Key-Value Storage Service

Best Practices

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Challenges in Advertising Tracking

Advertising tracking helps advertisers measure the effect of their advertising campaigns, estimate the return on their investment, and refine their advertising plans. Achieving these purposes relies on real-time collection of advertising metrics by an advertising tracking platform. Such a platform processes a vast quantity of events such as impressions, clicks, and views in real time. The challenges during this process are as follows:

- **A huge volume of data**

  An advertising tracking platform has a huge amount of advertising data flown in, including impressions, clicks, and browsing time. There are billions to tens of billions records stored each day, and these data will also be stored for a long time, typically 90 days.

- **Unpredictable request traffic**

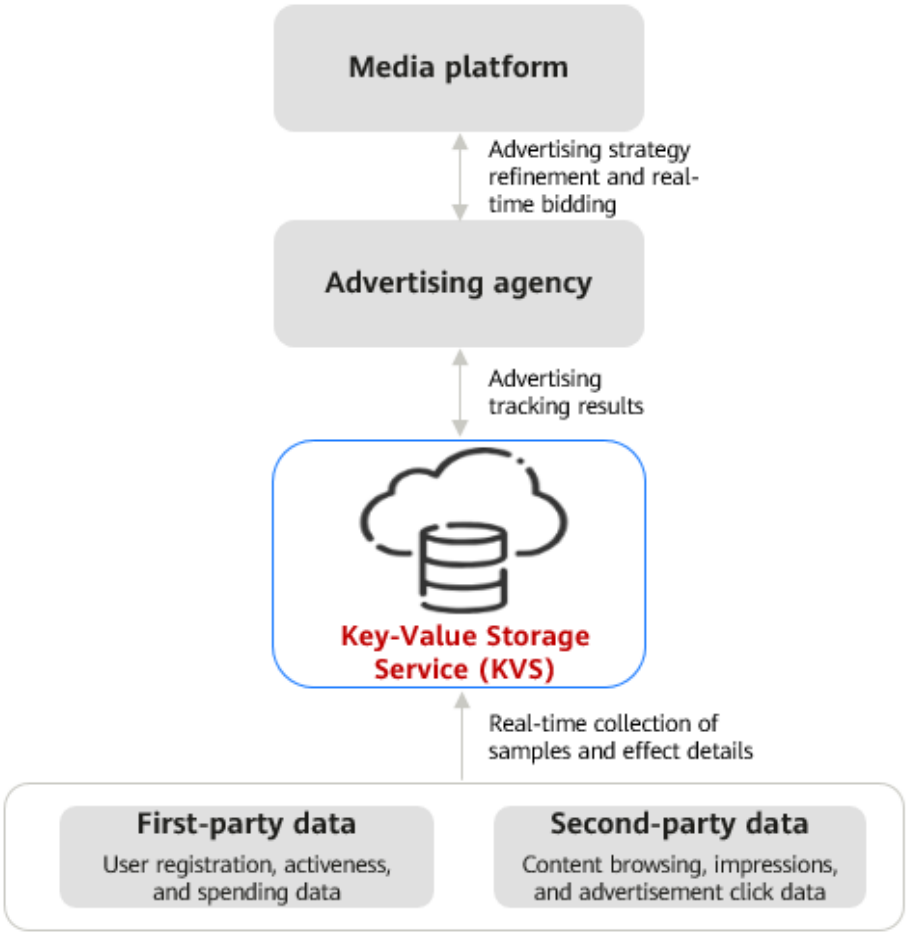
  The effects of advertising campaigns can be hard to forecast. An advertising tracking platform may need to handle surges in impressions, clicks, and views resulting from a successful campaign.

- **Real-time processing**

  Advertisers rely on the results of advertising tracking to refine their strategies. Real-time data processing is critical to ensure efficient decision-making.

KVS Solution

Figure 1-1 A KVS solution for advertising tracking



The benefits provided by KVS for advertising tracking are as follows:

- **Ultra-large capacity**

  KVS delivers decoupled, scale-out compute and storage. A single cluster and a single table have unlimited scale and capacity, which can meet the needs of event writes at any scale.

- **Robust performance**

  The performance of KVS increases linearly with the cluster scale. A single table can deliver hundreds of millions of QPS to handle lots of event writes sparked by advertising campaigns.

