# SOA Health and Governance:
## *Smart SOA^TM Fitness Delivers Value*

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# How is Your SOA Health?

## Check Your SOA Health…

- Is everything working as well on the inside as it appears to be on the outside?

- Is your SOA implementation ready to scale for enterprise wide demands?

- Are you experiencing chronic, nagging issues?

*… and Avoid SOA Rescue Missions*

*In today's economic climate you need to make sure you are maximizing the value of your SOA implementation*

# Trust IBM to Help

*Lessons Learned Help IBM Understand Clients' SOA Health*

**Cross-IBM global deep dive analysis of
200 SOA deployment experiences:**

- 750 Lessons Learned
- 650 Best Practices
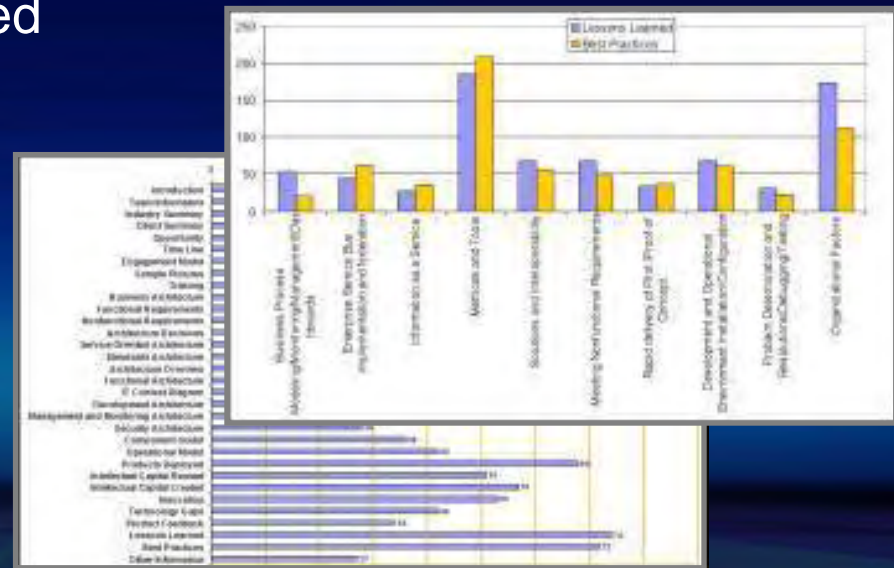

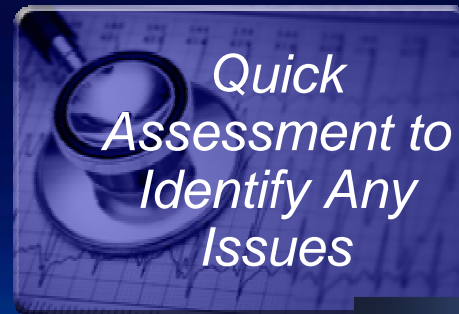
**New!** White Paper Now Available
Service-oriented architecture: Follow a clearly-marked path for success
*Best practices and lessons learned—findings from "best of the best"
SOA Foundation deployments*
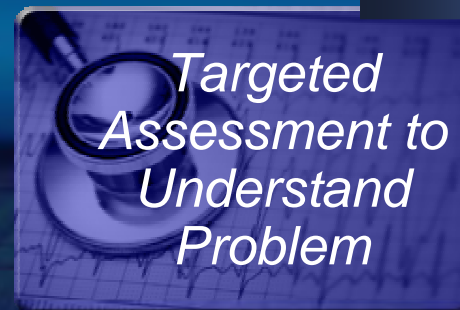
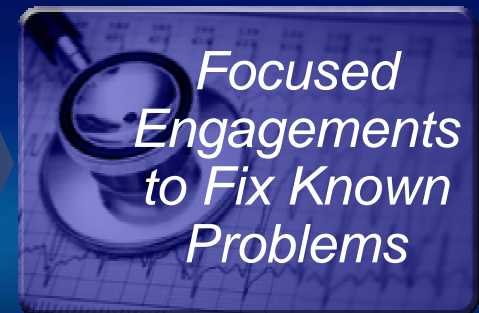# IBM SOA Healthchecks – Diagnostic Services

