

Clover Bulk

Last Modified on 01/30/2019 6:05 pm EST

Bulk provides an option to upload a large number of resources, such as contacts, to a service provider all at once. You can use bulk to download a csv or json file from a large number of records or upload a csv or json file to add multiple records. See [Using Bulk](#) for more information on managing bulk.

Note: SAP Cloud Platform Open Connectors leverages the native provider bulk endpoints whenever available. When there is no bulk available from the provider, SAP Cloud Platform Open Connectors provides a bulk service for uploading and downloading data from the endpoint. See [Bulk Details](#) for the type of bulk used.

Bulk Details

Bulk Information	Details
Bulk Type	SAP Cloud Platform Open Connectors bulk service and not native bulk endpoints. Rate limits come into play when using the SAP Cloud Platform Open Connectors bulk service, so review the limitations in the API provider's documentation .
Upsert Support	No
Field Selection Support	No. To limit the fields returned by the query, you must use a transformation . For example, you can use only <code>select *</code> for this connector.
Order By Support	No

Hash Verification

If you configured the **Callback Notification Signature Key** (`event.notification.signature.key`) when you authenticated a connector instance, the bulk APIs will use the signature key to provide hash verification in the header of bulk jobs. For more on SAP Cloud Platform Open Connectors Hash Verification, see [Event Management: Security](#).

