

**Integrated Service Management**  
**Closing the Gap between Development**  
**and Operations by Integrating Process,**  
**Tooling and Data**

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**IBM Singapore**



# Innovate2010

The Rational Software Conference

Let's **build** a smarter planet.

24 March 2010 Mandarin Orchard, Singapore

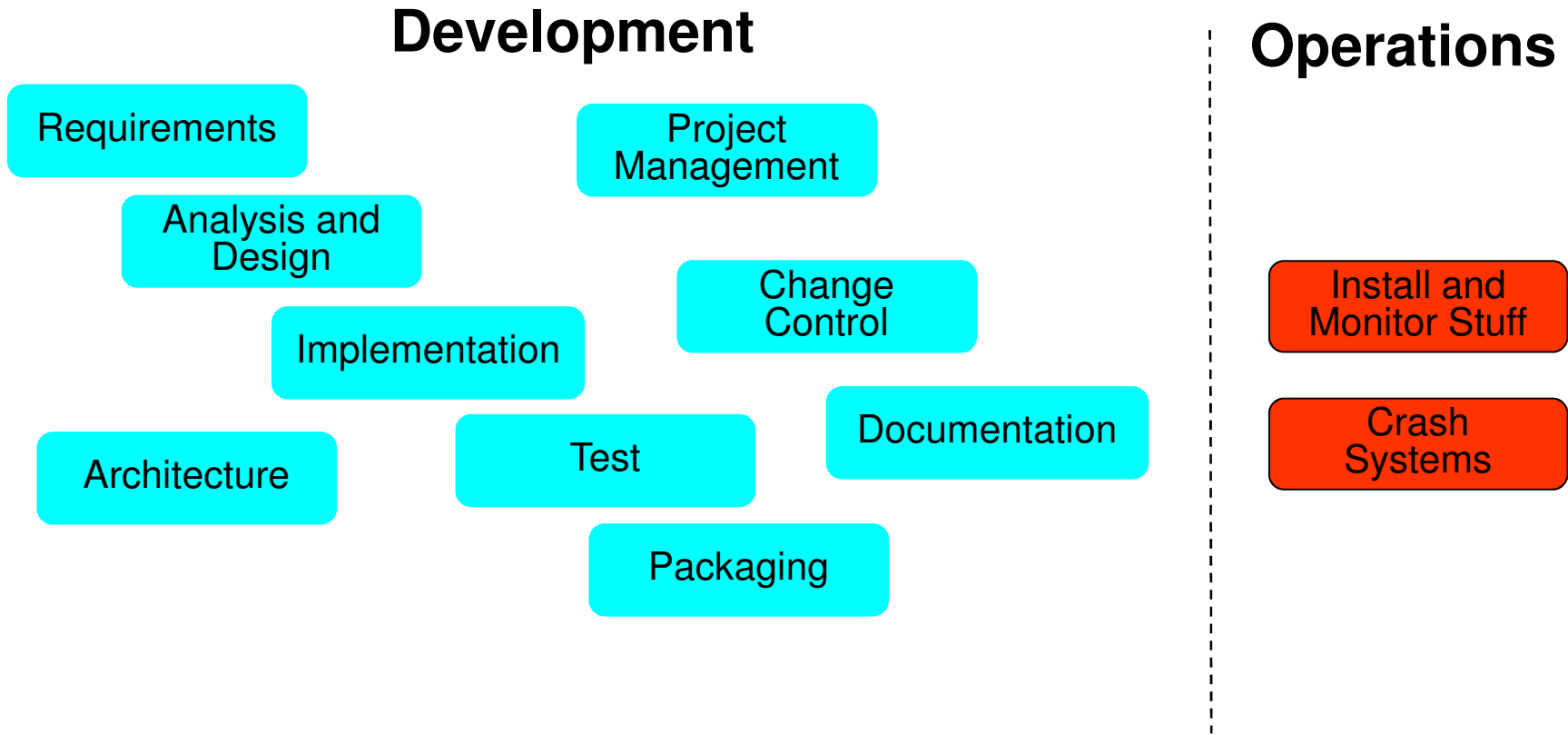


## Agenda

- Integrated Service Management for Design and Delivery
- Unifying Development and Operations



# Development's view of IT Operations



*Sometimes development tends to underestimate IT operations*



As the world gets **smarter**...



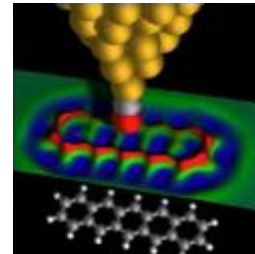
Traffic systems



Oil Fields



Food systems



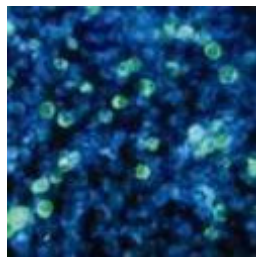
Healthcare



Energy grids



Retail



Water supplies



Supply chains



Weather forecasts



Countries



Regions



Cities

...delivery cycles will **accelerate**...and  
...demands on the infrastructure will **grow**.





## But Systems and Infrastructure are Reaching a Breaking Point

### Inefficient Systems

70 cents per dollar  
spent on maintenance

### Outdated Processes

\$40B annual loss  
due to supply chain inefficiencies in US

### Wasted Resources

85% idle  
*computing capacity*

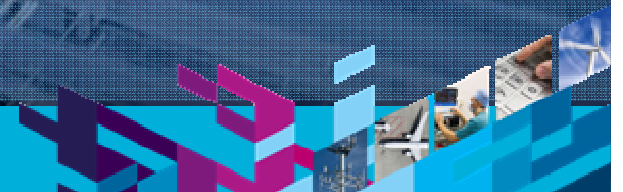
Only 37% of stakeholders are  
satisfied with the speed of  
development & deployment..

### Insufficient Quality

Only 42% are satisfied  
with the quality

### Delayed Delivery

50% of applications deployed  
are rolled back.





