Oracle Fusion Cloud Financials

Configure Embedded Banking Services

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1 Embedded Banking Services

About this Playbook

This playbook is for the Oracle Fusion technical implementation team and financials subject matter experts (SMEs).

You must be familiar with standard configuration for payments, receipts, and bank statements.

Use this playbook to configure Oracle Embedded Banking Services for standard use cases. The playbook includes a solution overview, configuration steps, and recommended best practices. Your organization can adjust the banking setup as needed for specific business requirements. Test the integration where relevant before going live.

The implementation workbook provides information about the recommended field settings and user-defined values:

- *J.P. Morgan implementation workbook*
- *Bank of America implementation workbook*

Overview of Embedded Banking Services

Embedded Banking Services provides integration between Oracle Cloud ERP and participating banks to support a wide range of banking and payment services.

The integration leverages prebuilt connectivity and bank-specific configurations. Supported services vary by bank. The Banking Configurations functional area may support enabling these business flows:

- Banks and Bank Accounts
- Funds Disbursement
- Funds Capture
- Bank Statement Processing

Note: Oracle Cloud HCM and Payroll aren't included in this integrated solution.

Banks and Bank Accounts

The Banks and Bank Accounts business flow provides capabilities specific to each supported bank.

J.P. Morgan

- Establishes a secure connection between Oracle Cloud ERP and participating banks.
- Creates banks, bank branches, and bank accounts for supported banks.
- Supports self-managed bank accounts, including accounts created manually or through file-based uploads.

PNC

- Establishes a secure connection between Oracle Cloud ERP and participating banks.
- Supports bank account creation using a turnkey implementation spreadsheet specifically designed for PNC.
- Creates bank account reconciliation rules and transaction creation rules automatically and assigns them to the bank accounts.

Bank of America

- Establishes a secure connection between Oracle Cloud ERP and participating banks.
- Supports self-managed bank accounts and reconciliation rules.

Funds Disbursement

Accounts Payable supports these payment features in select regions. Regions with CBPR+ payment formats that aren't predefined or tested may require additional configuration of the CBPR+ payment template.

J.P. Morgan

- **ACH, Wire and Outsourced Check Printing**: Uses CBPR+ ISO 20022 CGI payment formats to support:
  - ACH and wire payments to supported countries
  - Outsourced check printing for the United States and Canada
- **SEPA**: Supports EUR payments within the Single Euro Payments Area (SEPA) zone using the CBPR+ SEPA payment format, where relevant.
- **Acknowledgments**: Automates the retrieval and processing of acknowledgment files generated by the bank. Users receive notifications for successful or failed processes, enabling timely corrective action. This varies by bank.
- **Positive Pay**: Generates XML-based positive pay files for in-house printed accounts payable checks. This varies by bank.

PNC

- **ACH, Wire and Outsourced Check Printing**: Uses CBPR+ ISO 20022 CGI payment formats to support:
  - ACH and wire payments to US and international payments to 55 countries
  - Outsourced check printing for the United States
- **Acknowledgments**: Automatically retrieves and processes acknowledgment files and voids rejected payments. Users receive notifications for successful or failed processes, enabling timely corrective action.
- **Positive Pay**: Generates XML-based positive pay files for in-house printed accounts payable checks.

Bank of America

- **ACH, Wire and Outsourced Check Printing**: Uses CBPR+ ISO 20022 CGI payment formats to support:
  - ACH and wire payments to supported countries
  - Outsourced check printing for the United States and Canada
- **SEPA**: Supports EUR payments within the Single Euro Payments Area (SEPA) zone using the CBPR+ SEPA payment format, where relevant.

- **Acknowledgments**: Automates the retrieval and processing of acknowledgment files generated by the bank. Users receive notifications for successful or failed processes, enabling timely corrective action. This varies by bank.

Funds Capture

These features are supported in Accounts Receivable:

J.P. Morgan

- **Lockbox**: Processes intraday lockbox files with customer payments.
- **Direct Debit**: Uses the ISO 20022 CGI standard for ACH direct debits in the United States and Canada. This varies by bank.
- **Acknowledgments**: Automates the retrieval and processing of acknowledgment files. This varies by bank.

PNC

- **Lockbox**: Provides preconfigured setup for lockbox processing and automatic processing of the BAI2 format for lockbox.

Bank of America

- **Lockbox**: Processes intraday lockbox files with customer payments.

Bank Statement Processing

These features are supported in Cash Management:

J.P. Morgan

- Uses the ISO 20022 CAMT.053 standard to retrieve and process prior-day bank statements.
- Automatically voids and unreconciles rejected payments.
- Automatically sends notifications.
- Retrieves bank account balances on demand through Real-Time Account Balance APIs.

PNC

- Uses the ISO 20022 CAMT.053 standard to retrieve and process prior-day bank statements.
- Supports intraday reporting through the CAMT.052 format.
- Automatically retrieves and processes bank statements with exception handling.

Bank of America

- Uses the ISO 20022 CAMT.053 standard to retrieve and process prior-day bank statements.

Embedded Banking Features Supported by Participating Banks

Supported Embedded Banking features vary by participating bank, as noted below.

	J.P. Morgan	PNC	Bank of America
Connectivity	Yes	Yes	Yes
Funds Disbursement	• US/Canada: ACH, Wire, Outsourced Check Printing • Eurozone + UK (EUR only): SEPA • All other countries - contact bank	• US/Canada: ACH, Wire • US: Outsourced Check Printing • All other countries - support for payment to 55 countries from US	• US/Canada: ACH, Wire, Outsourced Check Printing • Eurozone + UK (EUR only): SEPA • All other countries - contact bank
Funds Disbursement - Positive Pay	Yes	Yes	
Funds Capture - Lockbox	Yes	Yes	Yes
Funds Capture - Direct Debit	Yes		
Bank Statement Processing	Yes	Yes	Yes
Real-Time Balance	Yes		

Prerequisites for Setting Up Embedded Banking Services

Complete these steps before you enable Embedded Banking Services.

