



| IBM SOA

System z operations tools for governance and compliance

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A 3D graphic featuring the word 'Smart' in a white, cursive script font above the letters 'SOA' in a large, blue, blocky font. Below the text is a horizontal bar with a green-to-blue gradient, also in a 3D perspective. The entire graphic is set against a dark blue background with a grid pattern and a reflection effect on the surface below.

Smart
SOA

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Preface

The following are trademarks of International Business Machines Corporation in the United States, other countries, or both: IBM, CICS, CICS/ESA, CICS TS, CICS Transaction Server, CICSplex, DB2, MQSeries, OS/390, S/390, System z, WebSphere, z/OS, zSeries, Parallel Sysplex.

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Agenda

- **What is Governance?**
- **Governance and CICS Transaction Server**
- **How CICS Operations Tools can help**

Business Problems faced by System z customers

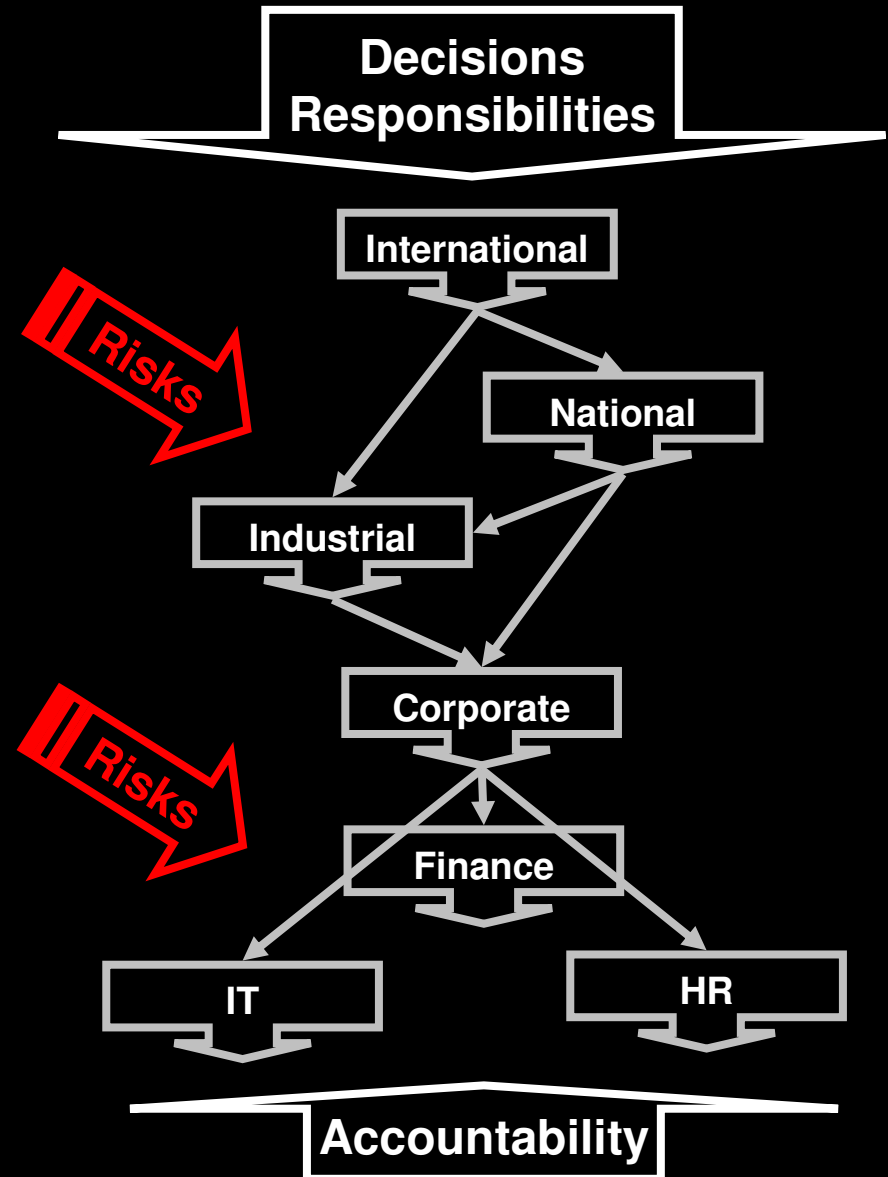
- **Need to increase responsiveness to business requirements**
 - Modernize mainframe platform to support SOA and Web services
 - Develop and deploy new workloads to leverage the unique performance, availability, security, and cost benefits of System z.
 - Respond to changing skills and experience of System z application development team

- **Optimize management of the IT environment**
 - Reduce total cost of ownership
 - Manage growing system complexity
 - Meet demanding SLAs

- **Improve governance and compliance**
 - Avoid risk of regulatory non-compliance
 - Maintain data integrity
 - Protect sensitive data outside production environment
 - Control and audit access to protected data and system functions

Governance?

