

ExpenseConnect for Business Central User Instructions
Wipfli, LLP







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Overview

ExpenseConnect is an integration application that integrates expense reports from Concur into Business Central. With ExpenseConnect, companies using both Concur and Business Central can account for payments in the Business Central General Ledger or Purchasing areas. ExpenseConnect reports can come directly from Concur without any user intervention using the Concur Application Programming Interface (API) option. The API option is the easiest and most common method of integration. Refer to this document for the installation, usage, and definitions of ExpenseConnect.

Permissions

Concur

Permissions in Concur are listed and described when authorizing ExpenseConnect in the Concur App Center.

Business Central

The Business Central user needs permission to create a Purchase Invoice or a General Ledger Journal Transaction in accordance with the selected Business Central destination(s). The user also needs permission to interact with the ExpenseConnect extension tables and pages, and to have enabled Web Service Access so that ExpenseConnect can send API requests to Microsoft's Business Central API for the client's tenant environment.

<u>Create a Web Service Access key for an ExpenseConnect User</u>

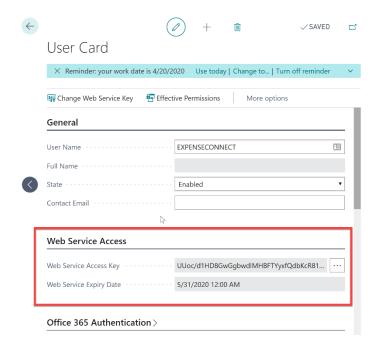
Open the User Card for a user with the necessary permissions, and under the "Web Service Access" header, ensure that there is an access key present. If there is not a key present, one can be generated by clicking the ellipsis menu to the right of the field.

This web services key will need to be updated in the ExpenseConnect Setup page each time it expires and has to be refreshed, but otherwise the expiration date does not affect ExpenseConnect functionality.



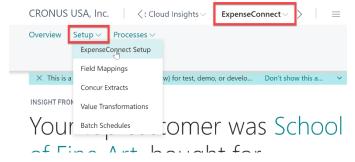




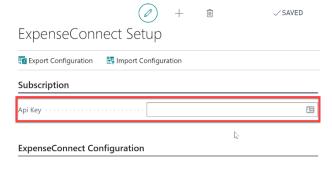


Installation and Usage (Concur API)

- 1. Install the ExpenseConnect extension via the installation URL provided by Wipfli.
- 2. Navigate to ExpenseConnect → Setup



a. Under the Subscription heading, copy and paste the API key provided by Wipfli









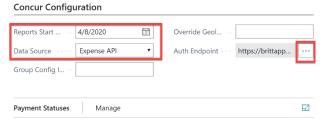
b. Then copy and paste both the User Name and Web Services key to the appropriate fields under the ExpenseConnect Configuration heading



c. Choose a destination for integrating Concur reports



- i. Purchase Invoice
- ii. General Ledger: if expenses are paid in Concur via Concur pay or are paid by another payment service
- 3. Under the Concur Configuration heading

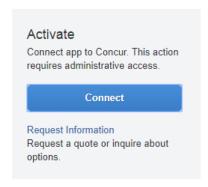


- a. Set the start date earlier than one or more expense reports to be pulled from Concur if you are creating a new test report right now, then set the start date to today
- b. Select Expense API as the Data Source
- c. Then to the right of the Auth Endpoint field, click on the ellipsis. This will launch a new tab that takes you to a listing for Wipfli ExpenseConnect in the Concur App Center
- 4. Connecting to ExpenseConnect in the Concur App Center
 - a. Click on the large blue Connect button to begin the connection process

