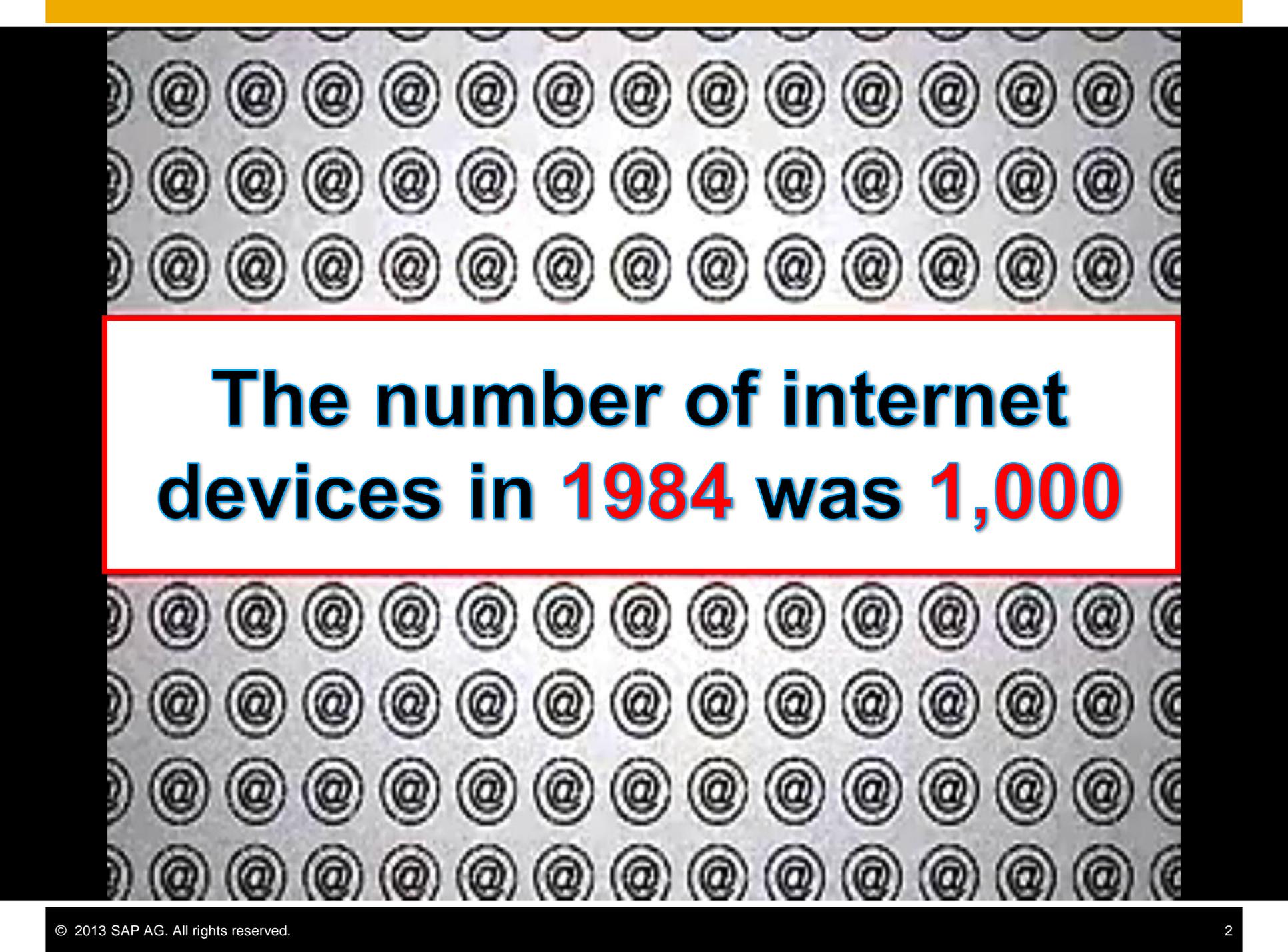


Run Connected

Evan Schultz
Global Partner Senior Director
IoT / M2M, Technology Partners
evan.schultz@sap.com

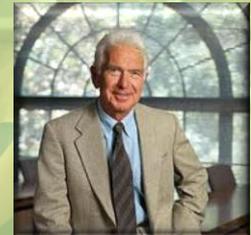




**The number of internet
devices in 1984 was 1,000**

The factory of the future will have only two employees, a man and a dog. The man will be there to feed the dog. The dog will be there to keep the man from touching the equipment.

