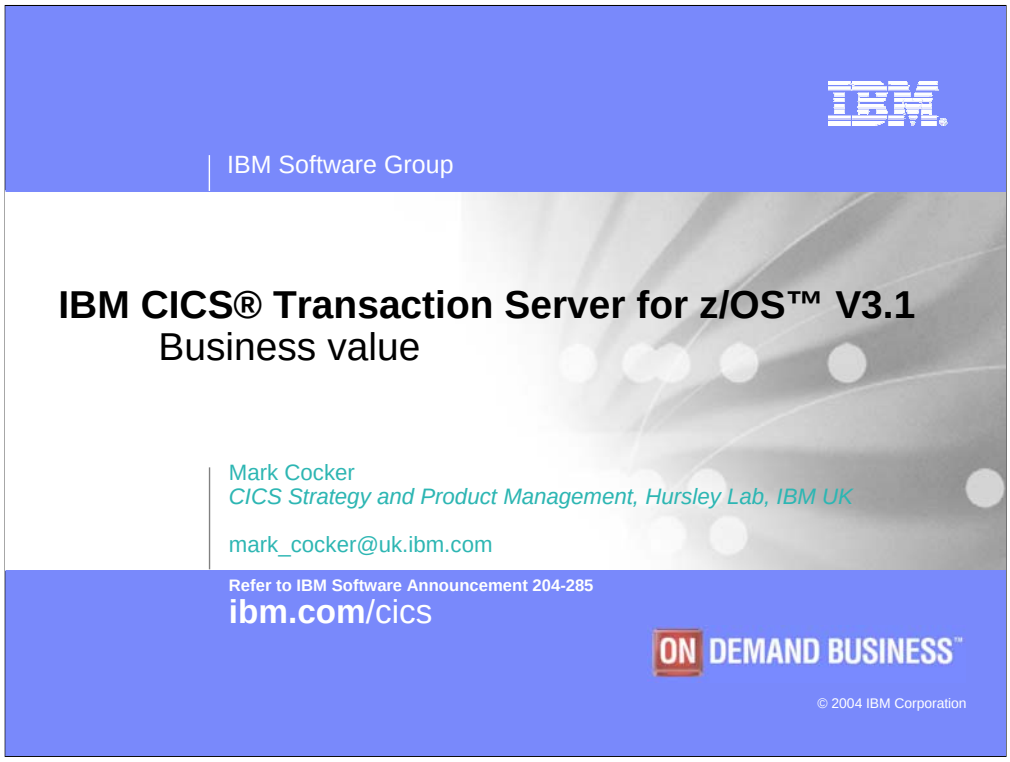
IBM Software Group
IBM CICS® Transaction Server for z/OS™ V3.1
Business value
Mark Cocker
CICS Strategy and Product Management, Hursley Lab, IBM UK
mark_cocker@uk.ibm.com
Refer to IBM Software Announcement 204-285
ibm.com/cics
ON DEMAND BUSINESS
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Acknowledgements

Major Points:

IBM has done primary research to understand the needs of our customers…

CEO Needs**:**

IBM conducted a survey earlier this year to find out what was on the minds of CEOs. The study — the first of its kind ever done by IBM — was conducted by BCS's Strategy & Change practice and Institute for Business Value, together with The Economist and Nikkei Research.

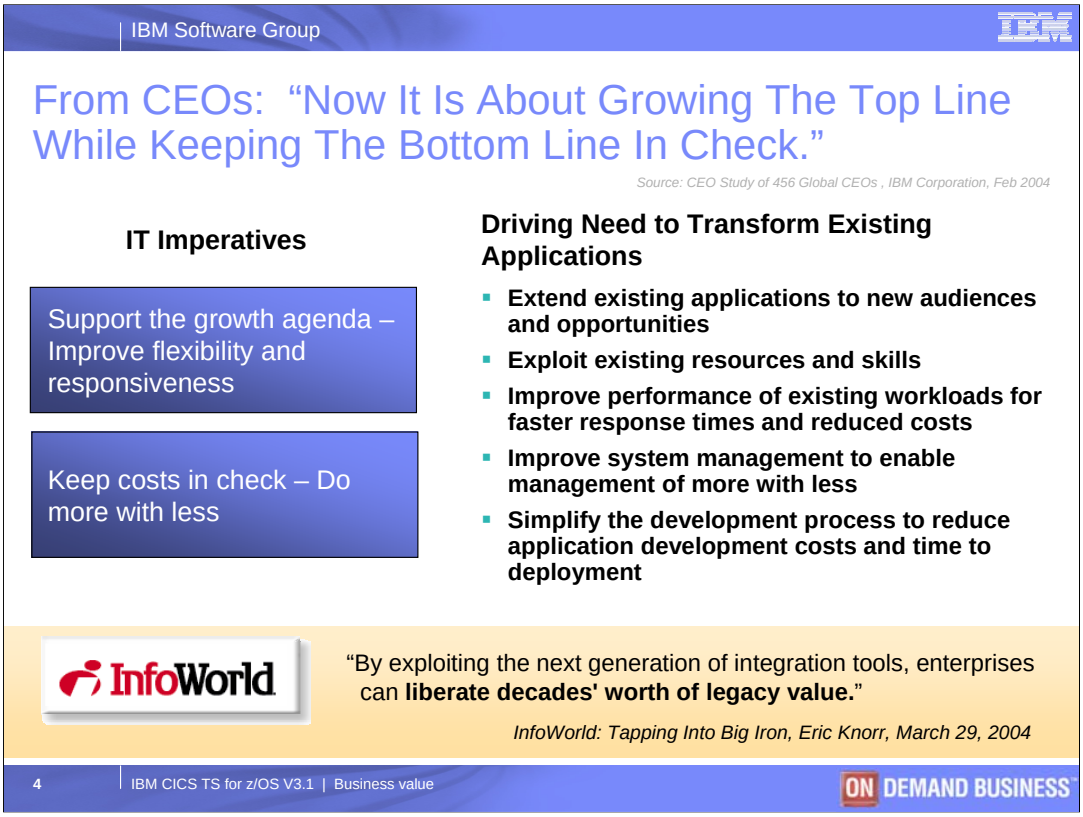
It's official: Growth is back! over 450 CEOs participated. The study revealed that growth is a top concern among CEOs; it also found the people are a top priority, they feel that their organizations are too rigid; that China is a key market, and that they need to accomplish the 'transformation' to achieve this in the next 5 years.

CIO's Challenge:

This information was culled from the OE Market Drivers study. The data supports the challenges that CIOs are trying to address daily

Segue:

The rest of the presentation will tie back to these recurring themes (CEO needs).



•Considering what customers have asked for, they are looking to redefine their applications quickly and effectively to meet their customer demands. There is a need for rapid business process adaption and reshaping. Application maintenance consuming 60-80% of IT budgets and staff turnover or retirement lessens individual programmer familiarity with existing systems, application maintenance efficiency is key driver.

•There is also a need to meet increasing development workloads. The growth in complexity of development platforms and integration needs will force organizations to turn away from code-centric development practices in exchange for more efficient development paradigms. They need better tooling to deliver more effective and efficient development processes.

•Industry adoption and proliferation of Web Services capabilities into development platforms and tools are making it easier for companies to adopt a service-based development approach. The need for richer than HTML experiences and disconnected operations will lead most companies to adopt multiple user interfaces delivery architectures

•Finally, Because of recent pressures for cost reductions and market demand for better processes, we expect continued pressure from business executives to switch to new, business-differentiating activities. There will be a continued strong drive from business for process improvements.