- Formalization of the responsibility and decision-making processes within an organization
- Interpret, refine or extend, but not overrule, the governance requirements defined by the bodies higher in the hierarchy
- Allows risks to be managed
- Processes, access control and auditing ensure robust compliance with mandated standards

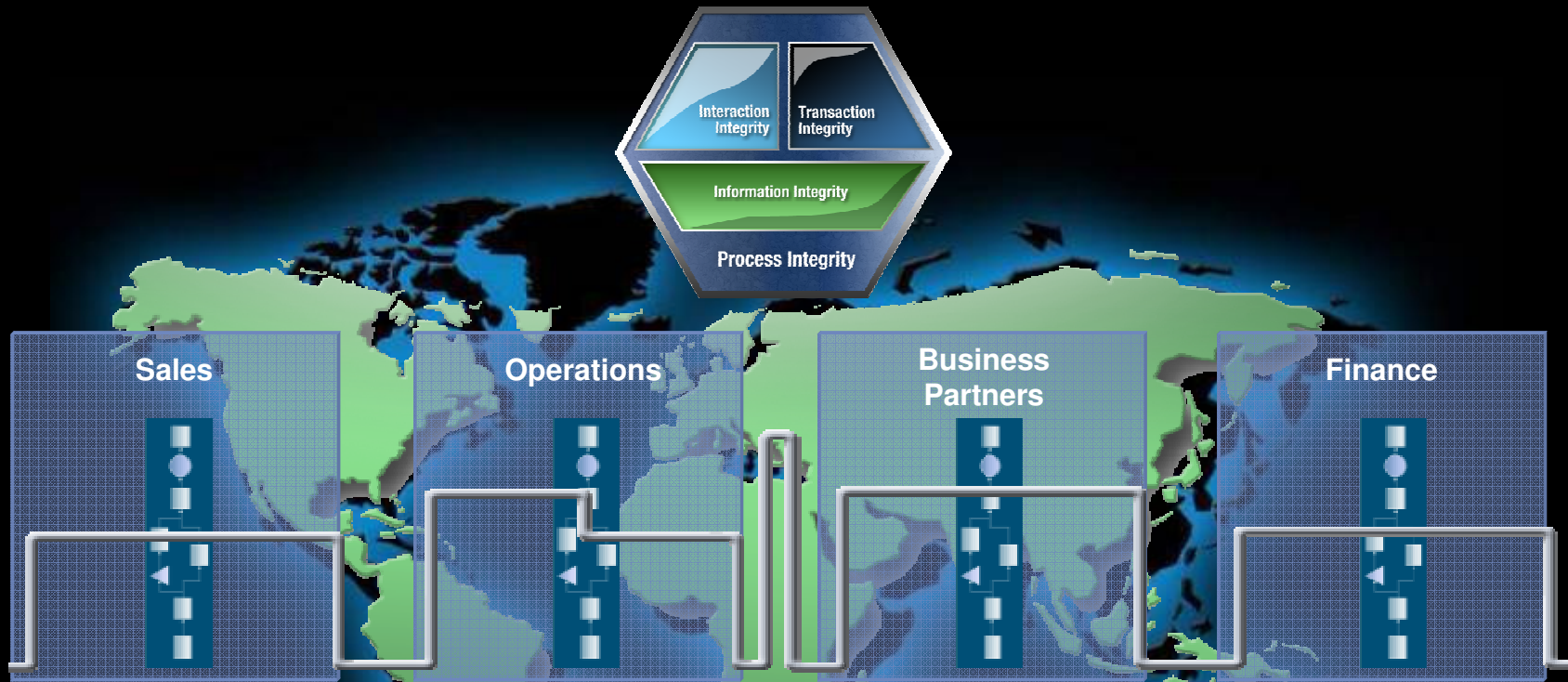


IT Processes

- **People have roles with decision rights and responsibilities**
- **Processes ensure they get the right things get done at the right time**
- **Development**
 - Rational Unified Process (RUP)
 - From requirements to deployment
- **Operations**
 - Tivoli Unified Process (TUP)
 - Incorporates ITIL, COBIT and other relevant standards
 - Service Delivery / Service Support life-cycle
- **TUP and RUP work together to provide an interlocking Governance framework**

