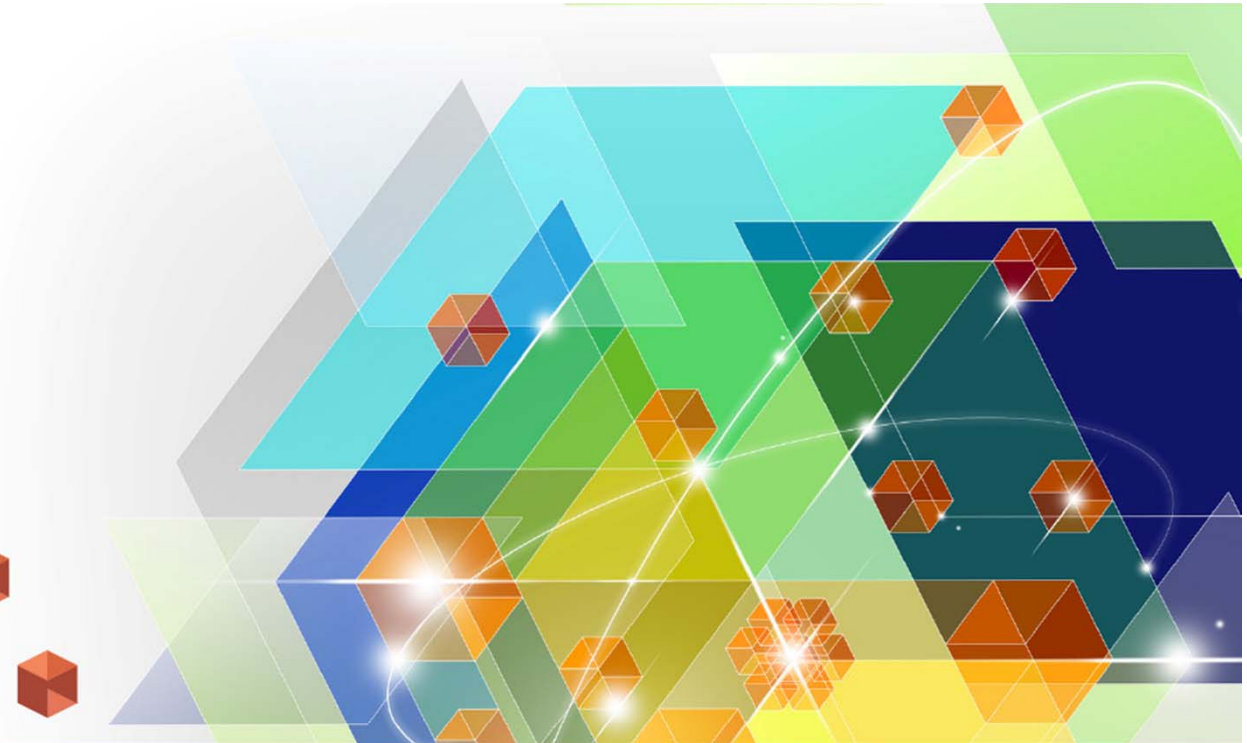IBM

Experience freedom by design

Gary Trytell
System z Executive

The Journey to Smarter Computing

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Notes:
Performance is in Internal Throughput Rate (ITR) ratio based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput improvements equivalent to the performance ratios stated here.
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IBM

Smarter Computing

As our planet becomes smarter ....

We are seeing dramatic shifts that are changing the way the world works ... both business and society

Nothing is changing more than IT ...

	3 million new blog posts a day
	10 billion tweets a year
	3.5 billion pieces of content per week

The way it's accessed ... Ubiquitously

The way it's applied ... for insight

The way it's architected ... Integrated & flexible

Enterprises are addressing the challenges that emerged during the last era of computing…

32.6 million servers worldwide
- **85% idle** computer capacity
- **15%** of servers run 24/7 without being actively used on a daily basis

Between 2000 and 2010
- servers grew **6x** ('00-'10)
- storage grew **69x** ('00-'10)
- virtual machines grew **51% CAGR** ('04-'10)

Internet connected devices **growing 42% per year**

1.2 Zetabytes (1.2 trillion gigabytes) exist in the "digital universe**"**
- **50%** YTY growth
- **25%** of data is unique; **75%** is a copy

Data centers have **doubled** their energy use in the past five years
- **18%** increase in data center energy costs projected

Since 2000 security vulnerabilities grew **eightfold**

…while IT budgets are growing less than 1% per year.

