



BMC Mainframe: CICS Transaction Server - Concepts & Facilities

COURSE ABSTRACT

COURSE CODE

» MGRS-CITC-2021

APPLICABLE VERSIONS

» Not Applicable

DELIVERY METHOD

» Instructor-led Training (ILT)

COURSE DURATION

» 2 Days

PREREQUISITES

- » A sound basic knowledge of IT
- » BMC Mainframe: IBM Z Systems Environment - Introduced & Explained
- » Or equivalent experience is recommended

RECOMMENDED TRAININGS

» NA

Course Overview

The course is developed and delivered by © RSM Technology.

This two-day course introduces and explains CICS Transaction Server (CICS/TS) to those who have limited or no knowledge of CICS but who need a clear understanding of what CICS is, what it does and how it does it. The course describes and explains the main concepts and facilities of CICS, and introduces the growing family of CICS server and client products that are available.

Target Audience

- » Programmers
- » Operators

(Applications programmers, operators, operations analysts, systems programmers, support personnel and managers who have little or no experience of CICS)

Learner Objectives

- » Describe the basic concepts, facilities, and terminology of CICS
- » Describe the CICS functions available for program development
- » Explain the role of CICS in a distributed environment
- » Identify the major management modules and tables trace and describe the flow of a CICS transaction
- » Identify the CICS facilities used for accessing data



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COURSE ACTIVITIES

- » Classroom Presentations
- » Demonstration


BMC MAINFRAME INFRASTRUCTURE AND PLATFORMS LEARNING PATH

- » <https://www.bmc.com/education/courses/find-courses.html#filter/%7B%22type%22%3A%22edu-specific-types-159150236%22%7D>

CERTIFICATION PATHS

- » This course is not part of a BMC Certification Path.

DISCOUNT OPTIONS

- » Have multiple students? Contact us to discuss hosting a private class for your organization
- » [Contact us for additional information](#) 

Course Modules

Introduction to CICS

- » The functions of CEMT
- » CICS Transaction Server
- » What is CICS?
- » CICS terminology
- » What is a business transaction?
- » What is a CICS task /CICS transaction?
- » What is a CICS program?
- » CICS characteristics
- » On-line processing
- » IBM CICS Transaction Server for z/OS Workload management
- » Access to CICS

CICS Architecture

- » CICS organization
- » Starting a CICS Region
- » Starting a transaction
- » Logging on, Message Input
- » Transaction validation
- » Program loading
- » Task execution
- » Program execution
- » Task Termination

- » Multi-tasking and multi-threading
- » The CICS Dispatcher
- » Multiple TCBS
- » Domains and component

The Master Transaction CEM

- » The functions of CEMT
- » CEMT Inquire menu
- » CEMT Inquire system
- » CEMT generic input
- » Inquiring on a resource specifying a property
- » Discarding a resource
- » CEMT I TASK

Resource Definition

- » CICS resources
- » Resource Definition On-line (RDO)
- » The CICS System Definition File CSD
- » The CICS Global Catalog
- » RDO Groups and Lists
- » Resource definition
- » Adding a GROUP to a LIST
- » The CSD Utility Program DFHCSDUP
- » Auto-installation of resources
- » Program Autoinstall

- » Terminal Autoinstall

CICS Application Programming

- » Application services
- » EXEC CICS commands
- » Command Translation
- » Program preparation
- » Integrated translator
- » EXEC Interface Block EIB
- » Execution flow
- » Conversational and pseudo-conversational transactions
- » Conversational Design
- » Pseudo-conversational design
- » COMMAREA
- » Channels and Containers
- » API Commands
- » One program/one channel
- » One program/multiple channels
- » Program Logical levels
- » Three-tier application design
- » Basic Mapping Support (BMS)
- » COBOL symbolic map
- » Command interpreter

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- » CICS Messages and Codes Transaction (CMAC)
- » Execute Diagnostic Facility (EDF)
- » CEDF Working Storage
- » CEDF setting a Stop condition

Java Support in CICS

- » Java Support in CICS
- » CICS and Enterprise Java Beans (EJBs)

File Access

- » CICS file control
- » The file definition
- » EXEC CICS file commands
- » Programming for file errors
- » Shared Data Table

CICS and External Resource Managers

- » CICS and DB2
- » CICS and IMS/DB (DL/1)
- » CICS and Websphere Message Queuing Series (WMQ)

CICS Queuing Facilities

- » Transient Data
- » INTRAPARTITION Queues
- » EXTRAPARTITION Queues
- » INDIRECT Queues The CICS Supplied TD Queue definitions
- » Temporary Storage
- » The Temporary Storage Browse Transaction
- » Using CEBR

CICS Intersystem Communication

- » Introduction to Inter System Communications

- » Multi Region Operation (MRO)
- » Inter Systems Communication (ISC)
- » Inter System Communication over SNA
- » Intercommunication Using IP Interconnectivity
- » Transaction Routing
- » Function Shipping
- » Static Transaction Routing
- » Dynamic Transaction Routing with Cloned AORs
- » Distributed Program Link (DPL)
- » Asynchronous processing
- » Distributed Transaction Processing (DTP)
- » External CICS Interface (EXCI)

Introduction to CICSplex System Manager

- » Terminology
- » CICS proliferation
- » CPSM components
- » Transaction Routing
- » Single-System Image (SSI)
- » CPSM address space (CMAS)
- » CMAS
- » Maintenance Point (MP)
- » MAS
- » The Data Repository
- » Environment Services System Services (ESSS)
- » Single Point Of Control (SPOC)
- » CPSM major functions
- » CICSplex SM summary

Web Services

- » What is a web service?

- » Web Services Terminology
- » CICS Web Services
- » Creating a Web Service for an Existing CICS Application
- » Creating a Web Service from a Web Service description
- » The Web Service Binding File
- » CICS Web Support (CWS)
- » CICS Transaction Gateway
- » CICS Universal Client (CUC)

CICS Storage

- » The CICS Region
- » Dynamic Storage Areas
- » Start-up Operands in the SIT
- » Subsystem Storage Protection
- » Transaction isolation.

Startup & Shutdown

- » CICS Initial and Cold Start
- » START=INITIAL
- » START=COLD
- » START=AUTO
- » Normal Shutdown
- » First Quiesce Stage
- » Second Quiesce Stage
- » Third Quiesce Stage

Logging and Recovery/Restart

- » Concept of Data Integrity
- » Recoverable Resources
- » Defining the CICS System Log
- » Recovery After a Failure