

CICS/TS 4.1 Web Services

Course Summary

Description

IBM has implemented a number of facilities in its CICS product to facilitate the integration of traditional CICS applications to the Internet. Today, CICS applications can talk to web browsers as well as web servers. With the introduction of web services and SOAP, they can also talk to UNIX and .NET platforms. All in all, CICS/TS is now an important player in implementing SOA (Service Oriented Architecture) in your organization.

We will discuss HTTP 1.1 support, CICS transactions acting as clients in a CICS/WEB scenario, XML, SOAP and Web Services.

This course will focus extensively on WSDL, as well as how to code, test, and run Webservices in a CICS/TS COBOL environment. Students will use CICS Web Assistant and not RDz, as the audience is 80% COBOL programmers, who do not know Eclipse. The focus of the course is SOAP 1.1, although some concepts for REST will be included if time. Also, if time, some recommendations for SOA will be included.

The class is 50% lecture/discussion and 50% structured workshop.

Topics

- HTTP 1.1 Support
- CICS Channels and Containers
- Web Service, SOAP, SOAP header handler
- XML and WSDL
- CICS as a Web Service Provider; CICS as a Web Service Requester
- Development approaches: development approach? bottom-up, top-down, and meet-in-the-middle.
- Security (concepts only, as students will not be writing security handlers)

Audience

This course is designed for experienced CICS COBOL programmers who will be writing new COBOL CICS/TS Web Services, or wrapping and or modifying existing COBOL CICS/TS programs as Web Services.

Prerequisite

Knowledge the COBOL CICS API is required.

Duration

Four days

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Course Outline

I. Introduction

- A. Overview of CICS/TS web facilities
- B. Brief overview Web Services and SOA
- C. CICS APIs for Web Servicers

II. HTTP 1.1 Support

- A. The new date format and the CICS commands that will help you get to these new formats
- B. Chunked and pipelined messages
- C. Virtual hosts
- D. CICS URIMAP and TCPIP SERVICE
- E. New compliancy rules
- F. New behavior of the CICS Web
- G. Monitor transaction

III. CICS Channels and Containers

- A. Implementing CONTAINERS in your CICS programs
- B. GET, PUT and MOVE commands
- C. How to browse the list of CONTAINER names available within the CHANNEL
- D. Review existing CICS/API commands that can be used to pass CHANNELs to other programs, namely XCTL, LINK, START and RETURN

IV. WEBSERVICE, SOAP and XML

- A. Overview of XML
- B. WEBSERVICE and SOAP support
- C. Programmer tools for XML messages

V. CICS as a WEBSERVICE provider

- A. Web service assistant DFHLS2WS
- B. Parameters to the utility
- C. Rules the application program must follow to have a successful implementation
- D. The concept of PIPELINE

VI. CICS as a WEBSERVICE requester

- A. Web service assistant DFHWS2LS
- B. Parameters to the utility,
- C. Rules the application program must follow to have a successful implementation
- D. Review CICS commands available to the programmer to invoke a web service

VII. Security Overview

- A. A brief overview of the security available in CICS/TS
- B. The changes to SSL support
- C. Certificate revocation lists
- D. EXEC CICS VERIFY PASSWORD

VIII. (Optional if time) SOA

- A. Brief overview of SOA
- B. Design considerations for a SOA