Inhabiting the Smarter Planet:
How a Dynamic Infrastructure Reduces Cost, Improves Services, and Manages Risk

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The world is smaller and flatter.

Globally, systems and infrastructure are reaching a breaking point.

- Explosion of data, transactions, and digitally-aware devices strains IT infrastructure and operations.
- Exponential growth in communications, subscribers and services exposes bandwidth limitations.
- Supply inefficiencies and demand spikes tax energy and utility systems.
- Clogged and congested roadways impact productivity.
- Networks, supply chains, and borders face a proliferation of new risks and threats.

Meanwhile, customer expectations and competitive pressures are increasing.

The need for progress is clear.

85% idle

In distributed computing environments, up to 85% of computing capacity sits idle.

40 billion

Consumer product and retail industries lose about $40 billion annually, or 3.5 percent of their sales, due to supply chain inefficiencies.

33%

33% of consumers notified of a security breach will terminate their relationship with the company they perceive as responsible.

1.5x

Explosion of information drving 54% growth in storage shipments every year.

75¢ per $1

75% on average is spent on maintaining current IT infrastructures versus adding new capabilities.

The opportunity for progress is clear.

Handles over 50% of global trades

CLS:
In partnership with IBM, CLS created the world's first and only global system for real-time simultaneous and irrevocable settlement of payment instructions and foreign exchange transactions, peaking at $5.4 trillion a day and growing.

1.5M new customers each month

Bharti Airtel:
Infrastructure integrates channel and customer facing processes - enabling a seamless customer experience, higher customer satisfaction - more profitable growth in the highly competitive mobile communications market in India.

$75M annual operating cost savings

DTE Energy Company:
Projects US$75M in annual operating cost savings by undertaking a massive consolidation of business systems and standardization across all business units.

We must move past today's challenges to seize tomorrow's opportunities.

HOW CAN WE ADDRESS …	WHILE ALSO LAYING A FOUNDATION FOR …
HIGHER SERVICE EXPECTATIONS Internet-savvy consumers and employees expect 24x7 access to quality services.	**BREAKTHOUGH PRODUCTIVITY** Almost any person, object, or service can become digitally aware and connected creating new possibilities for change.
RISING COST PRESSURES Staggering levels of complexity and inefficiency drive up cost and stifle innovation.	**ACCELERATED VALUE CREATION** More adaptive capabilities like cloud computing create new opportunities.
NEW RISKS & THREATS The connected, collaborative world is also a more vulnerable world.	**INCREASED VELOCITY** The faster pace of business and society demands a more responsive, agile infrastructure.

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It's time to start thinking differently about infrastructure.

In this smarter world, we need our infrastructure to propel us forward, not hold us back.

Infrastructure that is instrumented, interconnected and intelligent.

Infrastructure that brings together business and IT to create new possibilities.

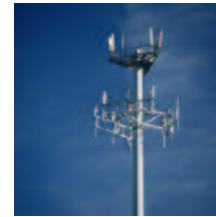**Mobility Infrastructure** + **Facilities Infrastructure** + **Production Infrastructure** + **Technology Infrastructure** + **Communications Infrastructure**

We need a *dynamic* infrastructure.

A dynamic infrastructure addresses today's challenges *and* tomorrow's opportunities.

IMPROVE SERVICE

Not only ensuring high availability and quality of existing services, but also meeting customer expectations for real-time, dynamic access to innovative *new* services.

REDUCE COST

Not just containing operational cost and complexity, but achieving *breakthrough* productivity gains through virtualization, optimization, energy stewardship, and flexible sourcing.

Dynamic Infrastructure

MANAGE RISK

Not only addressing today's security, resiliency, and compliance challenges, but also preparing for the new risks posed by an even more *connected* and *collaborative* world.

Dynamic Infrastructure
Smart is: Improving Service

SMART IS
Winning industry recognition for excellent service.

SKY: Network and service assurance solution monitoring 1000s of network devices and application services at over 1,200 exchanges, 24x7 availability to more than 1.6 million broadband customers.

SMART IS
Increasing utilization of critical business assets while maximizing ROI.
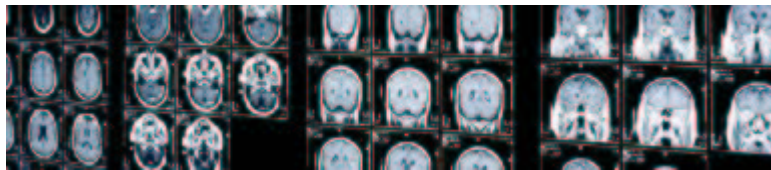

BP Angola: Improves production efficiency through improved uptime, improves employee and environmental safety, to position BP for maximum efficiency and safety; shorter time to investment recovery.