**Healthchecks**

**Triage Workshops**

*Quick Assessment to Identify Any Issues*

OR

**Specialized Diagnostics**

*Targeted Assessment to Understand Problem*

**Treatments**

*Focused Engagements to Fix Known Problems*

# IBM SOA Healthcheck Coverage

**Applications and Services Healthcheck Workshop for SOA**

Treatment Areas
- Application Reuse
- Service Use & Governance
- Service Security

**Infrastructure Healthcheck Workshop for SOA**
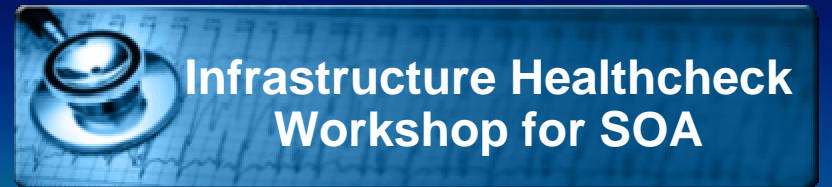
Treatment Areas
- Infrastructure Flexibility
- Middleware Support
- Service Management

*Whether you are…*

*…here  or  here  or  here*

Basic                                    Advanced

# Infrastructure Areas for SOA Health

**Infrastructure Flexibility**

*Is your SOA meeting the demand spikes and configured to easily handle changes?*

**Middleware**

*Is your SOA platform robust enough to handle the transaction volume with integrity?*

**Service Management**

*Do you have the visibility and control to manage your services?*

# Infrastructure Fitness for SOA



## Healthy Attributes:

- Workloads and resource virtualization
- Platform flexibility
- Assured connectivity
- Managed quality of service
- Effective problem isolation and fix
- Visibility and control of services and changes

**Service performance depends on infrastructure flexibility**

# Common Infrastructure Symptoms

**Infrastructure Flexibility**

- *Performance issues with demand peaks?*
- *Problems in tuning the system?*
- *Systems changes cause issues?*

**Middleware**

- *Scalable for SOA?*
- *Communications inconsistencies?*
- *Guaranteed connectivity possible?*

**Service Management**

- *System performance difficult to manage?*
- *Services changes cause surprises and not controlled?*
- *Infrastructure availability inconsistent?*

# IBM Infrastructure Healthcheck Services supporting SOA

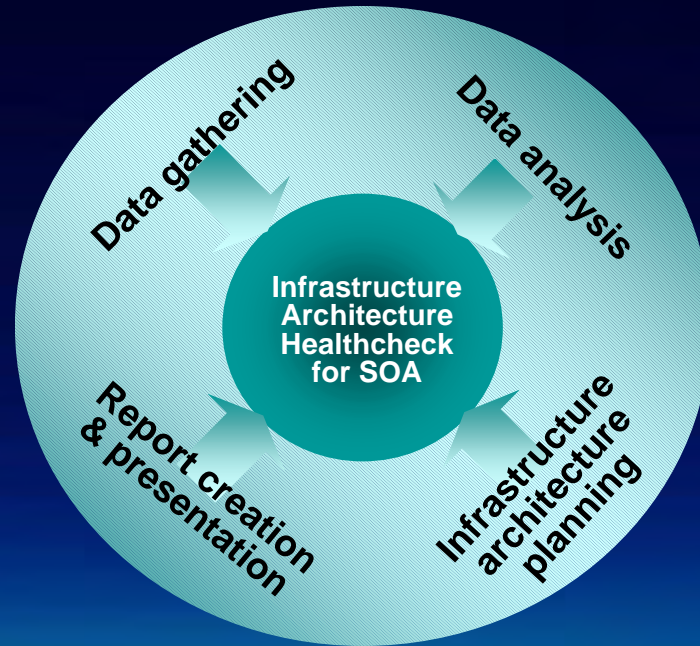**Infrastructure Healthcheck Workshop for SOA**

## Key Specialized Diagnostics:

- Infrastructure Readiness Assessment for SOA
- Healthcheck Services for Web Application Server
- Healthcheck Services for Web Portal
- Service Management Workshop for SOA
- **New!** Infrastructure Architecture Healthcheck for SOA

# Featuring Infrastructure Architecture Healthcheck for SOA

**New!**

*Each engagement includes 4 phases:*

- Data gathering
- Data analysis
- Infrastructure architecture planning
- Report creation & presentation