1. Contact your bank's sales or relationship manager to begin the onboarding process. Provide your Oracle Fusion POD ID. Contact the bank to use Embedded Banking Services to connect to Oracle Fusion Cloud ERP, complete the required paperwork, and work with the bank's implementation manager.
2. Ensure that all required bank accounts are established and configured for the relevant banking services.
3. Obtain confirmation from the bank that you're ready to enable connectivity in Oracle Fusion.
4. Obtain the implementation workbook used to configure the required predefined data, if relevant:

   J.P. Morgan implementation workbook

   Bank of America implementation workbook
5. If you plan to setup new lockbox, you must enter the required account code combinations in the specified fields of the Default Accounting for Lockbox Receipts section in the Cash Processing tabbed region of the Receivables

System Options page for each applicable business unit. This allows the onboarding process to automatically create the required setup for the new lockbox.

Implement Embedded Banking Services for J.P. Morgan

To implement Embedded Banking Services in your Oracle Fusion environment, complete these activities:

- Establish secure connectivity between Oracle Cloud ERP and J.P. Morgan.
- Configure banks and bank accounts.
- Configure funds disbursement.
- Configure funds capture.
- Configure bank statement processing.
- Configure real-time bank balance.

Note: In this playbook, J.P. Morgan is also referred to as the bank.

Establish Connectivity Between Oracle Cloud ERP and the Bank

Follow these steps to establish connectivity between Oracle Cloud ERP and the bank.

- Legal Entity Match (for banks that use an onboarding file)
- Manage the Banking Configuration
- View Configurations
- Configure Banks and Bank Accounts

Legal Entity Matching for J.P. Morgan

As part of the banks and bank accounts configuration process, Oracle Cloud ERP can automatically create bank and bank account records using information provided by the bank.

To ensure successful bank account creation, the legal entity names configured in Oracle Cloud ERP must match the legal entity names provided by the bank and documented in the approved Statement of Work (SOW).

If a legal entity name in Oracle Cloud ERP differs from the name provided by the bank, add the bank-provided legal entity name as an additional legal name in the organization profile.

Add an Additional Legal Entity Name

The bank provides legal entity names in the bank onboarding XML file. Use these steps to map those names to the corresponding legal entities in Oracle Cloud ERP.

1. Go to: **Navigator** > **Customer Data Management** > **Organizations**.
2. Search for and select the organization associated with the legal entity.
3. On the **Edit Organization Profile** page, expand **Additional Names**.
4. Select **Add (+)**.

5. In the Additional Name Type drop-down list, select **Legal Name**.
6. Enter the legal entity name exactly as it appears in the approved SOW and bank onboarding XML file.
7. Select **Save and Close**.

Results:

If there's a legal entity mismatch, Oracle Cloud ERP uses the additional legal name to map the bank account to the correct legal entity.

Manage the Banking Configuration

After completing the required setup, enable Embedded Banking Services to establish connectivity with the bank.

Use the **Manage Banking Configurations for J.P. Morgan** task to select the business flows to enable. Oracle Cloud ERP connects and exchanges security keys and setup data with the bank to enable the selected flows. This process can take up to 48 hours. You receive a notification when all business flows are enabled.

To enable connectivity between the bank and Oracle Cloud ERP:

1. Sign in with the **Financial Application Administrator** role. If you use a custom role, add the Manage Banking Configurations privilege.
2. Go to the Setup and Maintenance work area and select the Financials offering.
3. Select the Banking Configurations functional area and then select **Manage Embedded Banking Configurations.**
4. Select your bank from the bank list. On the Manage Embedded Banking Configurations page, select the business flows to enable and select **Next**. The business flows you enable must match the approved Statement of Work (SOW) with the bank.
5. When connectivity is established, the status of each business flow changes from **In Progress** to **Completed**. You receive a notification when onboarding is complete.
6. Select **View Configurations** on the Manage Embedded Banking Configurations page to review the preconfigured setup and any pending setup.
7. If you configure your own banks and bank accounts, or if accounts already exist in Oracle Cloud ERP, enter the **Bank Company Identifier (ACH Company ID)** in Manage Bank Accounts after the status changes to Completed. If you use the bank's integration, this value is populated automatically. The bank provides the ACH company ID for each account.

View Configurations

These tasks are preconfigured for each business flow.

Use of the predefined configuration is optional. You're responsible for any modifications to the predefined configuration and any additional setup required for your implementation.

J.P. Morgan Configurations

Flow	Preconfigured Task	Predefined Value
Banks and Bank Accounts	Manage Payment Systems	JPM Payment System
Funds Disbursement	Manage Payment Methods	• JPM EFT Payment Method • JPM Paper Payment Method
	Manage Payment Codes	• Cash concentration or disbursement corporate counterparty - CCD

Flow	Preconfigured Task	Predefined Value
		• Corporate Card Credit/Debit - CCD+ • Corporate trade exchange - CTX • Prearranged payment or deposit consumer counterparty - PPD • Prearranged Payment and Deposit - PPD+ • International Automated Clearing House - IAT • Nonurgent payment – NURG • Urgent payment – URGP • Single Euro Payments Area - SEPA
	Manage Payment Process Profiles	• JPMC ISO20022 CGI V2 CBPR • JPM ISO20022 SEPA CBPR
	Manage Formats	• JPMC ISO20022 CGI V2 CBPR Format • JPM ISO20022 SEPA CBPR Format • J.P. Morgan Disbursement Acknowledgment
	Manage Payment Systems	JPM ISO20022 Direct Debits
Funds Capture	Manage Funds Capture Process Profiles	JPM ISO20022 Direct Debits
	Manage Formats	• JPM ISO20022 Direct Debits • J.P. Morgan Direct Debit Acknowledgment
	Manage Payment Systems	JPM Payment System
	Manage AutoMatch Rule Sets	ORA_Automatch 90%
	Manage Receivables Activities	ORA_Earned Discount, ORA_Unearned Discount
	Manage Receipt Classes and Methods	ORA_Lockbox
	Manage AutoCash Rule Sets	ORA_Invoice Match
	Manage Receipt Sources	Lockbox
	Manage Bank Statement Reconciliation Rule Sets	JPM Matching Rule Set
Bank Statement Processing	Manage Formats	JPM ISO20022 MX CAMT053.001.02 Format
	Manage Payment Systems	JPM Payment System
	Manage Bank Statement Transaction Codes	Review list of predefined codes and configure as needed

