## ServiceNow OAuth Bulk

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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.

**10** Note: SAP Open Connectors leverages the native provider bulk endpoints whenever available. When there is no bulk available from the provider, SAP 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 Open Connectors bulk service and not native bulk endpoints. Rate limits come into play when using the SAP 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. See Define Common Resources and Transformations. For example, you can use only select * for this connector.
Order By Support	Yes (except /catalog-items)

## **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 information, see Hash Verification.