**Infrastructure Architecture Healthcheck for SOA**

## Fixed price/fixed scope with two starting points:

**New SOA environment:**

- Three-week engagement
- Assesses two "What If Scenarios"
- Delivers an infrastructure architecture Healthcheck for SOA report

**Extending SOA:**

- Five-week engagement
- Analyzes infrastructure monitoring data
- Assesses two "What If Scenarios"
- Delivers an infrastructure architecture Healthcheck for SOA report

# IBM Infrastructure Treatments for SOA

## IBM Professional Services:

- SOA Integration Services
- Application Infrastructure Services
- Service Management Services
- Identity & Access Management Services

### *Some Hardware and Software "Prescriptions" Available*

| Infrastructure Flexibility | Middleware Support | Service Management |
|---|---|---|
| *WebSphere Application Virtualization*<br><br>*Systems Virtualization* | *WebSphere Middleware for SOA* | *Tivoli Service Management for SOA Products* |

# Applications and Services Areas for SOA Health

## Application Reuse

*Are you able to transform your legacy systems as services? Have new services been developed to optimize reuse?*

## Service Use & Governance

*Is there an awareness across the Business and IT community of the services available for reuse?*

## Service Security

*Have proper security and identity management controls been enacted for services?*

# Application and Services Fitness for SOA

## Healthy Attributes:

- Optimize leverage of existing assets

- Services built for reuse

- Services reused effectively

- Governance processes instituted

- Common service registries and repositories

- Common service security administration

- Identities propagated and managed

*Drive development cost savings, efficient operations and high security*

# Common Applications and Services Symptoms

## Application Reuse

- Existing functions not leveraged?
- Business processes locked in application silos?
- New services not reusable?

## Service Use & Governance

- Duplicate services developed?
- No centralized repository for services?
- "Rogue" services exist?

## Service Security

- Administered on a per application basis?
- Nonexistent between web applications and existing enterprise systems?
- Application-specific for the management of services identity?

# IBM Application and Services Healthchecks for SOA

**Applications and Services Healthcheck Workshop for SOA**

## Key Specialized Diagnostics:

- Legacy to SOA Point of View
- SOA Governance Maturity Assessment
- SOA Security Assessment
- SOA Technical Review – Application Architecture

# Featuring Application and Services Healthcheck Workshop for SOA

*Find opportunities to improve the reuse of applications and services, service use and governance, and service security*

*2-3 day interactive workshop that identifies areas that need further assessment*

- Collaborative sessions
- High-level maturity assessment of your Architecture, Application and Methods
- Uses IBM's Services Integration Maturity Model (SIMM)

## Benefits

- Identifies problem areas
- Recommends ways to address gaps
- Provide results in a short amount of time

# IBM Application and Services Treatments for SOA

## IBM Professional Services:

- Legacy to SOA Services
- SOA Security Services
- SOA Governance Services
- SOA Strategy Offering
- SOA Implementation Planning Offering
- SOA Design, Development, and Integration Offering

### *Some Hardware and Software "Prescriptions" Available*

| Application Reuse | Service Use & Governance | Service Security |
|---|---|---|
| *Rational Service Lifecycle Tools* | *WebSphere Service Registry and Repository*<br>*Rational Asset Manager*<br>*Tivoli Service Management Products* | *Tivoli Security Products for SOA*<br>*WebSphere DataPower* |

# A Focus On Governance

**Application Reuse**

**Service Use & Governance**

**Service Security**

# IBM SOA Governance and Service Lifecycle Management

Agenda

- Governance of Smart SOA

- Value of a Federated Registry/Repository approach

- Rational Asset Manager (RAM) enhancements

- WebSphere Service Registry and Repository (WSRR) enhancements

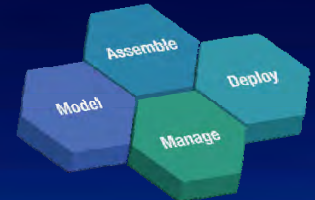Continually enhanced based on client requirements and experience