# And Operational issues have IT at a break point



## **Costs & Service Delivery**

Rising operational costs of systems and networking

Explosion in volume of data and information

Difficulty in deploying new applications and services

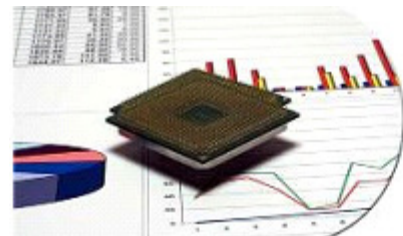


## **Business Resiliency & Security**

Security of your assets and your clients' information

Landslide of compliance requirements and government mandates

Systems and applications need to be available



## **Changing application models**

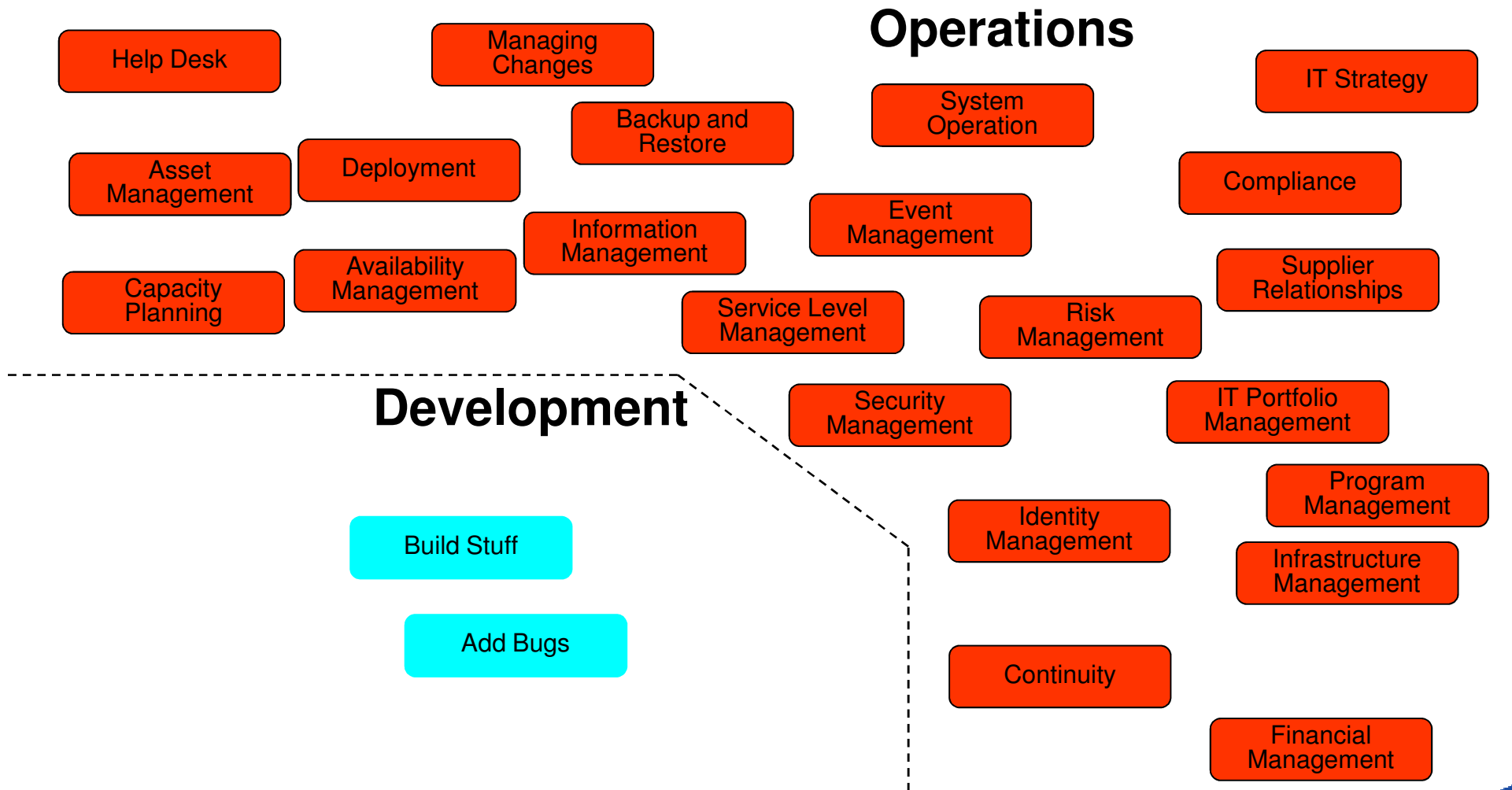
Unpredictable workload characteristics

Integrating fast growth of "smart" objects and multiple sources of information

Need maximum flexibility for real time interaction



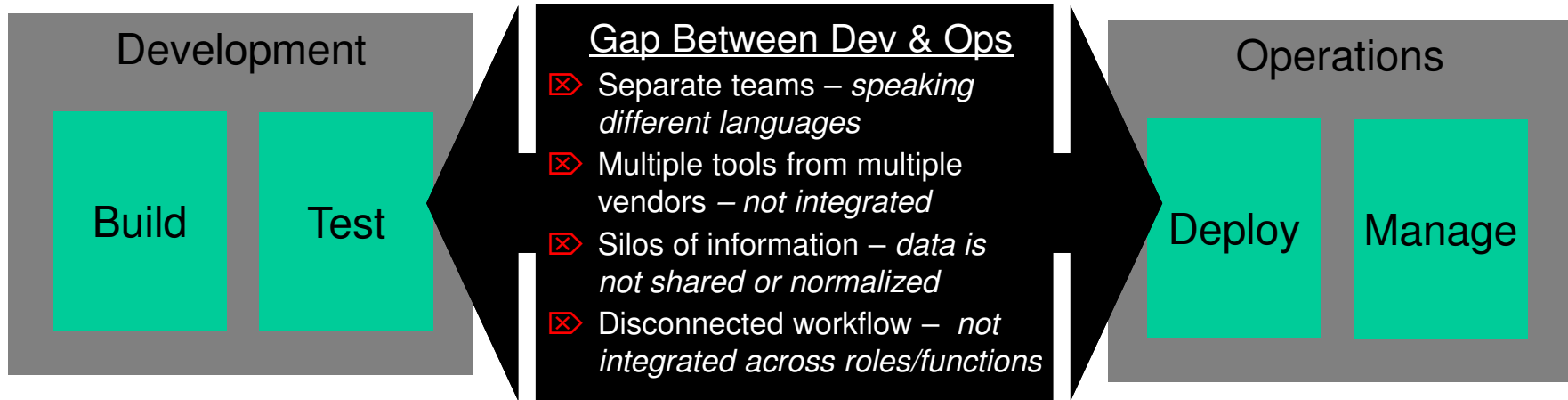
# IT Operation's view of Development



*Sometimes IT operations tends to underestimate development*



More pressure than ever on CIOs and senior IT managers to cut costs, while improving service quality & managing risk



The result:

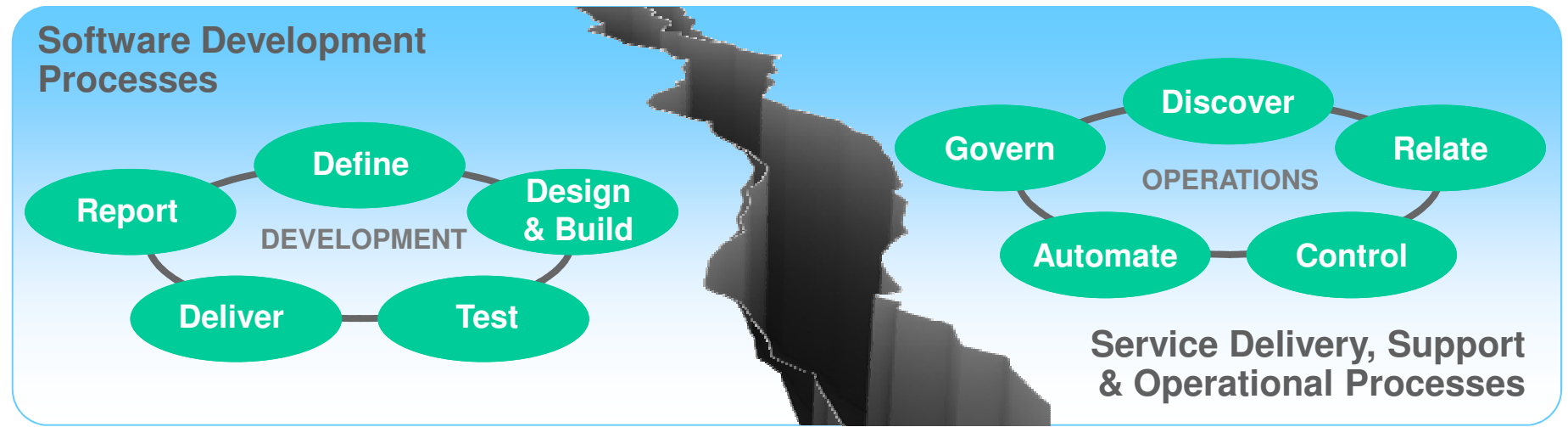
- Takes longer to deploy applications & services, impacting time to market and competitive edge.
- Slows problem identification, isolation & resolution impacting service quality, productivity, & customer satisfaction.
- Exposes the business to unwarranted risk and potential revenue loss.
- Drives unnecessary labor and operational expenses.

...we must bridge the gap between Development and Operations





# Design, Delivery and Management Model Challenges



*Had an application fail the first day of rollout after six months of intense testing ?*



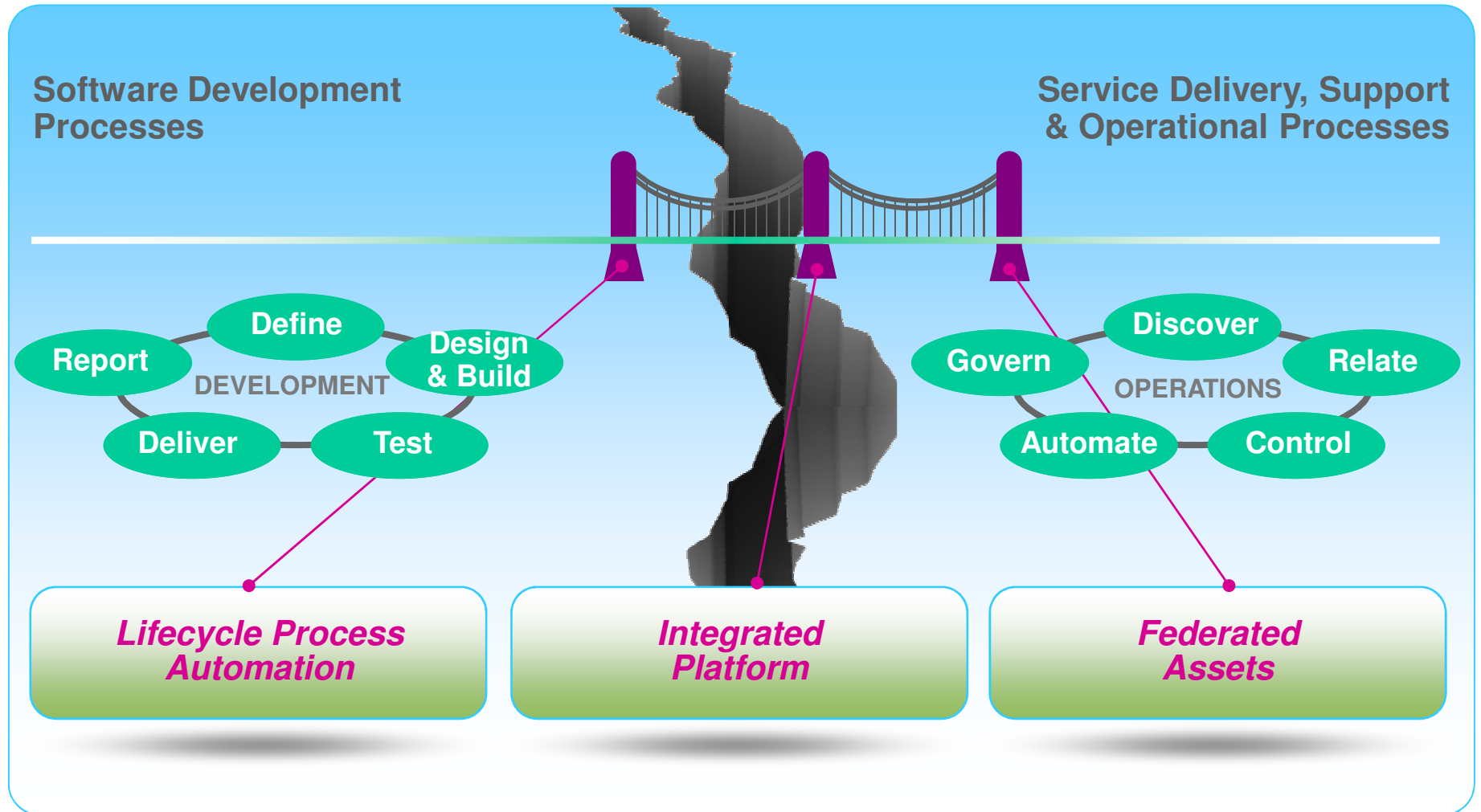
*Had to test your own code while waiting for appropriate environments to be available ?*