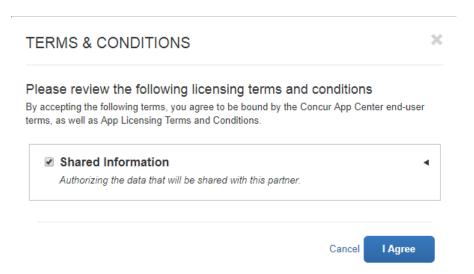




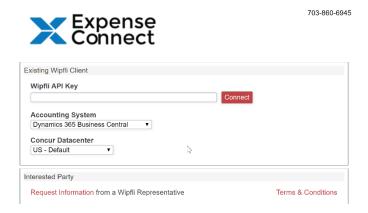




b. Authorize ExpenseConnect in the Terms & Conditions pop-up



c. From there, a new window will pop-up, taking you to a Wipfli Landing page where you will finalize the connection with Concur









d. Copy/Paste your Wipfli API Key into the text field



e. Choose "Business Central" from the Accounting System list



f. Change the Concur Datacenter if necessary



g. Click Connect

After getting a message that you've successfully authenticated, you can close the landing page window. You have connected ExpenseConnect with Concur

Successfully authenticated with Concur with geolocation 'https://us.api.concursolutions.com'

- ** If you get an error message, you may need to try a different datacenter. This will happen for implementation or EMEA clients.
- 5. Navigate back to Business Central and the ExpenseConnect Setup page to import field mappings and value transformations
 - a. Click on Import Configuration at the top of the page



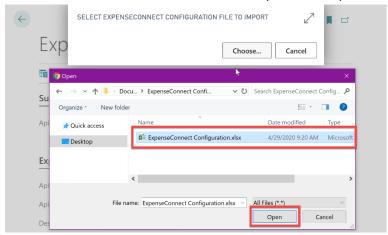
b. Click Choose and browse to the ExpenseConnect Configuration Excel spreadsheet provided by Wipfli



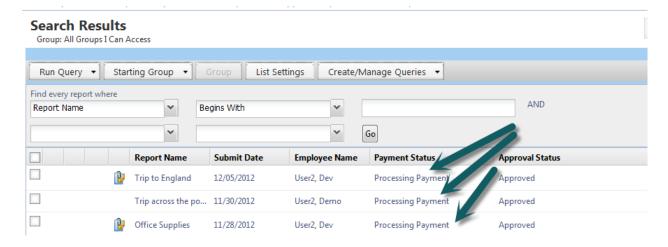




c. ExpenseConnect will import the provided configuration – including both field mappings and value transformations – without any further steps necessary from the user



d. In Concur, verify that there is at least one report with a Payment Status of Processing Payment, or create and approve a new report for testing



6. To test your configuration – Return to Business Central and navigate to ExpenseConnect -> Processes -> Batches



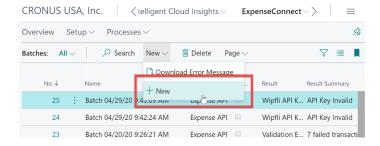
Your top customer was



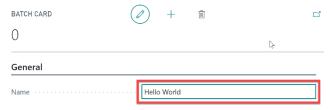




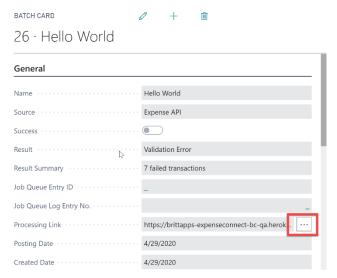
a. Then select New -> New from the menu



b. Give the batch a name and press Enter



c. Click the ellipsis to the right of the Processing Link field to check the batch's progress



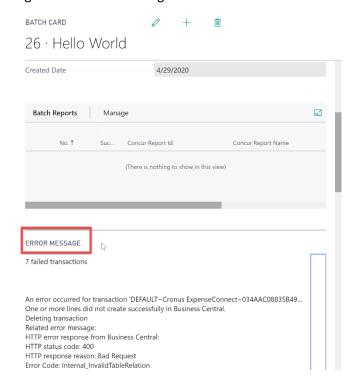
d. When the batch is complete, the Batch card page in Business Central will be updated (may require a manual refresh to view the updated batch info)







e. If there are any errors, more detailed information can be found by scrolling down the page to the Error Message area, and this file can be saved by clicking the ellipsis to the right of the error message and then viewed in an external text editor if necessary