End-to-end Processes at the Heart of Every Business

Processes Increasingly Distributed as Companies Integrate Globally

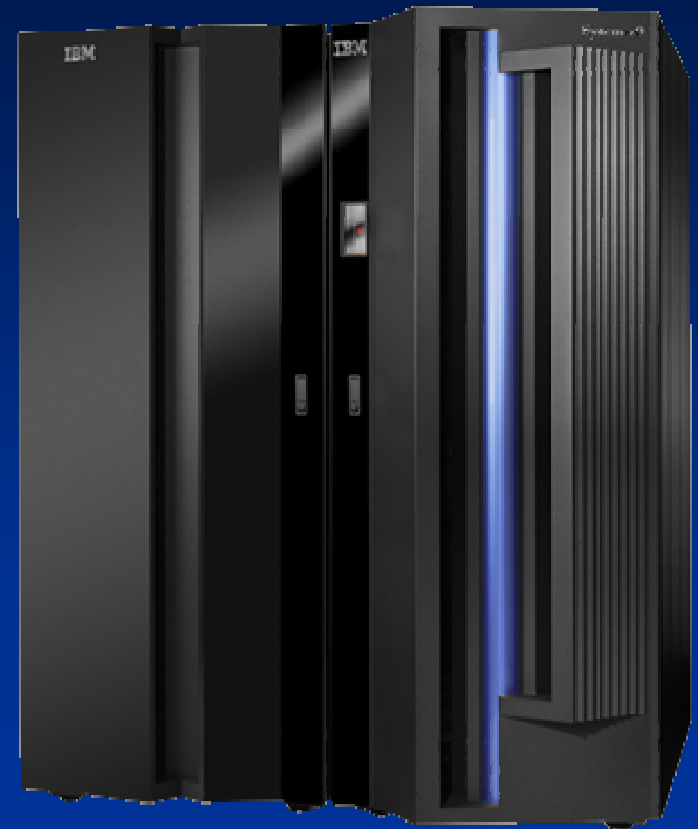


Business and IT processes in the Globally Integrated Enterprise will often cross multiple geographic, corporate and functional boundaries - governance must follow the process

System z – Governance-central

What do clients require in an on-demand, 24x7, always-on world?

- **Highly virtualized and energy efficient** –
driving out cost and complexity
- **Comprehensive security and resiliency**
– minimizing risk and downtime
- **Centralized corporate data serving**
– a platform for business analytics
- **A foundation for SOA**
– IT that responds to the business
- **An ecosystem that is flourishing**
– ISVs and academic initiatives



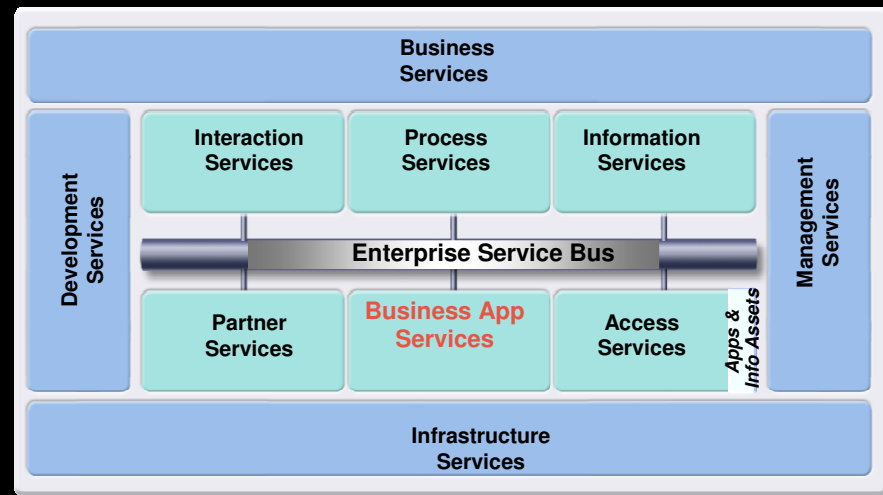
CICS Transaction Server V3.2 - A base for Governance

Problem

- Need to ensure that the *right* people access your corporate and customer data

Solution

- Integration with IBM RACF and other 3rd-party security solutions ensures application and data access complies with enterprise security policies
- WS-Trust and integration with Tivoli Federated Identity solutions simplifies security over inter-enterprise SOAs
- Built-in CICS security provides effective back-stop when



Value

- Great customer satisfaction, no lost business, or compliance or governance issues

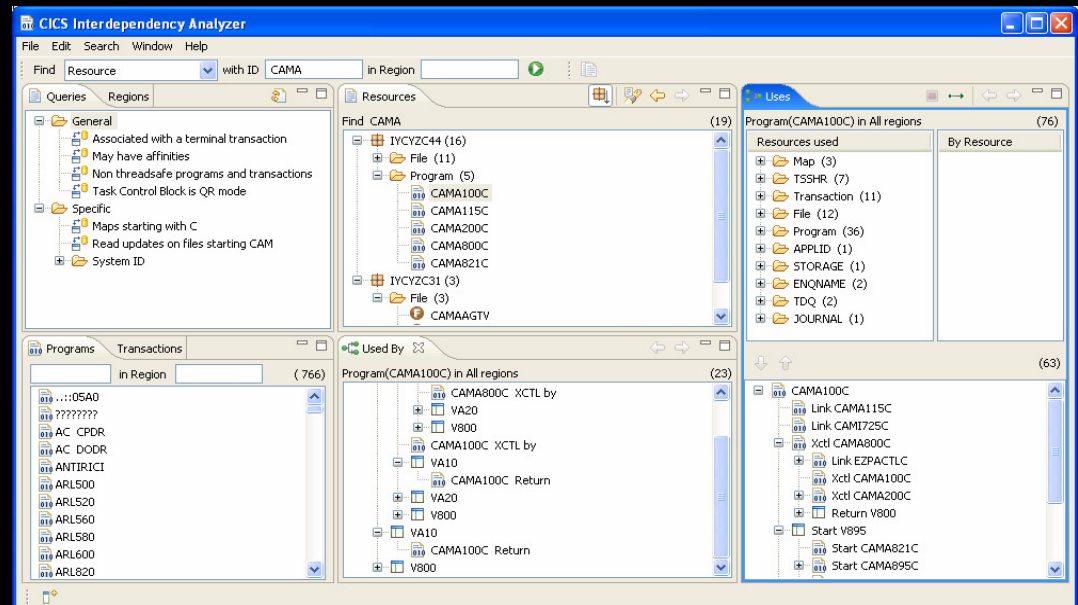
Gain insight into applications with CICS Interdependency Analyzer