*Had a performance problem reported in production that can't be reproduced in dev ?*



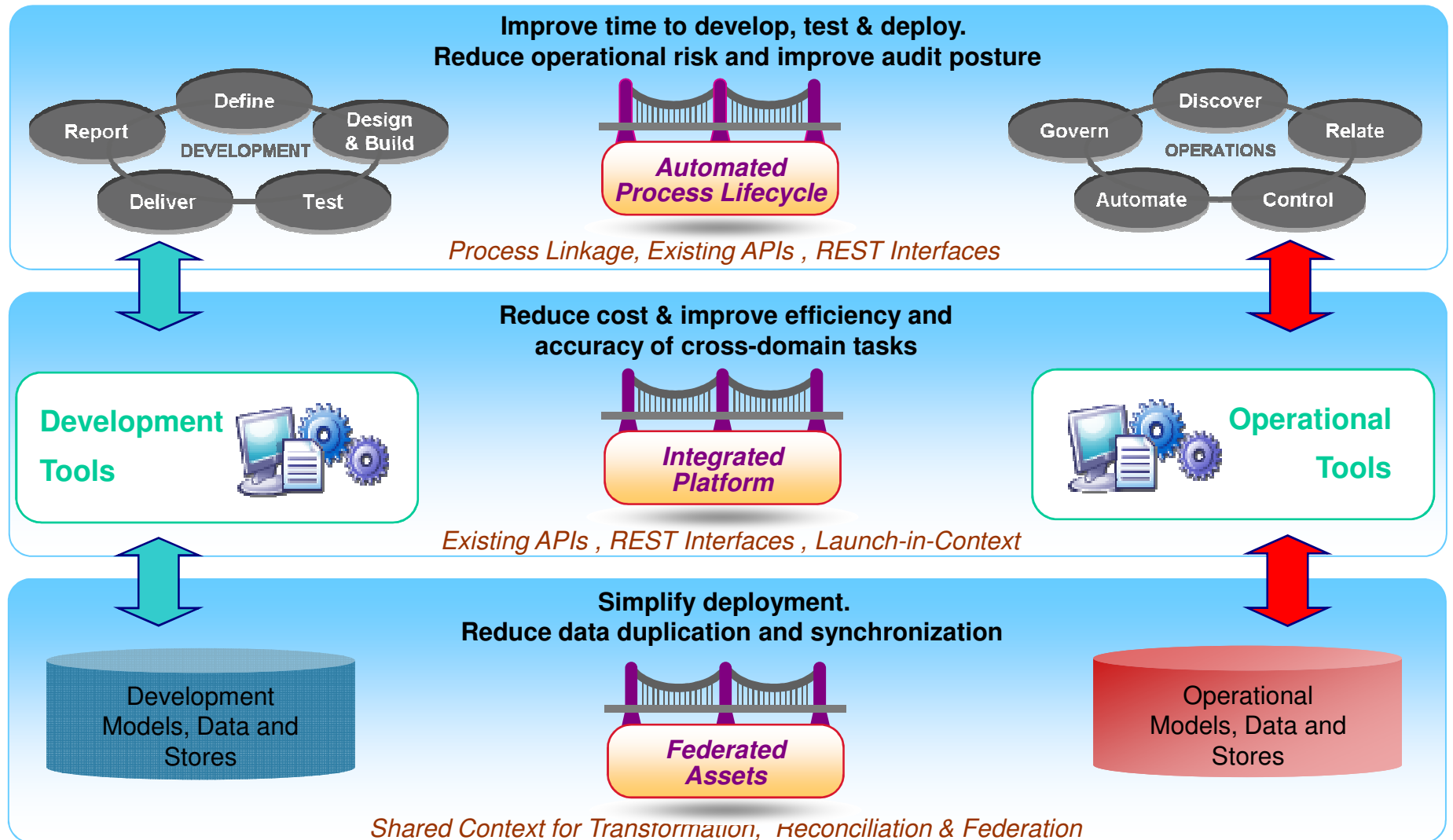
# Bridging service creation, delivery and management



*...to deliver sustainable product and service innovation*



# An Integrated Architectural View





## Financial Services Conglomerate

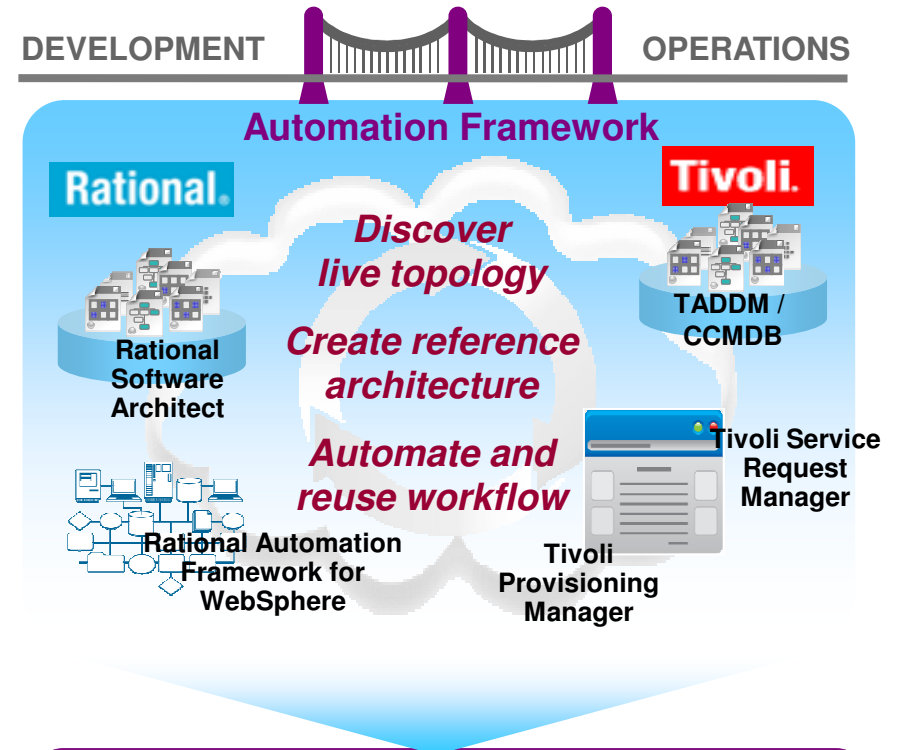
# Deploys Service Automation Framework

## Situation

- 8K applications including 3K acquired
- Constant stream of change requests
- Fixed IT operations staff, frozen budget
- Communication and accountability problems across 25 application teams
- Separate “layered” one-off approach to OS, data center and application deployment
- Numerous deployment errors, manual workarounds
- Backlog of 2500 priority one requests

## Solution

- Repeatable consistent automation
- Deployment Reference Architecture



### Results

- ✓ Reduced backlog
- ✓ Cost savings through consistent deployment
- ✓ Compliance and traceability
- ✓ Best practices capture