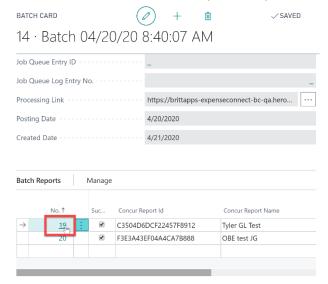
- f. Fixing errors may require changes in Business Central, Concur, or both. A new batch can be created to test the changes you've made. Typical errors are:
 - i. An employee in Concur is not set up as a vendor in Business Central, or the vendorName or vendorNumber field are not correctly mapped.
 - ii. A General Ledger Account in Concur is not present in Business Central or the AccountNumber field is not correctly mapped



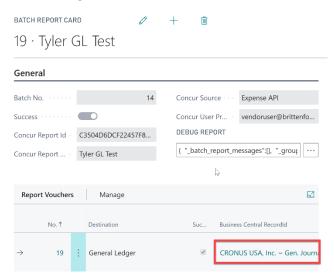




- g. To view any successfully integrated Concur Reports:
 - i. View the Batch card page scroll down to the Batch Reports area and click on the number to view details about a specific Report



- ii. On the Batch Report card page, there is a list of Report Vouchers. Each one corresponds to a transaction created in Business Central
- iii. Click on the Business Central RecordId for a transaction to see the record in the General Ledger or Purchase Invoice areas

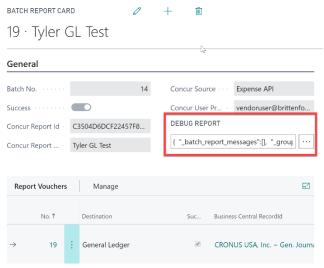








h. Additional details about the transaction for troubleshooting errors can be opened by clicking the ellipsis next to the Debug Report field



- 7. After the integration is working, return to the ExpenseConnect Setup page to review options for controlling the integration with Concur. Change these as needed.
 - a. Start Date
 - i. Only reports modified on or after this date integrate into Business Central
 - b. Concur Payment Statuses
 - i. Choose one or more Concur Payment Status(es) to be imported into Business Central
 - ii. If left blank, ExpenseConnect will default to pulling reports with Processing status
 - iii. Select Paid/Extracted for Payment if paying expenses via Concur's Expense pay before integrating expenses into Business Central

ExpenseConnect Security

The token used to access the Concur API is stored internally and all programmatic requests between Concur and Business Central are encrypted (HTTPS), so the token is never seen nor handled as plain text.

All Business Central API requests use the API Web Services key saved in ExpenseConnect Setup. The API Web Services key is sent encrypted (HTTPS) with each batch request and is not stored by Wipfli after the batch has completed. This key can be changed at any time on the User card page and/or set to expire periodically if desired. If/when the Web Services key changes, it must be manually copied to the ExpenseConnect Setup page before integrations can continue.







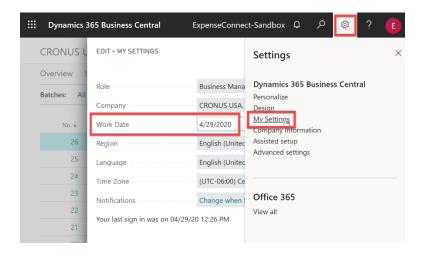
ExpenseConnect Features

Batches

Batches store a log of the integrations performed between Concur and Business Central along with a list of all the Concur reports integrated and all of the transactions created in Business Central. During production, it is important not to delete Batches from ExpenseConnect because ExpenseConnect uses existing Batches in two ways:

- 1. ExpenseConnect uses the CreatedAt Date of the last fully successful Batch as the Start Date of the next Batch. Consider a Batch fully successful only if all reports successfully integrate.
- 2. ExpenseConnect prevents duplicate integrations by checking the existing Batch Report lists before integrating a report.