Problem

- **Need insight into application relationships and dependencies to identify and remove risks**
 - Under time pressure or without deep CICS skills

Solution

- **Supplied Explorer queries**
 - Seek out affinities / validate removal
 - Identify Thread-safe performance optimization opportunities
 - Understand application dependencies
 - Focus CICS V2V migration activities
 - Identify candidates to wrap as Web services



Value

- **Reduced risk of problems when changing complex applications**
- Supports key IBM Service Management (ITIL) processes

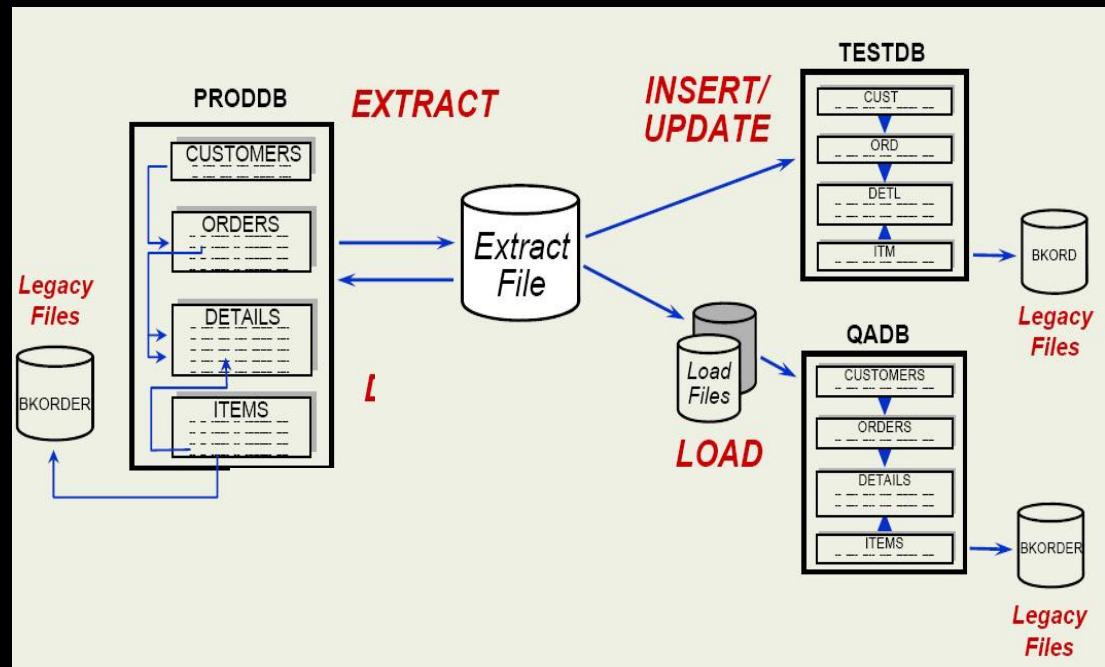
Create test data compliantly with Optim Move

Problem

- Creating Test files and databases
 - Subset of required data and relationships
 - Data crosses DB2, IMS and VSAM
 - Sensitive Enterprise, Personnel, or Customer information

Solution

- Optim Move allows data to be extracted from multiple sources, ensures data correlation, and reproduce subset data sources for application testing.
- Additional data privacy functions for regulatory compliance



Value

- Greatly simplifies creation of test data to be used for testing without compromising production-data compliance

Ease creation of new data types with File Manager

Problem

- You want to modernise and extend your System z application inventory but it's taking too long to bring your new developers up to speed with the files and databases they need to work with

Solution

- File Manager identifies and displays record structure, allows manipulation of each field by data type logs all changes for audit

The screenshot shows the File Manager utility in a terminal window. On the left, a list of commands is visible: 0 DBCS, 1 Create, 2 Print, 3 Copy, 4 Dslist, 5 VTOC, 6 Find/Chan, 7 AFP, 8 Storage, 9 Printdsn, 10 Loadlib, 11 Compare, 12 Audit tra, 13 Copybook. Below this list are the shortcuts F1=Help and F9=Swap.