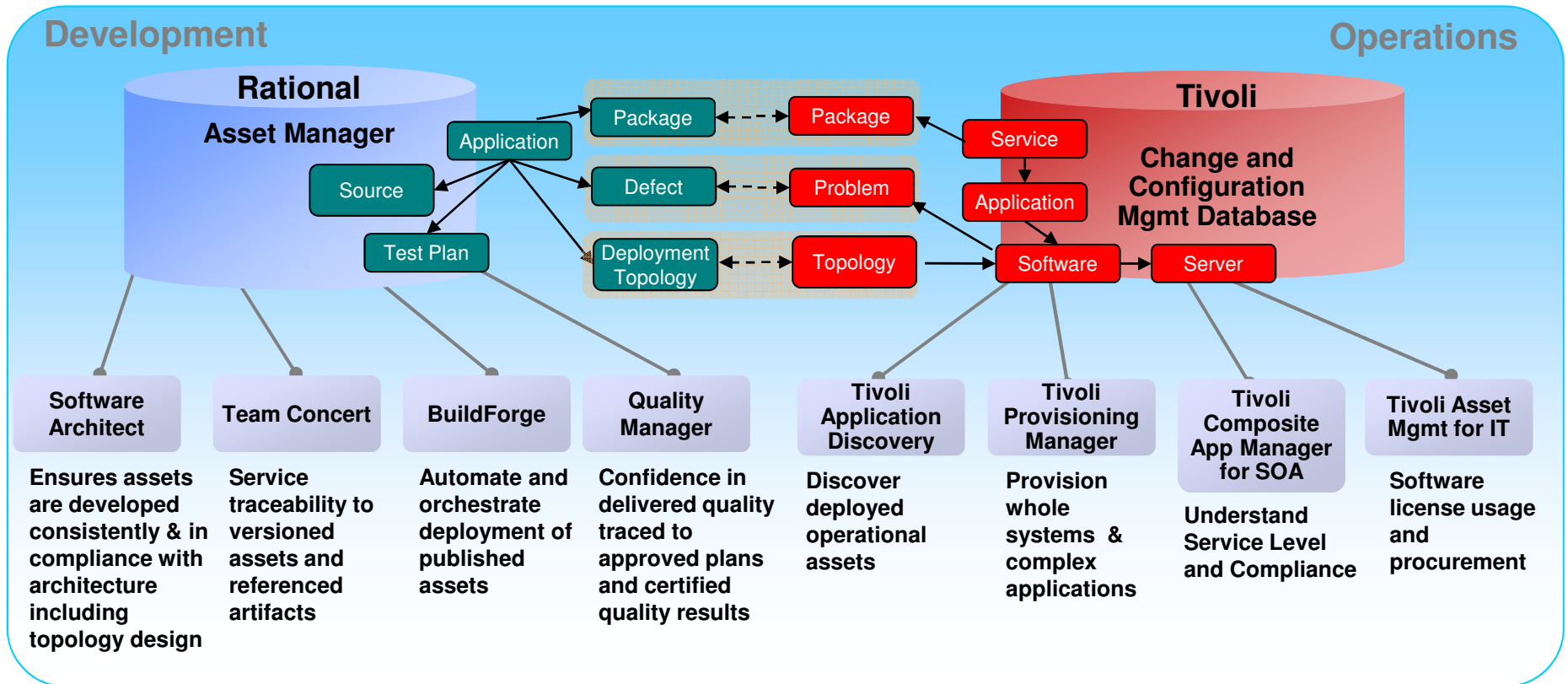
## Integrated Service Management – provides visibility, control and automation across the *Design* and *Delivery* lifecycle

- Modular solutions for every stage of the service lifecycle.
  - Align business and IT and define a complete Service Management strategy.
  - Integration of data and workflows across line of business, architecture, development, engineering, testing and operations software.
  - Best practices including ITIL, IBM assets for SOA, & RUP Development and Operations accelerate time to value
  - Closer collaboration to enable cross functional innovation

Continual Improvement



# Federated Assets

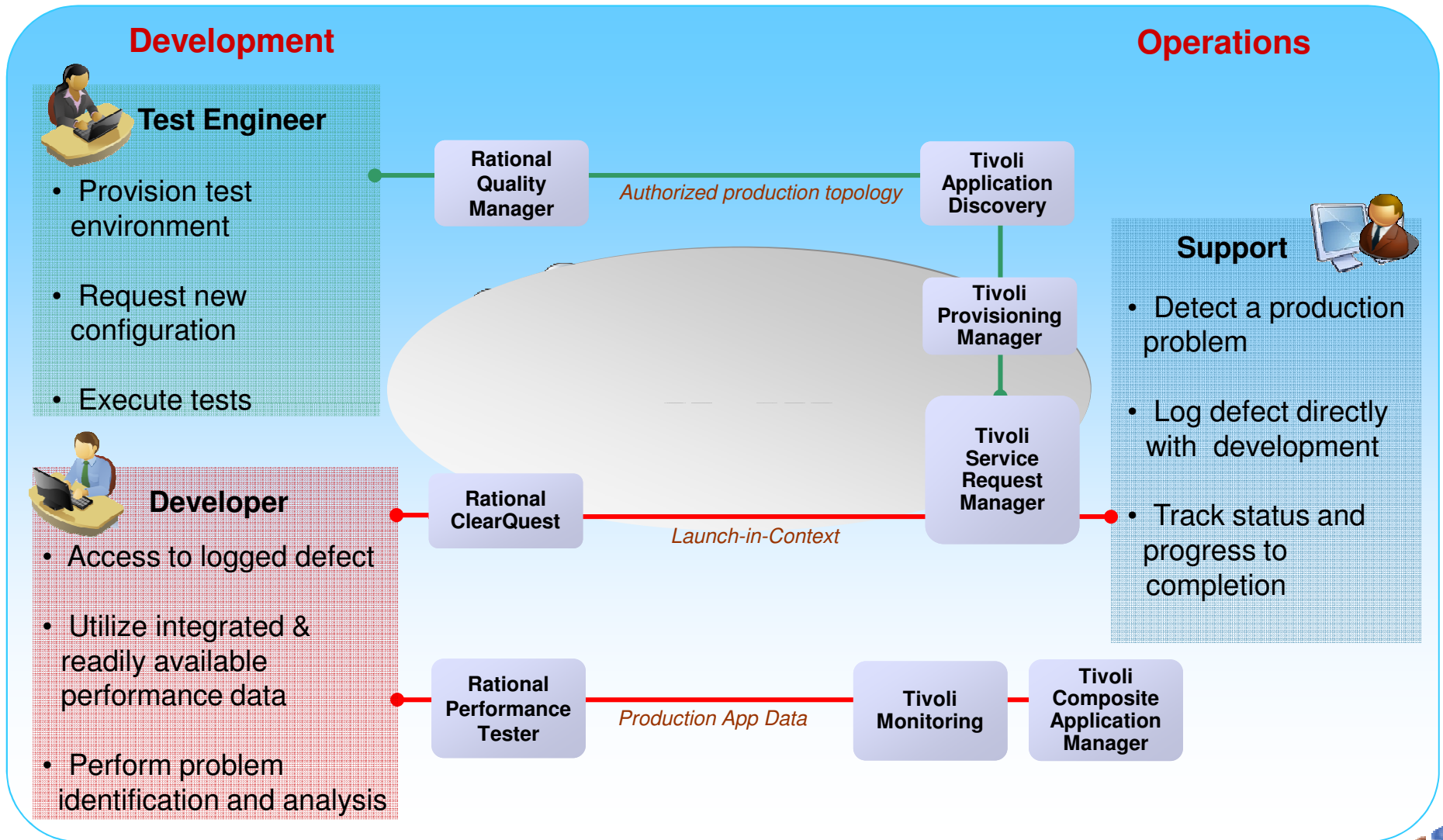


- Link Operational assets and Development assets
- Understand compliance reporting across both silos
- Determine root cause of production problems more quickly
- Provide impact assessment