Dynamic Infrastructure
Smart is: Reducing Cost

SMART IS
Reducing operating costs by reducing physical servers up to 70%.

SMART IS
95% reduction in cost per transaction.

University of Pittsburgh Medical Center:
Reduces capital and operating costs by up to $30M, improves energy efficiency by reducing floor space 40% and physical servers 67%.

Bank of Russia: Improvements in operational and energy efficiency are saving apx $400million per year and allows dynamic response to business needs.

Dynamic Infrastructure
Smart is: Manage Risk

SMART IS

Connecting to the world securely with
100% availability.

Australian Open: Securely, resiliently provides
scalable resources 100x normal scalability, real-
time analysis and prevention of attacks and
achieves 23% reduction in energy consumption,
with 100% website availability.

SMART IS

Protecting your customer... and your brand
with no loss of data.

Bank of Montreal: Providing a recovery point
of zero and a recovery time of 2 hours helps
reduce operational risk, increases client trust,
improves availability, and meets stringent
regulatory compliance requirements.

How do we build a more dynamic infrastructure?

- Address today's operational challenges to free up resources for new investments.

- Converge business *and* IT infrastructure to work in concert, achieving breakthrough productivity and greater business value.

- Utilize alternative sourcing approaches, like cloud computing, to deliver new services with agility and speed.

IBM's solution strategy is aligned with the needs of a dynamic infrastructure.
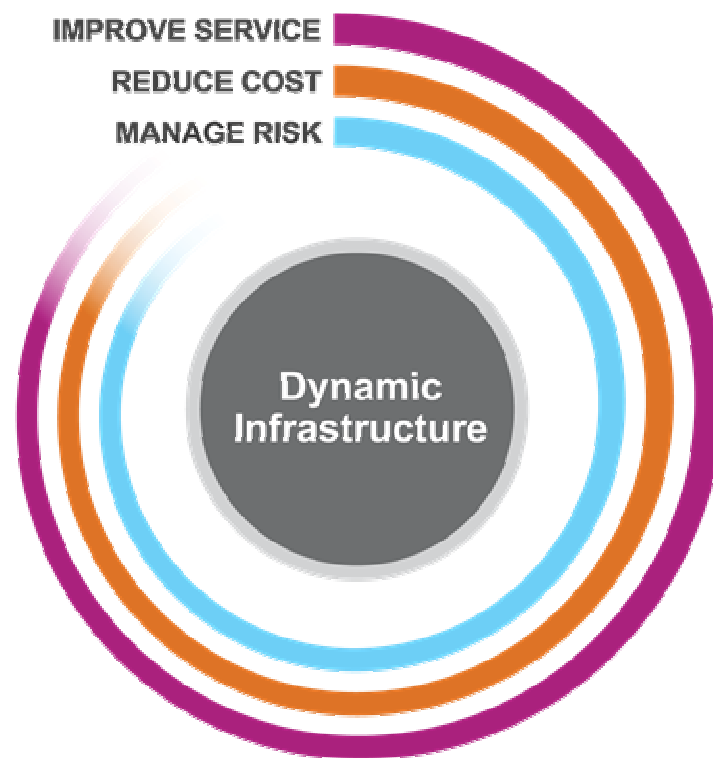
A DYNAMIC INFRASTRUCTURE HELPS…	IBM IS INVESTING IN…
IMPROVE SERVICE	▪ Cloud based services and solutions. ▪ Service Management Industry Solutions. ▪ Application management and hosting.
REDUCE COST	▪ Energy efficient servers, storage, and facilities. ▪ Virtualization and consolidation solutions. ▪ Information infrastructure. ▪ Standardization and automation.
MANAGE RISK	▪ Pervasive and preventive security solutions. ▪ Resiliency centers and continuous availability solutions. ▪ Compliance and long term information retention.