The main window displays a table of data records with the following structure:

| KEY-ALPHA | KEY-NU... | R. | NAME (1) | NAME (2) | NAME (3) | NAME (4) | I |
|------------|-----------|----|----------|----------|----------|----------|----|
| AAAAAAAAAA | 391 | NL | ALPHA | BETA | GNMA | DELTA | UI |
| AAAAAAAAAA | 392 | NL | JOHN | RICKY | BOBBY | TIM | Z4 |
| AAAAAAAAAA | 393 | NL | ALPHA | BETA | GNMA | DELTA | UI |
| AAAAAAAAAA | 394 | NL | JOHN | RICKY | BOBBY | TIM | Z4 |
| AAAAAAAAAA | 395 | NL | ALPHA | BETA | GNMA | DELTA | UI |
| AAAAAAAAAA | 396 | NL | JOHN | RICKY | BOBBY | TIM | Z4 |
| AAAAAAAAAA | 397 | NL | ALPHA | BETA | GNMA | DELTA | UI |
| AAAAAAAAAA | 398 | NL | JOHN | RICKY | BOBBY | TIM | Z4 |
| AAAAAAAAAA | 399 | NL | ALPHA | BETA | GNMA | DELTA | UI |
| AAAAAAAAAA | 400 | NL | JOHN | RICKY | BOBBY | TIM | Z4 |

A context menu is open over the table, showing options such as 'Add Record Before', 'Add Record After', 'Cut Ctrl+X', 'Copy Ctrl+C', 'Paste Ctrl+V', 'Delete Delete', 'Exclude Record(s)', 'Include Record(s)', 'Show Shadow Lines', 'Change Record Layouts', 'Show Unselected Record', and 'Find/Replace'.

Value

- Promotes understanding and speeds the development process

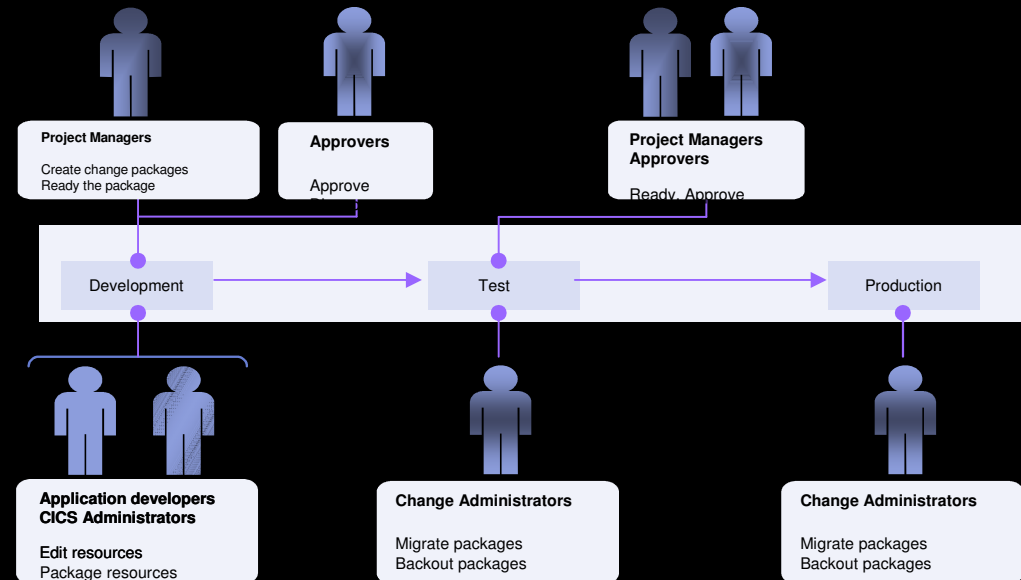
Reduce change risks with CICS Configuration Manager

Problem

- Need to know who is making changes to your critical CICS systems

Solution

- **CICS CM - resource-definition administration and maintenance**
 - Single point of control for CICS changes
 - Role-based access and updates
 - Comprehensive auditing, reporting, and optional change-management control facilities
 - Integrates with existing system management processes



Value

- **Simplified and controlled management of CICS application development**
 - Aids systems administration, lowers costs
 - Reduces risk of downtime due to user errors

Track service-levels with CICS Performance Analyzer

Problem

- Need performance reporting

- Ensure IT investments meet business needs
- Anticipate trends leading to poor CICS performance
- Take action rapidly

Solution

- CICS PA is a CICS system and application performance reporting and analysis solution

- Meets needs of everyone involved in CICS performance analysis, CICS system tuning, planning capacity and service-level management

