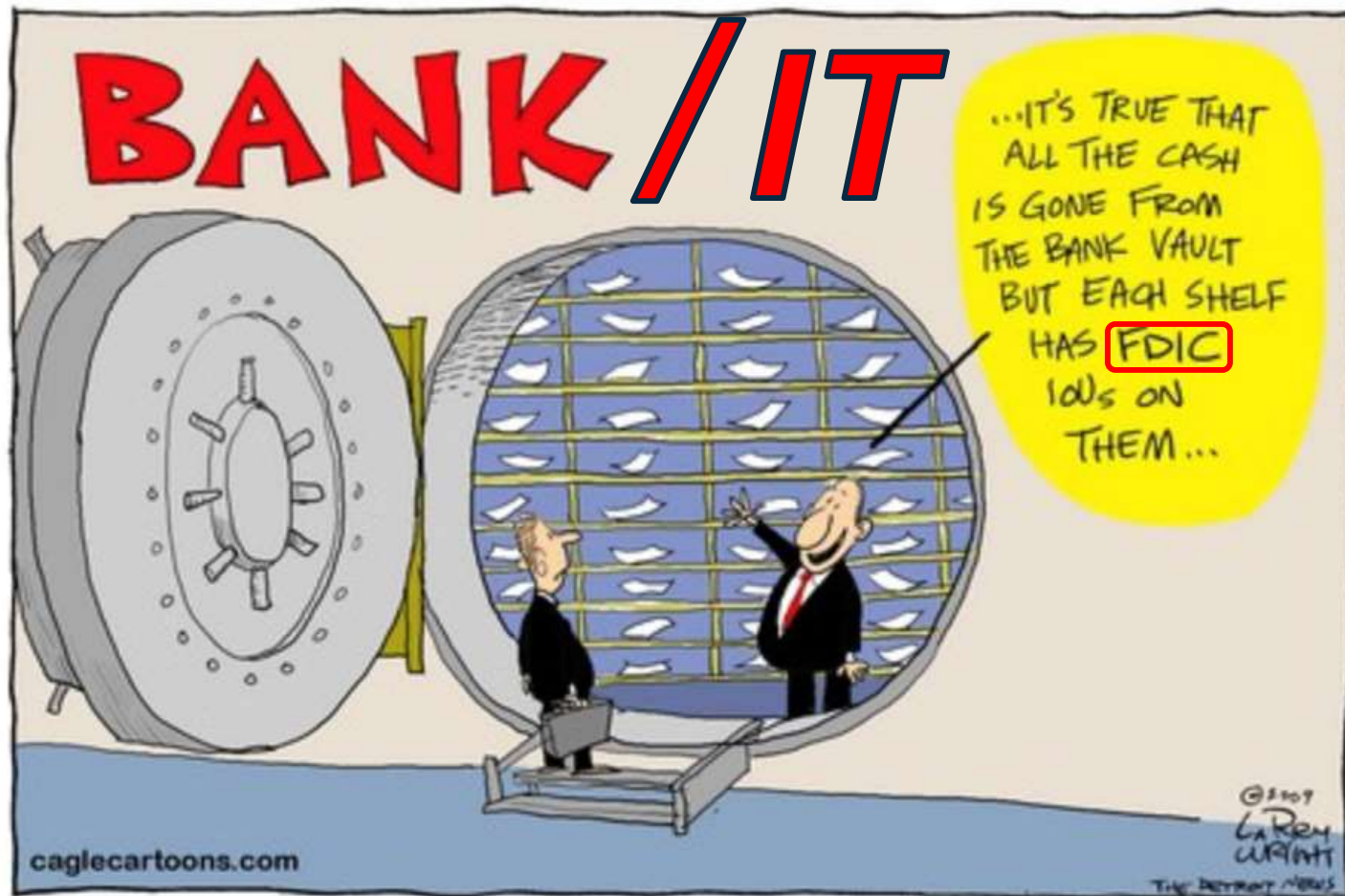
Winning with Illusions

Connecting the Dots - Can you spot and name these trends?



Is there a Tipping Point? See Malcolm Gladwell

Winning with Illusions



Or with Facts. Why Banks want Mainframes!

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Winning with Illusions



Apple on the Upper East Side of New York

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Is it Working? Will it work?

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Is it working? Will it work?

The Pivot to Cloud Fast; Results Slow!

In April, IBM announced its ^{13th} ~~12th~~ consecutive quarter of declining revenue, with sales of \$19.6 billion coming in 12% lower than the year before.

Growth in its cloud services and analytics tools aren't enough to offset the declines the company is facing elsewhere. 46 Cloud Data Centers to be in place by EOY 2015, half based overseas.

