



The Power of Data: Thriving in a World of Change

Presented by **Marc Gallant**

mgallant@osisoft.com

Big Data



You Are The Most Destructive Force in Tech



What's the most destructive force in the tech world, the thing that has nearly killed BlackBerry,

pushed Dell to go private, and made a mess of Microsoft?

Conventional wisdom in Silicon Valley would finger one of the following technologies: smartphones, tablets, social networks, "the cloud," app platforms, or some other inscrutable bit of jargon.

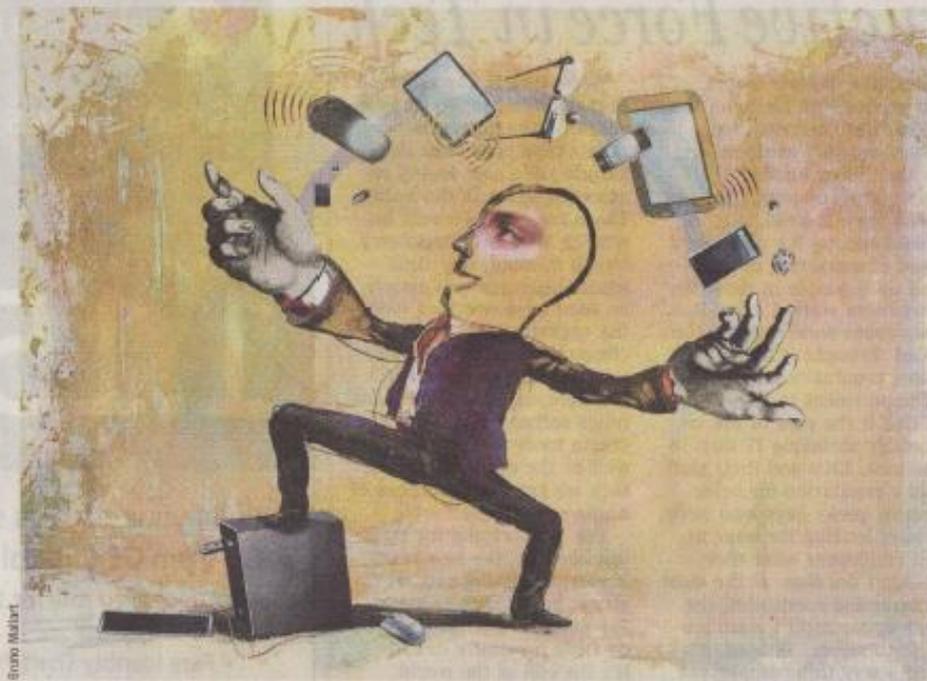
Actually, though, the most destructive, unpredictable, and fickle force in the tech industry is much closer to home: It's you and me and everyone we know.

In the not-too-distant past, most of us didn't have much of a say in the technologies we used every day. Instead, your gadgets were delivered to you from afar, chosen by faceless people in nameless offices based on criteria that you didn't understand. If you went to buy a cellphone, you'd be presented with a handful of devices that were approved for your carrier, and they were all locked down in ways that pre-

vented you from running apps that conflicted with the carrier's business plans. In your living room, you had a cable-company issued set-top box, and if its video-on-demand system didn't feature your favorite show, you'd better find a new favorite.

At the top of the tech food chain sat your boss—or, more specifically, your company's chief information officer. Most of the world's tech devices were purchased for corporate use, and IT guys tended to make decisions based on security and price rather than user-friendliness. Tech companies that catered to CIOs rather than users tended to thrive. That's why—whether you liked it or not—your office computer was made by Dell, it ran Windows and Office, and why your company-issued phone was a BlackBerry.

Then, more or less overnight, a series of technological and marketing revolutions—like ubiquitous broadband Internet and the lure of consumer devices such as the iPhone—completely upended the market for technology. Over the past few years, for the



Gary Hallert

first time, we "end users" have been allowed to choose the tech we want to use at home, on our wireless networks, and, crucially, at the office.

Just a few years ago, BlackBerry Ltd.'s executives were promising that their gadgets would win out over rivals because the BlackBerry was "way

ahead" on "CIO friendliness." But the beleaguered execs hadn't considered that CIOs themselves might lose their power. As employees began de-

manding the ability to use iPhones, tablets, and apps that we had at home, the most forward-thinking corporations found ways to allow a whole new class of technology onto their networks.

Now you could use an iPhone instead of a BlackBerry, an iPad instead of a Dell computer, and Google Docs instead of Word. In the end, CIO friendliness couldn't help BlackBerry one bit.

BlackBerry's downfall and the struggles of Dell Inc. and Microsoft Corp. offer an object lesson for any firm trying to crack the "enterprise" tech market. It suggests that even if you want to sell technology to CIOs, you can't forget employees, the people who will actually have to use your stuff.