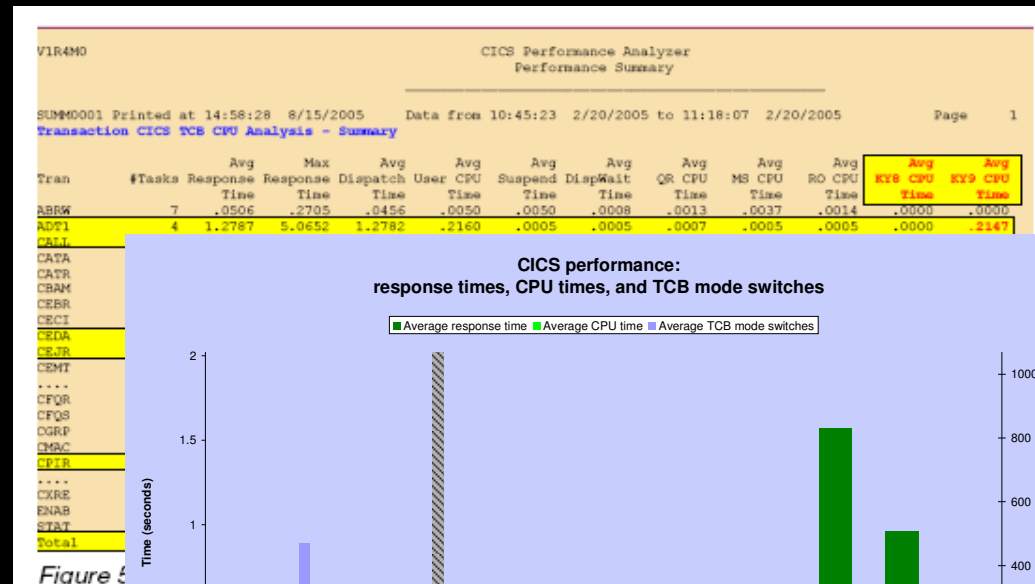


Figure 5

Value

- Demonstrate compliance, improve CICS system performance, lower maintenance costs, and strategically plan IT investments

Test application scalability with Workload Simulator

Problem

- Need to know that new system will stand up to expected load and comply with service-levels but can't recruit enough "live users" for load-test

Solution

- Simulate a user-specified network of terminals and the associated network messages
- Test Manager guides the user through the test process

```

WSim Test Manager
Select one of the following. Then press Enter.

      Command      Action
P. 1. CASE         Create and Process Testcases
   2. GROUP        Create and Process Testgroups
   3. CYCLE        Create and Process Testcycles
   4. RUN          Create WSim networks and Schedule WSim Simulation Runs
   D. DOC         Create Test Documentation
P. PROJECT       Add/Change Project or Alternate HLI
U. UTIL         Run WSim Test Manager Utilities
W. WII          Invoke WSim/ISPF Interface

Project:                Alternate HLI:

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Command ==>
F1=Help      F2=Split      F3=End      F4=          F5=          F6=
F7=Up        F8=Down       F9=Swap     F10=Left    F11=Right   F12=Retrieve
MS c                                               22/015
  
```

Value

- Ensures that host applications are capable of sustaining peak load
 - Eliminates need for large amounts of terminal hardware and terminal operator time.

Ease the move to DB2 with CICS VSAM Transparency

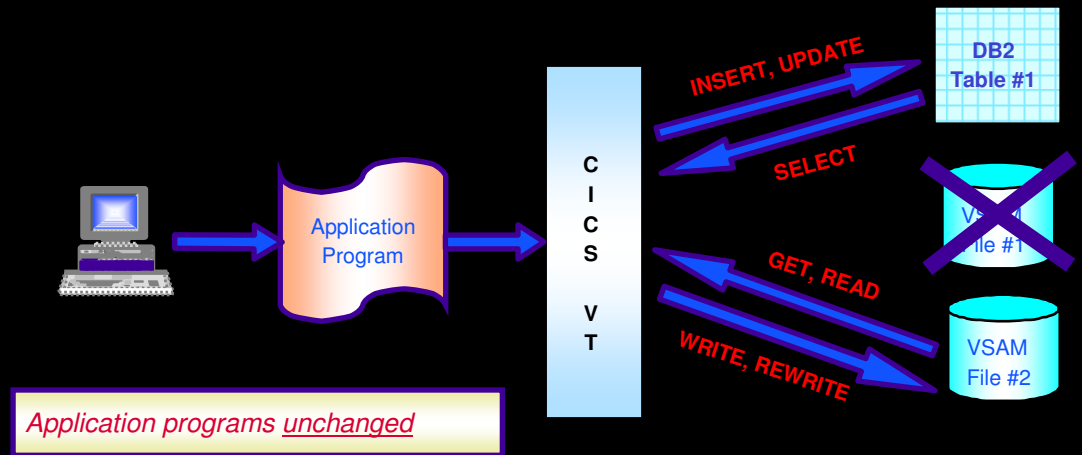
Problem

- VSAM in CICS doesn't give the data governance you need
- You need a DBMS solution, but don't want to convert applications.

Solution

- CICS VT migrates data from VSAM files to DB2 tables
- Continued access to DB2 data, without change to the CICS or batch VSAM programs
- DB2 Tools offer powerful data governance management solutions

