基于Flink的边缘流式计算

Stream processing for edge computing, a Flink based solution

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FLINK FORWARD # ASIA
实时即未来 # Real-time Is The Future

FLINK FORWARD

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让流作业运行在任何设备上

Run stream computing on any device

百度智能云

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01 流式计算在边缘端的挑战

Challenges of stream processing in edge computing.

内存压力

Limited memory

磁盘压力

Disk pressure

作业管理

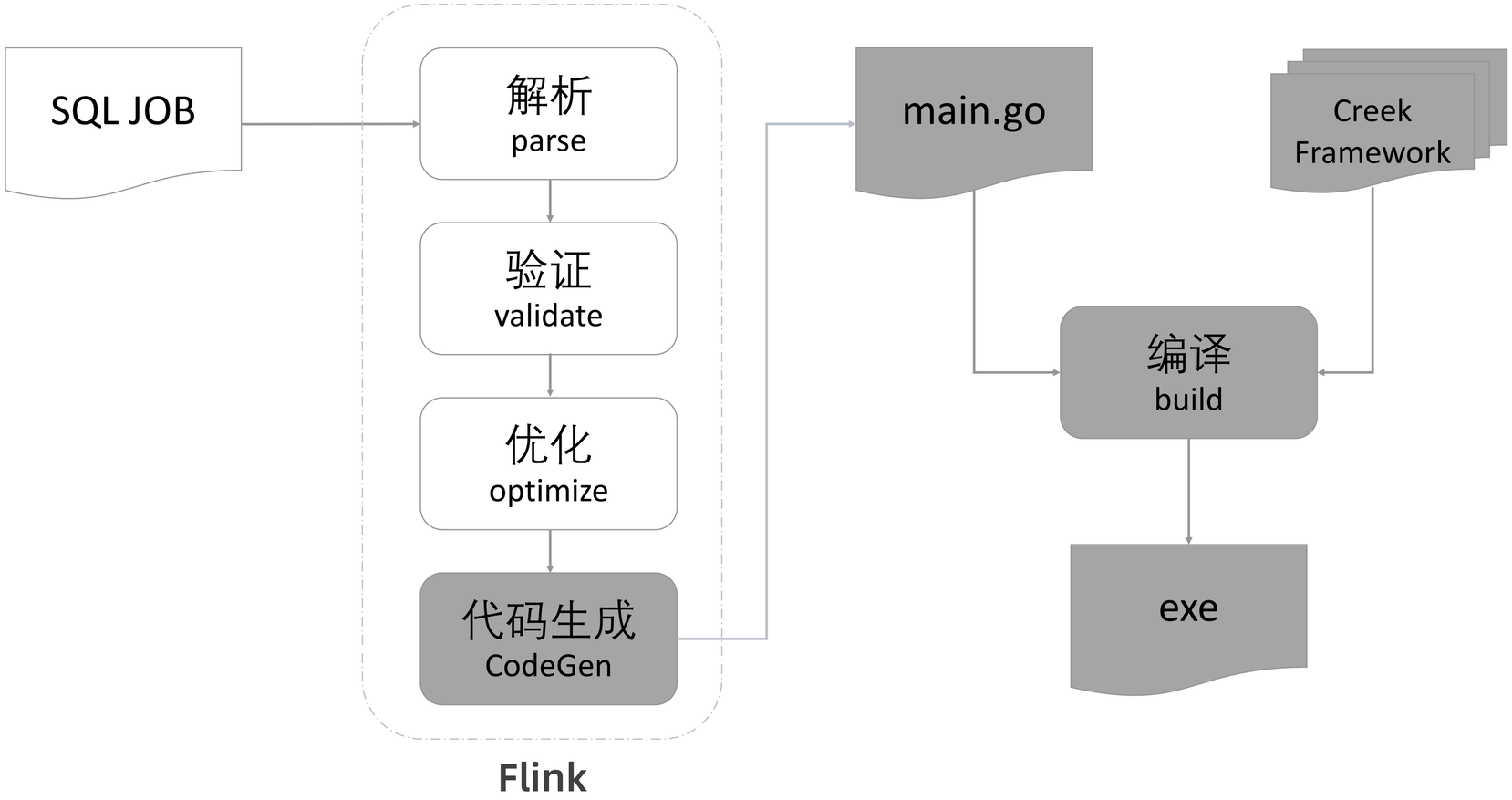
Job management

02 实现方案及成果(一)

Solution.

