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ApsaraDB for HBase
HBase Solr full-text engine

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Document conventions









Style	Description	Example
 Danger	A danger notice indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	 Danger: Resetting will result in the loss of user configuration data.
 Warning	A warning notice indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	 Warning: Restarting will cause business interruption. About 10 minutes are required to restart an instance.
 Notice	A caution notice indicates warning information, supplementary instructions, and other content that the user must understand.	 Notice: If the weight is set to 0, the server no longer receives new requests.
 Note	A note indicates supplemental instructions, best practices, tips, and other content.	 Note: You can use Ctrl + A to select all files.
>	Closing angle brackets are used to indicate a multi-level menu cascade.	Click Settings > Network > Set network type .
Bold	Bold formatting is used for buttons, menus, page names, and other UI elements.	Click OK .
Courier font	Courier font is used for commands	Run the <code>cd /d C:/window</code> command to enter the Windows system folder.
<i>Italic</i>	Italic formatting is used for parameters and variables.	<code>bae log list --instanceid</code> <i>Instance_ID</i>
[] or [a b]	This format is used for an optional value, where only one item can be selected.	<code>ipconfig [-all -t]</code>
{ } or {a b}	This format is used for a required value, where only one item can be selected.	<code>switch {active stand}</code>

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1.Quick start

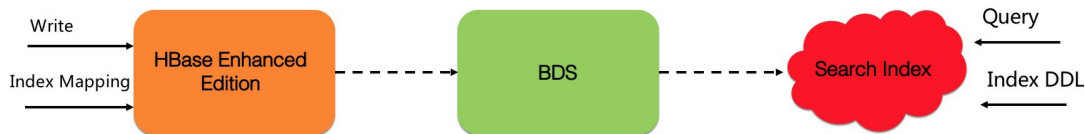
1.1. Overview

The Search service is a solution for complex multi-dimensional queries and full-text indexes.

Solr is an enterprise-level search platform that is built on Apache Lucene and is one of the top platforms for distributed full-text indexes. Solr supports various complex conditional queries and full-text indexes. Solr is used by a wide range of customers. The Search service is deeply integrated with HBase and Solr, which allows you to store large amounts of data and supports complex multi-dimensional queries and full-text indexes.

The Search service is suitable for business scenarios in which you need to store large amounts of data and query data based on a combination of conditions. Examples:

- In logistics scenarios, you need to store a large amount of tracking information and query specific tracking information based on a combination of multiple fields.
- In traffic monitoring scenarios, you need to store a large number of traffic records and retrieve the required information based on specific vehicle information.
- In website member and product information retrieval scenarios, you need to store a large amount of product and member information, and perform complex queries that use conditions to meet the needs of website users.



The preceding figure shows the overall data flow direction of the Search service. After data is written to HBase, Big Data Service (BDS) synchronizes the data to Search Index in real time. The HBase cluster, BDS server, and Search cluster are independent of each other. This architecture allows you to separately manage each component. For example, if the processing capability of the Search server cluster is insufficient, you can scale out the Search server cluster. If the synchronization capability of the BDS server is insufficient, you can scale out the BDS server. The combination of HBase, BDS, and Search allows you to select different servers for different scenarios. In addition, this architecture significantly improves the stability of the system.

Differences from secondary indexes

ApsaraDB for HBase Enhanced Edition provides which allow you to query data based on non-primary key columns at a low cost. ApsaraDB for HBase Enhanced Edition is suitable for scenarios in which you need to query tables that contain only a few columns. If complex multi-dimensional queries are required in your business, we recommend that you use the Search service.

Differences from open source Solr

The Search service is deeply integrated with HBase and Solr. This way, you can use HBase Shell or perform API operations to associate the HBase cluster with the Solr server, without the need to worry about the operation of each service.

The Search service is designed based on open source Solr and is fully compatible with Solr APIs. The Search service provides a reliable and high-performance enterprise-level search platform with improved system stability, high read/write performance, and monitoring and alerting functions.

Activate the Search service

To activate the Search service, perform the following steps:

1. Create an HBase cluster. Select **HBaseUE(Lindorm)** for the Type parameter.
2. Create a BDS cluster.
3. After the HBase cluster is created, click **Full-text Index** in the HBase console to purchase and associate the Search instance with the HBase cluster.

For more information, see [Activate the Search service](#)

User Guide

For more information, see [Quick start](#) and [Manage Indexes](#).

Best practices

For more information, see [Search Best practices](#).