Any lift IBM could receive from its recent slew of acquisitions and “BFF” partnerships is unlikely to have significant impact on its revenue anytime soon.

[More Financial News](#)

Is it working? Will it work?

What is SaaS?



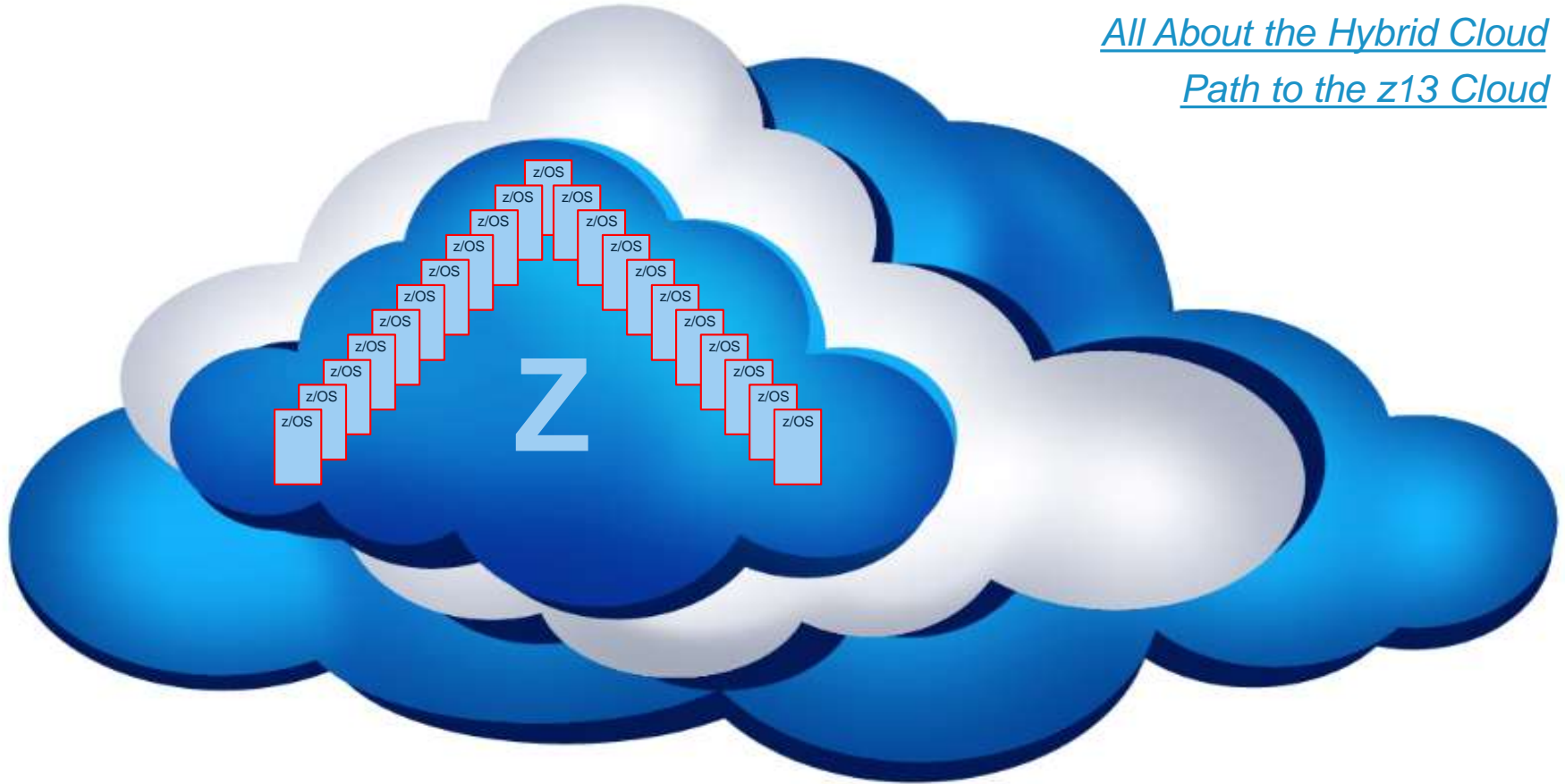
IBM Interactive Experience Named Largest Global Digital (Ad) Agency

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Is it working? Will it work?

All About the Hybrid Cloud
Path to the z13 Cloud



Something Old is New Again. Believe!

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Is it working? Will it work?

Front-End ↔ Somewhere in Between ↔ Back-End



← Engagements ↔ Think Platform ↔ Systems of Record →

What most are Missing!