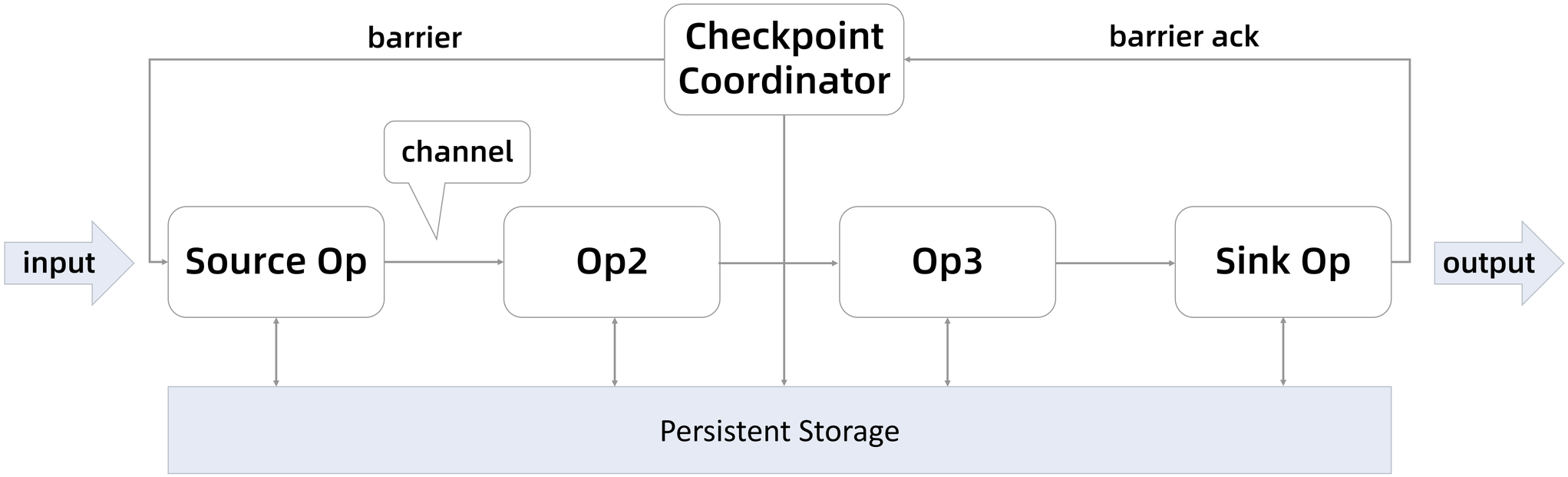
02 实现方案及成果(二)

Solution cont'd



02 实现方案及成果(三)

Solution cont'd



02 实现方案及成果(四)

Solution cont'd

内存消耗 - 7MB

Memory consumption

文件大小 - 7MB

File size

吞吐率 - 770K msg/s

Throughput

03 现场演示

Live demo

Demo

http://creek.baidubce.com

演示人 - 黄家天

By Jiatian HUANG.

04 小结和未来计划

Wrap up & Future plan

1, 处理时间，事件事件，Watermark

ProcessingTime, EventTime, Watermark

2, 固定\滑动\会话窗口，Row\Range Over

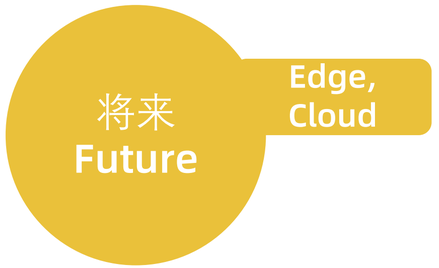
Tumble, Hop, Session, Row\Range Over Windows

3, 支持File, MQTT, Kafka数据源和目的地

Support File, MQTT, Kafka as source and sink

4, 检查点、故障恢复

Checkpointing and recovering



1, 复杂事件处理(CEP)

Complex Event Processing

2, 支持更多Connectors: web log, ES, etc.

More connectors, e.g. web log, ES

3, 状态保存支持分布式存储: HDFS

State backend support distributed file system: HDFS

4, 用户自定义函数

UDF

Q&A

技术交流群


THANKS