TXSeries (CICS) New Features

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ON DEMAND BUSINESS

Version 2
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Agenda

- TXSeries Packaging History

- TXSeries CICS 5.0 – New Features

- TXSeries CICS 5.1 – New Features

- TXSeries CICS 6.0 – New Features

TXSeries Packaging History

1998
- TXSeries 4.2 for AIX, HP-UX, Solaris, Windows
  - ▶ Ordered by Operating System

1999
- TXSeries 4.3 for AIX, Solaris, Windows
  - ▶ Delivered in WebSphere Enterprise Edition 3.0, 3,5 and 3.6

2002
- TXSeries for Multiplatforms V5.0
  - ▶ Single package for multiple platforms

2004
- TXSeries for Multiplatforms V5.1
  - ▶ Single package for AIX, HP-UX, Solaris, Windows

2005
- TXSeries for Multiplatforms V6.0
  - ▶ AIX Only, CICS only no Encina

TXSeries (CICS) 5.0

New Features

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Main Features

- XA Recovery
  - ▶ Increased application up-time and recovery without stopping the region for XA registered CICS regions.

- Terminal ID aliasing
  - ▶ Resolves terminal name conflicts that can arise in multiple CICS environments with non-exclusive policies attempt to share a CICS region

- CICS Trace Facility
  - ▶ Less impact on running systems
  - ▶ More precision in the selection of traced components

- CICS IIOP ORB for IBM AIX
  - ▶ Internet Inter-ORB Protocol (IIOP) support for CICS servers is now provided by using the IBM Java ORB

Other Improvements

- Support for CICS application programs written in Java language (on IBM AIX and Windows only)
  ‣ Java application programs access CICS facilities using JCICS classes.

- Debugging tools for Micro Focus Server Express COBOL and Java programs.
  ‣ New CICS supplied transactions, CADB and CJDB

- Support for CICS C++ Foundation Classes (IBM AIX only).

- Bi-directional input and display support on IBM AIX

- Updated Specified Operating Environment
  ‣ Compilers, databases, operating system levels, etc.

Features added in TXSeries CICS 5.0 PTF3

- CICS can run on the IBM AIX 5L 64-bit kernel.

- CICS program search path simplifies region configuration
  - ▸ Administrators or application developers can quickly switch between sets of CICS application programs.

- Support for External Authentication Manager
  - ▸ simplifies integration of CICS with other user identity management systems including LDAP, RACF, and the Windows Domain or Active Directory to provide enhanced security.

- CICS Screen Design Aid (cicssda), which provides a visual BMS map editor for IBM AIX, HP-UX, and Sun Solaris systems.

TXSeries (CICS) 5.1

New Features

CICS family API improvements

- Added support for the following CICS family API or options:
  - WRITE OPERATOR
  - Password Expiry Management including:
    - VERIFY PASSWORD
    - CHANGE PASSWORD
  - RETURN…IMMEDIATE
  - INPUTMSG and INPUTMSGLEN options on RETURN, LINK, and XCTL
  - The DISABLED condition is now supported with the WRITEQ TD, READQ TD, and DELETEQ TD commands

- IP socket support
  - similar to that used by CICS Transaction Server applications for z/OS and VSE. This is provided as samples, which can be modified as desired.
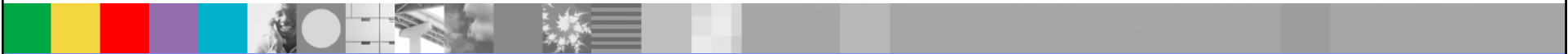
Enhancements in administration

- Following CEMT commands are supported:
  - ▶ PERFORM SNAP
  - ▶ PERFORM SHUTDOWN
  - ▶ INQUIRE TASK CURRENTPROG

- CICS can now be configured so that operators can start and stop CICS regions without 'root' user authorization.

Enhancements in management and monitoring

- **IP Load Balancing**
  - ▸ CICS can now be configured to manage an unlimited number of CUC connections configured for one IP listener port. This can greatly simplify the CTG.INI configuration file for each CUC.

- **The CICS Monitoring Facility (CMF) provides more information including the following:**
  - ▸ The UNIX process ID of the associated task
  - ▸ Elapsed clock time for transactions waiting in the scheduler
  - ▸ Total elapsed clock time spent in the CICS scheduler for transactions
  - ▸ EXEC CICS DELAY time
  - ▸ Display the User Transaction ID for a CRTE transaction

Improved language support

- Support for ACUCOBOL-GT.