- **Stable low latency**

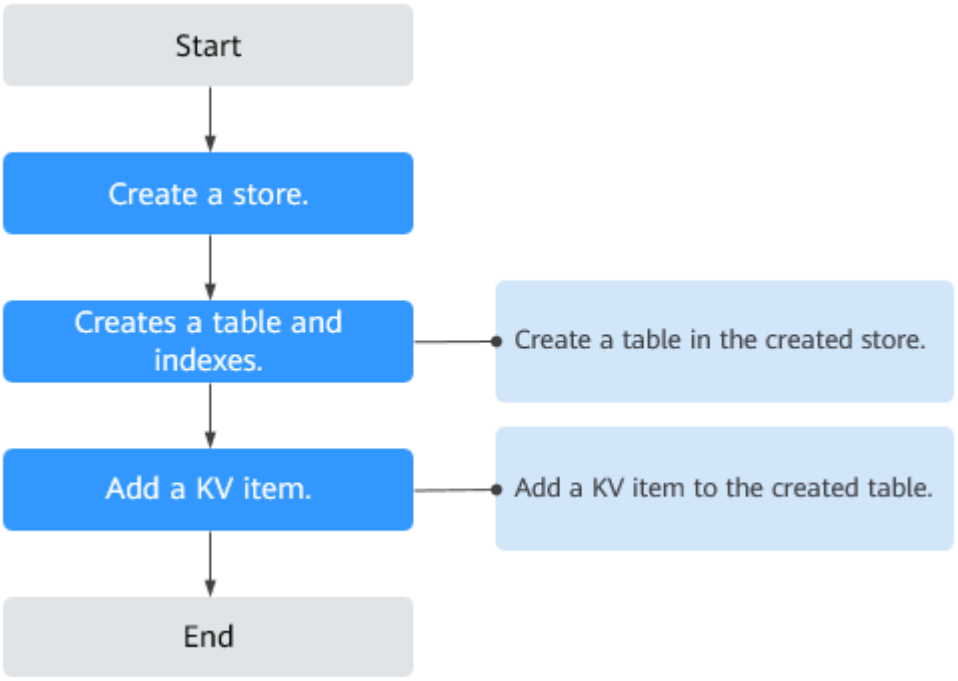
  KVS clusters automatically scale to ensure stable P99 latency of less than 10 ms for writes or reads at any scale, enabling efficient decision-making.

- **Cost-effectiveness**

  The KVS serverless architecture eliminates the need to pre-provision resources. KVS offers pay-per-use billing, so platforms do not need to pay for idle resources.

Getting Started with KVS

Figure 1-2 Getting started with KVS



Step 1 Create a store.

1. Log in to the KVS console.
2. In the navigation pane, choose **Stores**.
3. In the upper right corner of the page, click **Create Store**.
4. Configure store parameters as instructed. For details, see **Store details**.
5. Configure table parameters as instructed. For details, see **Table details**.
6. In the **Secondary Index** area, create secondary indexes. KVS allows you to create local and global secondary indexes. For details, see **Parameters for creating local and global secondary indexes**.
7. Confirm the configuration and click **OK**.

Step 2 Create a table and indexes.

1. Log in to the KVS console.
2. In the navigation pane, choose **Stores**.
3. In the store list, locate the store where you want to create a table and click **Create Table** in the **Operation** column. Alternatively, click the store name to go to the store details page and click **Create Table** under **Table Details**.
4. Configure table parameters as instructed. For details, see **Table details**.
5. In the **Secondary Index** area, create secondary indexes. KVS allows you to create local and global secondary indexes. For details, see **Parameters for creating local and global secondary indexes**.
6. Confirm the configuration and click **OK**.

Step 3 Add a KV item.

1. Log in to the KVS console.
2. In the navigation pane, choose **Stores**.
3. Click the name of the store and then the name of the table where you want to add a KV item.
4. Click the **KV Items** tab.
5. Click **Add KV Item** in the upper left corner.
6. Specify the shard key and sort key.
7. (Optional) You can add other fields by clicking **Add**.
8. Confirm the configuration and click **OK**.
9. Check whether the KV item you added is in the KV list.

----End