"It's an amazing lesson in what happens when one set of buyers implements a technology for another set of users without a care or sensitivity for what the users were going to need to get their jobs done," says Aaron Levie, the CEO of Box Inc., one of the Valley's most promising en-

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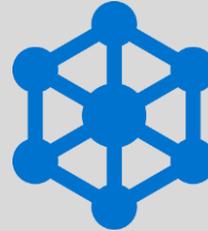
A World of Change: “Consumerization” of IT



Pervasive



Mobility



Social

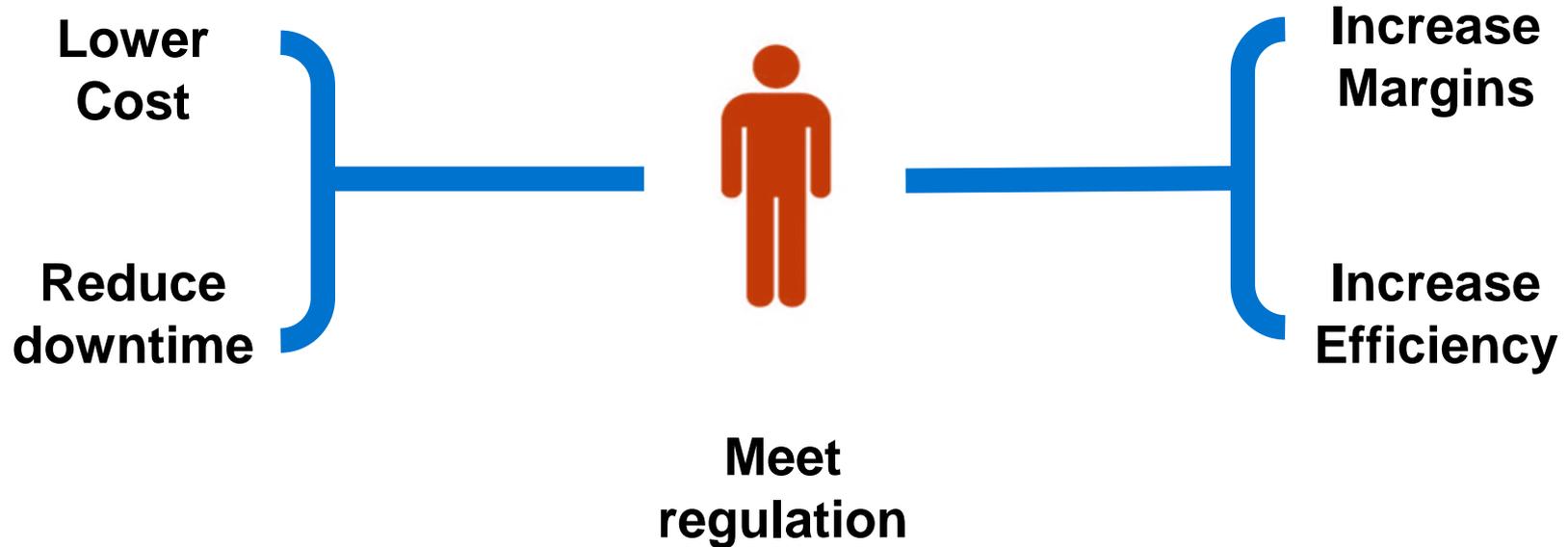


Cloud

Social connections, mobility, cloud delivery and pervasive information are converging in a powerful way. This convergence is creating a new era of computing and new opportunities for business.