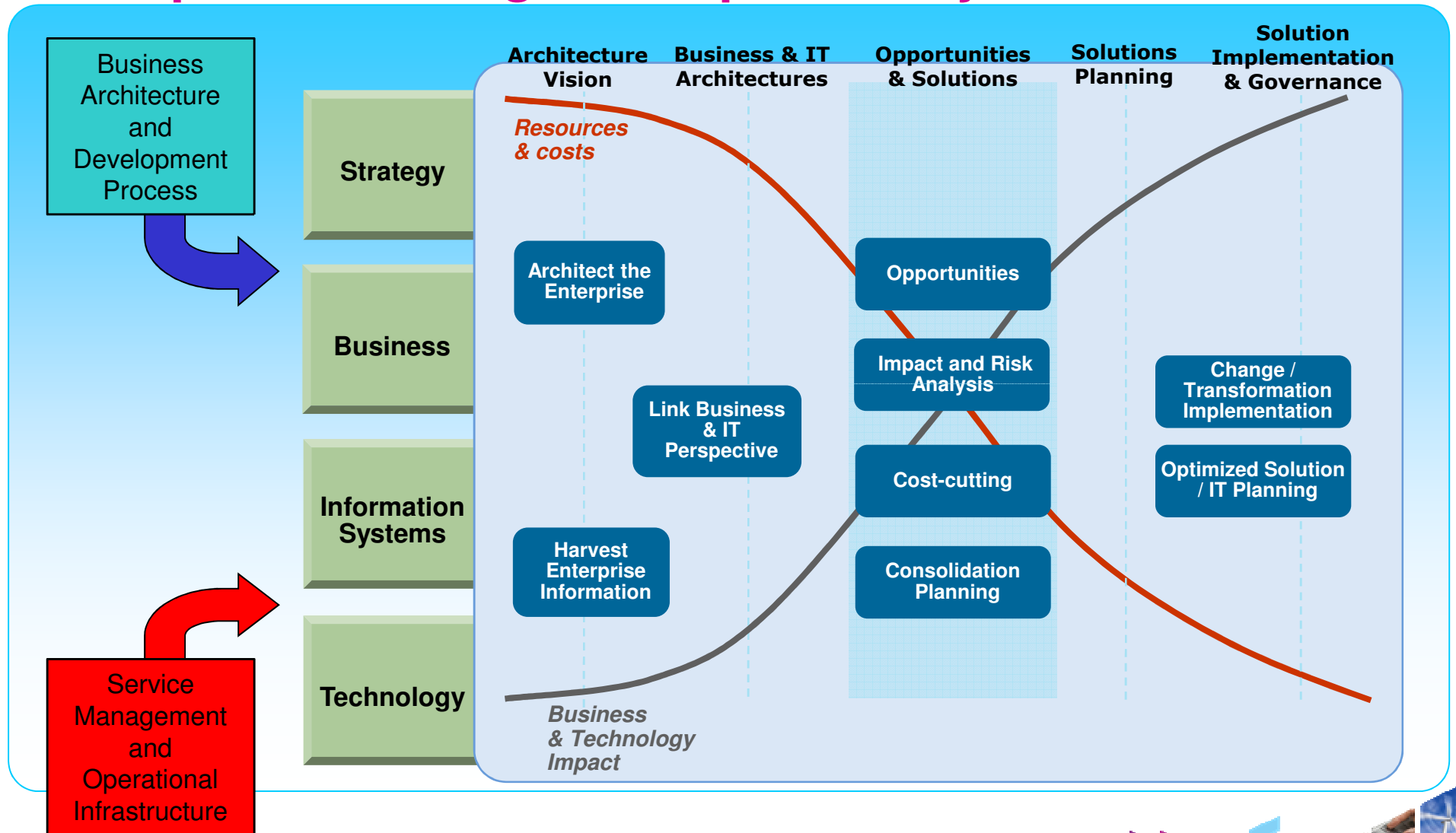


# Integrated Platform

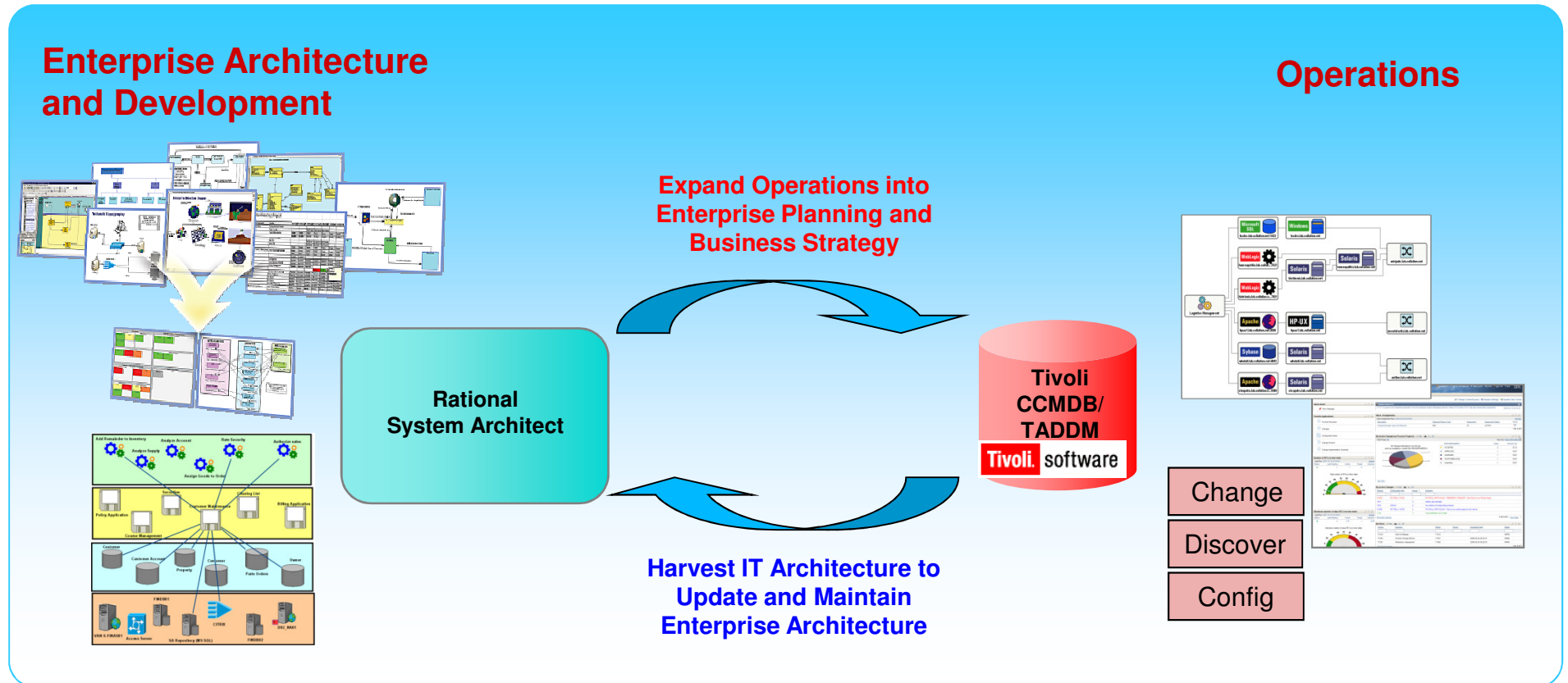


## Innovation Journey Continues

# Enterprise Planning and Impact Analysis



# Enterprise Planning and Impact Analysis



- Align operational changes with business and enterprise architecture
- Drive operation “current state” toward a targeted “future state”
- Understand the impact of operational changes to the business
- Harvest and maintain Enterprise Architecture IT assets from CCMDB





## Innovation Journey Continues

# Security Management

### **Enabling Secure by Design – IBM Security Framework**

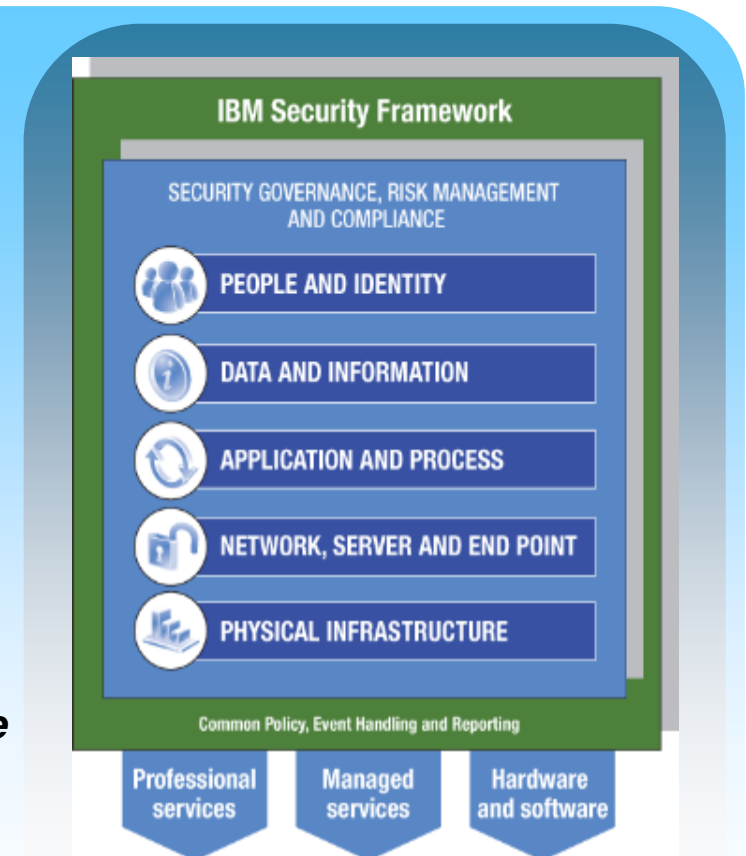
- Delivering industry best practices for “Secure by Design” application and services development
- Providing foundational capabilities for security management across development and operations lifecycle

### **Driving Governance & Risk Management, early in the Application Development Lifecycle**

- Leverage Tivoli Security Policy Manager to externalize security controls to help reduce cost & risk of change control.
- Ability to provision developers with privileged access rights and manage identity lifecycle across enterprise systems