Warren G. Bennis



Hollywood or Reality?

Hello Mr. Yakamoto
and welcome back
to the GAP!

Self Driving Cars



Mobile Information Factories

70% of all computer chips do not go in to computers



- GPS shows where it is
- Microwave sensors measure cotton flow
- RFID tags let processors know the origin of each bundle
- Wireless communications
- Computing power of 8 PCs

*John Deere doesn't make tractors but rather "sophisticated mobile information factories"**

Explore trends

Hot searches

Search terms

internet of things

+ Add term

▶ Other comparisons

Limit to

Web Search ▶

Worldwide ▶

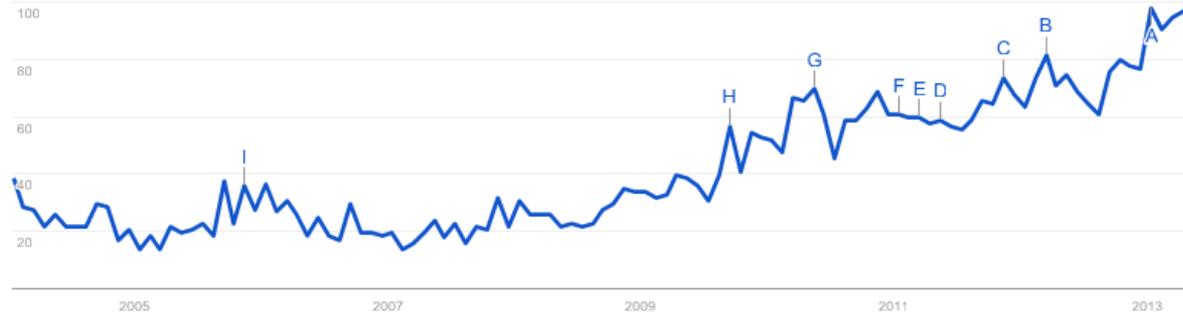
2004 - present ▶

All Categories ▶

Interest over time

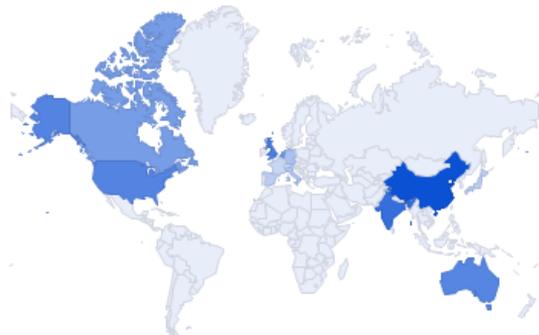
The number 100 represents the peak search interest