– Gartner, August 2012

Business Objectives



Data



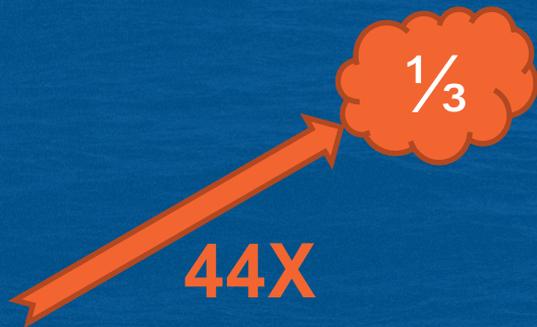
2009



2015

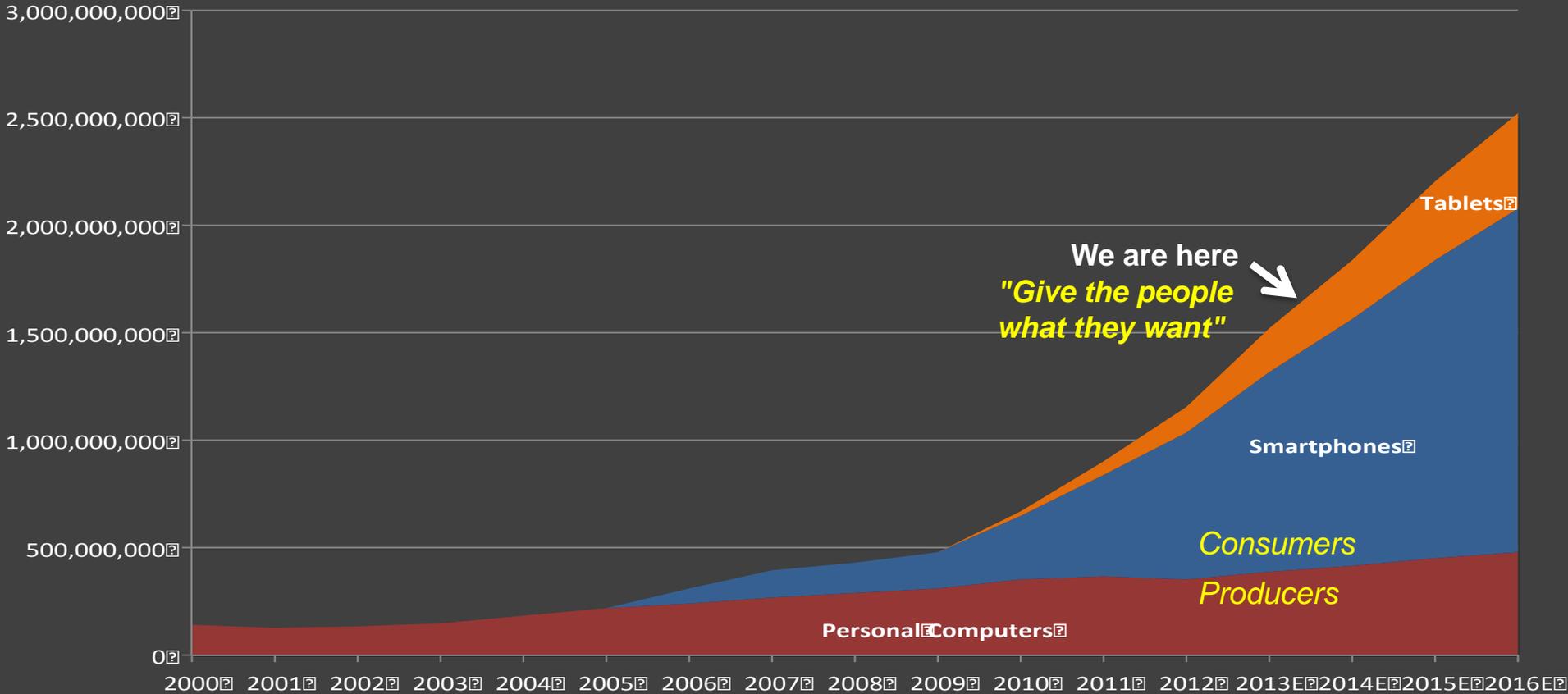


2020



1,000,000,000,000 Gigabytes
= 1,000,000,000 Terabytes
= 1,000,000 Petabytes
= 1,000 Exabytes
= 1 Zettabyte

Device types



Source: Gartner, IDC, Strategy Analytics, company filings, BI Intelligence estimates

Connected Devices



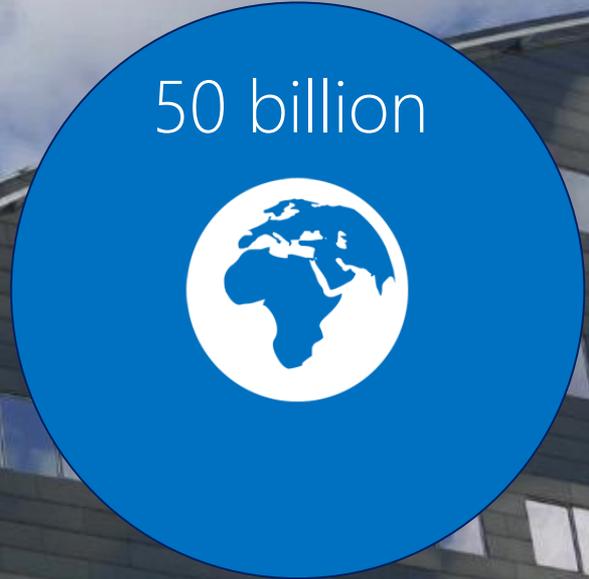
2003



2010



2015



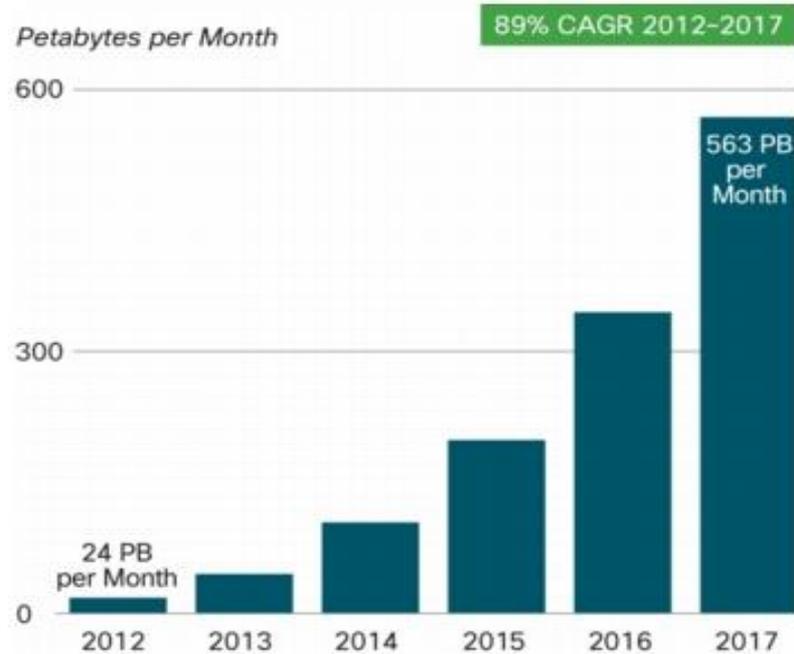
50 billion

2020

Consumers today, but Industry will follow tomorrow

Communication Traffic

Figure 18. Machine-to-Machine Traffic to Increase 24-Fold Between 2012 and 2017



Source: Cisco VNI Mobile Forecast, 2013



24X

Software as a Service

"SaaS will grow nearly five times faster than the software market as a whole reaching \$67.3 billion by 2016."



"By 2016....nearly \$1 of every \$5 spent on applications will be consumed via the cloud."



