# Module 4 Worksheet: Choosing Appropriate Mule 4 Event Processing Models

# Exercise 4-1: Appropriately model Mule event processing for a data synchronization use case

## Decide and document assumptions regarding SLAs for a use case

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| **Use case** | **SLA assumptions** | **Comments** |
| Data Sync | Processing latency SLAs |  |
|  | Must data be processed in real time or near real time? |  |
|  | If not, at what rate is data processing scheduled? |  |
|  | Will schedule data processing be at a fixed rate, or on specific dates (cron jobs)? |  |
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## Document processing models for the use case

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| --- | --- | --- |
| **Use case** | **SLA assumptions** | **Comments** |
| Data Sync | Processing latency SLAs |  |
|  | Must data be processed in real time or near real time? |  |
|  | If not, at what rate is data processing scheduled? |  |
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## Analyze data processing requirements and tradeoffs for the use case

Decide how the processing model can change based on changes to these competing data processing SLAs:

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| **Use case** | **SLA related questions** | **Event processing model changes** |
|  | What are the average and maximum throughput rates and how do they affect the processing model? |  |
|  | What are the data processing latency SLAs and how to they affect the processing model? |  |
|  | How is data read from the DB? |  |
|  | How is flow processing triggered? |  |
|  | Must the DB reading option change to support real time or near real time latency SLAs? |  |
|  | Does the number or size of records read impact how records are processed? |  |
|  | How can the data synchronization between the system be limited to only new or modified records? |  |

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## **Document MuleSoft tools to be used to validate the proposed processing model**

# Exercise 4-2: Appropriately design Mule event processing for a file transfer use case

## Document Mule event processing options

* What are the options to read in a file?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* After reading in a file, how are records in files processed?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Should records be processed sequentially, parallelly, or in batch?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* How can the memory footprint be reduced while processing?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* How are failed records managed?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_