News headlines forecast



Embed

Regional interest



0 100

Region | Town/City

▶ View change over time

Embed

Related terms

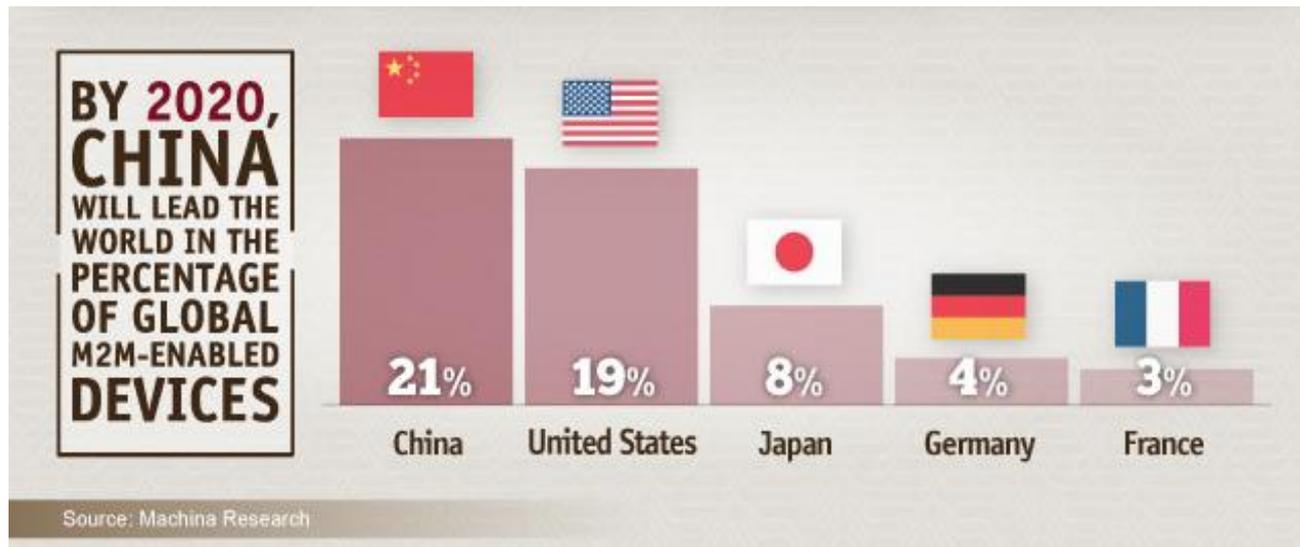
Top | Rising

web of things	100	
iot	65	
物联网	45	
internet of thing	40	
definition of internet	35	
internet of services	35	

Embed

Beijing plans to invest 5 billion yuan (\$800 million) in the IoT industry by 2015.

The Ministry of Information and Technology estimates China's IoT market will hit 500 billion yuan (\$80.3 billion) by 2015, then double to 1 trillion yuan (\$166 billion) by 2020.



Mobile is now an intrinsic part of life

What would you give up for a week to keep your mobile phone?

Brushing Teeth 22%

Caffeine 55%

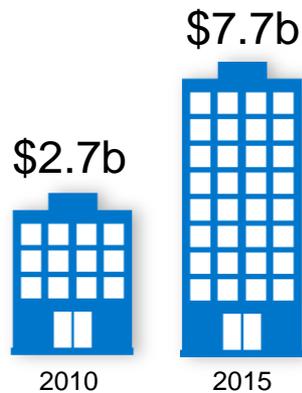
Exercise 54%

??? 33%

*Bersin & associates 2012

Business apps: Fastest growing app category on App Store

WW enterprise apps market¹



80%

of Fortune 500 plan to implement mobile apps in 2012²

FORTUNE[®]
500

Yet...