Maintenance, Updates, Security...the Delivery model demands it

Influence of Consumerization in the Workplace

More than a third of new grads are willing to take a lower paying job to have modern powerful, interactive and collaborative working tools

- Cisco 2011

More than 50% of our customer base has a BYOD policy

- OS/soft 2012



People



From
anywhere

At any time
Consumerization
of IT has driven a



new paradigm in
the enterprise
With any
device



With
anybody



Example - Connected Worker

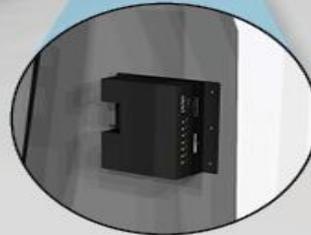
Rugged Laptop



Truck = Wireless Hotspot



Handheld Computer



Example of the modern PI Infrastructure



- Nalco is an Ecolab company that spans the globe and has sales of over \$11 billion and has over 40,000 employees
- Nalco offers programs and services for all industrial markets in more than 160 countries
- *Refined Knowledge*® is an O&M solution for the Petrochemical industry based on OSIsoft and Microsoft technology

In summary

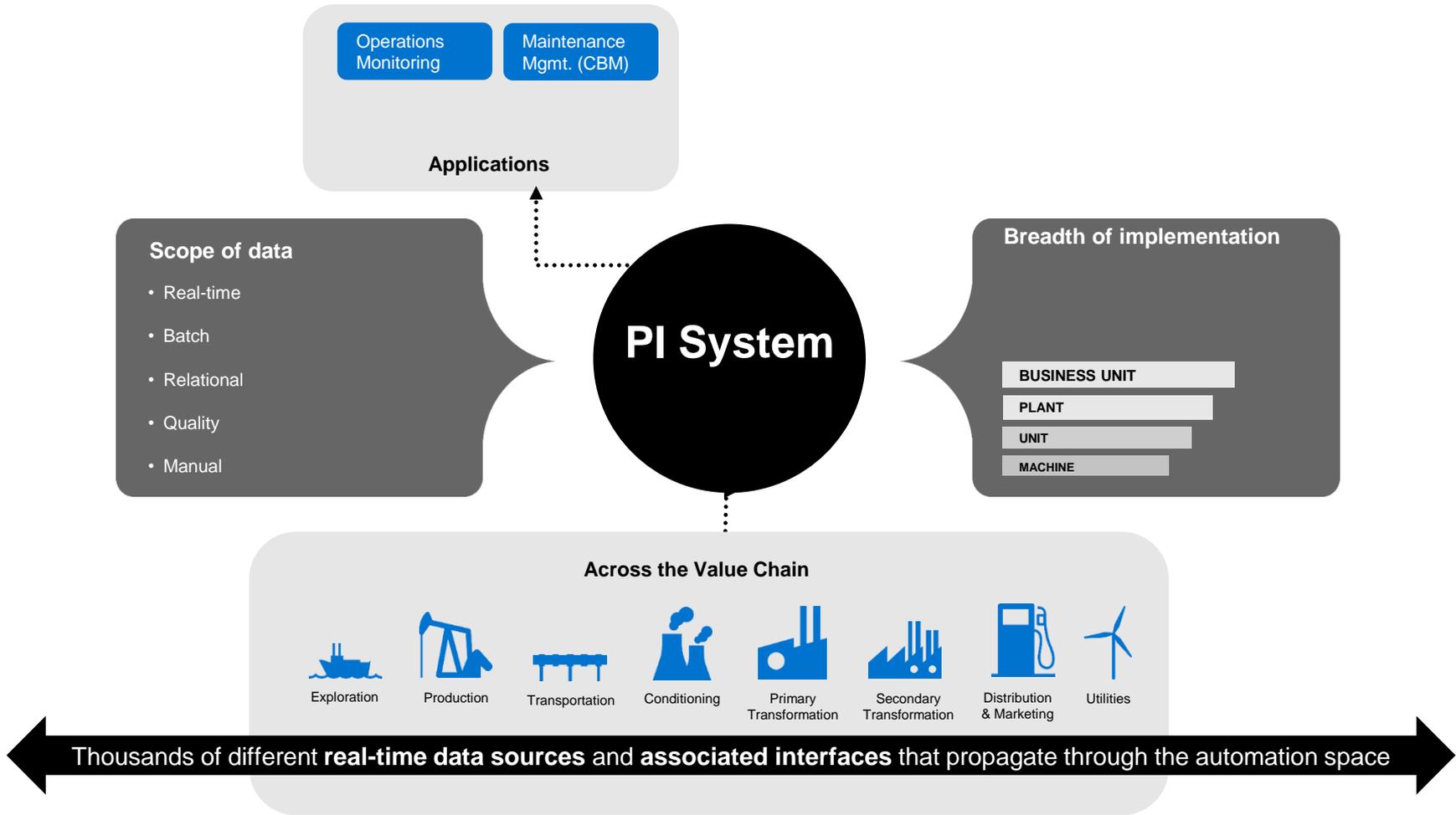
- Nalco developed a solution based on services and applications that helps their customers be more efficient and also prolong the life of key assets
 - Centralized and normalized the data
 - Standardized analyses, displays and reports
 - Provided decision making infrastructure that is complete and agile