•Need for rapid business process adaptation and reshaping

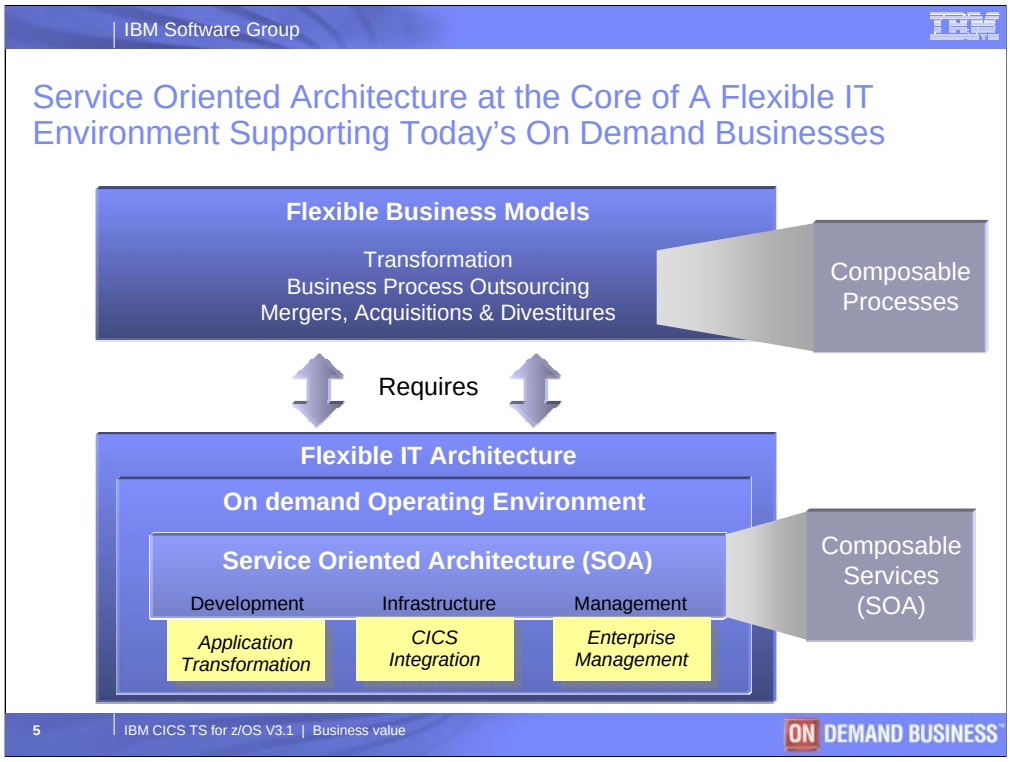
- •Application maintenance consuming 60-80% of IT budgets
- •Staff turnover/retirement lessening individual programmer familiarity with existing systems, application maintenance efficiency is key driver
- •Purging dead wood from application portfolios and streamlining and modernizing the remainder of the applications
- •CIO's looking to mine for resources, funding and credibility
- •CIO's who can quantify and align IT spending to business unit see significant change in role from techno spender to guiding senior executives on how to spend dollars wisely

•Need to meet increasing development workloads

- •The growth in complexity of development platforms and integration needs will force organizations to turn away from code-centric development practices in exchange for more efficient development paradigms
- •Industry adoption and proliferation of Web Services capabilities into development platforms and tools are making it easier for companies to adopt a service-based development approach
- •The need for richer than HTML experiences and disconnected operations will lead most companies to adopt multiple user interfaces delivery architectures

•Continued pressures for cost reductions and market demand for better processes

- •Looking for cost savings by managing business processes better
- •Important consideration is the business process rather than the best architecture



An On Demand Business seeks to create a strategic market advantage by being able to continually differentiate its offerings and a perpetual focus on productivity. Flexibility in both the Business Model and the IT Architecture that implements it is critical to achieve this.

There are two components that deliver the required flexibility;

1/ Composable processes that can be readily adapted to suit changes in the business model

2/ Composable implementation services that can be readily re-assembled to deliver the capabilities required.

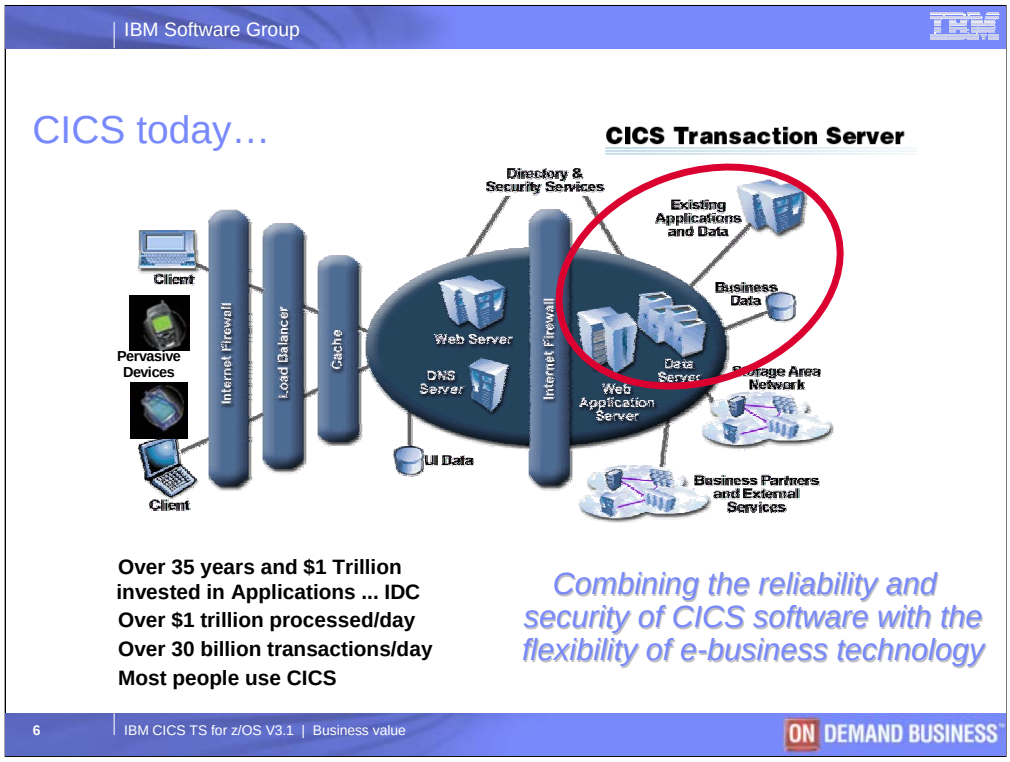
Provision for either of these is a valid start point for an Enterprise wishing to move toward the On Demand model.

A Service Oriented Architecture (SOA) is an implementation independent approach for providing business services that are standards based, modular and inherently adaptable. The services available within such an architecture can be described using Web Services Definition Language (WSDL) to provide a standard, platform neutral meta data description of the service provided that is consistent throughout the Service Oriented Architecture.

As you may observe, many of these services exist today supporting your business, and the likelihood is that they are in CICS. The key is to expose them using the SOA pattern as Web services.

The strategy for CICS TS V3 is to deliver a solution including the runtime and tooling to evolve your valuable CICS applications into Web services. CICS TS V3.1 is the result of IBM's continued investment in the zSeries platform and joins with the new versions of WebSphere, IMS, and DB2, and complements IBM's development and management tools.

At the bottom of this chart we see the building blocks of an SOA – Development, Infrastructure and Management which align to the strategic themes of CICS Transaction Server V3 – that of Application Transformation, CICS Integration and Enterprise Management.



For over 35 years now, CICS has been the industry-leading transaction processing platform with a focus on performance, high qualities of service, and systems management.

