Batch vs stream processing: A tabular comparison

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Choosing the Right Approach

When deciding between batch processing and stream processing, consider the following factors:

* Data volume: If you're dealing with large volumes of data, batch processing might be the better choice.
* Real-time requirements: If your application requires immediate insights or actions based on incoming data, stream processing is the way to go.
* Complexity: If your processing tasks require complex algorithms and data transformations, batch processing might be more suitable.
* Data nature: Is your data finite and predictable in size, or an unbounded, ongoing flow? Batch processing is better suited for the former, stream processing for the latter.

Hybrid Approach: Micro-Batch Processing

Some systems like Apache Spark Streaming employ a hybrid approach known as micro-batch processing.

This method bridges the gap between traditional batch and stream processing by processing small chunks of data over short intervals.

This allows for near real-time processing with the simplicity of batch processing.