Flow	Preconfigured Task	Predefined Value
	Manage Bank Statement Transaction Creation Rules	698_Legal Entity
	Manage Bank Statement Reconciliation Tolerance Rules	JPM Tolerance Rule
	Manage Bank Statement Reconciliation Matching Rules	• ORA_JPM_1:1 End-to-End ID Payments Matching • ORA_JPM_1:M Logical Group Number Matching • ORA_JPM_1:M Payment File Identifier Matching • ORA_JPM_1:1 End-to-End ID Receipt Matching • ORA_JPM_1:1 Lockbox Receipt Number Matching

Configure Banks and Bank Accounts

Banks and bank accounts must be configured in Oracle Cloud ERP before transacting.

If your banks and bank accounts aren't already configured, use one of these methods:

- J.P. Morgan Integrated Banks and Bank Accounts (automatically generated through the onboarding process)
- Self-Managed Banks and Bank Accounts (created manually or through file-based uploads)

J.P. Morgan Integrated Banks and Bank Accounts

Integrating with J.P. Morgan automatically creates bank and bank account details for accounts listed in your Statement of Work (SOW) document. During initial connectivity, the banks and bank accounts process automatically creates banks, bank branches, and bank accounts, as well as reconciliation configurations and bank statement transaction creation rules. Contact the bank's team when adding or changing accounts included in your integration.

Troubleshooting

The Banks and Bank Accounts automatic configuration process may result in an error message. It is displayed on the Manage Embedded Banking Configurations task page.

You also receive a notification with details about any configuration issues. After you resolve the issues, select **Resolve Now** in the dialog box to reimport the bank onboarding file.

A notification lists the bank accounts that were successfully created and those that failed, including the reason for each failure. Review the reported issues, update the prerequisite configuration, and reimport the bank onboarding file. This process applies to both initial and incremental bank onboarding.

You can review the bank account onboarding file using the link on the bank onboarding page.

Page Navigation

- Success:
  - The page displays the successfully created banks, branches, and bank accounts as a header message.
  - The page opens the bank accounts search page with an option to perform a mass update for the cash, cash clearing, and reconciliation difference accounts.

- Error:
  - If the bank onboarding process ends with a status indicating that onboarding couldn't be completed, you can use the retry option after completing the prerequisite legal entity configuration.
  - If EMEA accounts are included in the onboarding file, the file is processed as expected except for these countries: France, Israel, Italy, Portugal, Spain, and United Kingdom.
    - If the onboarding file includes any of the countries listed above, the process completes with an Error status. Connectivity is still established, but the bank accounts for these countries must be configured manually.
- Exceptions:
  - Duplicate banks, bank branches, and bank accounts: Duplicates are included in the notification.
  - Prerequisite configuration not available: Business units, business functions, ledger, and chart of accounts must be configured before you obtain the bank onboarding file from the bank.

The business unit association is completed automatically during the bank onboarding process. If the ledger of the business unit and the legal entity is the same, the business unit is associated with the bank account if either the supplier payment or customer payment business function is enabled.

Payables and Receivables Usage Defaults

For onboarded bank accounts:

- Payables usage is selected if at least one business unit associated with the bank account has the supplier payment business function enabled.
- Receivables usage is selected if at least one business unit associated with the bank account has the customer payment business function enabled.

Self-Managed Banks and Bank Accounts

You can create your banks and bank accounts using one of these standard Oracle Fusion implementation methods. To use enhanced bank statement processing features, assign the bank's predefined codes to your bank accounts.

- Upload bank accounts using the rapid implementation spreadsheet. See Oracle Support for a generic template.
- Manually enter the bank and bank account details using the user interface.

> **Note:** If you use existing accounts or self-manage bank accounts by configuring your own banks and bank accounts, the status for Banks and Bank Accounts may appear as **Failed** after establishing connectivity, with error messages related to account creation. This status and the error messages are acceptable as long as the other configurations show **Completed**.

Configure Funds Disbursement

Embedded Banking Services supports payment processing through J.P. Morgan using predefined Oracle Fusion configurations. Supported payment types include ACH, Global ACH (GACH), SEPA, and wire payments. The integration also supports outsourced check printing and Positive Pay for in-house printed checks. Predefined configurations are available to accelerate implementation, while additional payment scenarios can be configured using standard Oracle Fusion functionality.

Electronic Payments

With this integration, you can process electronic payments using your bank accounts and the JPM EFT payment method for ACH, Global ACH (GACH), SEPA, and wire payments.

Predefined CBPR+ payment configurations are available through View Configurations. Use the predefined CBPR+ template file names.

You can also use standard Oracle Fusion implementation processes to configure payment scenarios that aren't included in the predefined configurations. You can set up additional payment configurations to meet your business requirements. If you modify predefined configurations, copy the predefined template and change only what is needed. Test and confirm that the new configurations are acceptable with the bank.

> **Note:** Any modifications to the provided CBPR+ payment formats are considered customizations and are your responsibility to maintain.

J.P. Morgan Payment Process Flows

Originating Country/Region	Supported Payment Types	Status	Notes
United States	ACH, Fedwire, CHIPS, Checks, Auto FX Wires, SWIFT Wire, Virtual Card, Positive Pay	Predefined	Fully preconfigured
Canada	GACH, EFT, Wire (Lynx), Checks, Auto FX Wires, SWIFT Wire, Virtual Card, Positive Pay	Predefined	Auto FX payments may need minor customization
Eurozone (27 countries)	SEPA Credit Transfer, SEPA Instant	Predefined	Supported for EUR payments in SEPA countries
United Kingdom	SEPA (EUR only)	Predefined	Supported only for EUR payments
All other countries	Local payment rails, SWIFT Wire	Additional configuration may be required	Configuration of the provided CBPR+ payment template may be required. Contact the bank for country-specific requirements

Using Preconfigured Settings

To process ACH, GACH, SEPA, and wire payments, follow the *implementation workbook* for instructions to update supplier and payment records with the appropriate values for each payment type.