# On-Going Enhancements

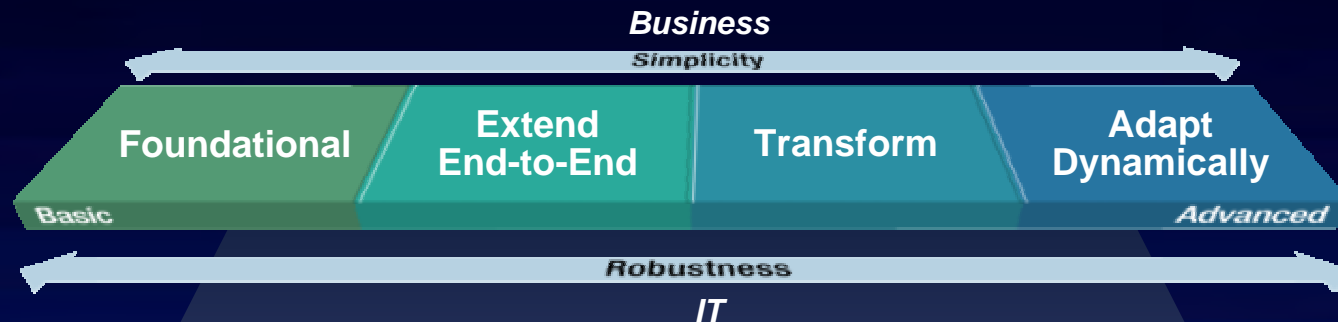| | |
|---|---|
| **March 2006** | SOA Governance announcement (SGMM v1) |
| **October 2006** | SOA Governance and Service Lifecycle Management |
| **December 2006** | Empowering the A in SOA |
| **March 2007** | SOA Quality Management |
| **April 2007** | Federated Registry/Repository |
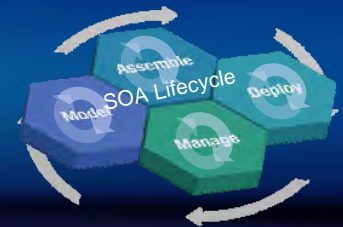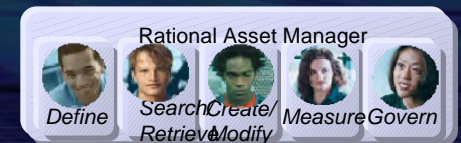
# Economic and Compliance Value of SOA Governance

**Client experience highlights the need for SOA Governance:**

- From day one of SOA implementation
  - To realize full savings and value that come with reuse of assets

- To meet industry compliance needs
  - IBM's SOA Governance framework provides both a process and the enabling tools for tracking and reporting of service usage and security
  - Example:  Increased legal requirements in the finance industry and public sector mean that governance and enforcement of service usage is even more important today

# What's New



**Business**
*Simplicity*

| Foundational | Extend End-to-End | Transform | Adapt Dynamically |

Basic — Advanced

*Robustness*
**IT**

## Technical Changes

- New WSRR/RAM product
- Enhanced RAM/CCMDB connectivity
- Improved SOA Policy enablement
- New Rational Team Concert

## Cultural Changes

- Enhanced SOA Governance and Mgmt Method V2
- Improved GBS SOA CoE Services
- Updated Automated Test Facility (ATF)

# SOA Governance Direction Supports Smart SOA

SOA Governance and Service Lifecycle Management is able to support clients across the Smart SOA continuum

| Foundational | Extend End-to-End | Transform | Adapt Dynamically |
|---|---|---|---|

Basic → Advanced

**Gain control of current environment**

- Focus:
- Inventory and control of current services
- Center of Excellence
- Registry/Repository

**Go after key business opportunities**

- Focus:
- End-to-end processes and policies
- Culture and Org Change
- Enabling tools

**Create cross organization Business IT alignment**

- Focus:
- Enhance Business/IT governance
- Expand measurements & metrics
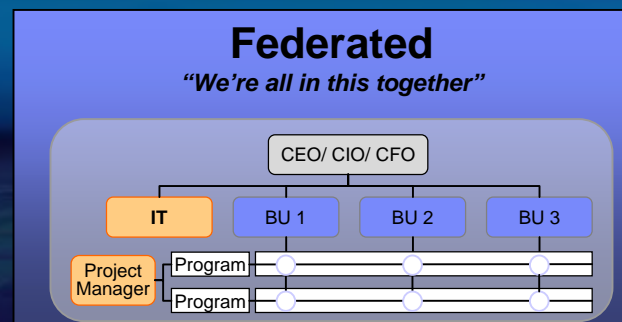
End-to-end Quality Management

# Success Drivers Based on a Federated Approach

**Key Success Drivers:**

- Assess organizational readiness for federation
  - Skills, Communications, Leadership
- Integrate federation into current SOA implementation plan
  - Understanding, Acceptance, Preparation, Commitment