The IT conundrum—meeting exploding demand for service on a flat budget

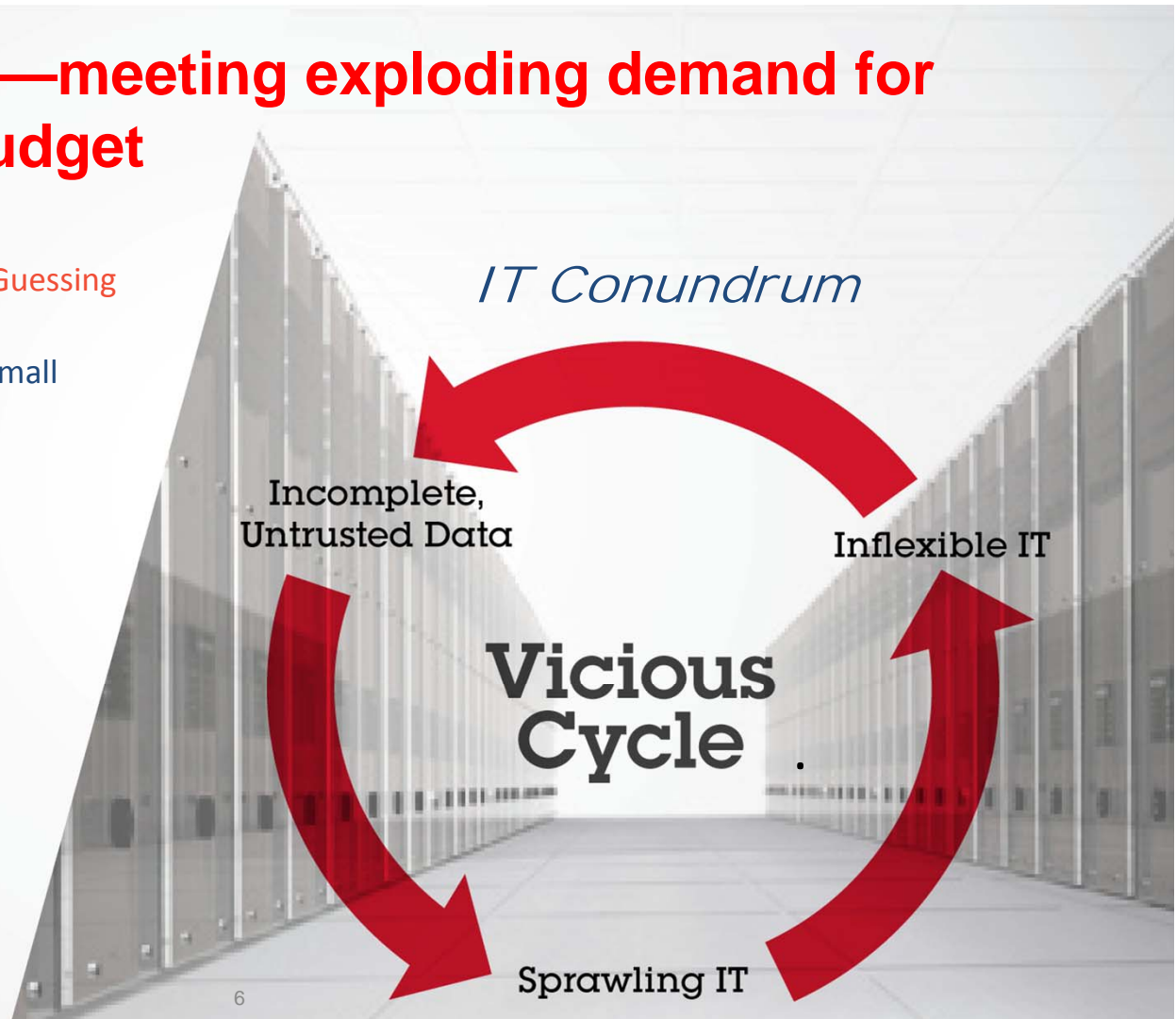**Incomplete, Untrusted Data:** Always Guessing
Decisions are made on incomplete data, big ideas are seen as risky, and small decisions aren't optimized.