### **Integrated Application Security Validation & Compliance**

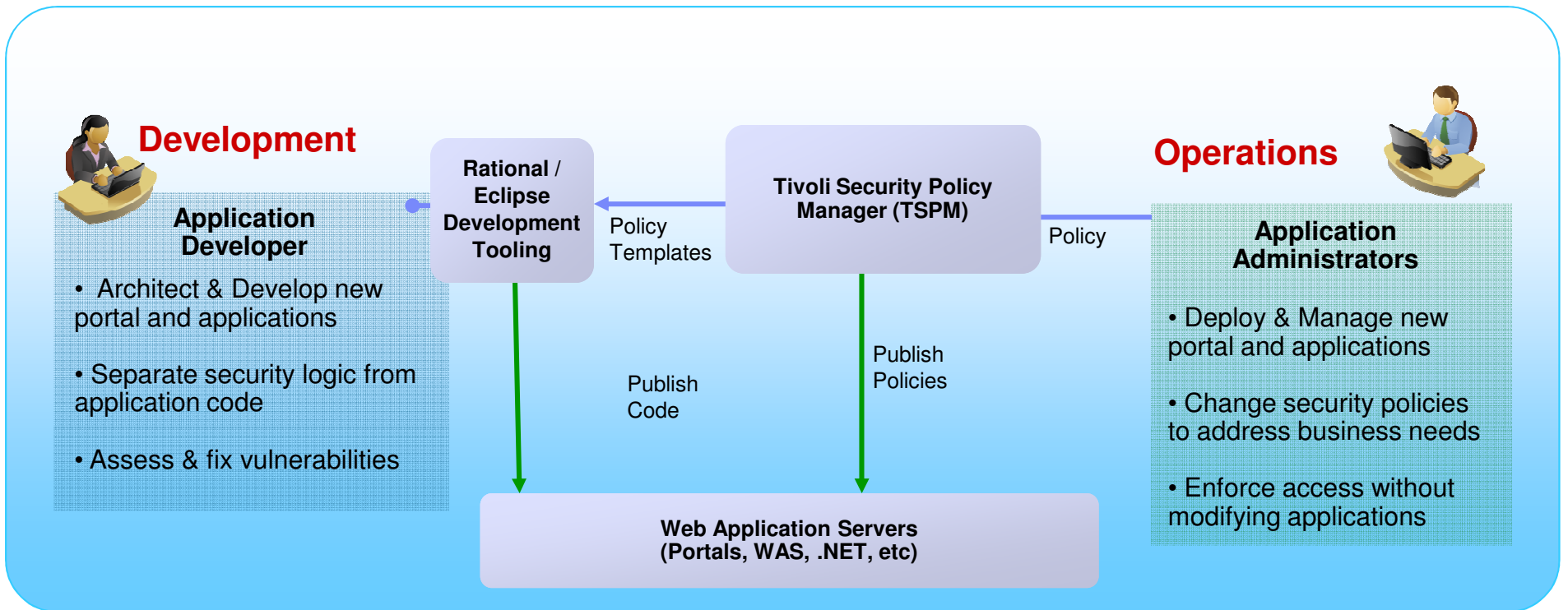
- Leverage Rational AppScan assessment results for threat prevention & block malicious content with IBM Security Intrusion Prevention Systems (IPS)
- Ability to enforce user access to web applications and mitigate against common web vulnerabilities



IBM wins  
**Best Security Company**  
award from SC Magazine



# Secure by Design – Develop & Deploy New Applications & Portals



## Example – Financial Services Company

- Building new Portal using Rational Development Tools & externalize security logic from apps
- Need to provide customers and partners access to data on a need to know basis
- IBM solution approach enables the client to reduce cost and risk of data exposure, while improving services without having to modify the applications.



# Addressing challenges by **deploying on the cloud**

## Traditional

- **Development Cost**
  - ▶ Lengthy process to deploy infrastructure & applications in test
  - ▶ Sub-optimal use of test resources
  - ▶ Difficult to emulate production configurations
- **Lack of Standardization & Governance**
  - ▶ Unanticipated failures in production
  - ▶ Lack of comprehensive automation
- **Complex on-boarding to production**
  - ▶ High cost to deploy applications and managing environments
  - ▶ Increases time to value



- **Lower TCO**
  - ▶ Reduced Installation
  - ▶ Reduced Setup
  - ▶ Lower administration costs
- **Minimize CapEx**
  - ▶ Increased hardware utilization through virtualization
  - ▶ Reduce software license costs
- **Improved Governance**
  - ▶ Standard delivery of services
  - ▶ Preconfigured software embodies best practices
- **Improved Time to Value**
  - ▶ Tools provisioned in minutes, minimal download, install, setup
  - ▶ Self administered portal provides resources for global teams



## Innovation Journey Continues Cloud Services

### *Tivoli capabilities for Cloud infrastructure*

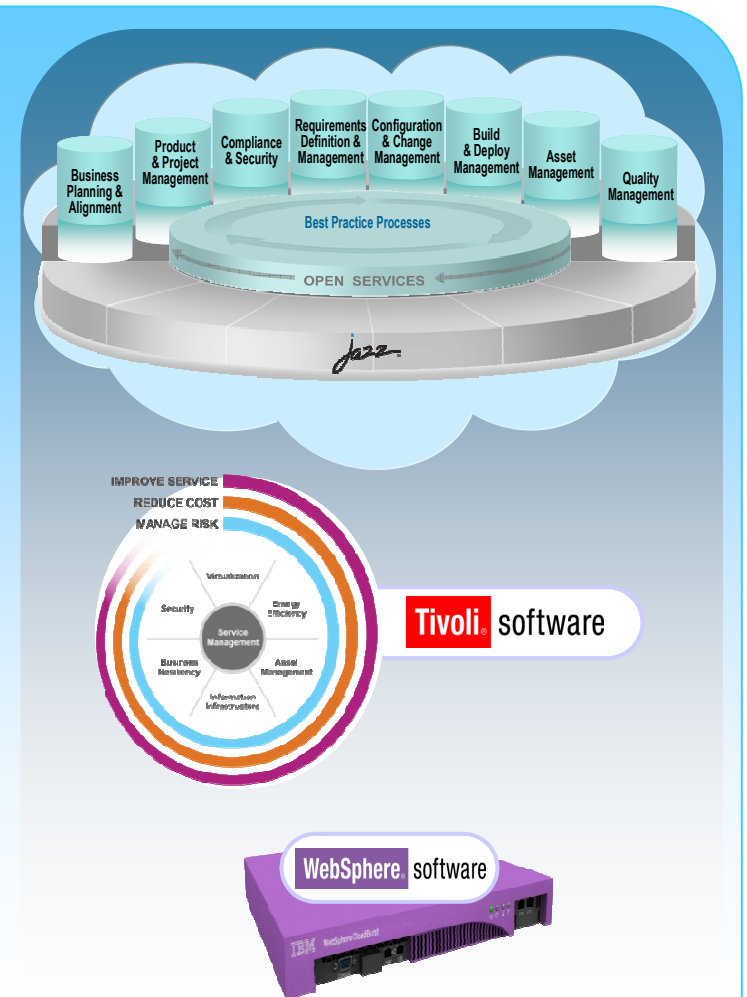
- Tivoli Service Automation Manager
- Cloudburst Appliance
- Service Delivery Manager