Start your dynamic infrastructure journey today.
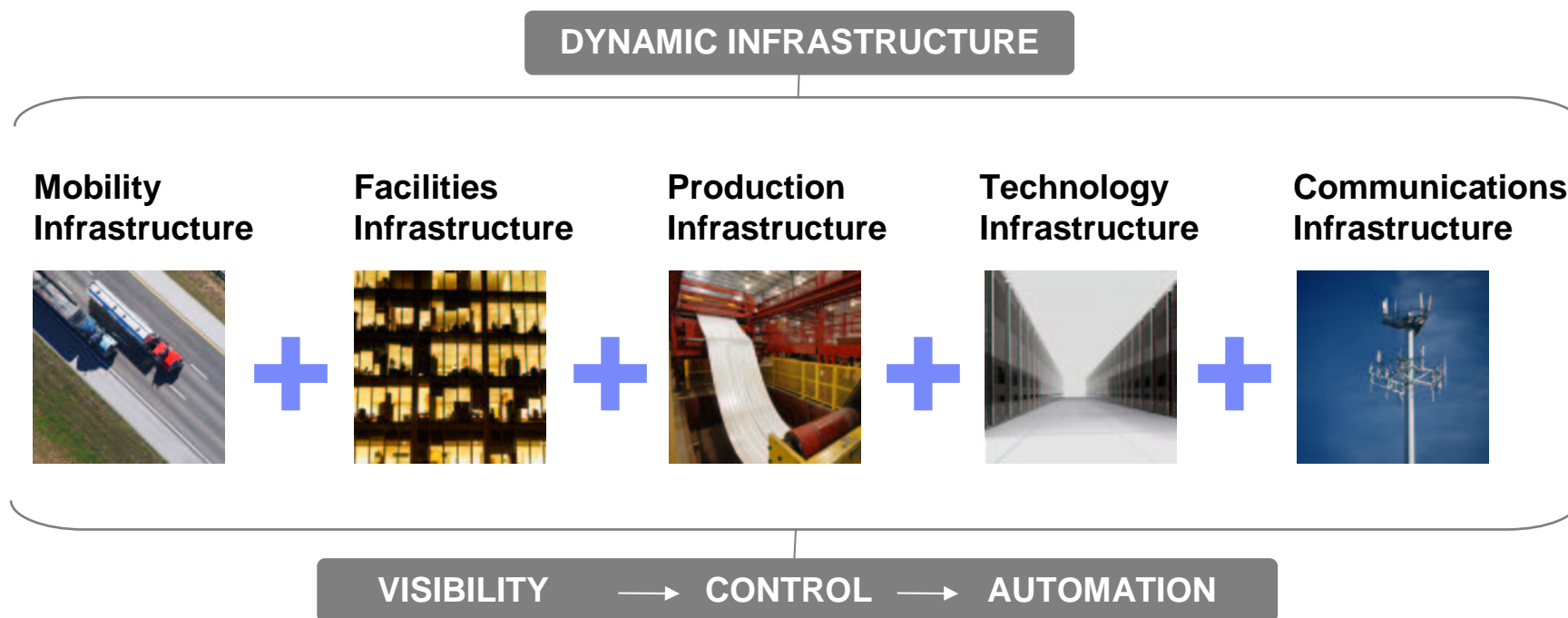

www.ibm.com/dynamicinfrastructure

A dynamic infrastructure…

- Enables visibility, control, and automation across all business and IT assets.

- Transforms assets into higher value services.

- Highly optimized to achieve more with less.

- Addresses the information challenge.

- Leverages flexible sourcing like clouds.

- Manages and mitigates risks.

…delivers superior business and IT services with agility and speed.

A dynamic infrastructure
enables visibility, control and automation across all business and IT assets….

DYNAMIC INFRASTRUCTURE

| Mobility Infrastructure | Facilities Infrastructure | Production Infrastructure | Technology Infrastructure | Communications Infrastructure |

VISIBILITY → **CONTROL** → **AUTOMATION**

...supporting converged management to deliver smarter business outcomes.

A dynamic infrastructure
transforms these assets into higher value services….

DYNAMIC INFRASTRUCTURE

SERVICE-ORIENTED…
- Rapid service deployment.
- Reusable service components.
- Secure and reliable processes.