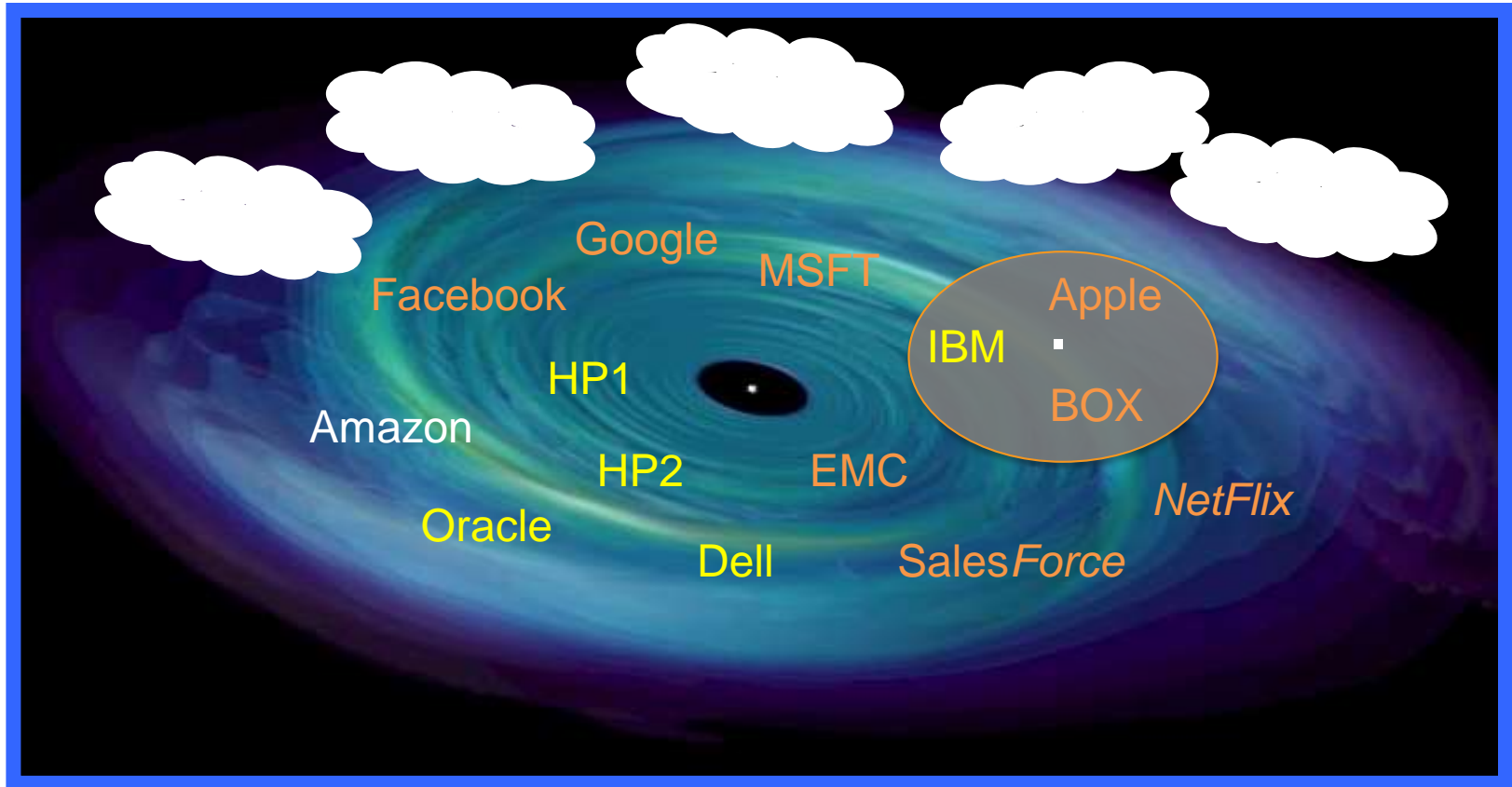
Think Platform!

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Thursday - 7/29/2015 - 10:00/11:00 - Dolphin - Europe

z Systems - It's Been a Bumpy Ride

zEnterprise Management - Some Things Old, New Again -Partnerships!



z Land as I see it!

Complete your session evaluations online at www.SHARE.org/Orlando-Eval

Thursday - 7/29/2015 - 10:00/11:00 - Dolphin - Europe



z Systems - It's Been a Bumpy Ride

Paul R. Robichaux

Thursday, August 13, 2015

10:00 AM - 11:00 AM, Dolphin, Europe 2

Session 17788

Evaluations Please!



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