When creating a Batch, ExpenseConnect uses the User's Work Date setting as the Posting Date for all transactions created in Business Central. This can be changed by clicking on the settings gear icon in the top right, selecting My Settings, and then editing the Work Date field.



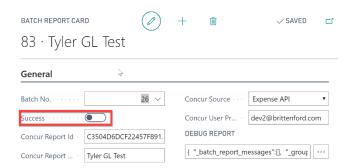
By changing their Work Date, a user changes the Posting Date for reports integrated into Business Central. For example, consider the scenario where reports need imported on the last day of the month, but the last day of the month falls on a Sunday. The user can run ExpenseConnect when they return to work on Monday, but have the reports imported with Sunday as the Posting Date by changing the Work Date to Sunday's date.







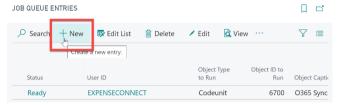
If a specific Concur expense report will not integrate, the user can prevent ExpenseConnect from continuing to try to integrate that report by enabling the "Success" toggle for that report. However, in a production environment, it is best to find first the root cause of a report not integrating before choosing to skip reports.



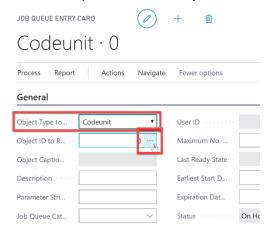
Scheduling Batches

Batches run on-demand by creating a new Batch record, but it is also possible to schedule batches using Business Central's regular Job Queue feature. Create a Job Queue Entry record and a new Batch will run at the scheduled time(s).

1. From the Job Queue Entries List Page, click New



- 2. Choose "CodeUnit" as the Object Type to Run
- 3. Click the ellipsis next to the Object ID to Run field









- 4. Type "Wipfli" into the search box at the top of the screen
- 5. Scroll down if necessary to find the record with the Object Caption "WipfliECCreateBatchJobQueue" and then click the ID number to the left.



	ID T	Object Caption
	70398533	WipfliECAppSettings
	70398534	WipfliECAppLibrary
	70398535	WipfliE CAPI Field Name Look up Meth
	70398540	WipfliECGet Voucher Filter Meth
	70398541	WipfliECV ouchers From JSON Meth
	70398542	WipfliECVouchersToJSONMeth
	70398550	WipfliECCreateBatchMeth
\rightarrow \triangleright	70398551	: WipfliECCreateBatchJobQueue
	70398552	WipfliECCreateBatchRoleCenter
	70398553	WipfliECShowBatchScheduleMeth

6. Back on the Job Queue Entry card page, select an Earliest Start Date and an Expiration Date, and set Recurrence options

Setting up Field Mapping

Setting up a company's field mapping between Concur and Business Central is often the most difficult part of an ExpenseConnect setup. A couple of steps ease the process.

- In Concur, isolating only one report into the Processing Payment status allows test batches to run a lot faster.
- Start a manual transaction of the chosen ExpenseConnect Destination. Identify the needed mappings by documenting all of the fields and dimensions available and all the required fields.

Payment Statuses

It is possible to configure ExpenseConnect to integrate reports from four different Concur payment statuses:

- Processing Payment
- Paid / Extracted for Payment
- Holding Payment
- Payment Confirmed





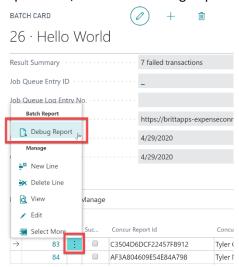


With the box selected for one of these statuses in the Product Subscription record, ExpenseConnect integrates all of the reports transferred to that status in Concur on or after the date of the last fully successful batch.

Debugging validation errors

Sometimes Concur expense reports fail to integrate because the data imported into Business Central is invalid. It is important to know how to debug those validation issues. The first step is to identify which report caused the error.