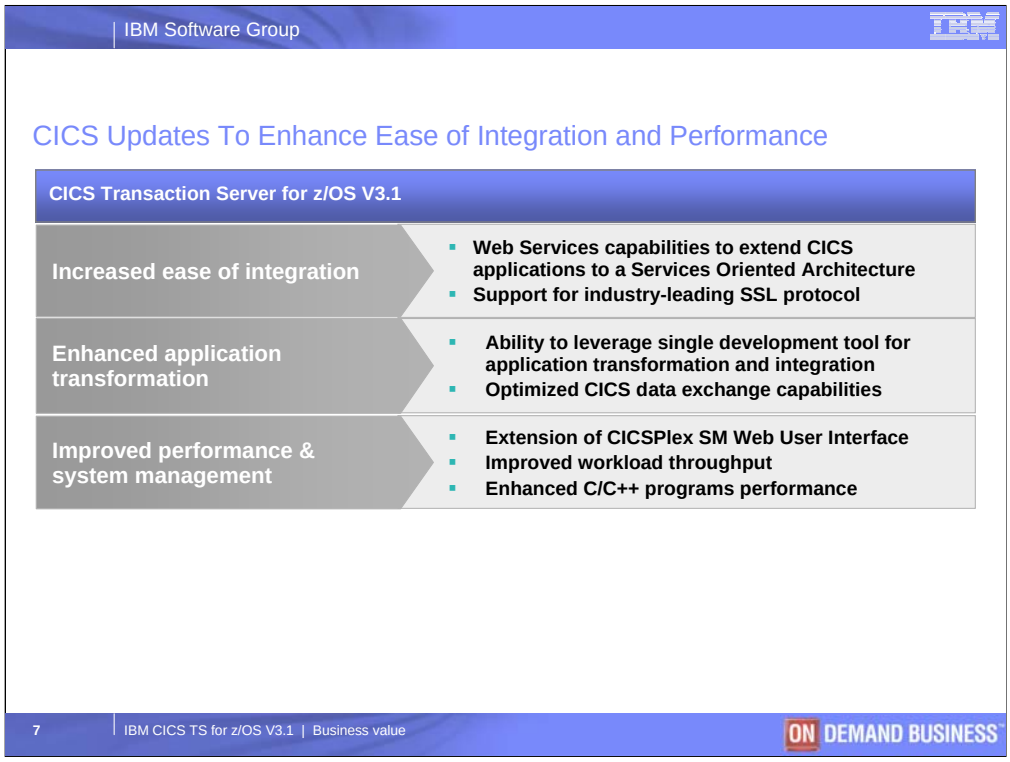
In this slide we are positioning CICS with the rest of the IT topology that is likely to exist in your business. Clearly CICS is the major player in dealing with the existing applications and data, as is evident from the reasonably conservative numbers at the bottom left of this chart.

Today, business leaders are looking to increase the overall responsiveness of their organizations and IT needs to respond by being more flexible and simple. There are additional opportunities presented by what IBM refers to as On Demand – an operating environment where agile business models make use of composable business processes to gain advantage in their marketplace and respond to changes.

This requires a flexible IT architecture – one in which software components can present high-level business oriented interfaces, where there is a loose coupling and peer relationship between client and server components, where larger volumes of information can be exchanged, and where interoperability is based on open standards such as TCP/IP and Web services.

At the same time, although software components have evolved over the years, they continue to be based around the premise that a transaction is the fundamental unit of business. IT operations know this requires the processing of information from multiple sources, seamlessly, quickly and efficiently – areas where CICS has a proven track record and is the low risk option.

And developers are looking to the future too, wanting to benefit from modern integrated development environments, where they can specify or import service specifications, write business logic in a language suitable and optimised for that service - reusing existing assets where appropriate - and to be able to easily deploy for testing and production.



CICS® Transaction Server for z/OS® V3.1 introduces a range of major enhancements, which fall into three main areas.

Access to CICS

A group of functions is introduced to enhance access to CICS. Major new support is provided for Web services, by an evolution of the functions previously provided as the SOAP for CICS optional feature. These capabilities allow CICS-based applications to be integrated with a Service Oriented Architecture (SOA), enabling them to be exposed as Web services. Distributed transaction coordination is provided for partners complying with the WS-Atomic transaction specification. Message-level security function that complies with the WS-Security specification will be provided later in this release. New HTTP capabilities are offered as part of CICS Web support, moving the level of specification supported to HTTP 1.1, and adding outbound HTTP function. Security enhancements are provided to the existing support for Secure Sockets Layer (SSL), including support for the TLS 1.0 protocol.

Application transformation

The second important group of enhancements to CICS TS provides new capabilities for the generation of new applications, and the development of existing applications, using contemporary programming languages and techniques. Support is introduced for totally Language Environment®-enabled Assembler application programs. A new mechanism is provided for inter-program data transfer, which offers an alternative that is not subject to the 32-KB restriction of the COMMAREA mechanism. All the EXEC CICS Web API commands have been made threadsafe. Support for the XPLink feature of z/OS enables improved performance of applications written in C/C++. More efficient use of z/OS multiprocessor capabilities is enabled by extension of Open Transaction Environment (OTE) support to use open TCBs. The Information Center is provided as a plug-in to the Eclipse platform. It brings benefits through commonality with this framework now being employed by many other IBM products.

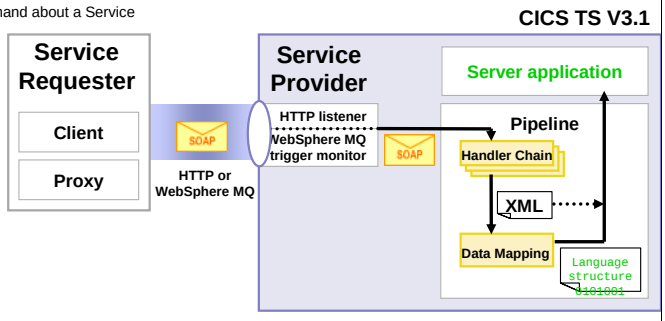
Enterprise management

The third area of enhancements is to the systems management capabilities of CICS TS V3.1. Many improvements are made to the CICSPlex® SM Web User Interface, both providing new functions and enhancing its usability. This makes it the interface of choice for all systems management actions. A new interface is provided for the CICSPlex SM data repository batch update facility. With these enhancements, CICSPlex SM can be configured, set up, and run without involving the TSO or CAS components, saving time and effort for both existing and new users.

General availability of this new version is planned for March 25, 2005

CICS Integration with Web Services

- **Provides capabilities to enable CICS applications to be exposed as a Web Services**
  - Allows CICS to be both a Web Services provider and requestor
  - Full participant in this B2B world
    - Distributed transaction coordination capability compatible with the WS-AtomicTransaction specification
    - WS-Security compatible implementation for securing SOAP messages
      - This will be delivered, via the service channel, at a later date
- **Enables new interoperability between these applications**
  - Standards based interfaces to software functionality
    - Software developers to focus on the business issues not the architecture
    - Consumers need have no knowledge beforehand about a Service
- **Simple transformation through the CICS Web Services Assistant**
  - Provided for COBOL, C/C++ and PL/I
  - Enables reuse of traditional programs in new business processes
- **Major advance over the SOAP for CICS feature delivered with CICS TS V2**
  - Integrated with base CICS
  - Workload distribution & Resource management
  - Example application is provided



CICS TS V3.1 provides capabilities to enable CICS based applications to be integrated with a Service Oriented Architecture (SOA), enabling them to be exposed as Web Services. CICS has the ability to act as a Web Services service provider and service requestor which means it can be seen as a full participant in this B2B world. The infrastructure provided as part of CICS TS V3.1 includes a distributed transaction coordination capability compatible with the WS-AtomicTransaction specification. It will also include a WS-Security compatible implementation for securing SOAP messages. This will be delivered, via the service channel, at a later date.

By allowing CICS applications to be wrappered in this way and exposed as services, it easily enables new interoperability between these applications. This provides services to enable virtual enterprises to link heterogeneous systems as required. Examples include mergers, where the resulting enterprise must integrate disparate IT systems and business processes, or the combination of the travel industry and pervasive computing, when a travel application can be exposed as a service and made available for use by various devices in a service-oriented environment.

Web Services provide standards-based interfaces to software functionality. Each Web Service describes how other systems, known as Web Service consumers, can connect to it and exchange information with it. Therefore, the consumers need have no knowledge beforehand about a Service, other than where to find it and that it is based on the common Web Services standards. This approach enables software developers to focus on the business issues not the architecture.