Plant

- Business Unit
- Process
- Machine



Historian





Plant

- Business Unit
- Machine

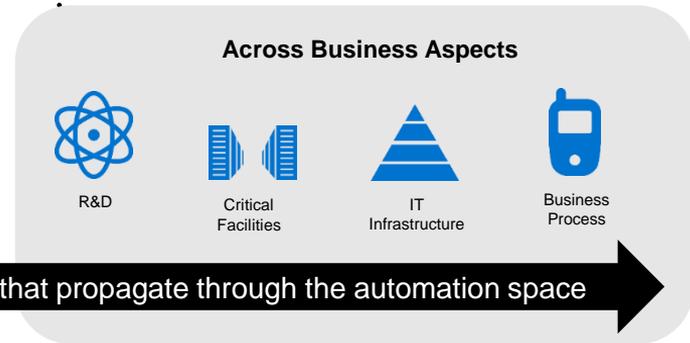
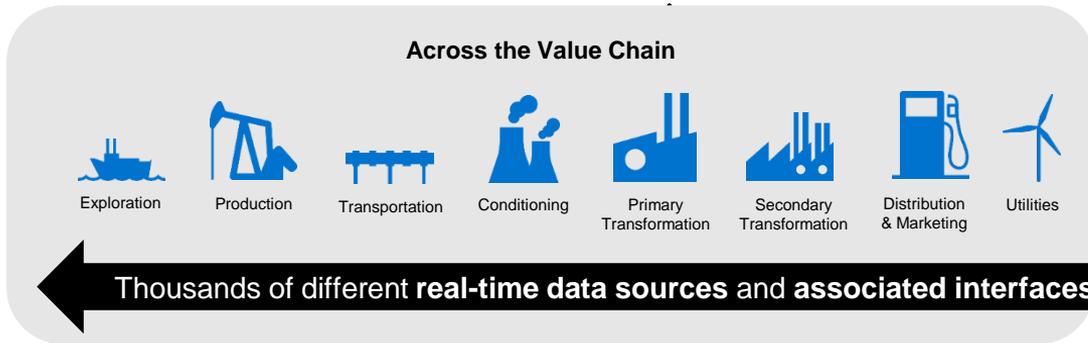
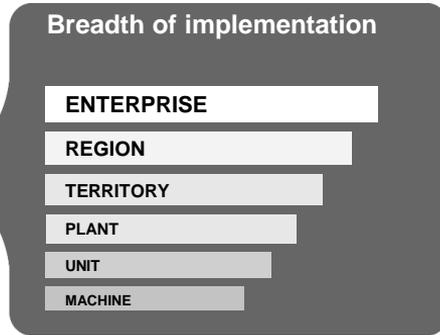
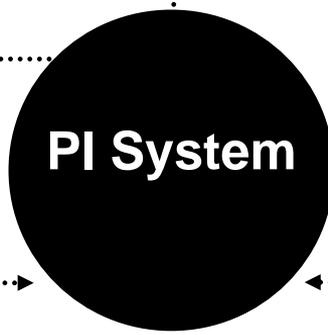
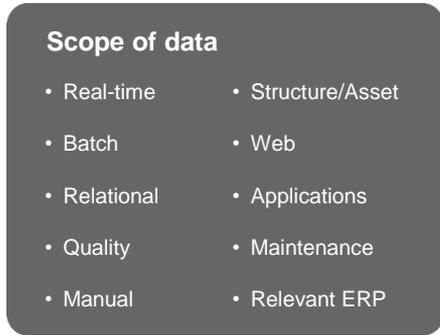
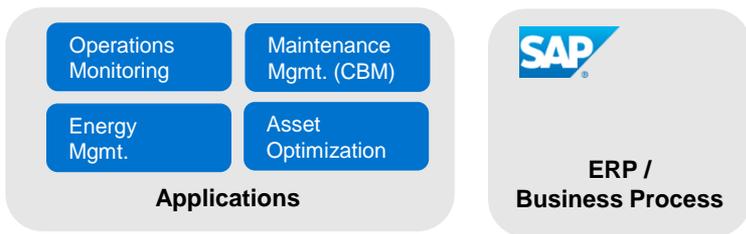
Historian



