

Technical Introduction to IBM MQ

Learn via: **Classroom**

Duration: **2 Gün**

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Overview

This course provides a sound introduction to (and understanding of) IBM's MQ (formerly WebSphere MQ and before that, MQSeries) messaging system, at both a conceptual and terminological level, and is essential for all personnel who will be working in an IBM MQ environment. Recommended for managers and for first-line support personnel, this course will also position them to go on to advanced MQ training if required. This course is appropriate for both the z/OS and LUW environments. This course is also available for one-company, on-site presentations and for live presentation over the Internet, via the Virtual Classroom Environment service.

Prerequisites

A knowledge of one or more IT applications environments.

What You Will Learn

- understand the concepts of Queues, Queue Managers and MQ messages
- describe IBM MQ program design considerations and the MQI
- explain triggering, syncpoints and message grouping and segmentation
- discuss Distributed Queuing enablement
- understand and describe Clustering.

Outline

Basic Messaging Concepts

Islands of information and IBM MQ; What's in a name?; Software layers; IBM MQ features; Wide platform coverage; The MQI - a common application programming interface; Time independent or asynchronous processing; Assured message delivery; Support of different application styles; MQ - some comparisons: Queues, Messages, MQPUT, MQGET; Queue managers and database managers; A significant difference between queues and database tables...; Messages and queues; Shared queues; The Queue Manager; Basic message structure; Asynchronous messaging; Synchronous messaging; Multiple requesters, one responder; Parallel messaging; Re-using MQ application processes as business objects; Meshed business objects; Remote messaging (distributed queuing); MQ clients.

Queue Managers, Queues and Messages

Queue types; Local queues; Alias queues; Model and dynamic queues; Remote queues; The Message Descriptor; Datagram message type; Request/Reply messages; Report messages - COA; Report messages - COD; Message priority; Message-id and correlation-id; Message retrieval by message or correlation id; Using Msgid and Correlid; Message persistence; Message persistence - logging; Circular logging in distributed MQ; Linear logging in distributed MQ; Message expiry; Message expiry usage; Message translation - encoding; Message translation - coded character set.

The MQI, Triggering and Syncpoints

The MQI layer; The MQI - language Interfaces; The MQI calls; Program preparation; Load Module structure; MQCONN; MQCONN sample call; MQOPEN; MQOPEN sample call; MQPUT; MQPUT sample call; MQGET; MQGET sample call; MQCLOSE; MQCLOSE sample call; MQPUT1; MQDISC; MQDISC sample call; Triggering - why?; Using triggering; Triggering overview; Trigger message contents; Syncpoint control; MQCMIT; MQGET under syncpoint control; Syncpoints and non-resource managed objects; Recovery co-ordination without a transaction manager; MQ recovery co-ordination of XA compliant resource manager(s); Recovery with a transaction manager; A distributed business transaction without MQ; A distributed business transaction with MQ; Message grouping and segmentation.

MQ Distributed Queuing - Overview

Distributed queuing components; Remote queues; Transmission queues; Message Channel Agents; MCA configuration; Channel types; Triggering channels; Dead letter queues; Client/server or MQI channels; Setting up a client/server channel; MQ clustering; Cluster resilience; Choosing the target instance of a cluster queue.

MQ Administration

Installing MQ; Administration mechanisms; Control commands; MQSC (MQ script) commands; Runmqsc: displaying Queue Manager properties; Runmqsc: displaying queue properties; MQ Explorer: looking at Queue Managers; MQ Explorer: looking at queues and channels; z/OS ISPF panels: looking at queues; Instrumentation events.

Introduction to IBM MQ Security

Channel Exits; Security Exits; Other channel exits; Secure Sockets Layer (SSL); Channel Authentication Records; Connection authentication; Access Control; Message Descriptor (MQMD) context information; Advanced Message Security.

IBM MQ Additional Features

MQ Publish/Subscribe; A classic example; Types of publications; State publications; Event publications; Adding business processes as subscribers; MQ Telemetry Transport (MQTT); MQ Managed File Transfer.