To ensure it is relatively simple to transform an existing CICS application into a Web Service, there is a application development capability supplied called CICS Web Services Assistant. This support is provided for COBOL, C/C++ and PL/I thus ensuring traditional program languages are able to participate and deliver immediate value to your existing application set. Given the existing investment customers have made in CICS business transactions, this ability to easily leverage them in new business processes is of huge value to the customer.

These capabilities should be seen as a major advance over the SOAP for CICS feature delivered on CICS TS V2. With the provision of workload distribution and resource management facilities for this new workload, it ensures it receives the qualities of service expected for a CICS function.

To help with best practice, a new example application is provided which illustrates how to code and implement a Web Service application. This ensures a customer business can receive immediate value from this ability.

Web Services Helps Charles Schwab Respond to Market Conditions and Customer Needs

Business Challenge

Capture a new market opportunity by offering independent consultation and advice on a fee basis, leveraging existing IT assets

Solution

Partnered with IBM to build a services oriented architecture

Benefits

Shortened time to market for new service, minimized impact to existing applications and enabled them to leveraged their existing IT investment and skills

"We need IBM to enable CICS as a service provider and eventually as a consumer and look forward to the day when CICS is fully Web Services enabled."

– Charles Schwab team

Web Services Provides Santa Clara County (SCC) Criminal Justice Information System a Face Lift

Business Challenge

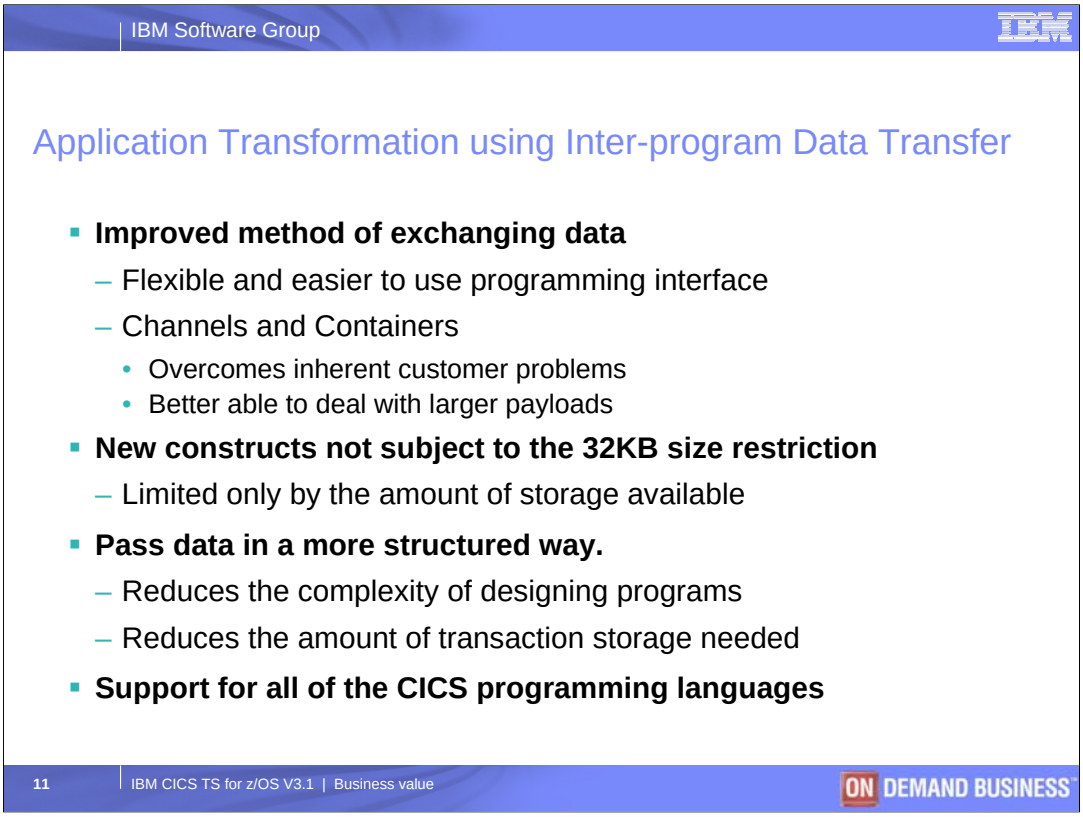
Provide an easy-to-use, secure, industry-standard way for customers to access Criminal Justice Information Control System (CJIC) data

Solution

Evolve existing CICS-based transaction services to be web services and allow them to be accessed using SOAP. The new SOAP for CICS feature is being used as the middleware" to SOAP enable the transactions to enable deployment on CJIC's z/OS system

Benefits

New transaction services are managed by SCC's existing S/390 skilled staff and its users now have a fast, reliable system from which to access the information they need



Traditionally, CICS programs have used communications areas (COMMAREAs) to exchange data. In order to overcome inherent problems raised by customers over many years an improved method of exchanging data is being provided in CICS TS V3.1.

This enhancement introduces two new concepts. Containers and Channels. You can think of Containers as named COMMAREAs. They can be grouped together in sets called Channels, which is analogous to a parameter list.

The channel/container model has several advantages over COMMAREAs:

•Unlike COMMAREAs, Channels are not limited in size to 32KB. There is no limit to the number of containers that can be added to a channel and the size of individual containers is limited only by the amount of storage available.

•Because a channel is comprised of multiple containers, it can be used to pass data in a more structured way. In contrast, a COMMAREA is monolithic block of data.

•Unlike COMMAREAs, channels don't require the programs that use them to know the exact size of data returned

Channels can be used by CICS application programs written in any of the CICS supported languages. For example, a Java client program on one CICS regions can use a channel to exchange data with a COBOL server program on a different Application Owning Region.

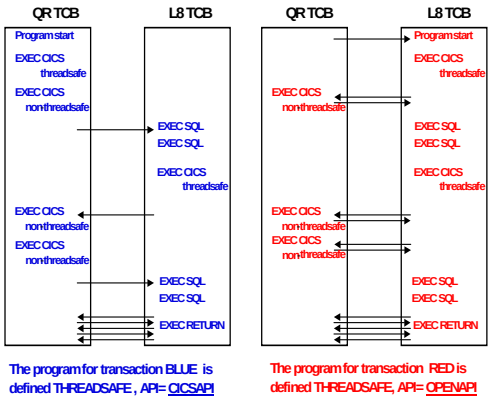
The ability to use multiple containers reduces the complexity of designing programs, because the programs would not have to reformat data into a single COMMAREA as has to happen today. Multiple containers would also allow greater independence when maintaining programs. With one large COMMAREA used by utility programs, every program that calls the utility must be recompiled when data elements are added to the COMMAREA. If multiple containers are used, only programs affected by the addition of data elements would need to be recompiled.

Multiple containers would also reduce the amount of transaction storage needed, because an extra area is needed to reformat

multiple data areas into a single COMMAREA.

Application Transformation with Open Transaction Environment

- **Delivers improved CICS workload throughput, improving transaction performance**
  - CICS TS 2.2 added support that enabled CICS/DB2 applications
  - CICS TS V3.1 introduces this ability for all types of thread safe applications
  - Enhanced C/C++ program performance
    - Exploit features of the new C++ compiler
- **Enables workload balancing across the system, maximizes resource utilization**
  - Removes a major bottle neck in application throughput
- **Reduces need for cloning of CICS regions, simplifying system management**



CICS TS V3.1 extends the use of Open Transaction Environment (OTE) functionality by providing support for OPENAPI application programs. Prior to this, OPENAPI function was available only to task related user exits (TRUEs).