50%

of Enterprises lack mobile app developers³

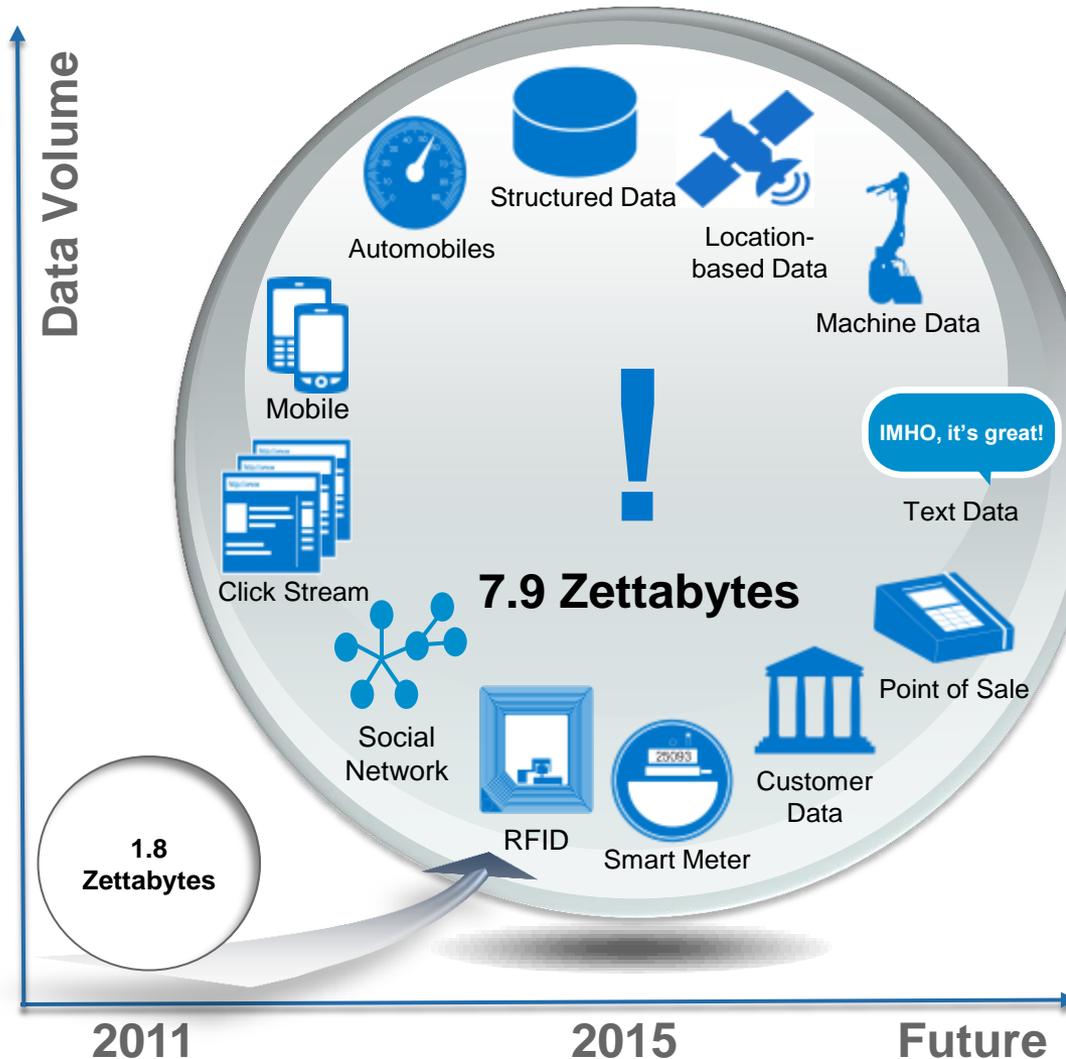


Beyond telecoms, some of the most successful brands in the ranking – from Coca-Cola to Visa – have used mobile platforms and marketing strategies to ignite growth - *Pierre Dupreele, SVP, Millward Brown Optimor*

1. IDC; 2. Forrester – “Mobile Trends of “Fortune 500” Companies” – Jun 2012; 3. Custom Solutions Group – “Mobile in the Enterprise: The Gap Between Expectations and Expertise” - 2012