- 1. First, check the Batch-level Error Message file for error messages. Sometimes this is enough information to correct the mapping
- 2. If more information is needed, click the three-dots button on one of the unsuccessful batch report lines, and select "Debug Report" from the pop-up menu



- 3. This will save a JSON file that can be opened in any text editor. The file thoroughly documents the "environment" (settings, field mappings, value transformations) for each batch report, the Concur Expense Report, the transaction(s) ExpenseConnect attempted to create in Business Central, and any associated errors or transaction messages.
- 4. Once the issue has been identified and fixed in either Business Central or Concur, then start a new batch to test the changes.

General Ledger

Choose this integration option if the company pays expenses in Concur would also like records of the transactions in Business Central. Approved expenses from Concur integrate into the Business Central General Ledger Journal specified by the Field Mapping configuration.







Purchase Invoices

This destination allows employee expense reports from Concur to be integrated into Business Central's Purchase Invoice area with employees mapped as the Vendors on each Purchase Invoice. This can then be processed and posted like any other Purchase Invoice.

Transaction Splitting

While integrating expense reports into Business Central, reports can be split into different Business Central transactions, or in some cases multiple reports can be consolidated into a single transaction.

This behavior is controlled by the "Voucher Group by" toggles for individual field mappings.



By default, ExpenseConnect only splits transactions by journalCode (for GL transactions) and companyName. Users should almost always enable one or more other Field Mapping "Voucher Group By" toggles in order to appropriately group expense reports into multiple transactions.

Typically, this would be something like the Concur ReportID mapped as the documentNumber or vendorInvoiceNumber with "Voucher Group by" enabled, and each Concur expense report would be created as a separate Business Central transaction.

Field Mapping

Values in Concur map to fields in Business Central via entries in the ExpenseConnect Field Mappings list. There are a few rules to follow when mapping fields.

- Complete field mappings by the most to least granular fields in the Concur Response. The exact order is:
 - JournalEntry
 - Allocation
 - Itemization
 - ExpenseEntry
 - CardTransaction
 - UserProfile
 - ReportOwner
 - o ReportDetails







SAE File notes:

- If using the SAE file, fields in the Employee Data or Report Data sections map using the ordinal number of the SAE field (e.g. ReportId is 19).
- Using the Concur SAE File, Concur fields map by entering the fieldname ordinal from the SAE File definition document into the Concur Fieldname field. Example: 19

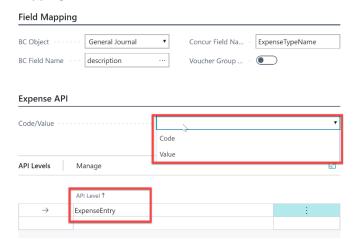
Expense API notes:

Using the Concur Expense API, Concur fields map by entering the exact (case-sensitive)
 fieldname into the Concur Fieldname field. Example: ReportName

General Notes:

- Map Literal values by enclosing them with single or double quotes. Example: 'AP'
- Fields concatenate together by delimiting them with an ampersand or comma. Using a comma places a space between the fields whereas using an ampersand does not include a space.
 - Example: ExpenseTypeName,Amount (produces: Lunch 15.46)
 - Example: 'EC-'&ReportKey (produces: EC-2883)
- It is possible to map a value from a specific level(s) of the Concur API response. This is sometimes necessary if, for example, the field Custom1 contains projected values in the ExpenseEntry section but departmentid values in the Allocation section. If projected values need mapping, edit the mapping record by selecting the "Concur API" tab and selecting the appropriate API level(s).

In addition, some sections of the Concur response contain a Code/Value pair. The Code / Value radiobutton choice allows a choice between the values to map. The "Code" value is the default mapping. See the screenshot below:









- Custom fields in Concur are not just straight values. They are XML elements, which have subelements of "Code" and "Value". When mapping to a Custom field, ExpenseConnect first pulls from the "Code" sub-element if it exists, otherwise it pulls from the "Value" sub-element. It is possible to configure the Field Mapping to pull from the "Value" sub-element even if a "Code" sub-element exists. See above.
- It is also possible to map conditionals. In the example below, ExpenseConnect first finds the value of the Concur field PayeePaymentTypeName. If that value is "Employee", it returns the value of the Concur field ExpenseTypeName, otherwise it returns the literal value 'Other'. In this example, 'Other' is the default value because it has a blank conditional check. As many conditionals as needed can be used. The pipe character (|) divides up the conditionals. A colon character (:) separates each conditional check with the conditional result. A question mark character (?) tells ExpenseConnect to treat the text as a conditional expression.