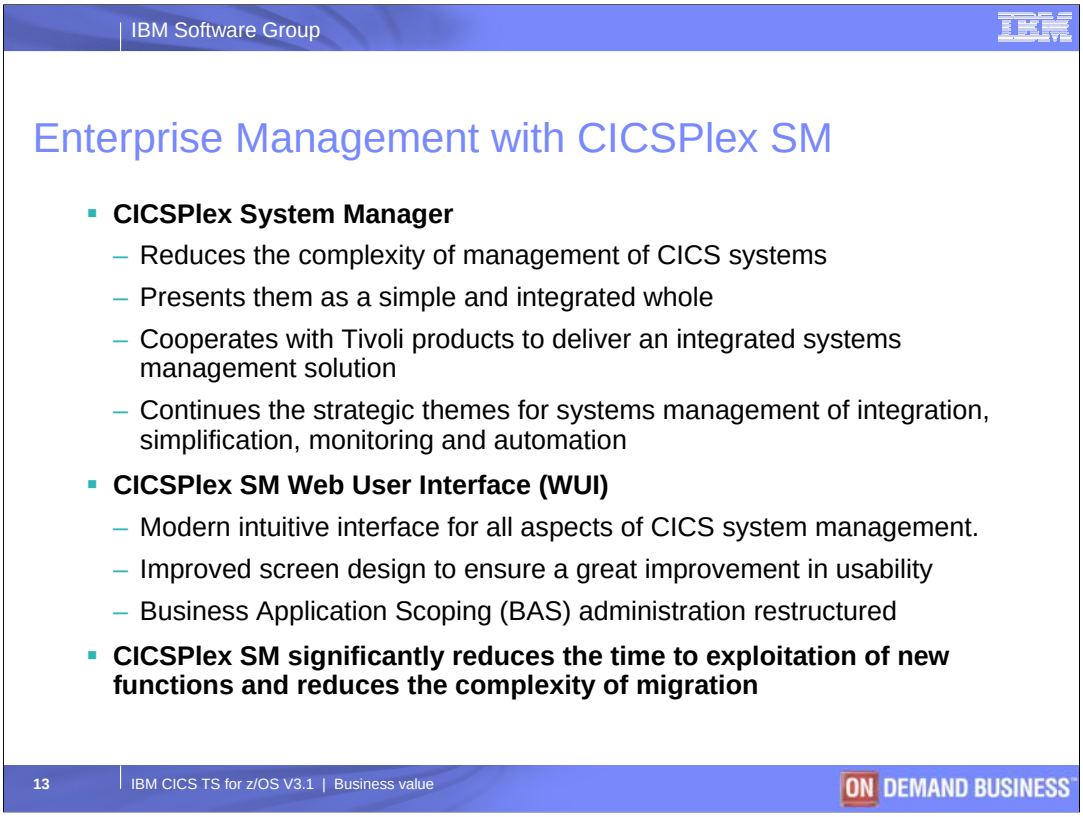
CICS TS V2.2 added support that enabled CICS DB2 applications to run in an Open Transaction Environment which delivered improved throughput for these applications. CICS TS V3.1 introduces the ability for all threadsafe applications.

OPENAPI support allows an application not only to define itself as threadsafe, (meaning it is capable of running on any TCB that CICS deems suitable, either the QR TCB, or an open TCB) but more than that, namely that the application must run on an OPEN TCB rather than on the QR TCB.

The use of OPENAPI programs allows application workloads to be moved off the QR TCB onto multiple open TCBs. If you choose to use OPENAPI programs as a way of running workloads using other (non CICS) APIs remember that the use of other (non CICS) APIs within CICS is entirely at the discretion and risk of the user. No testing of other (non CICS) APIs within CICS has been undertaken and use of such APIs is not supported by IBM® Service.

CICS provides support for C and C++ programs compiled with the XPLINK option by using the multiple TCB feature in the CICS Open Transaction Environment (OTE) technology. Extra Performance Linkage, XPLink, is a z/OS® feature which provides high performance subroutine call and return mechanisms. This results in short and highly optimized execution path lengths. To use XPLink, your C or C++ application code must be reentrant and threadsafe.

The alternative to OTE is to divide an application between several CICS regions. Splitting an applications into several CICS regions can be a tough job and monitoring the performance of several new CICS regions can be s difficult. When a CICS region is CPU constrained reducing the path length of the application task will achieve CPU reduction for the CICS region.



The CICSPlex System Manager is an integral part of CICS TS. Its role is to reduce the complexity of management of CICS systems by presenting them as a simple and integrated whole. It integrates all the major CICS management functions into one interface. It cooperates with Tivoli products to meet the need to integrate management and automation of CICS with z/OS and the network. This release continues the strategic themes for systems management of integration, simplification, monitoring and automation.

Through the CICSPlex SM Web User Interface (WUI), CICS has a modern intuitive interface for all aspects of CICS system management.

The screen design has been enhanced to ensure a great improvement in usability and to meet many of the customer requirements in this area. The Business Application Scoping (BAS) administration views have been restructured to improve their usability. They have been divided into two groups: basic BAS, which emulates RDO and advanced BAS, which exploits the advanced features of CICSPlex SM.

CICSPlex SM delivers a modern user interface for managing your system management needs for CICS. It is now possible to completely configure CICSPlex SM using this interface. Establishing a CICSPlex SM environment in this configuration significantly reduces the time to exploitation of new functions and reduces the complexity of migration.

Southern Californian Edison Improves System Management

Business Challenge

Reduce the cost of managing IT environment

Solution

Leveraged the CICS Web User Interface (WUI) to make network operations staff more aware of the state of our production CICS regions

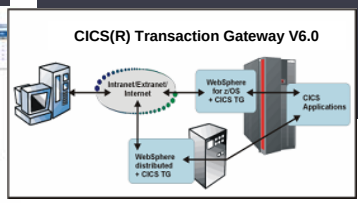
Benefits

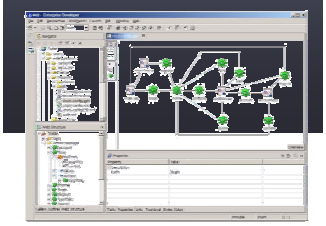
Helped reduce the time required for Technical Support staff to monitor and administer production systems

Supporting Application Transformation Tools

Three styles of transformation

Transform User Experience	Transform Application Connectivity	Transform Application Architecture
Enhance user interface and workflow for quick return on investment	Improve business processes and develop customer, partner and supplier relationships using Web services and Java connectors	Update and extend mission-critical applications as services, leveraging their core value in new ways





Single integrated delivery vehicle across application transformation styles

Create new business value from existing IT systems

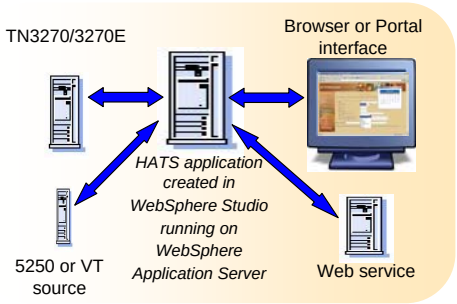
Transform business-critical legacy processes into reusable, shareable business components

Integrate traditional zSeries and iSeries applications and new Java applications into an efficient mixed workload environment

Leverage existing enterprise skills and improve developer productivity

WebSphere Host Access Transformation Services (HATS) Enhancements

- **Easier to use drag and drop screen customization**
- **Wizards to customize components and widgets**
- **Enhanced macro support with macro stepping**
- **Side by side preview of screens and HATS customizations**
- **JavaServer Faces support for easier Web page desig**
- **BMS map importer for easy offline editing**
- **Improved 5250 subfile support**



Host Access Transformation Services Benefits

- Increase productivity and reduce training costs. Convert green screens into intuitive Web interfaces
- Extend existing applications to new users, such as business partners, suppliers and customers
- Integrate traditional applications into enterprise portals. Provide a single, personalized point of access.
- Reduce development costs by avoiding rewrite of legacy applications.