Big Data Characteristics

Big Data is not new and can be solved because of emerging affordable solutions



VOLUME ▶

Lots of data and Petabyte data size is normal

VARIETY ▶

No-relational data and Many formats

VELOCITY ▶

Fast collection, processing and consumption

VALUE ▶

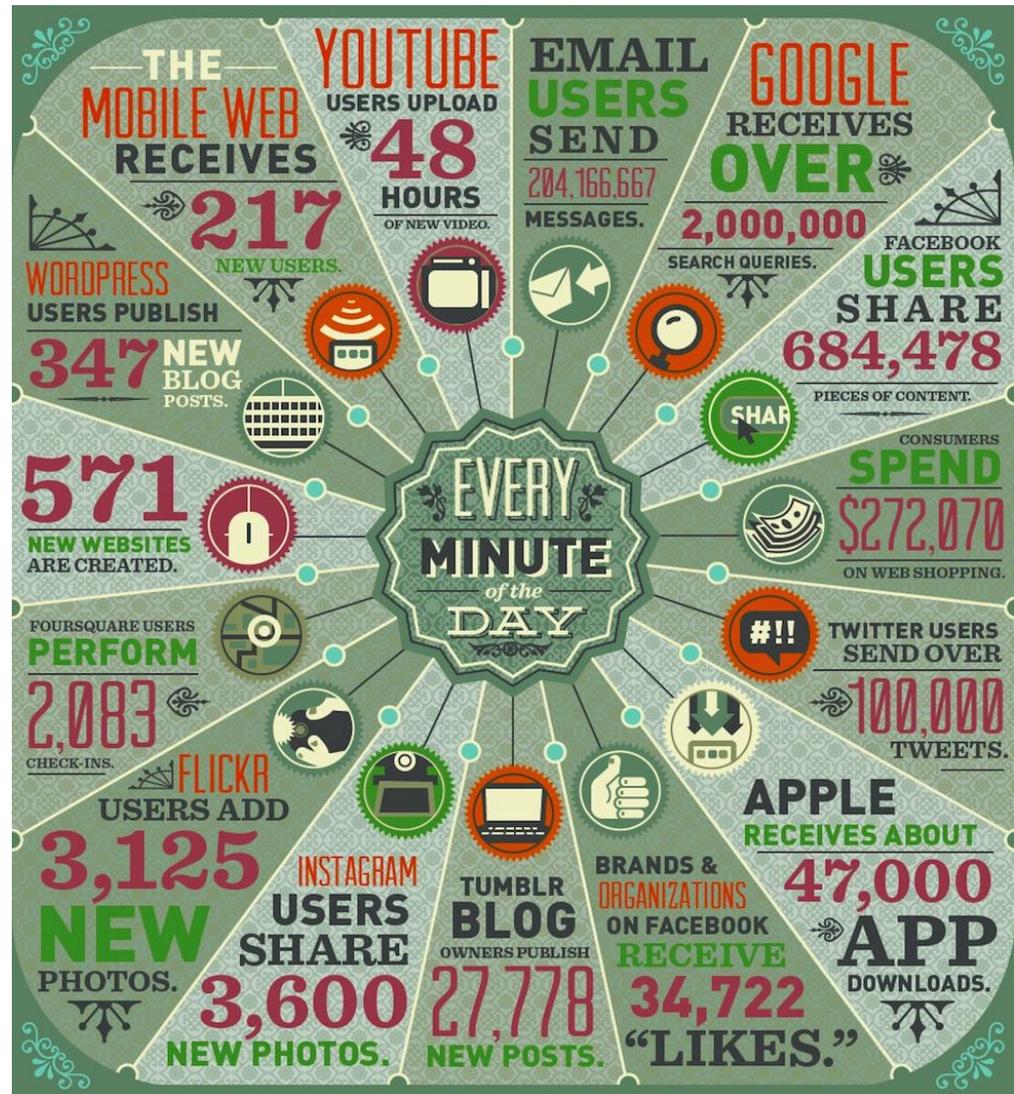
Competitive differentiator for Business

- 1 Terabyte = 1024 Gigabytes
- 1 Petabyte = 1024 Terabytes
- 1 Exabyte = 1024 Petabytes
- 1 Zettabyte = 1024 Exabytes

Data Never Sleeps

- 2013 – 2 ½ Zettabytes in a day v/s all of 2008
- Digital universe will reach 4 Zettabytes (~4 B TB) by 2013 (50% YoY growth)
- 40% growth in global data v/s 5% in IT spending
- Gas Turbines generate 500GB / day
- Single Jet engine – 10TB in 30 mins

How much data is created every second?



Big Data is Deluging



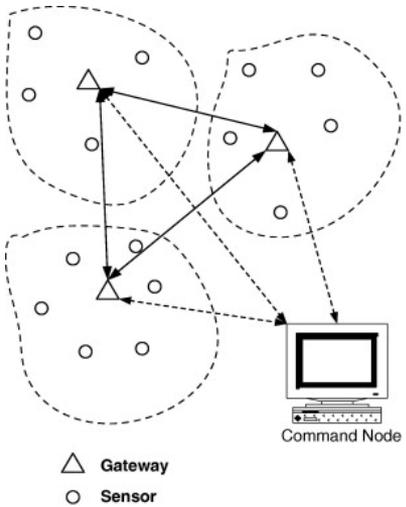
Source: IDC's Digital Universe Study, sponsored by EMC, June 2011

Big Data is **not** the **created** content, nor is it even its **consumption** — it is the **analysis of all the data surrounding or swirling around it.**