For an existing electronic payment method, enter **TRF** in the Alias field.

Single Euro Payments Area (SEPA) Payments

The integration supports SEPA payment initiation and acknowledgment file processing for disbursements in the SEPA region.

These predefined requirements must be met for SEPA payments. The JPMC ISO20022 SEPA CBPR isn't supported if these conditions aren't met:

- Payments must be in the Eurozone.
- Payment currency must be Euro (EUR) only.

- The payer's bank must be in a SEPA country, and the payer's bank branch must have a valid BIC.
- The payee's bank must be in a SEPA country, and the payee's bank account must have a valid IBAN.
- The payment method alias must be **TRF**.
- The service level code must be **SEPA**.

Check Printing Service

J.P. Morgan offers outsourced check printing services through the integration using the JPM Paper payment method.

Predefined configurations are available through View Configurations. Use the predefined template file names.

To use this service, first complete the Check Print (CKO) Implementation Requirements Document provided by the bank's implementation team. Check printing services may increase the time required for testing and implementation.

After completing the CKO document, use the information provided by the bank to configure payment codes and update the relevant supplier and supplier site records. See the *implementation workbook* for configuration examples.

- To create payment codes: Go to **Setup and Maintenance** > **Payments** > **Manage Payment Codes** > **Create a Payment Code** (type = Delivery channel).
- The CKO document includes a form code, which identifies a specific check template design or unique account number/signature combination. Form codes are typically values such as A1, A2, A3, and so on. The form code should be the first two characters of the payment code.
- Mailing instructions are represented by a five-digit code in the alias field. This code specifies how checks should be delivered to the payee, for example standard mail or FedEx delivery. Define these codes in the CKO document. Use **00000** as the default code for standard mail delivery in the United States or Canada. For example, **00HQ1** may represent FedEx delivery to the main office for hand delivery to the payee.

Check Printing Recommendations

Follow these recommendations for printing checks:

- Run separate payment batches for EFT and check payments to maintain accurate check stock numbering.
- Select a payment document only when making check payments. Alternatively, create a separate payment process request (PPR) template for check payments and select that PPR template when you submit the PPR.

Payment Disbursement Summary

To ensure that payment transactions use the bank's embedded connectivity, configure your payment process request (PPR) to use the "JPMC ISO20022 CGI V2 CBPR" or "JPM ISO20022 SEPA CBPR" payment process profile (PPP).

If you create an additional CBPR+ payment process profile using embedded connectivity, copy a predefined CBPR + profile and only change what you need. Don't change the values for payment system, payment, payment file, and grouping.

These settings are recommended for funds disbursement based on the predefined configuration. See the appendix for details on delivery channel, service codes, and alias values.

Recommended Settings for Funds Disbursement

Parameter	Description
Service Level Code	For ACH and check transactions, select **NURG**. For wire and cross-border transactions, select **URGP**.
Delivery Channel	For US ACH, use **CCD**, **PPD**, **CCD+**, **PPD+**, **CTX**, or **IAT**. For check printing, use custom payment codes as the delivery channel.
Payment Method Alias	For ACH payments, the payment method is preconfigured with the alias **TRF**. If you create your own payment method, use **TRF** as the alias. For check payments, the payment method is preconfigured with the alias **CHK**. If you create your own payment method, use **CHK** as the alias.
Alias Values	Service level alias values: **NURG**, **URGP**, or **SEPA**. Payment reason alias values: **SUPP** (Supplier Payment), **TRAD** (Trade), and **CORT** (Trade Settlement Payment).
Validations	Various validations run at the CBPR+ payment format and payment method levels: • A delivery channel is required. • Either payee BIC or branch number is required. • Either payer BIC or branch number is required. • Either a payee bank account number or IBAN is required. • Payment method alias value is TRF.

Acknowledgments

Payment processing acknowledgments occur in three stages to validate payment files, confirm processing status, and report clearing rejections. Notifications and reports provide visibility into processing results, errors, and invoice actions.

- First Level (L0) Acknowledgment: Generated within a few minutes of receiving the payment file. Confirms that the file schema or syntax is correct.
- Second Level (L1) Acknowledgment: Generated by the bank within a few hours of receiving the payment file. Provides status at both the file and payment levels.
- Third Level (L2) Acknowledgment: Generated two to three days after payment submission. Reports payment rejections identified during the clearing process. Always reported at the payment level; one acknowledgment file can include rejections from multiple payment files.
- Notifications: Indicates whether the payment batch and acknowledgment process completed successfully or encountered errors.
- Payment File Register report: Generated automatically and includes payment file and payment-level acknowledgment details and invoice actions.

These settings are preconfigured for payment acknowledgment processing. Review the default configurations and update them as needed:

- Disbursement acknowledgment automatic voiding option
- Disbursement acknowledgment voiding invoice action
- Email notification settings for disbursement acknowledgment details sent to the user who submitted the payment process request

See the appendix for a summary of payment file and payment statuses at each step of acknowledgment.

Positive Pay File for Checks Printed In-House

This feature generates a positive pay file in XML format for checks printed in-house.

In-house check printing is standard Oracle Fusion functionality and must be configured manually, following some preconfigured settings.

Embedded Banking doesn't support Oracle Fusion HCM employee check printing, voids, or stop payment processing.