What is HATS?
A rules-based Web-to-host transformation engine that:
Provides customized access to host applications
Dynamically creates a new Web HTML interface
Improves navigation and productivity of host apps.

Usability/Ease of Use
- WYSIWYG arrangement of host components on page
- Macro Stepping
- Improved Subfile Rendering Algorithms
- Preview Screen as a Web Page in terminal
- Use default rendering when creating pre-filled transformations
- Enhanced visibility for Display Terminal in Studio
- Expand the attributes view for HATS components

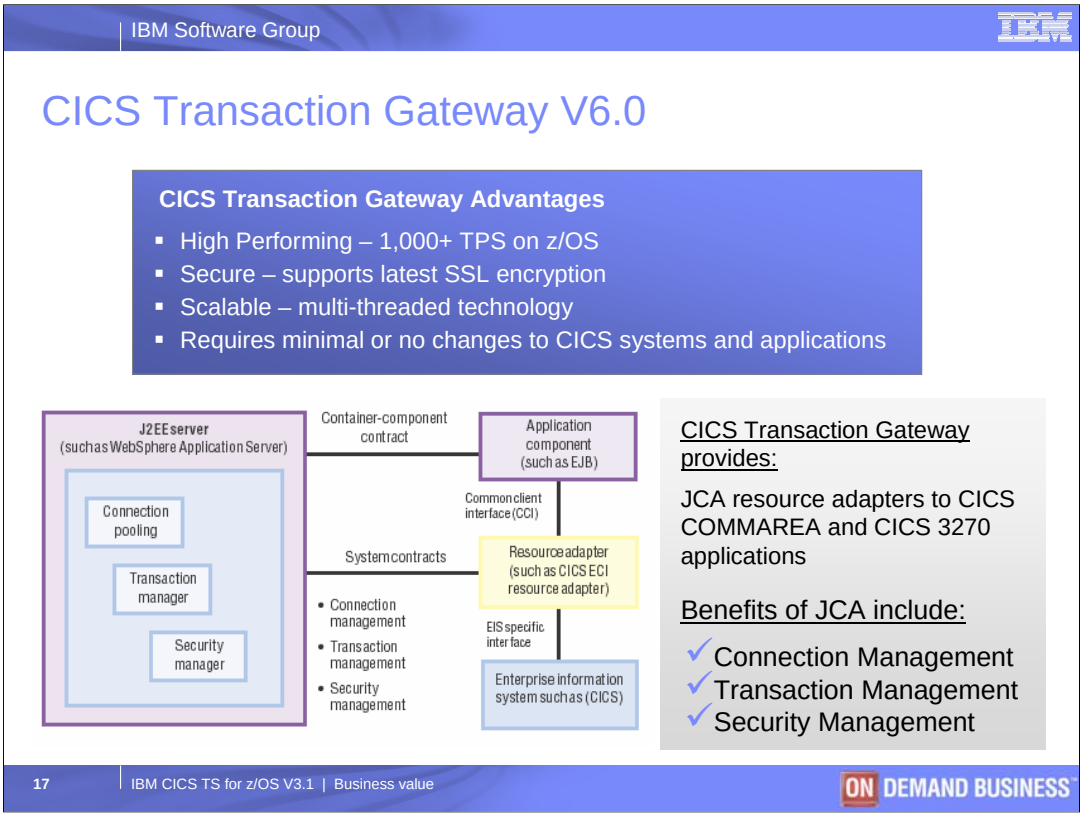
Performance Capacity Improvements
- Identify Next Screens for a given Screen recognition
- Use of JDK 1.4 Regular Expressions to find Host components
- Exploit HOD V9 Native IO functions (NIO)

Reliability
- Integrated Studio InfoBundler
- Applet Redesign
- Display OIA information
- Automatic skip for blank screens

Capability
- BMS map importer
- Wizard to create custom components/widgets
- JSF support for Integration Objects

Documentation
- More visual HATS examples for Admin Guide
- InfoCenter enhancements
- Ongoing discussions with Beta customers

WebSphere v6 Platform Support
Portal Enablement for z/OS



CICS Transaction Gateway Version 6.0 Summary Statement:

Many businesses have a core of previously established, proven CICS business logic that they will want to leverage within modern WebSphere J2EE environments.

IBM CICS Transaction Gateway Version 6.0 provides high performing, secure and scalable access to CICS, requiring minimal changes to CICS and usually no changes to existing CICS applications.

It is supported by a number of tools within the IBM Software Development Platform, enabling a complete end to end IBM solution that can help can help minimize cost, risk and time to market of new applications.

JCA offers advantages in

Development- By giving your J2EE developers a standard interface to write to, with supporting tooling. And also as JCA programmatically takes care of:

Performance

Transactional

Security

Qualities of service differ depending on version and platform of WebSphere Application Server

CICS ECI resource adapter

Deploy to any WebSphere Application Server on any platform

CICS EPI resource adapter

Deploy to WebSphere Application Server on distributed platforms

Enhancements in CICS Transaction Gateway V6.0 Focused on *Four Key Technical Value Areas*:

Qualities of Service

- Performance enhancements through optimization of the product and via exploitation of the latest J2EE and Linux standards
- Considerable Availability and Scalability enhancement on our flagship z/OS platform

Systems Management

- Improved Administration of the connector through a more functional interface, better aligned with the native OS
- Problem Determination and Management has been enhanced through better recording and control of system information

Security

- Support for the Industry leading SSL protocol enables fine tuned control of your network security
- Exploitation of the advanced z/OS security features provides a faster and more comprehensive security solution

Ease of Use

- New, industry standard installation vastly simplifies the process of installing, migrating and applying maintenance
- Redesigned and searchable Eclipse-based information center provides a greatly improved interface for online documentation

Direct Connection or Web Service into CICS?

- **Tightly coupled and loosely coupled connectivity solutions coexist to fully exploit the agility of an on demand operating environment**
- **Choice dependant on specific application requirements, for example:**

Direct Connection

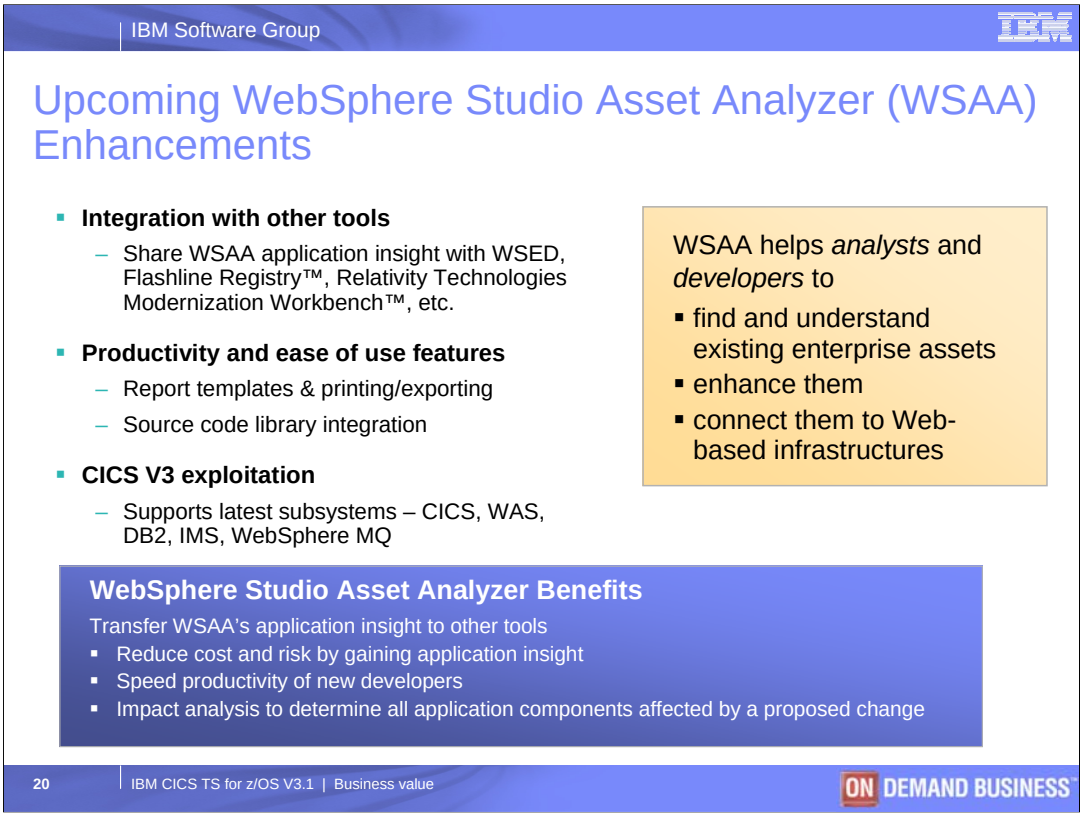
- High QoS Today
- Mature technologies
- Existing application interfaces
- Few application/system level changes required
- Good where application has fewer reusable purposes