### *Rational Software Delivery Services ON the cloud*

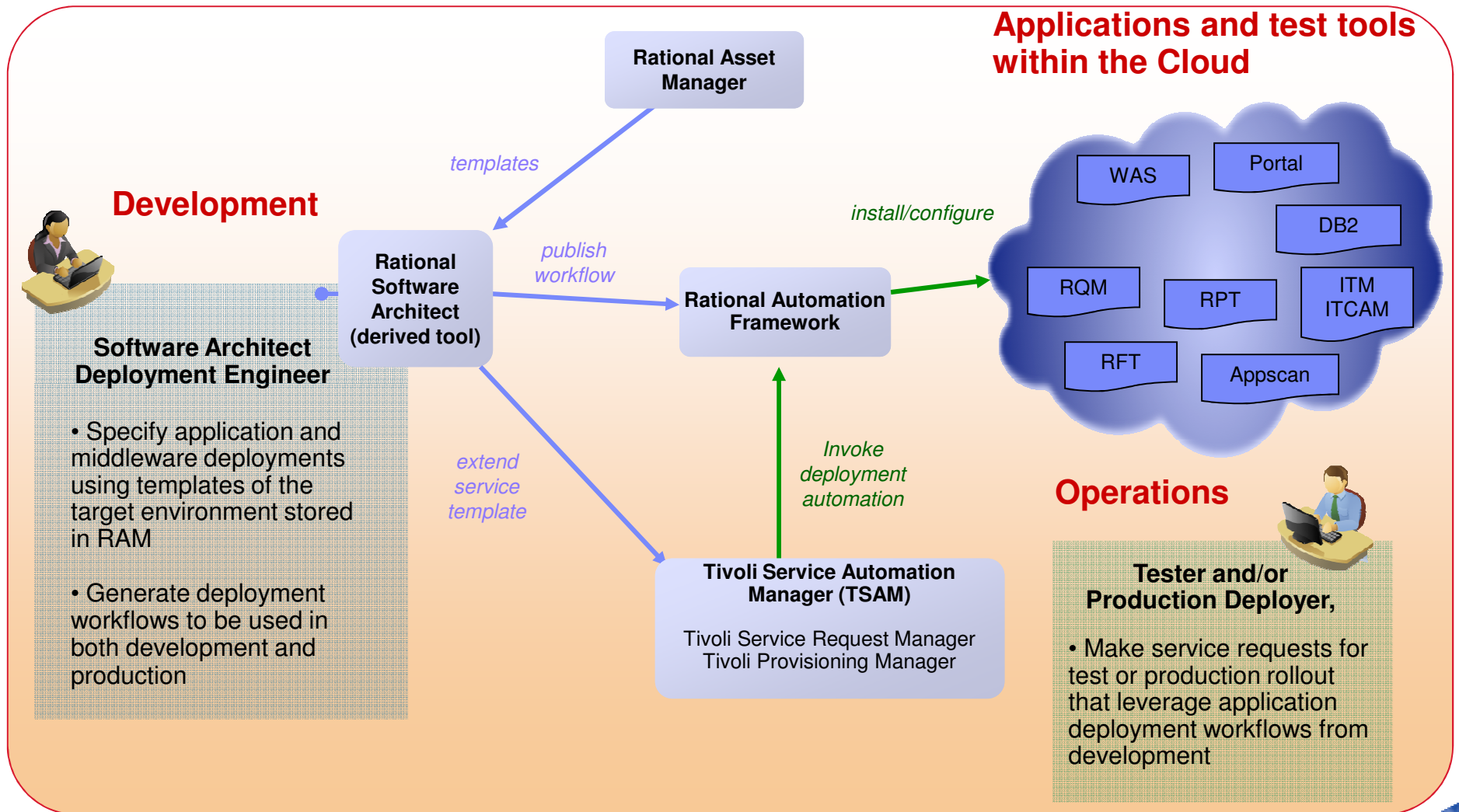
- Rational Team Concert, Quality Manager, Requirements Composer, Rational Asset Manager and Build Forge hosted in the Cloud
- Support for GTS private test Cloud

### *Tivoli and Rational Services FOR the cloud*

- Leverage Cloud resources on Tivoli CloudBurst Appliance
- Leverage Cloud resources utilizing Service Delivery Manager

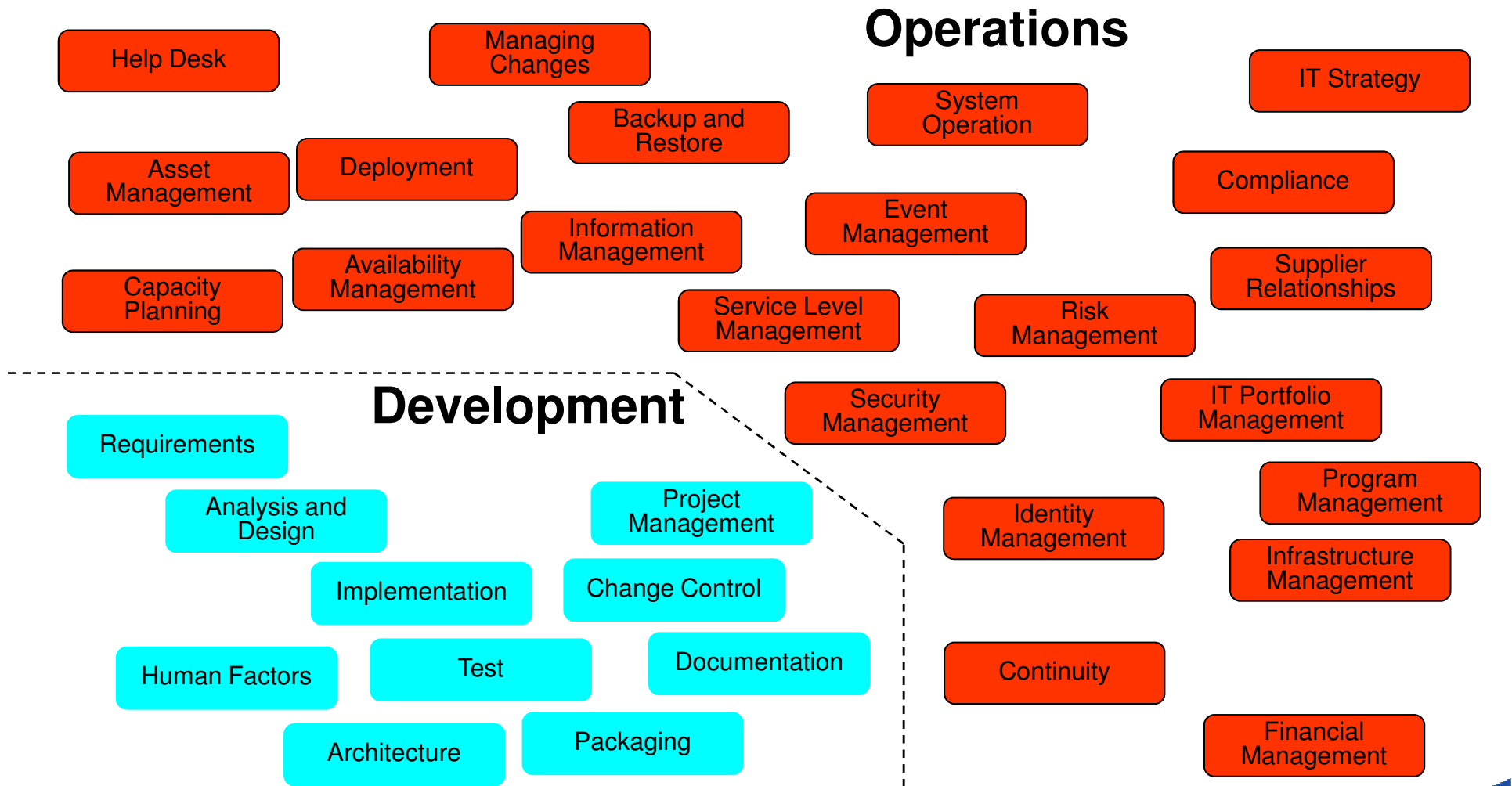


# Cloud Example : Specify and Automate deployment architecture to the Clouds





# A more complete view of IT – and of the problem



## ITIL And RUP Integration Points

- Impacts both products
- Traceability from requirements to deployment
- Round trip to operations
- Hand off points in RUP to operations
  - Requirements to SLA and capacity planning
  - Design to capacity and configuration
  - Deployment
- SLA / Problem to maintenance workflow