**Governance Approaches**

- Centralized – Single solution/product focused
- Federated – Growth based on Smart SOA requirements
- Decentralized – Home grown (ie, spreadsheets)

| **Centralized** | **Federated** | **Distributed or Decentralized** |
|---|---|---|
| *"We'll take care of it for you"* | *"We're all in this together"* | *"You're on your own"* |

**Centralized**
- CEO/ CIO/ CFO
- IT | BU 1 | BU 2 | BU 3
- Services / App Dev | Functional Reqs | Functional Reqs | Functional Reqs
- Infra-structure

**Federated**
- CEO/ CIO/ CFO
- IT | BU 1 | BU 2 | BU 3
- Project Manager | Program | Program

**Distributed or Decentralized**
- CEO/ CIO/ CFO
- IT | BU 1 | BU 2 | BU 3
- Infra-structure | Services / App Dev | Services / App Dev | Services / App Dev

Federated approach provides the greatest flexibility and growth capability

# Support for Each Phase of the SOA Lifecycle

**Service and Asset Development**

Creating a service that can be reused

Improving communication and collaboration within teams

Adherence to development policies

**Service Deployment**

Controlling and elimination of "rogue services"

Policy tracking of services for compliance and SLAs
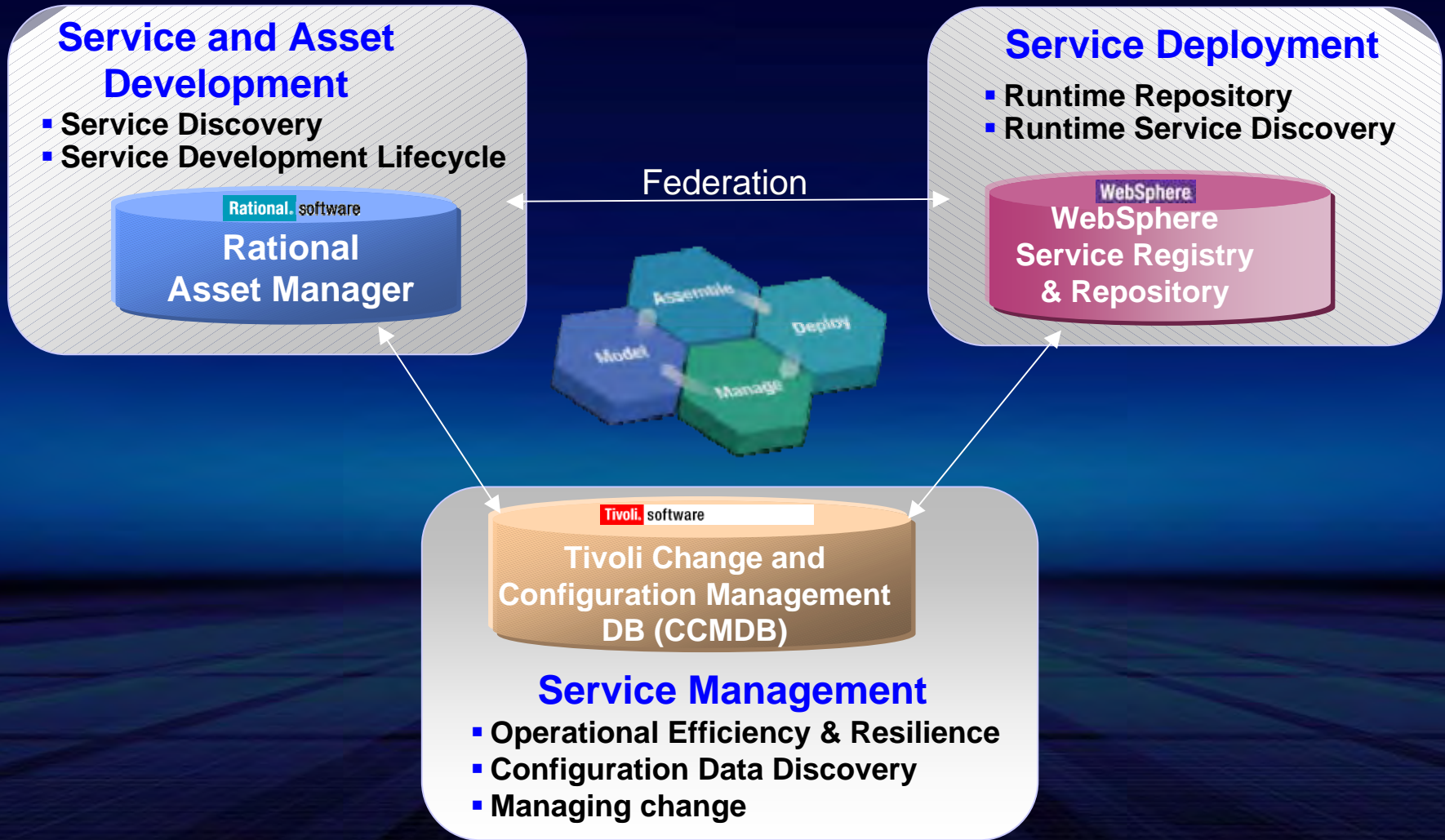
Testing complex service interactions