AND SERVICE-MANAGED
- Integrated management across all assets.
- Service visibility, control and automation.
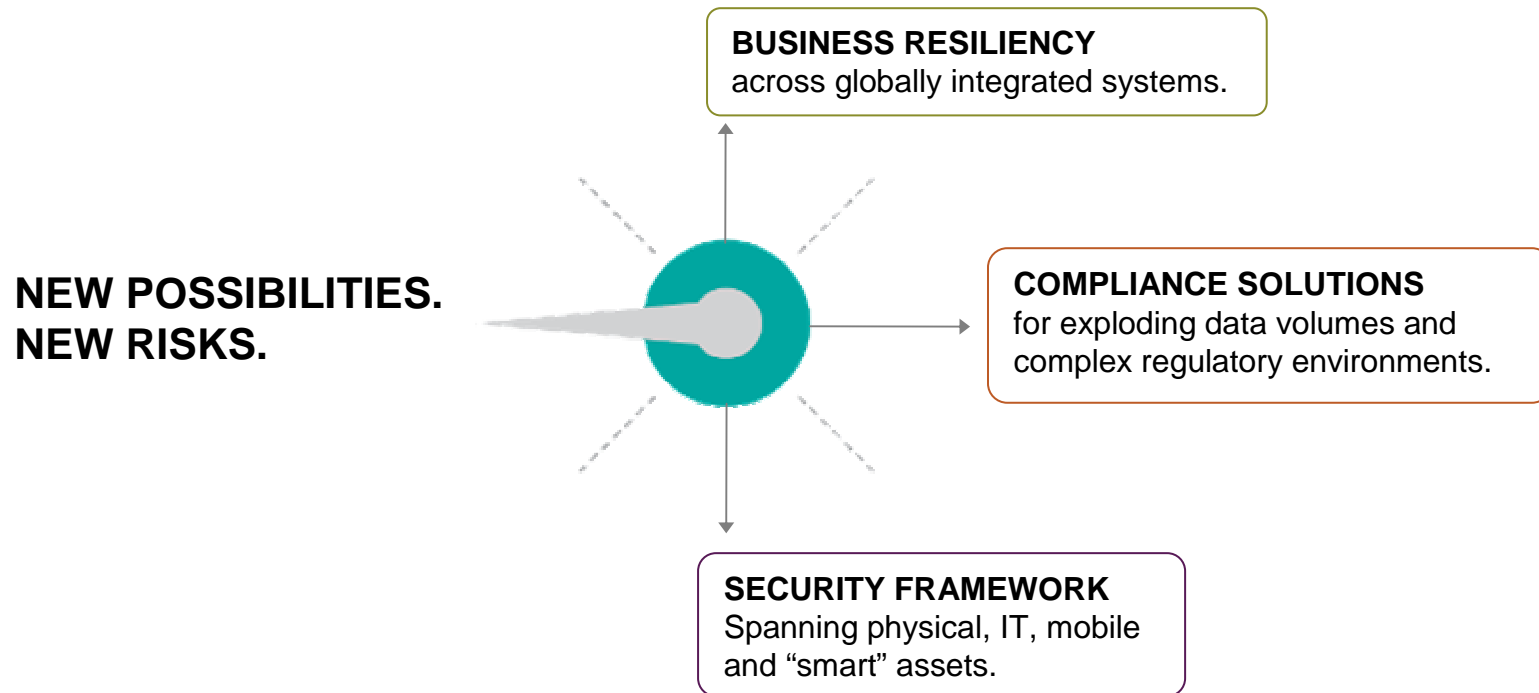- Manage complex, rapid changes.

…implementing a service-oriented, service-managed approach to rapidly and dynamically deliver business and IT services.

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17

A dynamic infrastructure
addresses the information challenge….

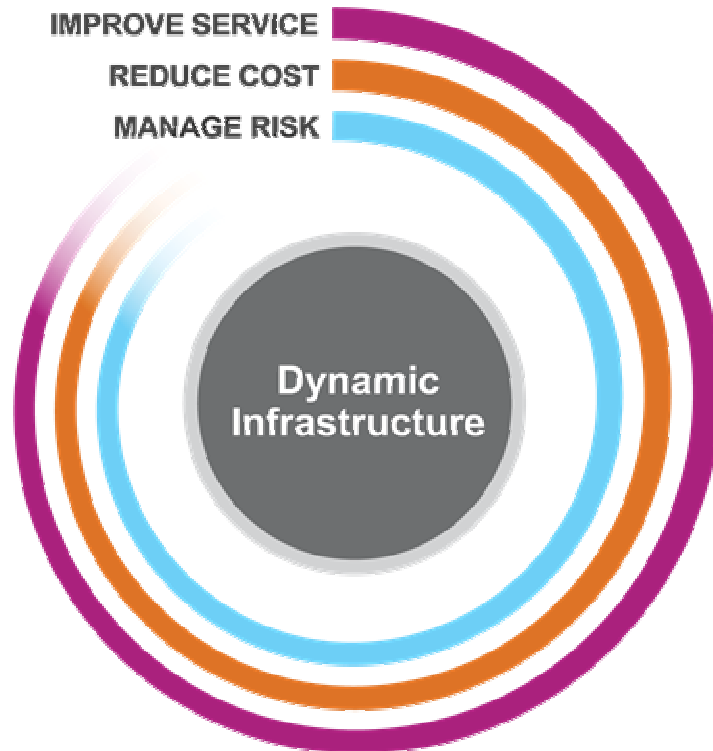|	
I have to store it:	**COMPLIANCE**
I want to store it:	**BUSINESS VALUE**
I can't store it:	**BUDGET**

…achieving information compliance, availability, retention and security objectives.