Generic Setup Steps

To configure in-house check printing and positive pay processing:

1. Configure the check template:
    a. Create a template in the bank-specific format for in-house check printing.
    b. Upload the template to BI Publisher.
2. Configure the check payment format:
    a. Complete the required fields in the *implementation workbook*.
    b. Create the standard payment process profile with predefined configuration values.
3. Update the existing check payment method to use the payment method alias **CHK**.
4. Generate and transmit the positive pay file after the checks are printed. The bank receives the positive pay file with the list of printed checks.

Tips and Considerations

Consider these when using positive pay for checks printed in-house:

- Positive pay through Oracle B2B Service supports only first-party check printing.
- The positive pay file must be transmitted automatically after the payment file is confirmed.
- Exception in positive pay file generation:
    - If the process doesn't complete successfully, you must restart the process. You can't submit a positive pay file manually.
    - If the process fails, void all payments in the affected payment file and submit a new payment process request (PPR).
- You can't generate a positive pay file for single or pay-in-full payments.
- The positive pay file includes only the supplier name.
- J.P. Morgan supports acknowledgment processing for positive pay files. Oracle doesn't currently support processing these acknowledgments.
- J.P. Morgan positive pay files support only checks with a status of Negotiable.

- Voids and stop payments aren't currently supported through the positive pay file process. Voids must be completed manually in Oracle. Contact the bank to initiate a stop payment against any check.

Configure Funds Capture

Use this integration to process customer receipts through your bank accounts.

Predefined configurations available through View Configurations support lockbox processing using the ORA_BAI2_EXTENDED_GENERIC format and direct debit processing with ISO 20022 CGI formats. These formats are required for these services.

You can use standard Oracle Fusion implementation processes to configure additional receipt types and regions as long as you don't modify the file format or naming convention.

Lockbox

Default lockbox configurations are created during the banks and bank accounts onboarding process.

Review and update these configurations to meet your lockbox processing requirements. If you self-manage or already have banks and bank accounts in Oracle Fusion, configure your lockbox settings using standard Oracle Fusion implementation processes.

If you need custom attribute fields in the ORA_BAI2_EXTENDED_GENERIC format, a separate Lockbox Statement of Work (SOW) is required. Configure the custom attributes using standard Oracle Fusion implementation processes.

Predefined Configurations

Review these predefined configurations for each relevant business unit:

- Receivables system options
  - Default accounting for lockbox receipts
- Receipt class, receipt methods, and remittance banks
- Lockbox and transmission format
  - ORA_BAI2_EXTENDED_GENERIC is the only transmission format supported by the integration
  - This format uses the control file: arlockboximportgenbai2.ctl

Setup Requirements

Follow the *implementation workbook* for additional lockbox configuration.

- Receipt source naming convention: For user-created receipt sources, use this naming convention:
  a. JPM_LB_Acct Ending_XXXX_<BU Name>_<ar_batch_source_s>
     - XXXX: Last four digits of the bank account
     - BU Name: Truncate to the first 19 characters, if needed
     - ar_batch_source_s: Six-character sequence
  b. Example: JPM_LB_Acct Ending_4101_Vision Operations_23132
- Create the lockbox for each lockbox number:
  a. Lockbox set: Enter the Common Set or a specific reference data set.

b. Lockbox number: Enter a unique identifier for the lockbox.
c. Receipt source: Select a receipt source. The selected source populates the bank, bank account, accounting flexfield (general ledger account code combination), and receipt method.
d. Batch size: Enter **100**.
e. Bank origination number: Required from the bank to match the lockbox file.
f. Accounting date source: Select **Import Date** (the date you import lockbox receipts).
g. Complete any remaining fields as required.

Manage Receipts Lockbox File

The Embedded Banking process automatically processes lockbox files received from the bank, as long as the lockbox number and bank origination number match the values in the file.

Coordinate with the bank on the file delivery frequency. You can review lockbox file processing results in the **Manage Receipts** page.

Direct Debit Processing

The integration uses the bank's ISO 20022 CGI message format for direct debit processing.

The predefined configuration supports ACH direct debits in the United States and Canada and includes automatic retrieval and processing of bank acknowledgment files, including L0, L1, and L2 acknowledgments.

Configure routing rules for funds capture transactions in the Manage Internal Payees task. You can create a custom funds capture process profile but you must use the preconfigured transmission configuration for this integration.

Follow the *implementation workbook* for Funds Capture Process Profile configuration settings.

Direct debit processing uses a similar configuration as funds disbursement, including local instruments, service level, and purpose codes.

Configure Customer Record

To configure the customer record:

1. Under customer site, go to **Payment Instruments** > **Bank Accounts**.
2. Configure the local instrument, service level, and purpose code.
3. Use these local instrument values:

Country	Payment Attribute
US	CCD, CCD+, PPD, PPD+, IAT, CTX
Canada	Optional

4. Set the service level to **Nonurgent Payment (NURG)**.
5. Select the appropriate purpose code for the payment.

Required Validations

Confirm these validations are configured:

Validation	Configuration Steps
Local instrument, service level, and purpose code are required	1. Go to Funds Capture Process Profile 2. Select Settlement Batch > Payment Attributes 3. Enter the local instrument 4. Enter NURG (Nonurgent Payment as the service level) 5. Select a purpose code
Either a branch number or BIC code is required for the internal bank account	1. Go to Manage Bank Branches 2. Open the creditor bank branch 3. Enter the branch number or BIC code
Either a branch number or BIC code is required for the external payer bank account	1. Go to Manage Bank Branches 2. Open the payer bank branch 3. Enter the branch number or BIC code

Configure Bank Statement Processing

Use this integration to automatically retrieve, import, and reconcile bank statements.

The integration uses the bank's CAMT.053 statement format based on ISO 20022 standards. Predefined configurations available through View Configurations simplify implementation and processing.

When you implement banks and bank accounts through embedded onboarding, bank statement processing is enabled automatically. Reconciliation setup is generated during bank onboarding or during the first bank statement processing run. Use the predefined template file names.

If you self-manage or already have banks and bank accounts configured, update your accounts with reconciliation rules using the predefined codes where relevant.