Assemble

Model

Deploy

Manage

**Service Management**

Active, automated enforcement of SOA policies

Dynamic reporting of service status and alerts

Developing an SOA Governance approach requires corporate commitment

# IBM's Federated Registry/Repository Approach

Key components of a Federated Registry/Repository

## Service and Asset Development
- **Service Discovery**
- **Service Development Lifecycle**

**Rational.** software

**Rational Asset Manager**

Federation

## Service Deployment
- **Runtime Repository**
- **Runtime Service Discovery**

**WebSphere**

**WebSphere Service Registry & Repository**

Assemble

Deploy

Model

Manage

**Tivoli.** software

**Tivoli Change and Configuration Management DB (CCMDB)**

## Service Management
- **Operational Efficiency & Resilience**
- **Configuration Data Discovery**
- **Managing change**

# Reuse Requires Quality Development

**Service and Asset Development**
- Service Discovery
- Service Development Lifecycle

**Rational. software**
**Rational Asset Manager**

**Development Registries**

Rational Team Concert

Rational Clearcase

Rational ClearQuest

**Enhanced!**
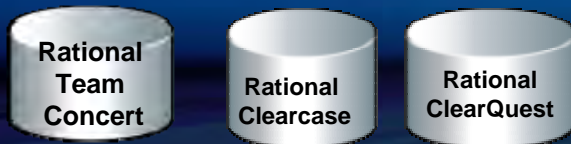
## Rational Asset Manager V7.1 update
- Collaboration & Community Improvements
  - Rational Team Concert integration
- Asset Lifecycle and Traceability
  - Graphical Asset Relationships
- Governance
  - Policy management integration
  - Reporting improvements

- Interfaces with Development tools, Rational Clearcase and Clearquest

**New!** Rational Team Concert improves ability for collaborative development and deployment

# Designed for Tracking and Reporting on Deployed Services

**Federated Services, Policies and Metadata**

- **Publish/Manage Services**
  - Dependencies/relationships and discovery
  - User-defined relationships
  - Impact analysis
- **Integration with WebSphere DataPower SOA Appliance for runtime enforcement**