After CICS VT



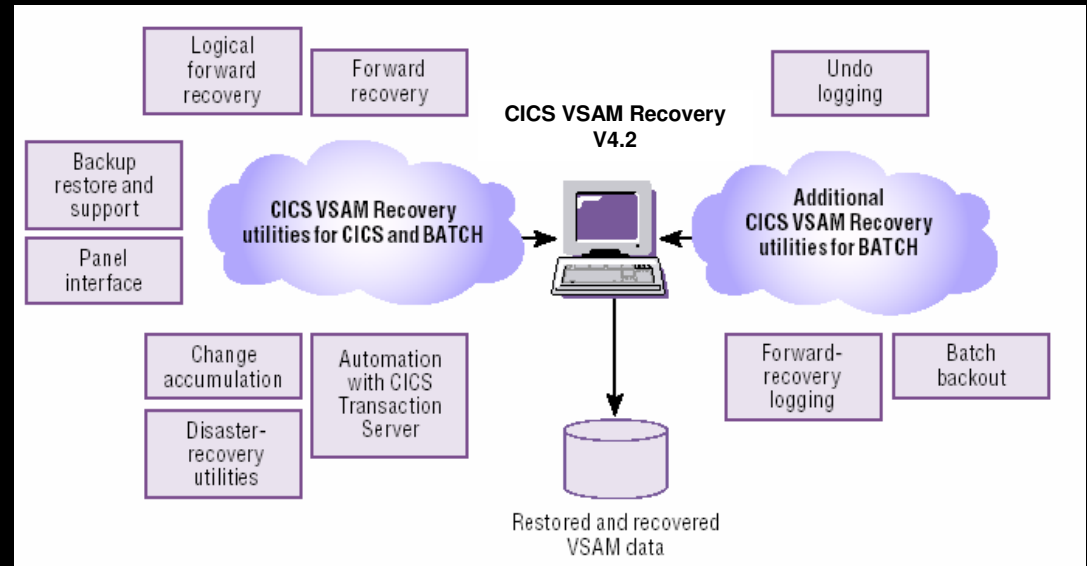
Value

- Lowers risk of migration and better sharing between online, batch and distributed applications
- Improved availability (24/7) and scalability and ability to use DB2 tools for maintenance and reorganisation

Transactional Integrity with CICS VSAM Recovery

Problem

- Risk of losing business critical CICS and batch VSAM data getting too great
 - Disk failure, data deletion, disasters, incorrect updates etc
- SOX, etc, demands data is accurate and protected



Solution

- CICS VR provides forward recovery for VSAM files updated by CICS and batch applications

Value

- CICS VR recovers CICS and batch VSAM data from physical or logical corruption, speeds error recovery
- Used in batch, also reduces job times

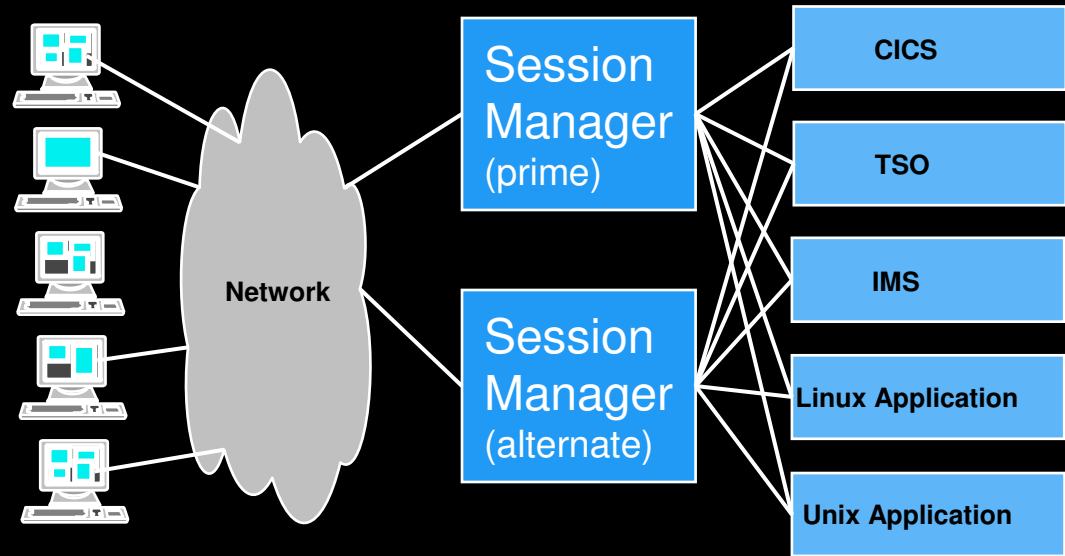
Interaction Integrity with IBM Session Manager

Problem

- Users need to move between tasks
 - Smoothly and quickly
 - Switching frequently
 - Keeping track of applications state

Solution

- IBM Session Manager offers highly-available, secure and user-friendly access
 - Multiple z/OS systems from a single 3270 terminal or equivalent
 - Single secure sign-on
 - Controlled access to authorised applications
 - Seamless session recovery