Sprawling IT: More Cost
Every IT investment leads to more sprawl which drives up infrastructure and management costs.

Inflexible IT: Reactive
Inflexibility of infrastructure limits integration across silos and responsiveness to customer demands.

IT Conundrum

Incomplete, Untrusted Data

Inflexible IT

Vicious Cycle

Sprawling IT

Any enterprise can reverse
the IT conundrum by
designing, tuning and
managing their IT
infrastructure in the
new era of IT we call
Smarter Computing.

Smarter Computing is an IT infrastructure that is designed for data, tuned to the task and managed in the cloud.

Designed for data: Big Data
Remove barriers to harnessing
all available information and
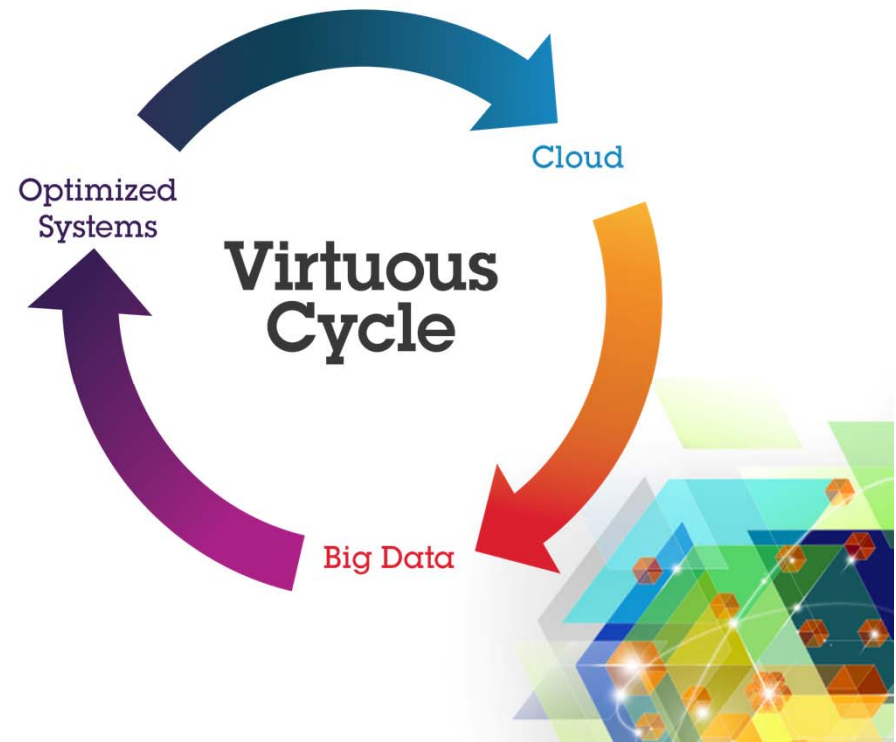unlock insights to make informed choices.

Tuned to the task: Optimized Systems
Remove financial barriers by
driving greater performance and efficiency
for each workload.

Managed in the Cloud: Cloud
Remove barriers to rapid delivery of new
services and reinvent business processes to
drive innovation.

Smarter Computing

On a **Smarter Planet**, successful enterprises are taking a new approach to designing their IT infrastructure to create **new opportunities**.

Create new markets in a fraction of time

Univerista di Bari

Reduced time to market for fishermen and farmers with cloud-based solution for real-time trading.

Identify new trends before competition

Acxiom

Improved capacity five-fold with no new floor space with cloud-based model improving customer retention and capturing new business.

Deliver new services more quickly

Citigroup

Reduced provisioning times from 45 days to 20 minutes, improving ability to deploy new banking services to clients.

Utilize IT resources more efficiently

City of Norfolk

Improved storage performance by 40% and cut power consumption in half, enabling it to deploy automated parking systems and police in-car video surveillance.

Thank you!