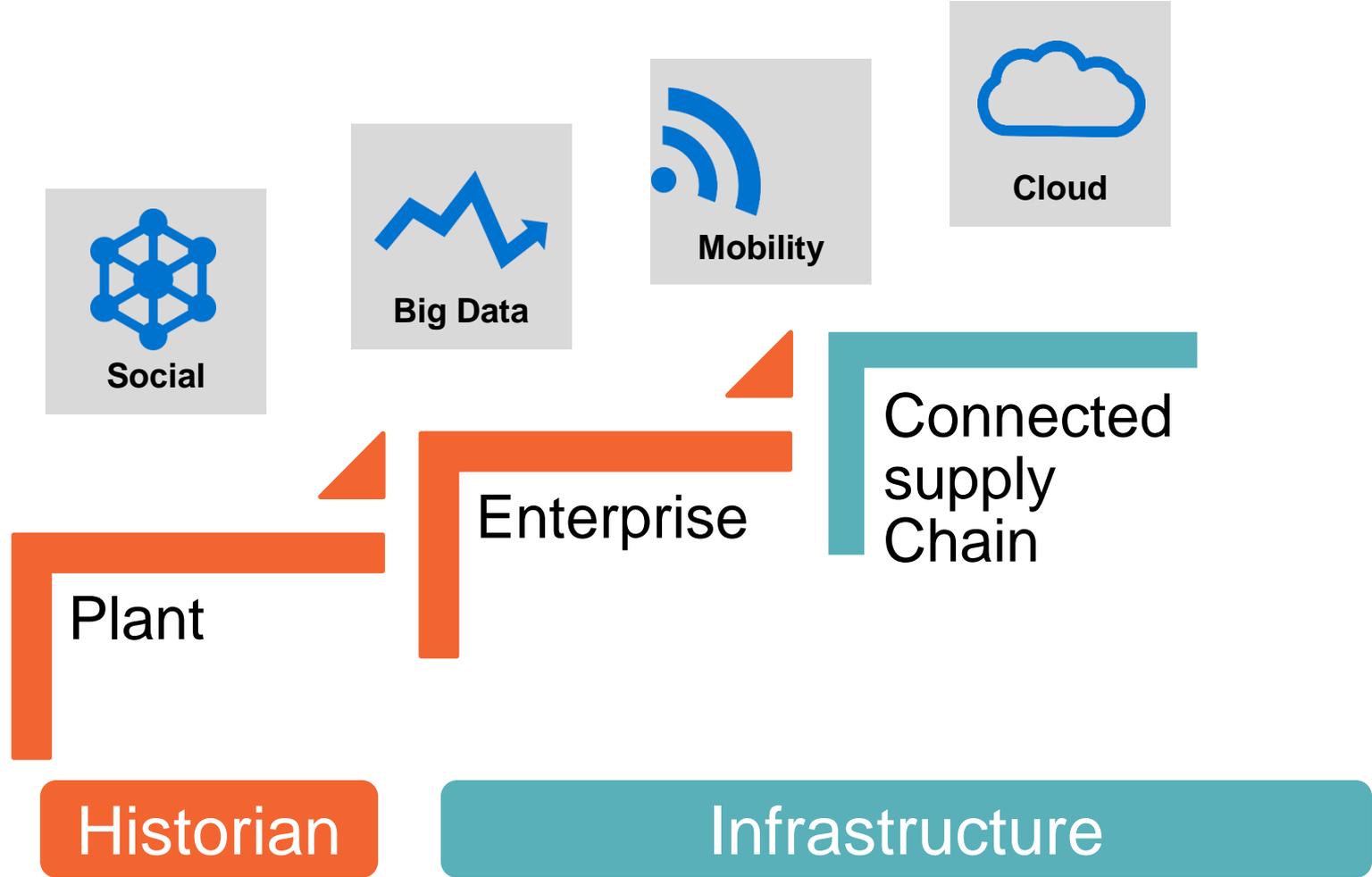
Enterprise

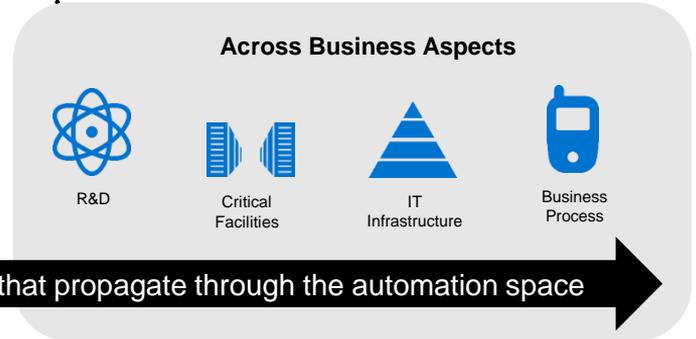
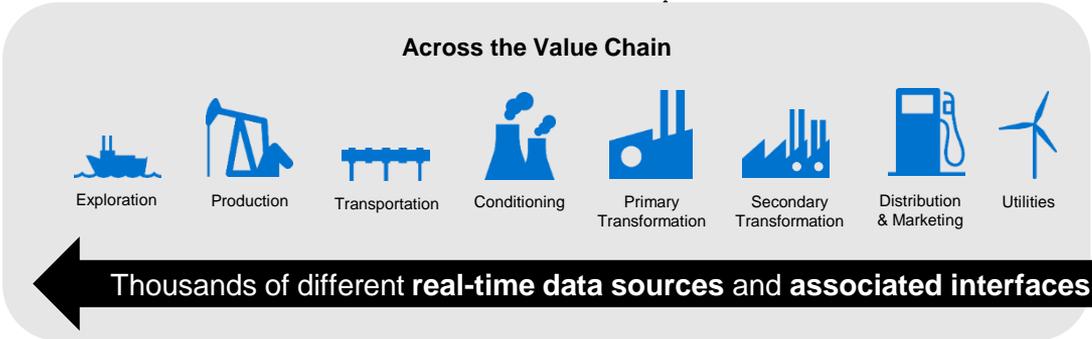
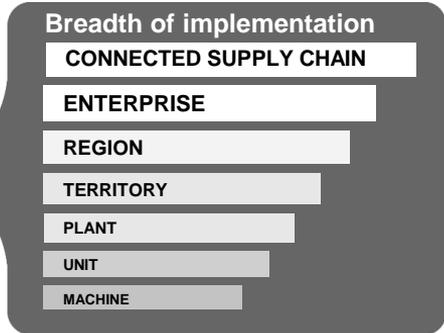
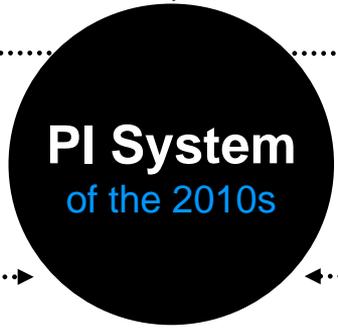
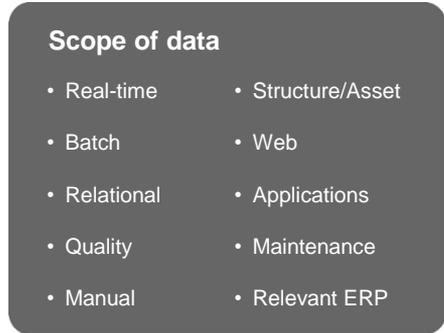
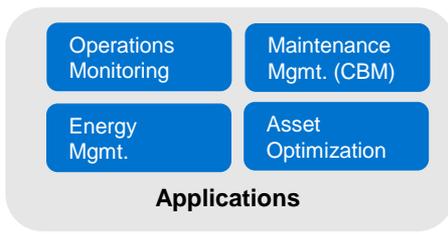
- Region
- Territory