Features include:

- Scheduled retrieval and processing of prior-day bank statements
- Automatic creation of new bank statement transaction codes discovered on imported statements
- Automatic unreconciliation and voiding of rejected payments, plus reconciliation of the original and rejected statement lines
- Automatic reversal of rejected direct debit transactions and reconciliation of reversal lines
- Notifications confirming completion of automatic reconciliation processing, including any exceptions

Bank Statement Transaction Codes

Bank statement transaction codes that don't exist in Oracle Fusion are created automatically during CAMT.053 statement processing.

If a transaction code isn't created automatically, you must create it manually. See the *implementation workbook* for details.

Bank Statement Processing and Reconciliation

The Embedded Banking process automatically processes the CAMT.053 statement file when it is received from the bank. You can view processing and reconciliation results on the Bank Statement and Reconciliation page.

Configure Real-Time Bank Balance

The integration uses the bank's Account Balances API to retrieve near real-time bank balances for enabled accounts.

Real-time balances are available on the Cash Balances dashboard. Work with the bank's implementation team to enable the API for selected accounts. Bank statement processing must be enabled before using the real-time bank balance feature.

To establish connectivity with the bank and review predefined setup tasks, you must have the Financial Application Administrator job role. These security privileges are predefined for the Cash Manager job role to review real-time account balances.

- Privilege Name: View Real Time Account Balances
- Privilege Code: CE_VIEW_REAL_TIME_BALANCES
- Privilege Description: Allows review of real-time account balances for the bank accounts
- Role Name: Cash Positioning and Forecasting Management
- Role Code: ORA_CE_CASH_POSITION_AND_FORECAST_MANAGEMENT_DUTY

Add the privileges to any custom job roles that require access to real-time account balances.

Enable and Access Real-Time Bank Balances

To enable Embedded Banking real-time bank balances:

1. Contact your bank's sales team to request access to the Real-Time Account Balances API and complete the required agreements.
2. After completing the bank agreements, log a Service Request (SR) with Oracle Support to request the API certificates and the promotion code for Real-Time Bank Balance.
3. Oracle Support updates the SR with the required codes and next steps to complete enablement.
4. Enable Real-Time Bank Balance in Oracle Fusion.
    a. Follow the instructions in Manage the Banking Configuration under the section Establish Connectivity Between Oracle Cloud ERP and the bank.
    b. Under Bank Statement Processing, select the Real-Time Bank Balance sub flow and select **Next**.

    > **Note:** Bank Statement Processing must also be enabled.

5. Obtain the certificate required by the bank.
    a. A notification or email provides instructions and a one-time certificate.
    b. Alternatively, select **Download** under Real-time Bank Balance within Manage Embedded Banking Configurations.
6. Upload the certificate through the bank's development portal, linked in the email. Certificate processing by the bank may take up to 3 days.
7. After the bank successfully processes the certificate, the Real-Time Bank Balance flow is automatically marked as Completed in Oracle Fusion.
8. Enable real-time balances for the relevant bank accounts.
    a. Select the bank account.
    b. Enable **Real-Time Bank Balance**.
    c. Import the bank statement for the enabled bank accounts.
9. View Real-time Balances in the Cash Balances page.
    a. Go to **Navigator** > **Cash Management** > **Cash Balances**.

b. Select **Get Real-Time Balances**.

> **Note:** This action automatically triggers a cash position data transfer process, which calls the bank's mock API and retrieves the real-time balances.

c. Go to Scheduled Processes and monitor the Cash position data transfer process.
d. Go to the Cash Balances page to view the real-time account balances.

Testing

Standard Embedded Banking configurations simplify the onboarding of payments, receipts, and reconciliation compared to custom solutions.

Standard configuration formats have been tested with Oracle and the bank in supported countries for specific use cases.

The onboarding process includes two key checks:

1. Verifying successful file transmission between your Oracle Fusion instance and the bank.
2. Confirming that the predefined configurations work as expected.

Your organization is responsible for configuring and testing any CBPR+ payment or receipt formats that aren't included in the standard setup. Coordinate with the bank's implementation manager to obtain any additional testing parameters and CBPR+ format templates.

Confirm all in-scope bank accounts and their intended use with your bank's implementation manager before testing.

> **Note:** Some bank accounts may be outside the scope of Embedded Banking and will require custom configurations. This section shows how to configure accounts for testing and how each account is used.

Testing Plan by Account Example

Legal Entity Name	ABA/SWIFT Code	Account Number	CCY	Lockbox Name	Lockbox Number	US ACH	Global ACH	US & Canada Wires	SEPA Payments (Euro Only)	Check Print US/ CAD	Positive Pay - US	CAMT.053
USA1	120012340	***7621	USD			X				X	X	X
USA2	120012987	***6001	USD				X	X				X
USA2	120012987	***5889	USD	US Payment	3456789							X
CAN1	BOCABCD5123	***3789	CAD				X	X		X		X
Germany1	AAAADE1A555	***A850	EUR						X			X

Funds Disbursement Testing

You can begin testing outbound payments with the bank after you update the supplier records with the bank's CBPR+ payment format or reconfigure your existing CBPR+ payment formats.

The bank's implementation manager provides a test tracker to support testing activities.

1. Electronic payments: Run the payment process. The file is automatically sent to the bank. The bank's implementation team notifies you of any errors and recommended corrective actions.
2. Outsourced check printing: Run the payment process. The file is automatically sent to the bank. The bank's implementation team notifies you of any errors and recommended corrective actions. Coordinate with the bank to satisfy check printing requirements and review check print examples.
3. Positive pay: Run the in-house check printing payment process. The positive pay file is automatically sent to the bank.
4. Custom CBPR+ payment formats: For payment use cases not supported by standard configurations, work directly with the bank to define CBPR+ payment format requirements and coordinate testing.

Funds Capture Testing

If you choose to test lockbox configuration, the bank provides up to three rounds of testing.

The first test file is typically available within three weeks. If corrections are needed, address them before the next testing round. After completing testing of the first file, you can end testing or request additional rounds. Each additional test file (Files 2 and 3) typically require two to three weeks to prepare.