PayeePaymentTypeName?Employee:ExpenseTypeName|:'Other' It is also possible to nest conditions by using parenthesis such as this:

PayeePaymentTypeCode?CBCP: '1517' |: (OrgUnit1?US~UK: '1010' |: '2010') It is also possible to concatenate conditional results by using parenthesis such as this:

PayeePaymentTypeCode?1000:'American

Express'|:(PayeePaymentTypeCode, 'Unknown'), 'Card'

The above conditional results in one of the following lines:

American Express Card 1001 Unknown Card

The tilde character (~) delimits multiple conditional checks. In the above case, '1010' is the return if OrgUnit1 is either "US" or "UK". Otherwise, '2010' is the return.

As a conditional check, the underscore character can be used for not found values:

Custom1? :'00'|:Custom1

In the above case, if Custom1 is blank or not found in the Concur data, '00' is the return.

Otherwise, the value from Custom1 is the return.

It is also possible to do simple math operations if both sides resolve to a number:

TransactionAmount*'1.05'

The TransactionAmount multiplies by 1.05.

• It is also possible to map more than one Concur field to a single Business Central field to place priority over Concur values.

Find the possible values to map from Concur under the "Response" header at the following link: https://developer.concur.com/api-reference-deprecated/version-two/expense-reports/expense-report-get.html

Review the exact Concur API response by opening up the "Concur Report Details" text file on the Batch Reports line.







Automatic Mapping

Almost all the mapping between Concur values and Business Central fields happens as a Field Mapping entry. However, some mappings happen automatically.

PostingDate from the User's Business Central Work Date

Value Transformations

Not all values map over from Concur to Business Central without some transformation.

Value Transformations

There is a configuration section in ExpenseConnect that allows the transformation of mapped values before they are created in Business Central. For example, if there is an old project ID on a report, it can be transformed to the current project ID upon import.

If the transformation involves meta-data stored in Concur, it is best to make the corrections to the Concur list to prevent the issue from happening in the future.

To transform a value based on *more than one* condition, edit the Value Transformation record and click on "Show more" to the right of the Source Field header



Selecting Text Value checkbox returns the exact Transformation Value if found. For example, 0009 returns as 0009 and not as 9. Avoid selecting the Text Value checkbox unless needed.

Automatic Transformations

Some fields may be truncated to the maximum allowable lengths in Business Central

Purchase Invoice

The correct Business Central vendorId is identified based on the vendorName mapping

General Ledger

The correct Business Central accountId is translated from the accountNumber mapping







Report Images

ExpenseConnect can pull Expense Report receipt images from Concur and upload these files to Business Central as Incoming Document Files attached to the corresponding Purchase Invoice or General Ledger records.

To enable this functionality, go to the ExpenseConnect Setup page and enable "Get Receipt Images"



Advanced Settings

There are additional settings in the ExpenseConnect Setup page under the ExpenseConnect Configuration header



Successful Batch Email

Selecting the Successful Batch Email checkbox sends the user an email after every successful Batch completed. An email sends whenever a Batch is unsuccessful regardless of the checkbox status.

GL Expand Credits

The Expand Credits setting only applies to the General Ledger destination. When selected it indicates that for every debit line created, there is a corresponding credit entry created. Leaving it unchecked is the default behavior in which the program summarizes with only one credit line per transaction (transactions are split according to the Field Mapping "Voucher Group By" settings)

Force Duplicate Transactions

This is not available in Production tenant environments

Skipped Expense Entries

ExpenseConnect skips integrating expense entries for the following reasons:

a. The mapped amount to the Business Central amount field is blank or zero. ExpenseConnect does not integrate zero amount line items.