Infrastructure

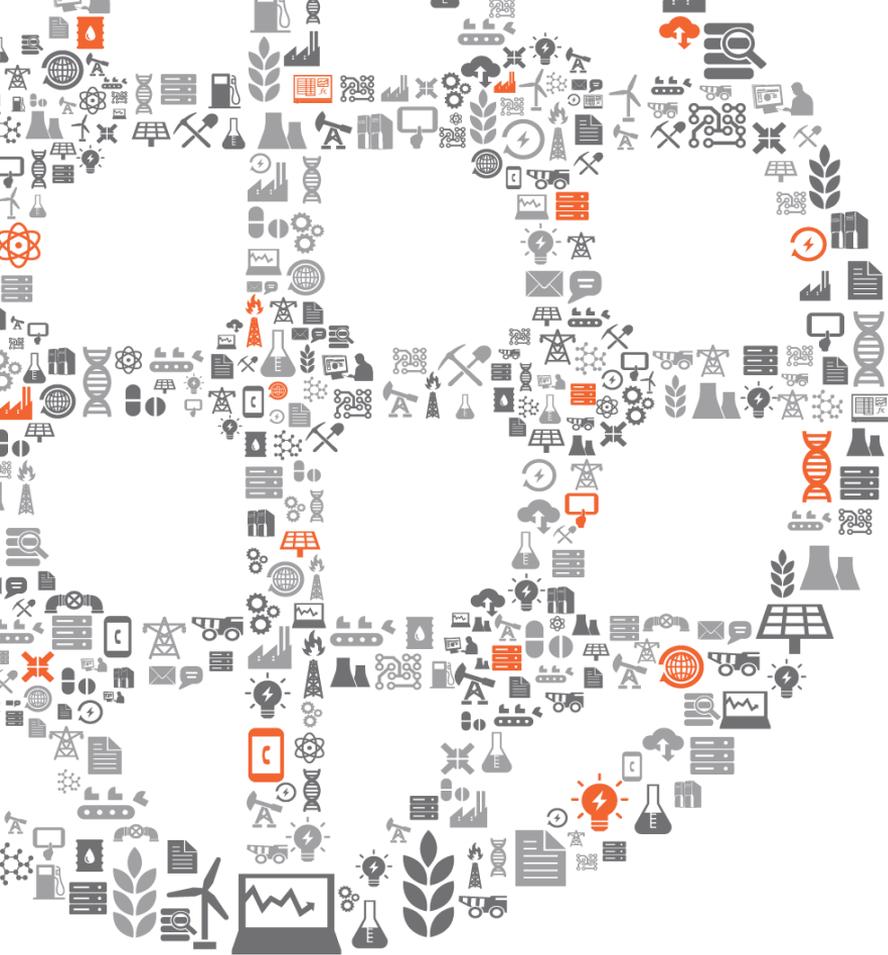


Thousands of different **real-time data sources** and **associated interfaces** that propagate through the automation space





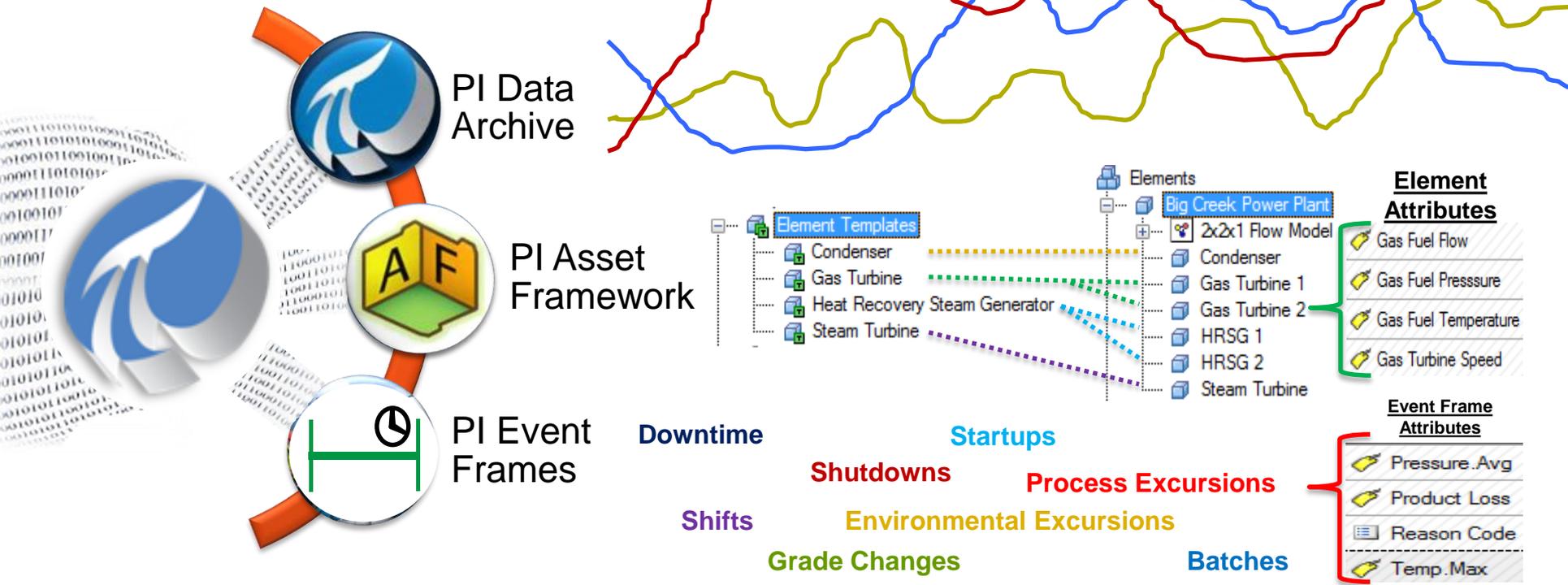
Thousands of different **real-time data sources** and **associated interfaces** that propagate through the automation space