**Service Deployment**

- **Runtime Repository**
- **Runtime Service Discovery**

WebSphere
**WebSphere Service Registry & Repository**

**Other Registries / Repositories**

WBSF

UDDI Registries

Other External Reg / Rep

SOA Business Catalog

- Interface with WebSphere Business Service Fabric (WBSF)
- Acquire services from IBM SOA Business Catalog
- **New!** Improved support for UDDI registries
- **New!** Enhanced SOA Policy capability
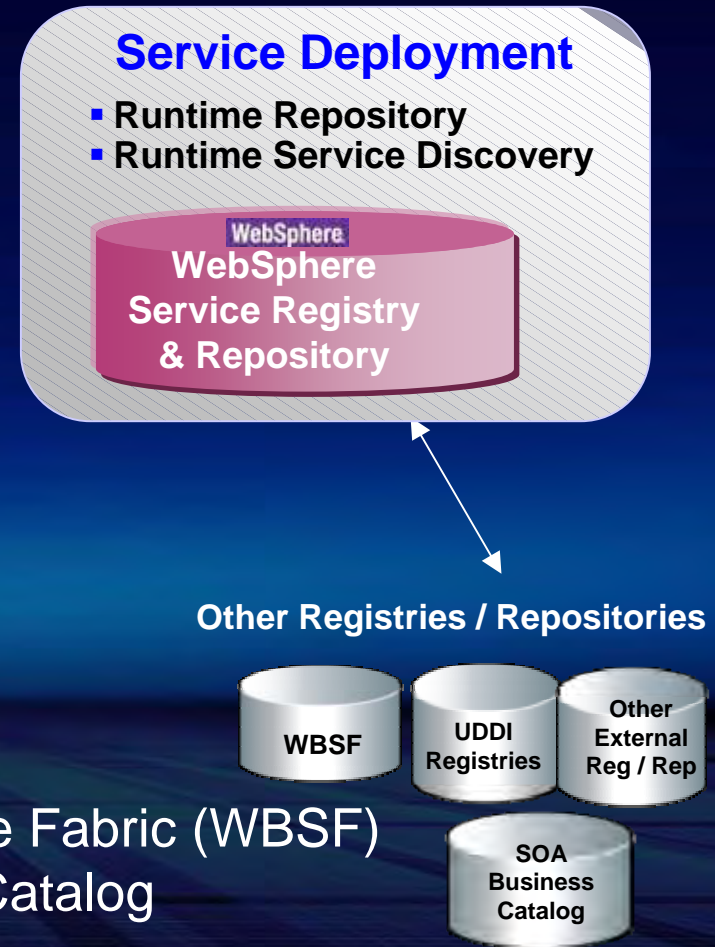
# Govern from Service Creation to Consumption  ✱ New!

- Store and organize assets and services
- Impact assessment of deployed services
- Auditing and reporting on service SLAs
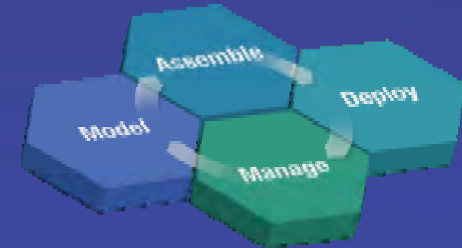


✱ New! **WSRR Advanced Lifecycle Edition**

**Service and Asset Development**

**Service Deployment and Runtime**

WebSphere

**Rational Asset Manager**

**WebSphere Service Registry & Repository**

Available July

- Low cost starter pack
- Single organization for support
- Easy to upgrade

# Working Together to Supply Impact Analysis on Services Needing Maintenance

## Asset Development

**Rational Asset Manager**

*Define* | *Search/ Retrieve* | *Create/ Modify* | *Measure* | *Govern*

Manages asset information for development and re-use

**Asset**
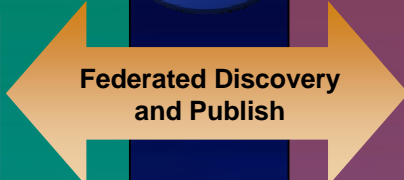
## Operations / Management

**Tivoli Change and Configuration Management Database**

*Discover* | *Relate* | *Control* | *Automate* | *Govern*

Manages information needed for services execution

**Configuration**

**★ New!**

**Federated Discovery and Publish**

- View of configuration and asset changes and impacts

- Identify, trace and manage newly released assets from RAM to CCMDB

- Notify development quickly on operational problems for quick resolution with links from CCMDB to RAM

# Federated Approach Delivers SOA Value Quicker

## Federated Services, Policies and Metadata

### Service Development
- **Service Discovery**
- **Service Development Lifecycle**

**Enhanced!**

Rational. software
**Rational Asset Manager**

**New!** WSRR-ALE

Federation

### Service Deployment
- **Runtime Repository**
- **Runtime Service Discovery**

**Enhanced!**

WebSphere
**WebSphere Service Registry & Repository**

Assemble | Deploy
Model | Manage

**New!** **Publish and Synchronize**

**Development Registries**

Rational Clearcase

Rational ClearQuest

**New!** Rational Team Concert

Tivoli. software
**Tivoli Change and Configuration Management DB (CCMDB)**

### Service Management
- **Operational Efficiency & Resilience**
- **Configuration Data Discovery**
- **Managing change**

**Other Registries / Repositories**

WBSF

UDDI Registries

Other External Reg / Rep

SOA Business Catalog

# So What's the Next Step for Your SOA Health?

*Choose the right path for your needs*



Do you have… → **Existing SOA Project?** → YES → **Known Problem Area?** → YES → SOA Specialized Diagnostics