- Improved support for Micro Focus Server Express COBOL:

  ▸ The CICS-supplied transaction CADB provides better integration when animating Micro Focus COBOL applications. Now debugging can be configured based on a Terminal, SysID, Transaction or a Program, and CADB itself can be configured on a per-user or per-key basis (default is per-user basis).

  ▸ Cross-session animation is supported.

  ▸ It is no longer necessary to have root authorization to compile the Micro Focus COBOL support file 'cicsprCOBOL' on UNIX platforms using cicsmkcobol.

  ▸ XA support is available for Microsoft SQL Server when using Micro Focus COBOL applications.

Improved support of resource managers

- Support for Oracle 9i as file manager.

- Support for Microsoft SQL Server through ODBC (Windows only).

- CICS regions using DB2 as a resource or file manager can link CICS modules (application programs, switch load files, etc,.) with libdb2.a library rather than db2.o (IBM AIX only).

Serviceability improvements

- CICS region name, Process ID, Thread ID, Transaction ID are included in console and symrecs log messages where appropriate to simplify problem diagnosis.

- Interim/diagnostic fix levels are displayed in the console log.

- Timestamps (which includes nanoseconds) are easier to co-relate among the console, symrecs, and trace files.

- Changes to CICS runtime resources (adds, deletes, updates) are recorded in console log.

Serviceability improvements (Contd…)

- EXEC CICS command options (EI tracing) are now included in trace logs.

- Environment variables are saved during region start-up and during abnormal terminations in the system dump.

- The first abend a transaction received is displayed in the console log along with the transaction and program.

- CICS automatically retrieves the stack trace from the core file produced during abnormal terminations of CICS processes.

Serviceability improvements (Contd…)

- Tool to monitor growth of process heap memory, task-shared pool, task-private pool, and process file descriptors for CICS transactions.

- The process data segment consumed by each CICS application server process can be monitored periodically.

- CICS application server process will be recycled upon receiving ASRA or ASRB abends.

- CICS generates trace-back files when an exception is received by a CICS process. These trace-back files contains information about the exception received, transaction/program which generated the exception, stack trace where the exception is generated etc,.

Performance improvements

- Reduced region start-up time.
    - Region start-up time has significantly improved for regions employing many application servers.

- Enhanced mutex handling should provide general improvements on UNIX systems, especially on multi-processor machines.

Other Enhancements

- Support for GB18030 code page
  - ▸ The new Chinese government standard code page GB18030 is supported on all platforms.

- The maximum size of the region shared memory pools has been increased from 512MB to 2GB.

- CICS program search path simplifies region configuration

- Program definitions can be auto-installed enabling the program to be dynamically defined in the CICS runtime database.

- A shutdown assist program sample is supplied,

- Updated Specified Operating Environment
  - Compilers, databases, operating system levels, etc.

IBM

IBM Software Group – TXSeries for Multiplatforms
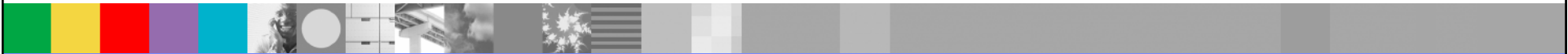
TXSeries (CICS) 6.0

New Features

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Product Simplification

- Separate DCE and Encina products completely removed
  - ▸ Equivalent DCE and Encina function now fully integrated

- CICS processes now communicate using secure shared memory, called CICSIPC
  - ▸ New system very similar to old RPC only system
  - ▸ Does not support distributed RPCs
  - ▸ Does not support or require authenticated RPCs

- Required Encina components integrated and renamed
  - ▸ SFS and PPC Gateway have to be on the same box as the region

- Simplified installation through industry-standard Install Shield Multiplatform (ISMP)
  - ▸ Via 3 modes: GUI, console or Silent
  - ▸ Removed SMIT (AIX) install option

Improved Support

- Improved support, including IBM Business Partner, Acucorp's open systems COBOL, ACUCOBOL-GT

- Updated supported hardware and software levels
  - See www.ibm.com/software/txseries/support

- Major revision to the documentation library
  - To reflect removal of Encina and DCE

Improved Function

- Improved cicscp commands and other commands removed

- Improved client access
  - TXSeries client replaced by CICS Universal Client
  - One license supplied on TXSeries CD
  - Supplied default 3270 Terminal renamed to **cicslterm** (CICS Local Terminal)

- Codebase ported to POSIX Threads Draft 10 Specifications
  - Applications may require some changes and recompile

- External Authentication Manager sample for LDAP/RACF
  - Allows integration with RACF 1.7 via its LDAP facility