Today's Themes

- Integration and "contextualization" of information
- "Visualization"
- Sharing information

How does the PI System enable the Integration and contextualization of Data?

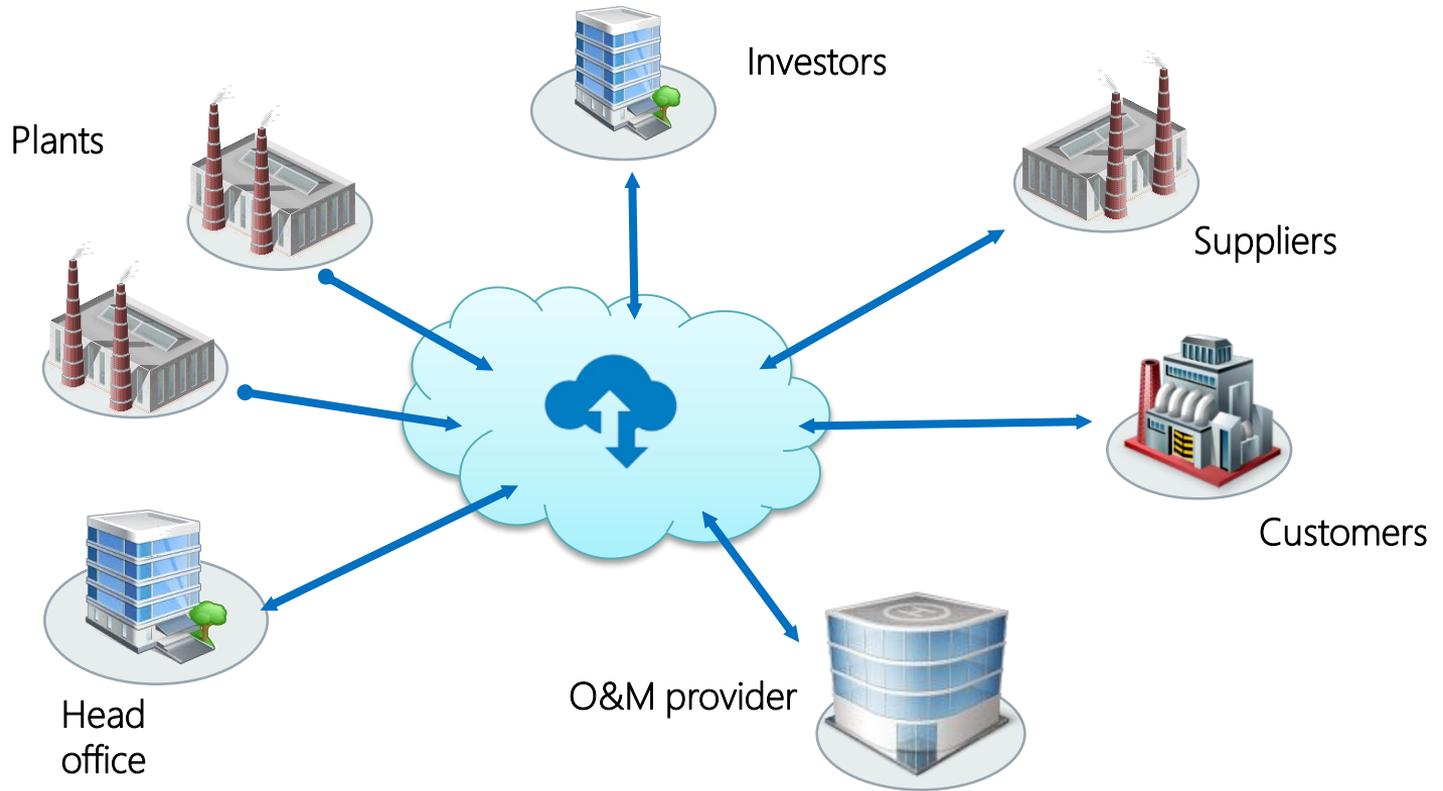


Visualization

- Powerful tools
- User friendly
- Mobile
- Multiplatform
- Push relevant events to the end user



Sharing information



OSIsoft Enterprise Agreement

- Engineering Projects → Enterprise Infrastructure
- Counting Tags, Servers, Interfaces, Users...
 - Doesn't scale, and is almost futile
 - Is not the best use of our collective time
- Scope based on Assets → one and done
- Unlimited software and services
- Provides “change insurance” → Future proof

“Every day I wake up and ask, ‘how can I **flow** data better, **manage** data better, **analyze** data better?’”

- *Rollin Ford, CIO* **Walmart** 



OSIsoft.
**REGIONAL
SEMINAR**
The **Power** of **Data**

**THRIVING
IN A
WORLD OF
CHANGE**



THANK

YOU

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