A dynamic infrastructure
helps you manage and mitigate risk….

BUSINESS RESILIENCY
across globally integrated systems.

**NEW POSSIBILITIES.
NEW RISKS.**

COMPLIANCE SOLUTIONS
for exploding data volumes and
complex regulatory environments.

SECURITY FRAMEWORK
Spanning physical, IT, mobile
and "smart" assets.

…providing the end-to-end approach needed in an
Instrumented, interconnected and intelligent world.

A dynamic infrastructure…
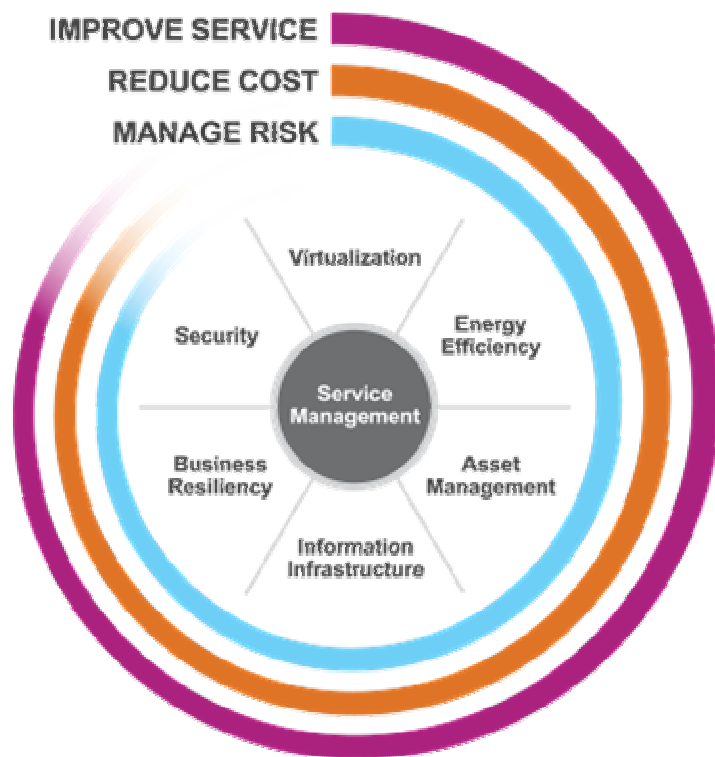
IMPROVE SERVICE
REDUCE COST
MANAGE RISK

Dynamic Infrastructure

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Building a dynamic infrastructure…

…requires an integrated, holistic approach.

Building a dynamic infrastructure.

IMPROVE SERVICE
REDUCE COST
MANAGE RISK

Virtualization

Security

Energy Efficiency

Service Management

Business Resiliency

Asset Management

Information Infrastructure

Service Management – Provide visibility, control and automation across all the business and IT assets to deliver higher value services.

Asset Management – Maximizing the value of critical business and IT assets over their lifecycle with industry tailored asset management solutions.

Energy Efficiency – Address energy, environment, and sustainability challenges and opportunities across your infrastructure.

Virtualization – Leadership virtualization and consolidation solutions that reduce cost, improve asset utilization, and speed provisioning of new services.

Business Resiliency – Maintaining continuous business operations while rapidly adapting and responding to risks and opportunities.

Security – End to end industry customized governance, risk management and compliance solutions.

Information Infrastructure – Helping businesses achieve information compliance, availability, retention, and security objectives.

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IBM Service Management Connects all Elements of Dynamic Infrastructure

IBM Service Management provides solutions and expertise you need to design, build and manage a dynamic infrastructure. IBM connects all elements of the dynamic infrastructure so that organizations can:
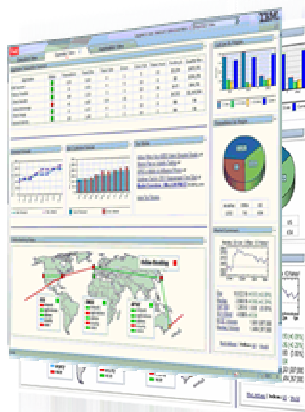
• Leverage and integrate IT and 'smart' business assets to deliver next generation services.

• Respond rapidly to change and support new business needs through greater agility

• Deliver higher quality service to customers and business partners at a lower cost

Dynamic Infrastructure – Service Management

Smart is: *Providing visibility, control and automation across all the business and IT assets to deliver higher value services.*

Visibility - See Your Business Services.

