



**Enterprise Computing Solutions - Education Services**

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# Administration of IBM Streams v4.0

**CODE:**            **DURÉE:**            **PRIX H.T.:**

DW732G            16 Hours (2 Jours)            €1,400.00

## Description

This course enables the student to acquire the skills necessary to administer an IBM Streams system. The course covers creating Streams domains and instances, using ZooKeeper in a high availability environment, viewing the state of Streams domain and instance services, stopping and starting processing elements, viewing the jobs and processing elements that are running, and a variety of other topics. In addition it covers defining resource tags, adding a resource to a Streams domain and instance, setting the access control list for security objects to give permission to users to work with those objects, and submitting and cancelling Streams jobs.

## Objectifs

- Describe the IBM Streams architecture
- Describe the tooling included with Streams
- Explain how high availability works in Streams
- Describe the difference between basic and enterprise domains
- Explain ZooKeeper and usage within Streams
- Describe Streams prerequisites and explain Streams install/post-install process
- Explain how to create, update, and remove domains and instances
- Explain how to monitor domains, instances, and resources
- Describe process to add resources to domains and instances
- List the different tags that come with Streams and describe what each tag means
- Explain how to submit and monitor Streams jobs
- Describe how processing elements can be monitored within Streams
- Explain how to capture a job topology for offline viewing
- Describe the authentication methods that can be configured within Streams
- List some of the Streams security objects
- Explain what roles are and describe the default Streams roles
- Explain how access permissions work within Streams
- Describe job groups and their use
- Explain resource load protection and how to enable it
- Describe the process to backup a Streams environment
- Explain steps to take to recover from potential failures
- Describe some techniques that can be used to administer processing elements
- Explain where Streams log and trace files are stored and techniques to analyze them

## Audience

Those who will be Administering IBM Streams

## Prérequis

- Knowledge of Linux administration.
- Attending Programming for InfoSphere Streams V4 with SPL would provide a good foundation.

## Programme

### 1: IBM Streams overview and architecture

- Describe IBM Streams and list some use cases
- Describe the IBM Streams architecture
- List and describe the service components of the Streams architecture
- Explain what Apache ZooKeeper is and how it is used with Streams
- Explain how high availability works in Streams
- Describe the tooling included with Streams
- Explain the REST and JMX APIs

### 2: Streams initial administration

- Describe the difference between basic and enterprise domains
- Explain embedded versus external ZooKeeper and usage within Streams
- List the available Streams authentication mechanisms
- Describe the Streams prerequisites and explain the Streams installation process
- Explain post-installation tasks, including installation of Streams Studio and Microsoft Excel add-in

### 3: Administering domains and instances

- Explain how to create domains and instances using the GUI and command line tools
- Describe how to update and remove domains and instances
- Explain how to monitor domains, instances, and resources via the command line tooling
- Describe process to add resources to domains and instances
- List the different tags that come with Streams and describe what each tag means

### 4: Working with jobs

- Explain how to submit a Streams job using the command line and the GUI tools
- List a variety of techniques that can be used to monitor Streams jobs
- Describe how processing elements can be monitored within Streams
- Explain how to capture a job topology for offline viewing
- Explain how to change the default ports on the management API and web management services

### 5: Streams security

- Describe the authentication methods that can be configured within Streams
- List some of the Streams security objects
- Explain what roles are and describe the default Streams roles
- Explain how access permissions work within Streams
- Describe job groups and how they can be used to limit who can perform job-related tasks

### 6: Performance, troubleshooting, recovery administration

- Explain resource load protection and how to enable it
- Describe the process to backup a Streams environment
- Explain steps to take to recover from potential failures
- Describe some techniques that can be used to administer processing elements
- Explain where Streams log and trace files are stored and techniques to analyze them

## Dates de session

Sur demande. [Merci de nous contacter](#)

## Informations

### Complémentaires

Cette formation est également disponible sous forme de formation sur site. Veuillez nous contacter pour en savoir plus.