Web Services

- QoS improving via standards
- Emerging technologies
- Web Services interface
- Some application/system level changes required
- Good where application has many reusable purposes

Exploit an appropriate set of complementary technologies

Fully integrate your CICS heritage



What does it do?

IBM Software Group

Upcoming WebSphere Studio Enterprise Developer (WSED) Enhancements

- **Single tool for all application transformation**
- **Modern architectural enhancements - Service Flow Modeler support**
- **Connectivity enhancements**
- **Support for existing customers**
- **CICS V3 exploitation – Support latest subsystems (CICS, WAS, DB2)**
- **Integration across the life cycle**

WebSphere Studio Enterprise Developer Benefits

- Increased developer productivity
- Reduce cost and risk by enabling legacy assets to be used in SOA's
- Increase productivity by extending skill sets across the organization
- Enterprise Generation Language limits need for Java or traditional expertise

Connectivity enhancements
- WSDL automation from existing processing
- Support for new CICS WS run time marshallers
- XML based COBOL adapter enhancements
- JCA connectors supporting latest CTG

Support for existing customers:
- EGL support for VG based Web Transactions
- BMS Editor

Integration across the life cycle (WSAA integration)

What is WSED?

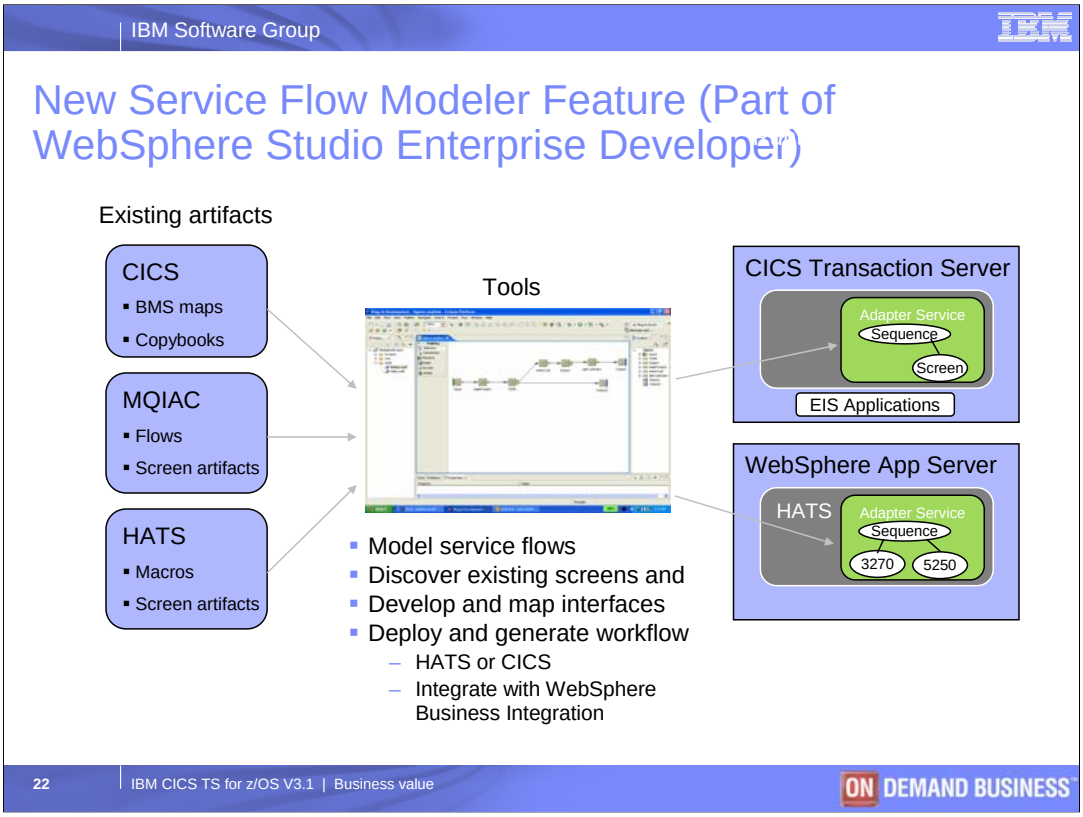
A combination of modern application architectures, rapid application development and robust team support.
Develop, debug and deploy Java, COBOL, & PL/I
Intuitive, visual construction based on open standards
Broad SOA support for Web Services and JCA
Easy to learn, COBOL like language for rapid UI and Business development

CICS V3 exploitation –
- Support latest subsystems – CICS, WAS, DB2

Connectivity enhancements
- WSDL automation from existing processing
- Support for new CICS WS run time marshallers
- XML based COBOL adapter enhancements
- JCA connectors supporting latest CTG

Modern Architectural enhancements
- Service Flow Modeler support (Preview)

Traditional support for:
- EGL support for VG based Web Transactions
- BMS Editor



Neo is a tool to provide web service interfaces to your existing CICS applications

The ability to expose screen interactions as web services

Import existing application artifacts

The ability to combine multiple transactions and screen interactions into a higher level service, representing a business process

The ability to deploy one service to multiple environments as web services

Neo represents the recombination and evolution of the HATS/HP and MQIAC tools

CICS and WebSphere Application Server

As compared to what is available today:

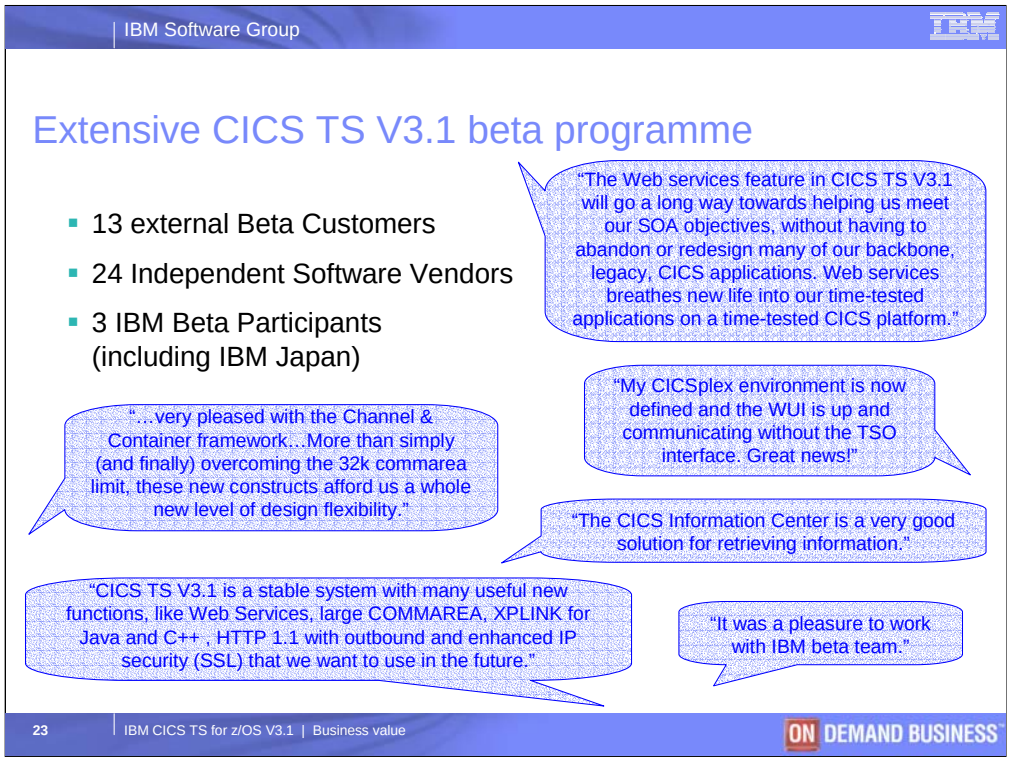
XML Enablement Tools

Wrap transaction-oriented applications into web services

1 transaction to 1 service operation

Deploy services to SOAP4CICS

Available in WSED


IBM Software Group
Extensive CICS TS V3.1 beta programme
13 external Beta Customers
24 Independent Software Vendors
3 IBM Beta Participants (including IBM Japan)
"The Web services feature in CICS TS V3.1 will go a long way towards helping us meet our SOA objectives, without having to abandon or redesign many of our backbone, legacy, CICS applications. Web services breathes new life into our time-tested applications on a time-tested CICS platform."
"My CICSplex environment is now defined and the WUI is up and communicating without the TSO interface. Great news!"
"…very pleased with the Channel & Container framework…More than simply (and finally) overcoming the 32k commarea limit, these new constructs afford us a whole new level of design flexibility."
"The CICS Information Center is a very good solution for retrieving information."
"CICS TS V3.1 is a stable system with many useful new functions, like Web Services, large COMMAREA, XPLINK for Java and C++ , HTTP 1.1 with outbound and enhanced IP security (SSL) that we want to use in the future."
"It was a pleasure to work with IBM beta team."
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IBM CICS TS for z/OS V3.1 | Business value
ON DEMAND BUSINESS

Industry analyst comments

"In a move to modernize its venerable line of mainframe-based CICS middleware, IBM (Profile, Products, Articles) on Wednesday introduced an updated version of its CICS Transaction Server that enables corporate IT administrators to extend the product to work better with SOAs (service-oriented architectures) through Web services."
InfoWorld

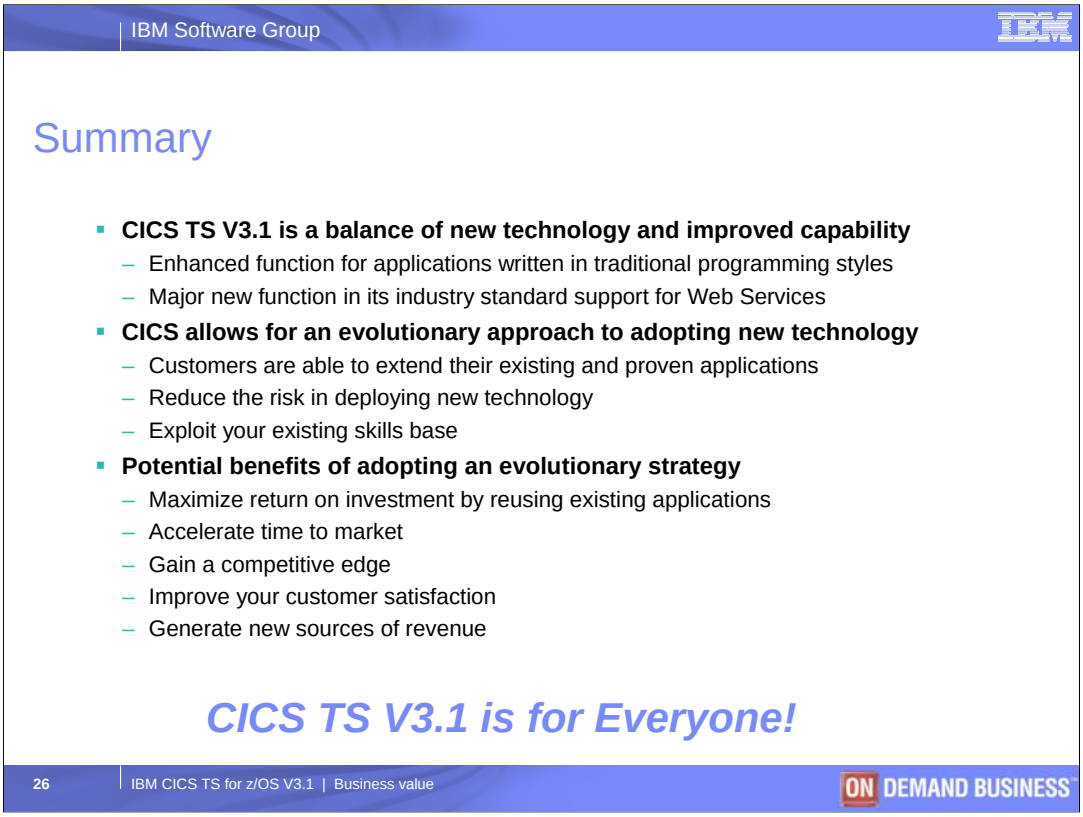
"[CICS] is an important touch point for an awful lot of business processes. To bring Web services and SOA architecture into the mainframe is tantamount to interconnecting distributed servers with mainframes. It also will give a jump start for many who have been doing testing and evaluation on SOAs the last couple of years," said **Susan Eustis**, President of **Wintergreen Research**, an industry research company.

Dale Vecchio, an analyst at **Gartner Inc.,** said that while support for Web services is a plus for IBM's large installed base, the real benefit from the new server comes from its support of C++.

"It's a hot-topic with users," Fricke told ***internetnews.com.*** "Larger enterprises that have been running CICS for a long time really want to integrate CICS with their modern SOA business processes, and they don't want to have to do hand-coding to do it. This announcement really opens up CICS to a whole new vista for users."

Beyond CICS TS V3.1

- **Additional enhancements for integrating CICS applications with Web services**
  - For example, WSDL 2.0, extended WS-Security, WS-I 1.1 Profile
- **Capabilities for end-to-end workload management**
  - To control at a high-level the execution priority of the components that make up the solution
  - The ability to track and trace requests from the edge of the enterprise
- **Composed business service integration**
  - To raise the granularity of the external application interface by aggregating existing function and encapsulating control logic
  - To reflect request payload without artificial architectural constraints
- **Coping with data expansion**
  - Process increasing volumes of request + response information with efficiency
  - For example, Threadsafe File Control, Container support for Web and Document APIs and WMQ, ESDS >4GB
- **Start to standardise CICS to CICS communications on TCP/IP**
  - For example, DPL over TCP/IP
- **Pattern-driven solution development**
  - To quickly build high quality, robust solutions that may exploit new technologies
- **Easier deployment and exploitation of CICSPlex SM**
- **Programming Model Enhancements**
  - Including CICS commands and Java support



This latest release provides a balanced introduction of new technology and improved capability. It has a range of enhanced function for applications written in traditional programming styles as well as major new function in its industry standard support for Web Services.

It offers a straightforward way to the future. By adopting an evolutionary approach, CICS customers are able to extend their existing, proven core applications to new audiences and opportunities.

Such an approach can help reduce the risks involved in new technology adoption by:

Promoting significant reuse of existing application logic, reducing application development costs and saving time and effort in solution testing

Exploiting your existing skills base

The benefits of adopting such a strategy can potentially impact the whole enterprise in a number of ways, creating the ability to:

- Ensure maximum business benefit is gained from existing investments
- Create or maintain competitive edge
- Improve customer satisfaction
- Accelerate time to market
- Increase market share
- Generate new sources of revenue
- Increase profitability