Control - Manage your risk and compliance.

Automation - Build Agility into your Operations.

- Create an integrated, actionable, and insightful view into critical metrics.

- Improve process discipline while remaining effective while systems grow.

- Improve quality and reduce costs through operational and workflow automation.

IBM Service Management offerings and capabilities.

A comprehensive portfolio of leadership products and services to manage all aspects of a dynamic infrastructure with visibility, control and automation.

IBM SERVICE MANAGEMENT OFFERINGS

- Business service management.
- Event management (systems, network and energy).
- Request-driven provisioning and scheduling.
- Integrated service delivery and process automation.
- Service request management.
- Solutions for cloud computing.

- SOA performance management.
- IT governance.
- Continuous data protection and automated archiving.
- Security of applications, data, and processes.
- End-to-end asset management.
- IT financial management with chargeback and billing.

IBM LEADERSHIP

Market Share Leader
System Management

- #1 in Availability & Performance – Gartner.
- #1 in Operations Mgt. software – Gartner.
- #1 in Event, Fault and Log Mgt. – IDC.
- #1 in Event Automation – IDC.
- #1 in Performance Management Software – IDC.

Service Assurance

- #1 in System and Network Management – IDC.
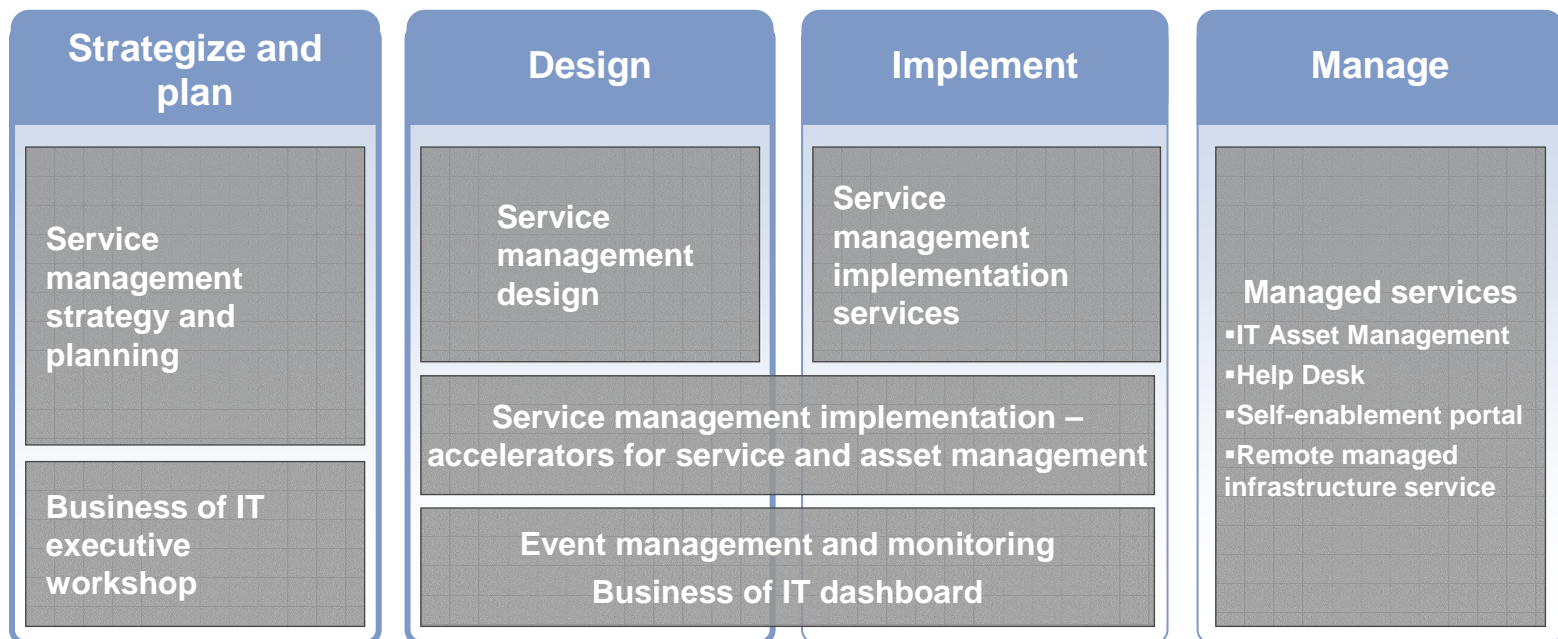- #1 in Network Management – Gartner.