Existing SOA Project? → NO → **SOA Strategy and Planning Services**

Known Problem Area? → **SOA Healthcheck Workshops** → **SOA Treatment Plans**
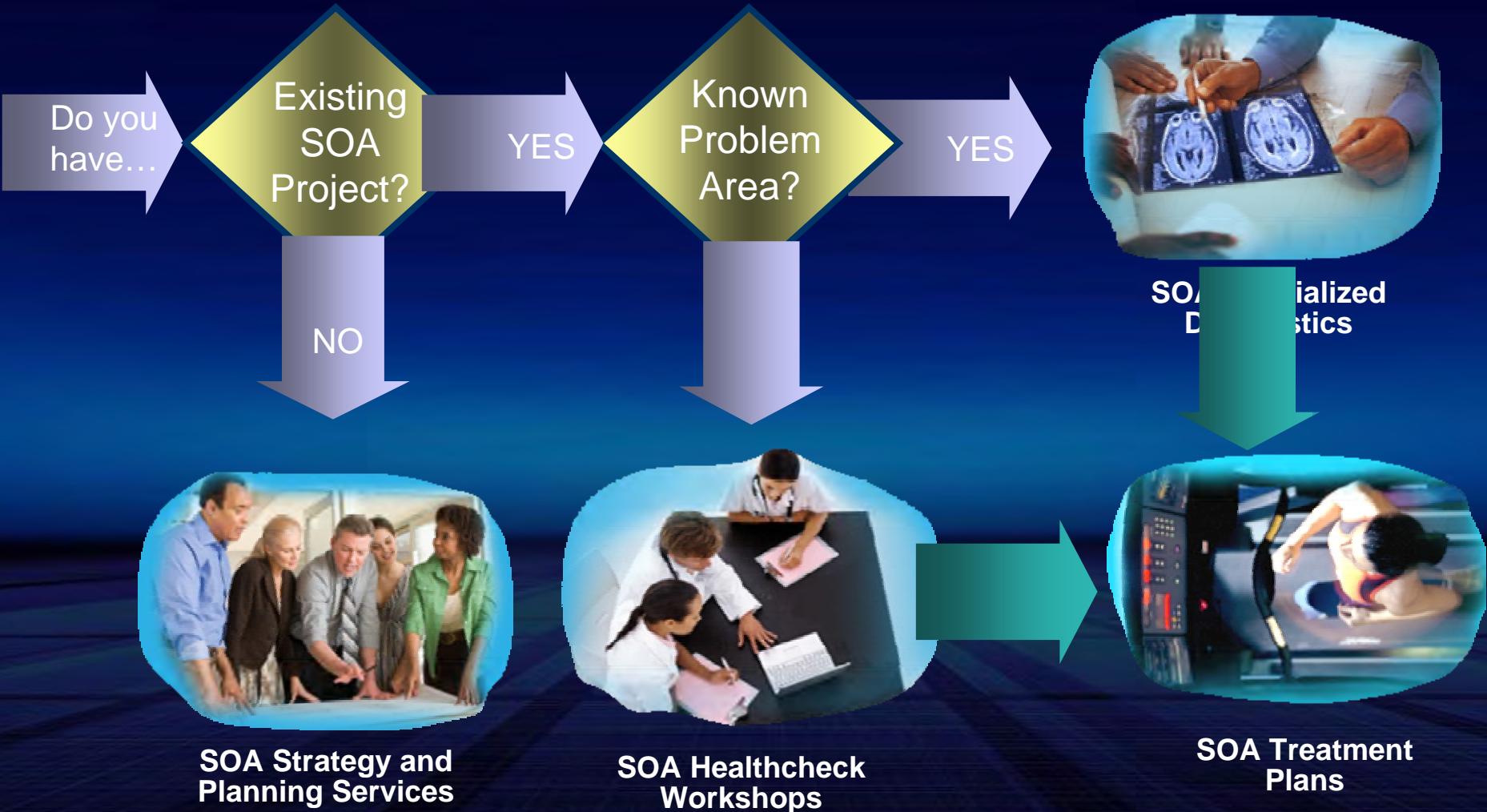
# Is Your SOA Ready to Go the Distance?



- Understand your SOA health:
  - Healthcheck Workshop

- Assess known SOA problem areas:
  - Specialized Diagnostic Healthcheck

- Talk with your IBM representative today!

www.ibm.com/soa/healthcheck

Questions & Answers