This sample data illustrates the types of lockbox transactions commonly included in bank-provided test files.

Lockbox Test Data

Check Date	Check Amount	Check Number	Check Routing Number	Check Account Number	Check Remitter Name	Test Scenario
Current Date	$1,000.00	12508547	101000187	5500000194	ABC Company	Single check
Current Date	$9,525.25	1140266	111300880	6300054064	John Doe Sales	Single check
Current Date	$155,000.00	2016262971	053101561	20799000899	Sports Equipment Plus	Single check with large amount
Current Date	$4295.95 $1954.10	36571388 36571389	021309379 021309379	601855968 601855968	XYZ Trucking XYZ Trucking	Multiple checks
Current Date	$257.22 $6,255.00 $196.54	9115287 5479 47715	061112788 061112788 061112788	3299965246 7548428874 3299037517	Moonlight & Stars A Moonlight & Stars B Moonlight & Stars C	Multiple checks
Current Last Week	$98.75 $173.54	46548338 46548339	011302836 011302836	88104179 88104179	Joe the Plumber Joe the Plumber	Multiple checks with different check dates

Check Date	Check Amount	Check Number	Check Routing Number	Check Account Number	Check Remitter Name	Test Scenario

Bank Statement Processing Testing

The bank doesn't provide production-level statements for standard testing.

The bank provides CAMT.053 statement information for successful electronic test payments. To perform detailed CAMT.053 statement testing, create and import test data files manually. Contact the bank's implementation manager for additional bank statement testing before go-live.

Real-Time Balance Testing

Banks don't enable real-time balance API testing in lower-level user acceptance testing (UAT) environments. This feature is generally available only in production environments.

Appendix

Payment Type Configuration Summary

This table summarizes the predefined payment type configuration.

Payment Type	Payment Method	Template Name	Service Level	Alias	Countries Supported
ACH	JPM EFT Payment Method	JPMC ISO20022 CGI V2 CBPR	NURG	TRF	US
GACH	JPM EFT Payment Method	JPMC ISO20022 CGI V2 CBPR	NURG	TRF	Canada
Fedwire	JPM EFT Payment Method	JPMC ISO20022 CGI V2 CBPR	URGP	TRF	US
CHIPS	JPM EFT Payment Method	JPMC ISO20022 CGI V2 CBPR	URGP	TRF	US (International USD)
SWIFT Wire	JPM EFT Payment Method	JPMC ISO20022 CGI V2 CBPR	URGP	TRF	Global
Auto FX Wire	JPM EFT Payment Method	JPMC ISO20022 CGI V2 CBPR	URGP	TRF	US, Canada
SEPA	JPM EFT Payment Method	JPMC ISO20022 SEPA CBPR	SEPA	TRF	Eurozone + UK (EUR)
Check Printing (outsourced)	JPM Paper Payment Method	JPMC ISO20022 CGI V2 CBPR	See CKO document for payment code values	CHK	US, Canada

Payment Type	Payment Method	Template Name	Service Level	Alias	Countries Supported
Positive Pay: In-House Check Printing	User's Current Payment Method	Custom payment process profile for positive pay (See the *implementation workbook*)	N/A	CHK	US

ACH Payment Codes

This table describes the ACH payment codes supported by the predefined payment configurations.

Payment Code (Delivery Channel)	Description (Code)	Purpose
CCD	Cash concentration or disbursement corporate counterparty – B2B Payment	Payment only. No remittance details.
CCD+	Cash concentration or disbursement corporate counterparty – B2B Payment	Basic remittance information, typically for payment of a single invoice (80 character limit).
CTX	Corporate trade exchange – B2B Payment	Large/complex remittance information, typically for payment of multiple invoices (up to 9,999 (80 characters each)).
PPD	Prearranged payment or deposit consumer counterparty – Consumer Payment	Allows for one addenda record, usually to provide limited payment details for reference by the consumer (for example, what the payment is for).
PPD+	Prearranged payment or deposit consumer counterparty – Consumer Payment	Allows for one addenda record for payment-related information.
IAT	International ACH transaction	Used in the U.S. ACH Network to process cross-border electronic payments. Supports up to 12 addenda records, each with 94 characters, to provide mandated transaction details, including sender, receiver, and foreign bank information.

Service Level Codes

Service level codes are standardized indicators used in international banking to define the processing priority and rules applied to a payment transaction.

Purpose	Service Level Code	Meaning
ACH, Check, Direct Debit	NURG	Non-urgent payments
Wire payments	URGP	Urgent payments

Purpose	Service Level Code	Meaning
SEPA payments	SEPA	Single Euro Payments Area

Unsupported Payment Types

These payment types aren't supported by the predefined configurations:

Note: Supporting these payment types requires configuration of the CBPR+ payment template, where relevant.

- US ACH CCD+ Tax Credit
- US ACH CCD+ Child Support Credit
- CA GACH Credit
- Corporate Quick Pay
- US SUA (Single Use Account)
- US Fedwire (Includes Repetitive Line)

Acknowledgment Status

This table summarizes payment file and payment statuses for each acknowledgment stage.

Acknowledgment Stage	Payment File Status	Electronic Payment Status (IBY_PAYMENTS_ALL)	Check Payment Status (AP_CHECKS_ALL)
L0 – File accepted	Acknowledged	Acknowledged	Negotiable
L0 – Rejected	Rejected	Rejected/Voided	Negotiable/Voided
L1 – All payments accepted	Acknowledged	Acknowledged	Negotiable
L1 – Some payments rejected	Acknowledged	Rejected/Voided (rejected payments only)	Negotiable/Voided
L2 – Some payments rejected	Acknowledged	Rejected/Voided (rejected payments only)	Negotiable/Voided

Implement Embedded Banking Services for Bank of America

To implement Embedded Banking Services for Bank of America in your Oracle Fusion environment, you must work with Bank of America implementation managers to enable these services:

- Establish secure connectivity between Oracle Cloud ERP and Bank of America.
- Configure banks and bank accounts.
- Configure funds disbursement.
- Configure funds capture.
- Configure bank statement processing.