Storage

- #1 in Archive and Hierarchical Storage Mgt, – IDC.
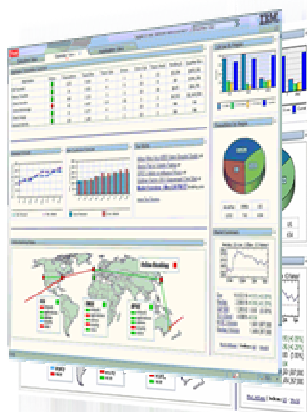
Security

- #1 in Identity and Access Mgt. – IDC.

IBM can help with a comprehensive suite of service management services …

- Strategy and planning creates an approach that's aligned with business objectives.

- Design and implementation is based on a proven approach and framework.

- Proven reference architectures and leading practices accelerate the design process.

Strategize and plan	Design	Implement	Manage
Service management strategy and planning	**Service management design**	**Service management implementation services**	**Managed services** ▪**IT Asset Management** ▪**Help Desk** ▪**Self-enablement portal** ▪**Remote managed infrastructure service**
Business of IT executive workshop	**Service management implementation – accelerators for service and asset management** **Event management and monitoring** **Business of IT dashboard**		

Dynamic Infrastructure – Service Management Next Steps

Visibility -See Your Business Services.

- Implement dashboards for real-time operations and process management.
- Get started with the ITSM Self-Assessment Tool.
- Leverage service management strategy and planning services.

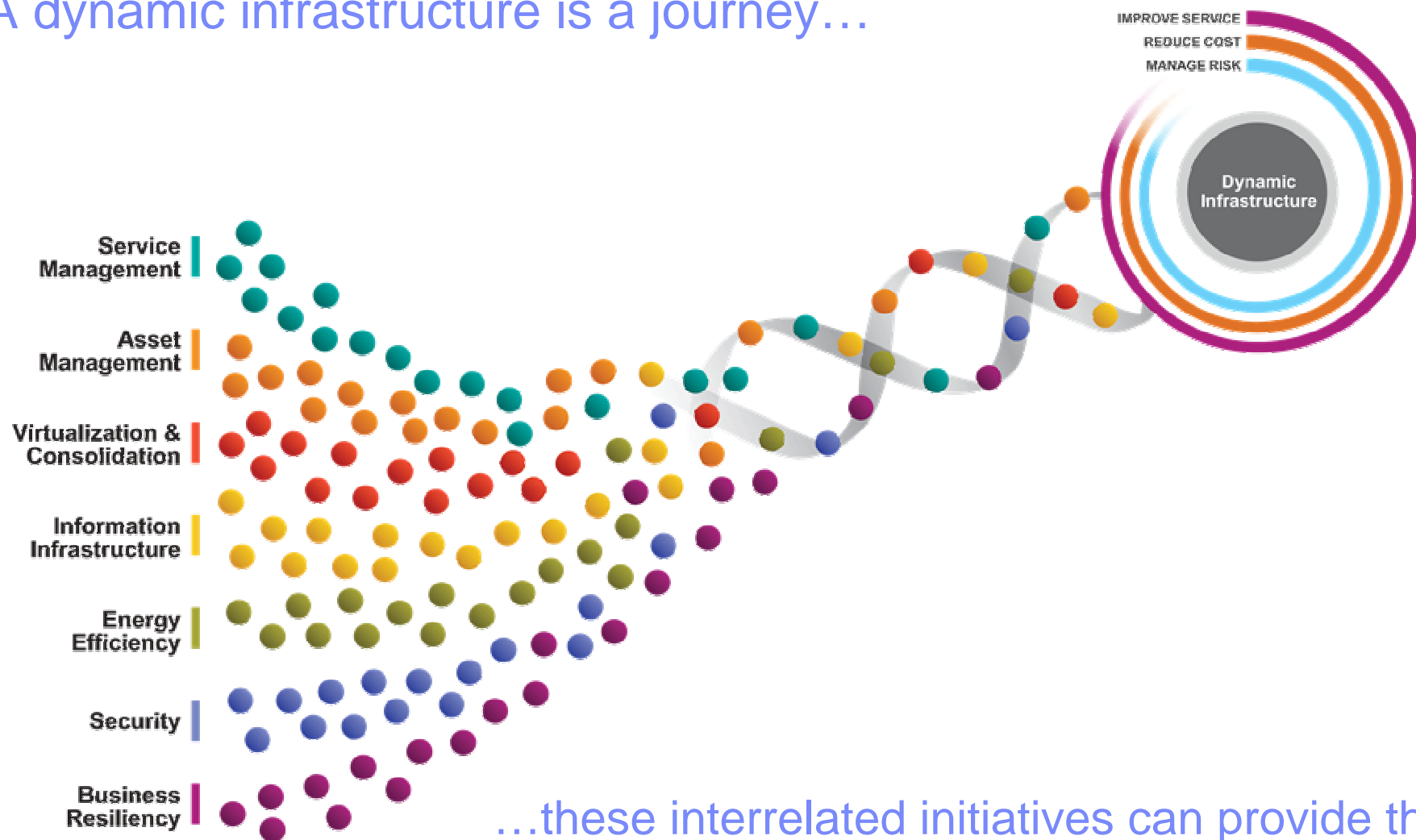**Control -** Manage your risk and compliance.