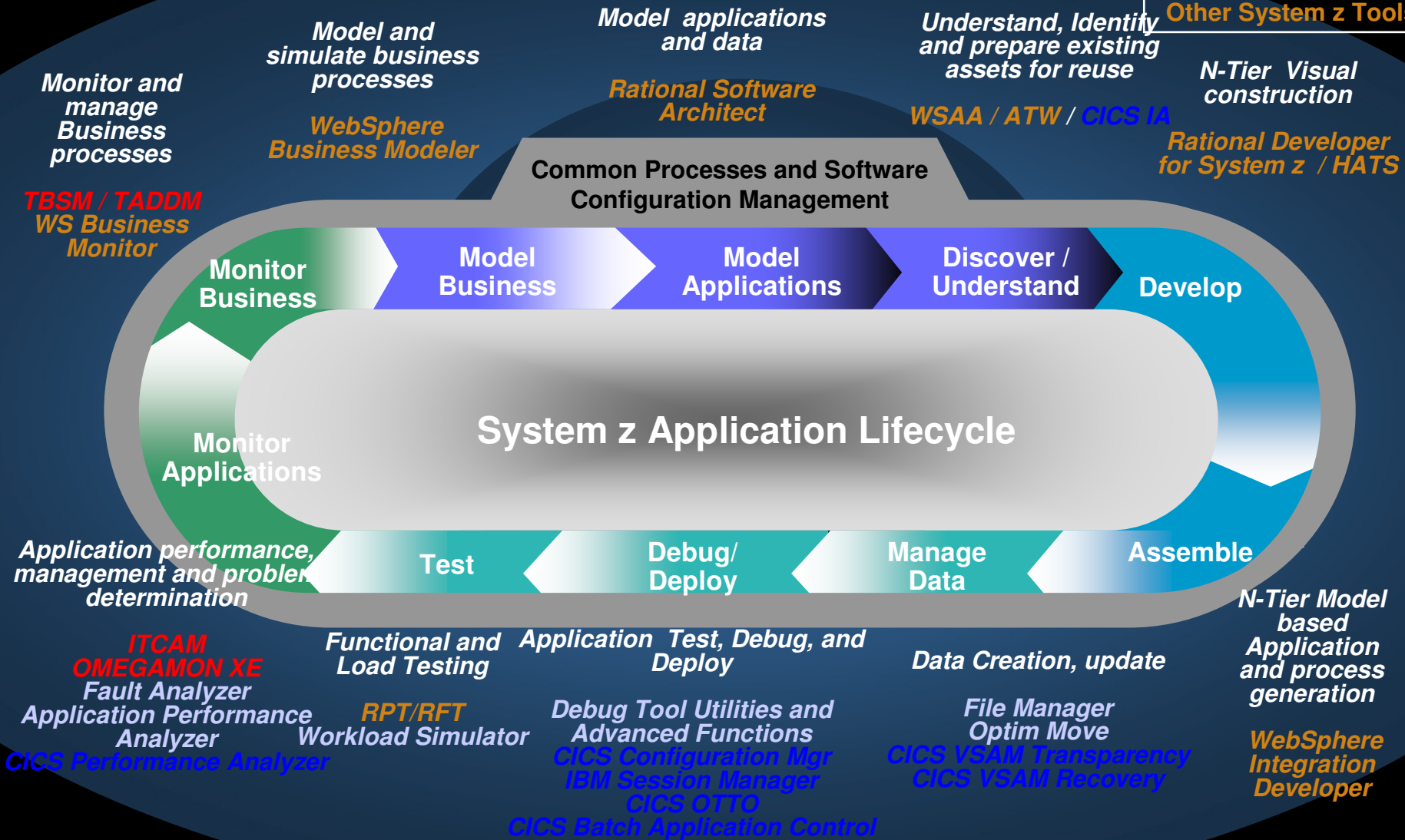


Value

- Users access required applications
 - Without knowing location
 - Reducing system-administration time
 - Fast and near-continuous access to all System z applications
 - Minimizing training requirements

System z Application Lifecycle

CICS Tools
 PD Tools
 Tivoli Tools
 Other System z Tools



CICS Operations Tools ease customer business issues



| Solutions | Business issue | Business Flexibility | IT Service Management | Governance & Compliance | Reduced TCO |
|--|----------------|----------------------|-----------------------|-------------------------|-------------|
| CICS Interdependency Analyzer | | √ | √ | √ | √ |
| CICS VSAM Transparency | | √ | √ | √ | √ |
| CICS Configuration Manager | | √ | √ | √ | √ |
| CICS Performance Analyzer | | √ | √ | √ | √ |
| CICS VSAM Recovery | | | √ | √ | √ |
| CICS Batch Application Control | | | √ | | √ |
| IBM Session Manager | | | √ | √ | √ |
| CICS Online Transmission Time Optimizer | | | √ | | √ |
| Application Performance Analyzer for z/OS | | √ | | | √ |
| Fault Analyzer for z/OS | | √ | √ | | √ |
| Debug Tool Utilities and Advanced Functions for z/OS | | √ | | | √ |
| File Manager for z/OS | | √ | √ | √ | √ |
| Optim Move | | √ | | √ | √ |
| Workload Simulator for z/OS | | √ | √ | √ | √ |

SOA, System z, and Governance



- 1. IBM is the industry leader in investments for SOA and for System z as the hub for a Smart SOA**
- 2. All business services are not equal – mission critical services should be deployed to, and managed by System z**
- 3. CICS TS and IBM's PD Tools and CICS Tools support clients' governance initiatives**

Thank you!

More information:

CICS Tools ibm.com/cics/tools

PD Tools ibm.com/software/awdtools/deployment/

The Business Landscape is Changing *Forcing Companies of All Sizes to Respond to a 'Flat World'*

Innovation that matters to CEOs:

- Extend the ability to collaborate inside & outside
- Innovate business models & processes
- Leverage information for business optimization
- Integrate globally
- Agile business processes



87% expect fundamental change in next 2 years
78% believe innovation requires business and technology

*“The scale and pace [of global economic integration] is unprecedented
... the greater part of the earth’s population is now engaged.”*