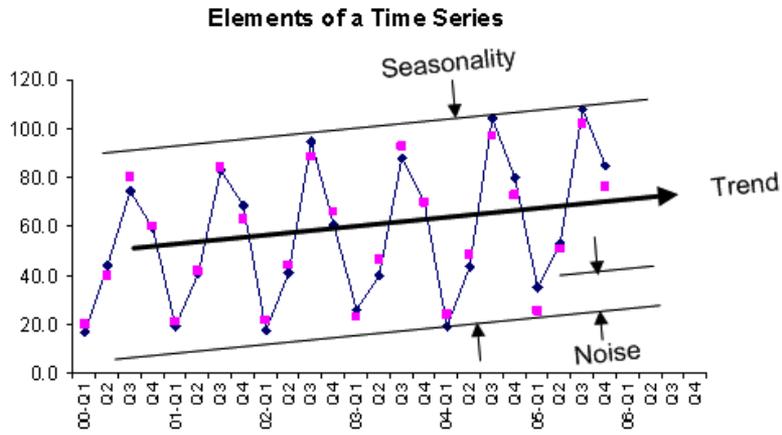
Source: [IDC 2011 Report on Digital Universe Decade](#)

M2M Data Problem

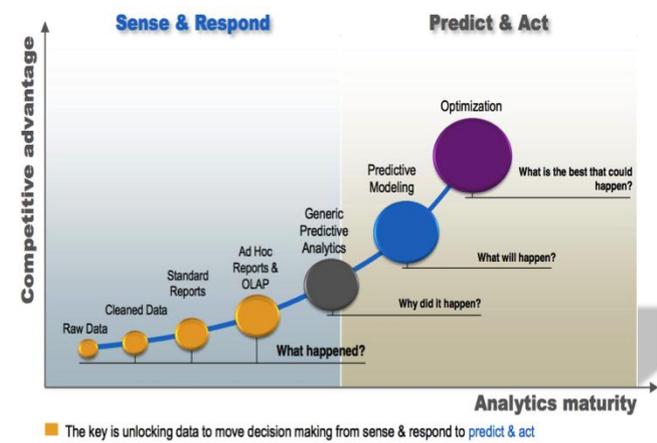
Multi Site



Fast Data



Big Data



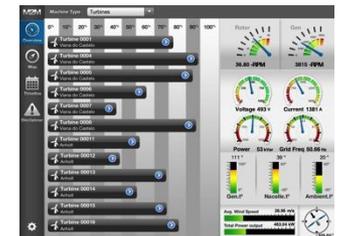
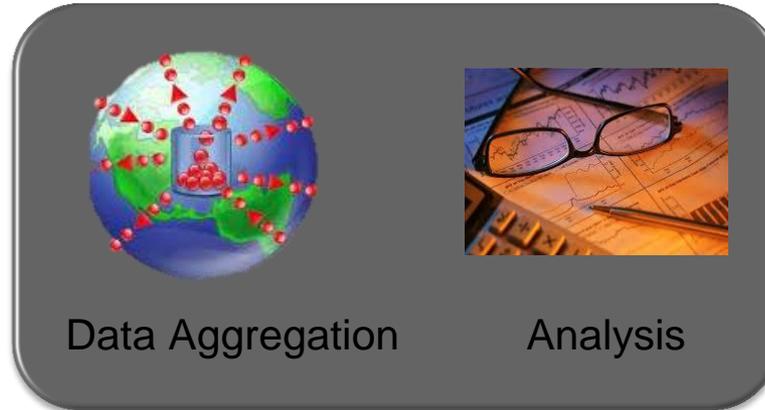
- Edge Intelligence
- End point correlation
- M-M Actuation
- Time Sensitive Data
- Event Correlation
- External Data Sources
- Large Data sets
- Predict & Act