- Integrate real-time event, resource, security and asset/ configuration data.
- Integrate process workflows with operational tools to enforce controls.
- Leverage service management design for an integration roadmap.

Automation - Build Agility into your Operations.

- Implement automation across real-time operational tools, process workflows and all IT and non-IT assets.
- Leverage service delivery and support automation across the service lifecycle.

A dynamic infrastructure is a journey…

…these interrelated initiatives can provide the DNA needed to thrive in a smarter planet.

How to get started?

What does IBM have to offer?

Assess potential benefits.

- Proven tools, assessments and workshops by key initiatives to measure business impact.

Collaborate to build the right blueprint for success.

- Deep business architecture, strategy and change and data center strategy expertise.
- Open standards based approach with a supporting ecosystem of partners.
- Experience from thousands of client engagements.
- Structured architecture approach based on industry best practices.
- Award-winning implementation blueprints and patterns.
- Experiences from our own transformation.
- The broadest systems, storage, software and services portfolio in the industry to find the right fit for your business.
- Unparalleled research organization and extensive patent leadership.

Collaborate with our experts.
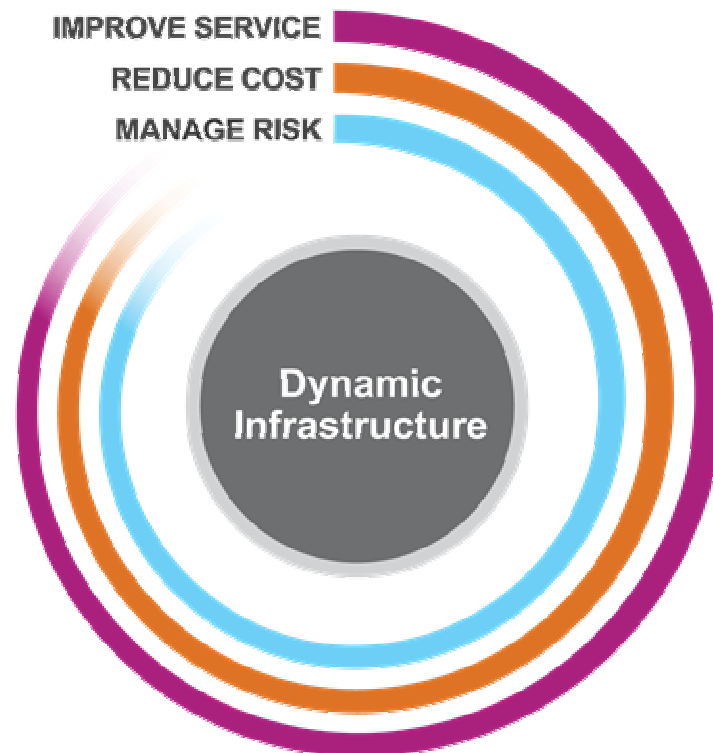
Skills & Expertise

- Business domain expertise across all industries.
- Span the spectrum from ideation to implementation.
- Over 3,500 Security & Privacy professionals globally.
- Over 4,500 skilled System z services experts.
- Over 5,000 ITIL-certified consultants in 30 countries.
- Over 20,000 SOA trained professionals.
- 5000+ network professionals in over 65 countries.
- Extensive experience advising clients on business transformation, SOA, service management processes, etc.
- Closely linked to IBM Research & cross disciplinary expertise through IBM Academy of Technology.

IBM Worldwide Client Centers

- Executive Briefing Centers.
- Proof of Concept and Benchmark Centers.
- IBM and Business Partner Innovation Centers.
- WW Design Centers.
- Industry Solution Centers.
- Cloud Computing Centers.

Extensive access to online resources

- IBM White Papers & IBM Redbooks.
- Technical papers.
- Blueprints and patterns to accelerate transformation.

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