



Feature at a Glance

Data Replication Status for multi-ERP configurations

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Feature at a Glance

Ease of implementation  High-Touch
Geographic relevance  Global

Introducing: Data Replication Status for multi-ERP configurations

Customer challenge

Customers want to automate as many data loads as possible to ensure that their systems are consistent and accurate. Today, customers must review the replication of their data from the UI which can be time consuming and confusing. They also do not have the ability to configure their systems to know when replication of an object has completed so it can begin a different load automatically.

Meet that challenge with SAP Ariba

The Data Replication Status API gives customers insight into the status of replication of data into their child site(s). Customers can filter on things like replication status, replication objects, replication dates, and what replication jobs are still being processed. This information is useful for scheduling and setting up automated data loads into the child sites.

Experience key benefits

With this feature, customers can monitor the status of their data loads to ensure completion and replication. Based on the response from this API, other jobs can be automated to start once they see a successful replication message.

Solution area

- SAP Ariba Buying and Invoicing, multi-ERP edition
- SAP Ariba Buying, multi-ERP edition
- SAP Ariba Invoice Management
- SAP Ariba Developer Portal
- SAP Ariba Rest APIs

Implementation information

This feature is automatically on for all customers with the applicable solutions but requires **customer configuration**.

Prerequisites and Restrictions

- In order to create an application and request access to use the SAP Ariba APIs relevant to this feature, you must have access to the SAP Ariba developer portal. For details see “Steps to begin using the SAP Ariba APIs” in the help for The SAP Ariba Developer Portal.
- All queries made to this API must be authenticated using OAuth authentication. For details see “Developer Portal Authentication” in the help for The SAP Ariba Developer Portal.

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Detailed feature information (sample calls below are specific to the US datacenter. Please consult the developer portal to find your appropriate runtime URL for other datacenters.)

Workflow

1. The client application requests the status of all replications in a site, specifying the realm name corresponding to the site.
 - Sample GET URL: <https://openapi.riba.com/api/replication/v1/prod/statuses?realm=mytestrealm>
2. The client application requests the status of specific replications, specifying the filter criteria in the OData format.
 - Sample GET URL: [https://openapi.riba.com/api/replication/v1/prod/statuses?realm=mytestrealm&\\$filter=replicationComplete eq true and replicationStatus eq replicationComplete](https://openapi.riba.com/api/replication/v1/prod/statuses?realm=mytestrealm&$filter=replicationComplete eq true and replicationStatus eq replicationComplete)
3. Optional. The client application requests a list of all subscriptions (data objects configured for replication) for a site, specifying the realm name corresponding to the site.
 - Sample GET URL: <https://openapi.riba.com/api/replication/v1/prod/subscriptions>

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Detailed feature information – Endpoints

1. **GET/statuses** – provides output of Replication Status for a realm. Use optional \$filter parameter to drill down on report. Status codes for this endpoint can be found below:

Status code	Description
INFO	This indicates a normal replication run.
WARN	This indicates non-fatal errors occurred during the replication runtime.
ERROR	This indicates that runtime exceptions occurred during the replication runtime. It is possible to recover from these errors and the replication thread will not go to DEAD state
FATAL	This indicates that runtime exceptions or out-of-date exceptions occurred during the replication runtime. The replication thread retries for a predefined number of times (the default value is 5), after which it goes to the DEAD state.
DEAD	This indicates that the replication thread has been stopped after several fatal errors. No more retries are possible.

2. **GET/subscriptions** – provides a list of the objects that are being replicated from a parent to child site.
 - Examples of subscriptions that a customer would receive as the output include, but are not limited to:
 - Common Supplier
 - Parameters
 - Enumerations
 - Parameters

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Detailed feature information – Query Parameters and Endpoints

Query Parameters

1. **realm** – used in most SAP Ariba APIs to identify the realm from which the replication data is being pulled.
2. **filter** – filters for this API include: **replicationObject**, **replicationComplete**, **replicationStatus**, **subscriptionReplicationDate**, and **processing**.

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Detailed feature information – Statuses Sample Output

```
2      "realmName": "Canonical Realm: mytestrealm",
3      "totalSubscriptions": 3,
4      "totalReplicationsReported": 3,
5      "replications": [
6        {
7          "displayName": "Permission",
8          "replicationObject": "ariba.user.core.Permission",
9          "replicationStatus": "INFO",
10         "processing": false,
11         "replicationDuration": 0,
12         "subscriptionMode": 0,
13         "replicationIssueDate": "Thu Jan 01 05:30:00 IST 1970",
14         "replicationTimeCreated": "Thu Dec 12 18:06:28 IST 2019",
15         "replItemsProcessed": 0,
16         "replItemsCreated": 0,
17         "replItemsUpdated": 0,
18         "replItemsSkipped": 0,
19         "replItemsFailed": 0,
20         "replItemsWarn": 0,
21         "replItemsErrorStatus": 0,
22         "replItemsFatalCount": 0,
23         "subscriptionReplicationDate": "Mon Nov 11 11:12:51 IST 2019",
24         "subscriptionNextDate": "Sun Aug 17 12:42:55 IST 292278994",
25         "subscriptionStatus": "SUBSCRIBED",
```

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Detailed feature information – Subscriptions Sample Output

```
1  {
2    "realmName": "Canonical Realm: mytestrealm",
3    "count": 6,
4    "value": [
5      {
6        "displayName": "Parameters",
7        "replicationObject": "InheritedParameters"
8      },
9      {
10       "displayName": "CommodityCode",
11       "replicationObject": "ariba.basic.core.CommodityCode"
12     },
13     {
14       "displayName": "PaymentProvider",
15       "replicationObject": "ariba.payment.core.PaymentProvider"
16     },
17     {
18       "displayName": "Common Supplier",
19       "replicationObject": "ariba.common.core.CommonSupplier"
20     },
21     {
22       "displayName": "Expense Policy Type",
23       "replicationObject": "ariba.expense.core.ExpensePolicyType"
24     },
25   ]
26 }
```

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Potential Use-Cases

- Customers will find the Data Replication Status is helpful in planning data loads into their child realms. Once a customer understands that replication has completed successfully from parent to child, they can begin loading necessary data directly into their child realm.
- Should a customer attempt to automate these loads, they can program their systems to take different actions depending on the response to the /statuses endpoint. This ensures that data is loaded and ready for use as quickly as possible with little human intervention.

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SAP Ariba Extensibility Community

- Have questions about an API? The below link provides a forum for customers, partners, and SAP Ariba to:
 - Discuss potential use cases
 - Idea share
 - Ask and answer questions
 - View documentation on SAP Ariba APIs (as well as other extensibility features)
 - View and listen to videos and podcasts about SAP Ariba extensibility (APIs)
 - Find out more information on becoming an SAP Ariba Partner
 - Find out more about what types of extension applications partners are offering today
- <https://community.sap.com/topics/ariba-extensibility>