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## EXAM PROFESSIONAL DATA ENGINEER TOPIC 1 QUESTION 155 DISCUSSION

Actual exam question from Google's Professional Data Engineer

Question #: 155

Topic #: 1

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Your company is selecting a system to centralize data ingestion and delivery. You are considering messaging and data integration systems to address the requirements. The key requirements are:

- ⇒ The ability to seek to a particular offset in a topic, possibly back to the start of all data ever captured
- ⇒ Support for publish/subscribe semantics on hundreds of topics

Retain per-key ordering -

▪

Which system should you choose?

- A. Apache Kafka
- B. Cloud Storage
- C. Dataflow
- D. Firebase Cloud Messaging

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by [YorelNation](#) at Sept. 6, 2022, 7:57 a.m.

## Comments

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  **YorelNation** Highly Voted  2 years, 2 months ago

**Selected Answer: A**

A I think it's the only technology that met the requirements

   upvoted 10 times

  **dn\_mohammed\_data** Highly Voted  2 years, 1 month ago

vote for A: topics, offsets --> apache kafka

   upvoted 7 times

  **mothkuri** Most Recent  8 months ago

**Selected Answer: A**

Only Kafka can support publish/subscribe semantics on hundreds of topics

   upvoted 1 times

  **barnac1es** 1 year, 1 month ago

Ability to Seek to a Particular Offset: Kafka allows consumers to seek to a specific offset in a topic, enabling you to read data from a specific point, including back to the start of all data ever captured. This is a fundamental capability of Kafka.

Support for Publish/Subscribe Semantics: Kafka supports publish/subscribe semantics through topics. You can have hundreds of topics in Kafka, and consumers can subscribe to these topics to receive messages in a publish/subscribe fashion.

Retain Per-Key Ordering: Kafka retains the order of messages within a partition. If you have a key associated with your messages, you can ensure per-key ordering by sending messages with the same key to the same partition.

Scalability: Kafka is designed to handle high-throughput data streaming and is capable of scaling to meet your needs.

Apache Kafka aligns well with the requirements you've outlined for centralized data ingestion and delivery. It's a robust choice for scenarios that involve data streaming, publish/subscribe, and retaining message ordering.

   upvoted 4 times

  **musumusu** 1 year, 8 months ago

Answer A: Apache Kafka

Key words: Ingestion and Delivery together ( it is combination of pub/sub for ingestion, and delivery = dataflow+any database in gcp)

Offset of a topic = Partition of a topic and reprocess specific part of topic, its not possible in pub/sub as it is designed for as come and go for 1 topic.

Per key ordering. means message with same key can be process or assigned to a user in kafka.

   upvoted 3 times

  **aquevedos91** 2 years, 1 month ago

deberia ser la C, debido a que siempre es mejor escoger los servicios de google

   upvoted 1 times



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