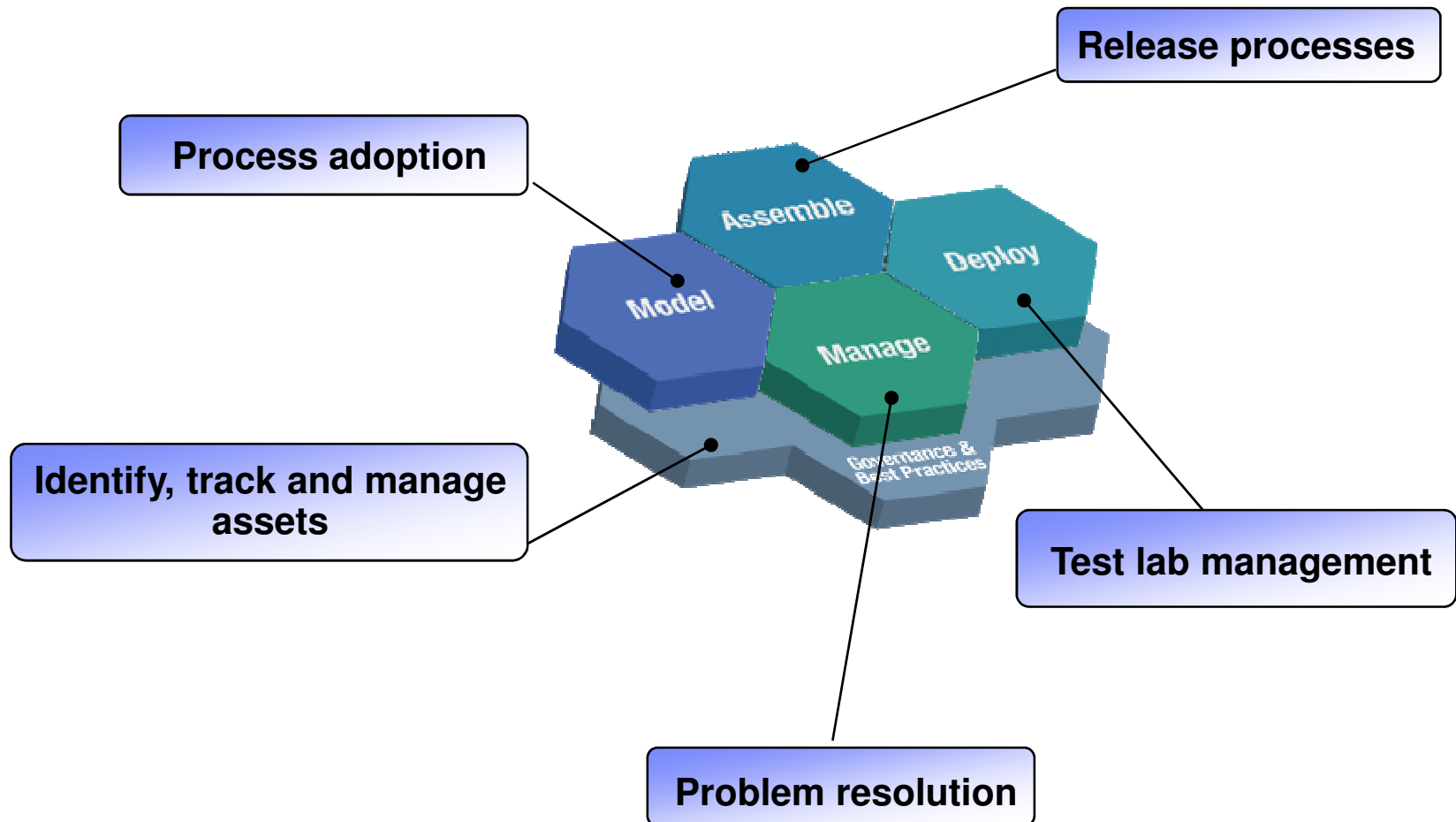


## ITIL And RUP Integration Points

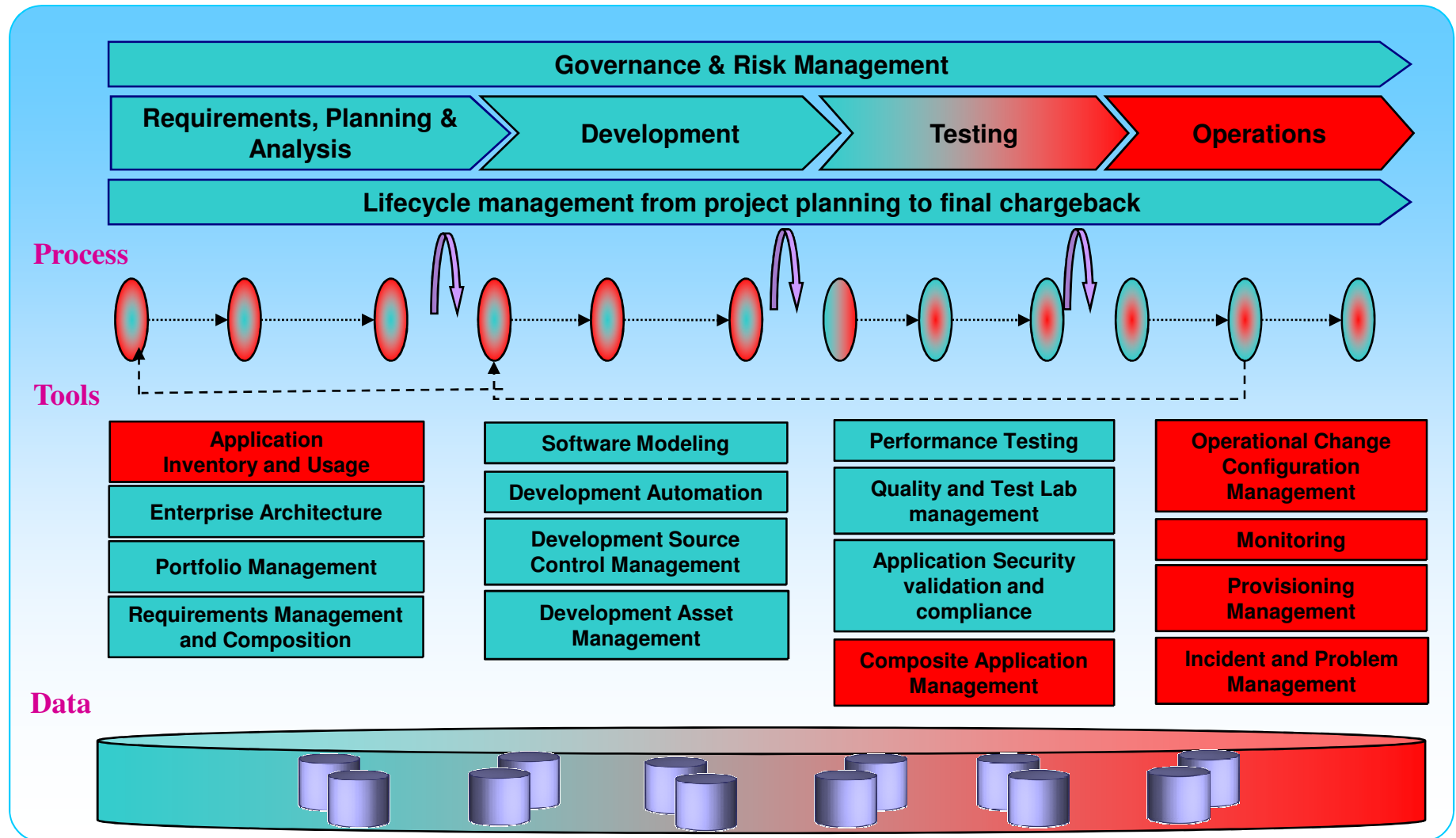
- Availability Management
- Capacity Management
- Financial Management
- Services Continuity Management
- Service Level Management
- Configuration Management
- Change Management
- Problem Management
- Service Desk
- Release Management



## High heat areas for collaboration – or conflict



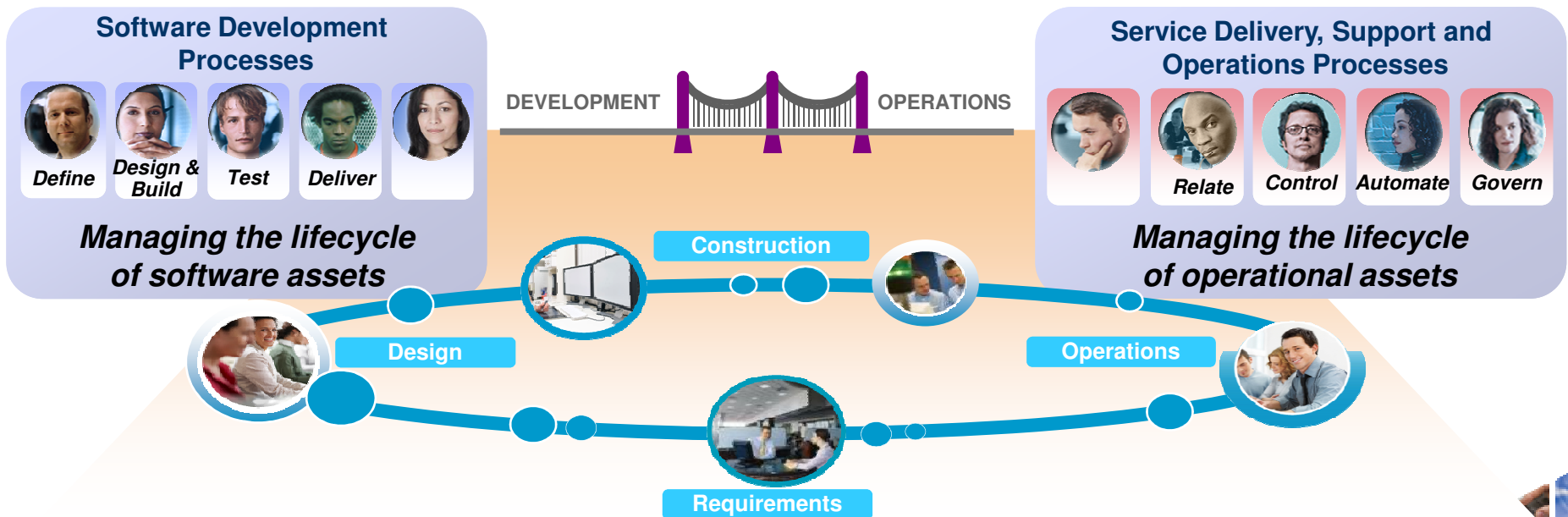
# Integrated capabilities across the Design and Delivery lifecycle





# Rational and Tivoli : Unifying Development and Operations to deliver Smarter Products and Services

- **Optimize** application performance in production
- **Trace** problems from operations into development
- **Link & synchronize** development and operational data
- Utilize operational data to **validate** new architecture
- **Automate** solution lifecycle process and testing



## One Possible Solution

- Utilize RUP and ITIL best practices
- Make ITIL actionable by Adopting RUP
- Bridge the gap between RUP and ITIL
- Create tool mentors
- Build an adoption road map
- Automate

**Improving Process Drives Efficiency  
Automation Drives Productivity but  
We Need to Look Into Both Sides of Equation to Achieve Results**



Questions





[www.ibm/software/rational](http://www.ibm/software/rational)

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