Simplifying the Internet of Things

Observing the Physical World



Changing the Physical World

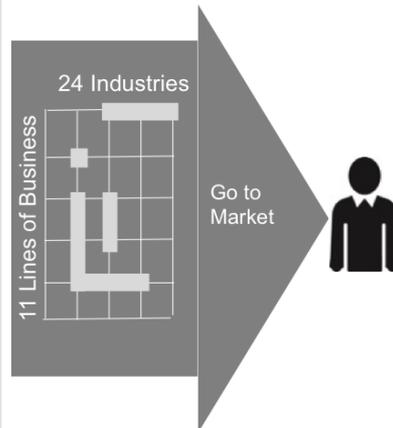
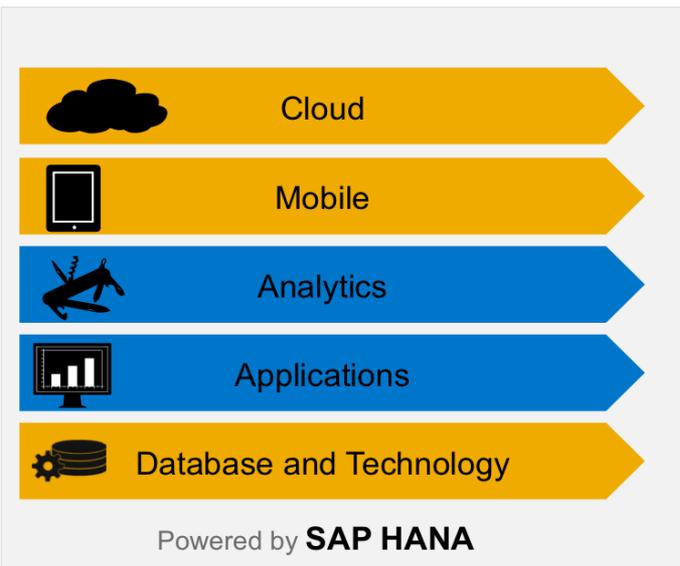


Visualization

Discovery, Identity,
Provision, Secure

Remediation

Why SAP ?



- SAP is in a unique position! No other company can leverage such a broad and existing portfolio of products to create a market leading M2M offering
- M2M cuts across all five business domains: Cloud, Mobile, Database, Analytics and Applications
- SAP has the scale to support enterprise customers
- SAP has the critical business process know-how across a variety of industry verticals
- SAP's is a trusted partner with their customers

PRODUCT SOLUTION VALUE

Analyst rank SAP as LEADER in Enterprise Mobility

Gartner

#1

Gartner ranks SAP as the industry leader in Mobile App Platforms.

Completeness of Vision

Ability to Execute



Mobility Report

“Mobile Device Management is Dead. Long Live Enterprise Mobile Management!”

“WINNERS”

SAP

**Antenna
Boxtone**



Mobile Management Market-Shares (MDM)

1. SAP	16.4%
2. Microsoft	6.7%
3. MobileIron	6.6%
4. Good	6.4%
5. Airwatch	4.5%
6. Symantec	4.1%
7. HP	4.0%
8. SOTI	3.2%
9. Boxtone	3.0%
10. IBM	2.7%

Source: IDC Report, September 2012.

M2M Application



IoT – Creating Business Value



- ❖ **Improved Efficiency**
- ❖ **Reduce Costs**
- ❖ **Asset Tracking**
- ❖ **Quality Improvements**
- ❖ **Supplier Management**



- ❖ **New end user interactions**
- ❖ **Dynamic pricing models**
- ❖ **New product & service models**

IoT – Opportunities for all of us

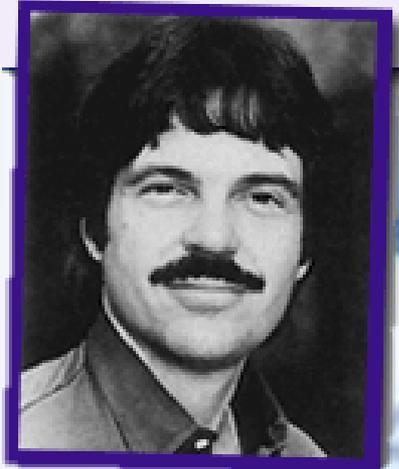


- ❖ **Device Identity**
- ❖ **Bi directional trust**
- ❖ **Secure encryption**
- ❖ **Internet standards**



- ❖ **Data privacy**
- ❖ **Legal liabilities**
- ❖ **IT v/s Business**
- ❖ **Govt. regulations**

“The best way to predict the future is to invent it.”



Alan Kay - Xerox's Palo Alto Research Center (PARC)