Training: IBM
Designing, Implementing, and Managing IBM MQ Clusters

TRAINING GOALS:

This course prepares you to plan, design, configure, and administer IBM MQ clusters.

After a review of IBM MQ, the course explains the similarities and differences between administration of a cluster and administration of a distributed message IBM MQ environment. You learn cluster specific commands and procedures, and explore the role of a cluster in a highly available IBM MQ infrastructure. You learn how to do a detailed verification of a new cluster configuration, review and identify all resulting components, and troubleshoot problems.

You also learn about cluster administration, workload balancing, security, and use of publish/subscribe clusters. You learn how to recognize when a problem is due to connection authentication, channel authentication, or object authorizations. You also learn about design options such as overlapping clusters and use of clusters with z/OS queue sharing groups. Many of the considerations in this course are based on actual engagement experiences.

For information about other related courses, see the IBM Training website:

ibm.com/training

- Describe the basic IBM MQ components
- Identify which IBM MQ objects are used to impact routing in a cluster environment
- Identify who in your organization can impact the health of a cluster and the need for adequate communication
- Describe the correct role of a cluster in a highly available IBM MQ infrastructure
- Describe the differences and similarities between administering clustered and non-clustered IBM MQ environments
- Describe how to configure, verify, and troubleshoot an IBM MQ cluster
- Identify the various channels that are present in a cluster environment and how each is created
- Describe how to use separate transmission queues in a clustered queue manager
- Explain how to remove a queue manager from a cluster on a permanent or temporary basis
- Explain IBM MQ connection authentication
- Explain IBM MQ channel authentication
- Describe IBM MQ object authorizations
- Explain how to troubleshoot security challenges in a cluster
- List ways to influence workload balancing in a cluster

- Describe the history and basic components of IBM MQ publish/subscribe
- Explain the considerations and details of implementing publish/subscribe in an IBM MQ clustered environment
- Describe cluster design architectural considerations
- Summarize the benefits of design and configuration simplicity in a cluster implementation
- Explain how to configure overlapping clusters

This course is designed for IBM MQ administrators, architects, application developers, and other professionals who need to understand the design considerations, architectural role, and implementation of IBM MQ clusters

CONSPECT:

Course introduction
IBM MQ baseline
Exercise: Configuring and reviewing base IBM MQ resources
Before you start
Understanding and implementing an IBM MQ cluster
Exercise: Implementing and verifying a cluster, cluster queues, and a cluster gateway
Cluster administration tasks and commands
Exercise: Working with cluster administration tasks
IBM MQ security and clusters
Exercise: Working with IBM MQ security
Influencing workload balancing behavior
Exercise: Working with workload balancing options
Publish/subscribe and clusters
Exercise: Configuring a publish/subscribe cluster
Cluster design considerations
Exercise: Configuring an overlapping cluster
Course summary

REQUIREMENTS:

Before taking this course, you should have experience with IBM MQ or complete one of the following courses:

- *IBM MQ V9 System Administration (using Windows for labs)* (WM153G)
- *IBM MQ V9 System Administration (using Linux for labs)* (WM154G)
- *IBM MQ V8 System Administration for z/OS* (WM302G)

You should also have working knowledge of the Windows operating system to run the lab exercises.

Difficulty level