Common Issues

A few common issues can impair implementations of ExpenseConnect. See below some of the most common issues Wipfli has come across.

• Concur metadata stamping:

Problem: Concur grabs and caches some pieces of metadata as soon as possible. For example, upon creating a report, the AcccountCode associated with an item on that report saves with that report at that time. When ExpenseConnect pulls in that report, it pulls in the AccountCode saved at that time and not the most up-to-date AccountCode from the Concur Setup or Administration section.

Workaround: Use a Value Transformation to change the incorrect value to a correct one.

• Concur custom field locations:

Problem: Sometimes a Concur custom field has a different name in different sections of the API response. For example, Custom1 may be departments in ReportDetails and projects in Allocations. Whereas Custom3 is used for departments in Allocations.

Workaround: Explicitly map the Allocations version first. Then explicitly map the ReportDetails one second. The system uses the first one if it finds a value then check the second mapping if it does not have a value.

Batch Successful not being checked:

Problem: The client never gets a completely successful batch because of one or two problem reports causing validation issues.

Workaround: In an existing batch, edit the problem reports, and enable the "Success" toggle. ExpenseConnect skips over them in all future batches. It is important to employ the workaround to this problem as it may affect the performance of ExpenseConnect for all clients.

Current Limitations

The sections below explain the current limitations of ExpenseConnect

Marking integrated reports as "Paid" in Concur

The Concur API does not allow ExpenseConnect to update the status of reports as "Paid" in Concur.

ThinkPad	11/28/2012	User2, Dev	Processing Payment 🦱	Approved
Work Day	11/27/2012	User2, Dev	Extracted for Payment 🥠	Approved

The Processing Payment status does not become the Extracted for Payment status on any report without modifying it directly in Concur. There are some workarounds and a recommendation for this issue.







- Workaround 1: After successfully integrating reports without receiving ANY error messages, in Concur, manually update the statuses of each report to "Extracted for Payment" by opening each report and clicking on "Manual Pay".
- Workaround 2: After successfully integrating reports without receiving **ANY** error messages, use Concur Payment Manager to run an extract batch, which marks all reports as paid in Concur.
- Workaround 3: Keep the weekly process that generates the SAE file. The report payment status automatically changes to "Extracted for Payment" even if they did not successfully integrate. If needed, ExpenseConnect can pull already extracted reports by editing the subscription to include the Paid / Extracted for Payment as a Payment Status. (ExpenseConnect → Product Subscription → Concur).
- Workaround 4: Use the Concur SAE file as the source

Cash Advances

The Concur API does not give enough information to parse out properly the amount owed to individuals with the use of Cash Advances.

This problem also applies to any Balance Carry Forward balances employees currently have.

Integration by Reimbursement Type

There is not currently functionality to integrate reports by Reimbursement Type. All reports must go into a destination (or destinations) as a predetermined choice.

Wipfli Support

For Wipfli support with ExpenseConnect, please create a support ticket using the Wipfli Service Center Portal. Your account information will be provided to you from your Wipfli implementation team at once you are fully implemented.

Once in the Wipfli Digital Portal, you can view, submit, and manage your cases via Support Case Management. You will also notice a Knowledge Base Search section you can use to search for previously discovered topics and resolutions.





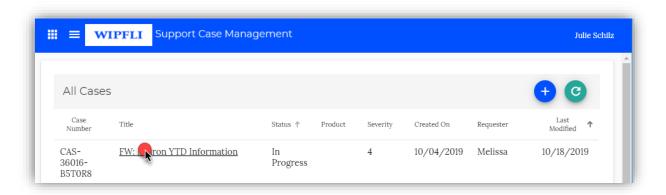




In **Support Case Management**, view your Cases or "All Cases" for your Company.

- Sort your list by clicking on any column header.
- Create new cases by using the blue add button at the right.
- Drill into an existing case by clicking the hyperlinked title.





In the case, view updates and attachments from the Owner of your case on the right-hand side of the screen.

Messages •

No Messages found

You can also use the Message section on the right for direct communication.