Note: In this playbook, Bank of America is also referred to as the bank.

Establish Connectivity Between Oracle Cloud ERP and the Bank

Follow these steps to establish connectivity between Oracle Cloud ERP and the bank.

- Manage the Banking Configuration
- View Configurations
- Configure Banks and Bank Accounts

Manage the Banking Configuration

After completing the required setup, enable Embedded Banking Services to establish connectivity with the bank.

Use the **Manage Banking Configurations** task to select the business flows to enable.

To enable connectivity between the bank and Oracle Cloud ERP:

1. Sign in with the **Financial Application Administrator** role. If you use a custom role, add the Manage Banking Configurations privilege.
2. Go to the Setup and Maintenance work area and select the Financials offering.
3. Select the Banking Configurations functional area and then select **Manage Embedded Banking Configurations.**
4. Select your bank from the bank list. On the Manage Embedded Banking Configurations page, select the business flows to enable and select **Next**. The business flows you enable must match the approved Scope of Work (SOW) with the bank.
5. Oracle Fusion Cloud ERP generates the SSH and PGP keys for the client and sends an email to the user who initiated onboarding. The status of the enabled services changes to **In Progress**. Alternatively, select **Download** on the **Manage Embedded Banking Configurations** page under Banks and Bank Accounts.
6. Download the keys and share them with the bank's implementation manager. Work with your implementation manager to securely transfer the keys.

7. The bank receives and loads the keys and configures file transmission.
8. The implementation manager sends the client an email containing the B2Bi credentials after the keys are loaded.
   The email contains the client user ID and password for the B2Bi UAT and Production portal.
9. Sign in to the bank's B2Bi portal using the user ID and reset the password.
10. Return to **Manage Embedded Banking Configurations** in Oracle Fusion Cloud ERP and select **Bank of America** from the bank list.
11. Enter the user ID in the **User Account Name** field and select **Next**.
12. When connectivity is established, the status of each business flow changes from **In Progress** to **Completed**. You receive a notification when onboarding is complete.
13. Select **View Configurations** on the Manage Embedded Banking Configurations page to review the preconfigured setup and any pending setup.

View Configurations

These tasks are preconfigured for each business flow.

Use of the predefined configuration is optional. You're responsible for any modifications to the predefined configuration and any additional setup required for your implementation.

Bank of America Configurations

Flow	Preconfigured Task	Predefined Value
Banks and Bank Accounts	Manage Payment Systems	BOFA Payment System
Funds Disbursement	Manage Payment Methods	• BOFA EFT Payment Method • BOFA Check Payment Method
	Manage Payment Codes	• Cash concentration or disbursement corporate counterparty – CCD • Corporate Card Credit/Debit – CCD+ • Corporate trade exchange – CTX • Prearranged payment or deposit consumer counterparty – PPD • Prearranged Payment and Deposit – PPD+ • International Automated Clearing House – IAT • Nonurgent payment – NURG • Urgent payment – URGP • Single Euro Payments Area – SEPA • Corporate checks – CCHQ
	Manage Payment Process Profiles	• BOFA ISO20022 CGI CBPR • BOFA ISO20022 SEPA CBPR
	Manage Formats	• BOFA ISO20022 CGI CBPR Format • BOFA ISO20022 SEPA CBPR Format

Flow	Preconfigured Task	Predefined Value
		• BOFA Disbursement Acknowledgment
Funds Capture	Manage Payment Systems	BOFA Payment System
	Manage AutoMatch Rule Sets	ORA_Automatch 90%
	Manage Receivables Activities	ORA_Earned Discount, ORA_Unearned Discount
	Manage Receipt Classes and Methods	ORA_Lockbox
	Manage AutoCash Rule Sets	ORA_Invoice Match
	Manage Receipt Sources	Lockbox
Bank Statement Processing	Manage Formats	BOFA ISO20022 MX CAMT.053.001.02 Format
	Manage Bank Statement Transaction Codes	Review list of predefined codes and configure as needed
	Manage Bank Statement Reconciliation Matching Rules	• ORA_1:1 End-to-End ID Payments Matching • ORA_1:M Logical Group Number Matching • ORA_1:M Payment File Identifier Matching • ORA_1:1 End-to-End ID Receipt Matching • ORA_1:1 Lockbox Receipt Number Matching

Configure Banks and Bank Accounts

Banks and bank accounts must be configured in Oracle Cloud ERP before transacting.

You can create your banks and bank accounts using one of these standard Oracle Fusion implementation methods. To use enhanced bank statement processing features, assign the bank's predefined codes to your bank accounts.

- Upload bank accounts using the *rapid implementation spreadsheet*.
- Manually enter the bank and bank account details using the user interface.

Configure Funds Disbursement

Embedded Banking Services supports payment processing through Bank of America using predefined Oracle Fusion configurations. Supported payment types include ACH, Global ACH (GACH), SEPA, and wire payments. The integration also supports outsourced check printing. Predefined configurations are available to accelerate implementation, while additional payment scenarios can be configured using standard Oracle Fusion functionality.

Electronic Payments

With this integration, you can process electronic payments using your bank accounts with the BOFA EFT Payment method for ACH, Global ACH (GACH), SEPA, and wire payments.

You are responsible for working with your bank's implementation manager to properly configure the provided BOFA ISO20022 CGI CBPR or BOFA ISO20022 SEPA CBPR payment formats to meet your specific electronic payment requirements.

Configure payments in Oracle Fusion following standard Fusion implementation methodology and the associated Bank of America predefined codes. Test and confirm that custom configurations are accepted by the bank.

If you use your existing electronic payment methods, you must add the alias **TRF** to your current payment method header.

Configure Payment IDs

To configure the payment IDs, you must enter the ACH Client ID and the Sender ID.

To enter the ACH Client ID:

1. Go to **Navigator** > **My Enterprise** > **Setup and Maintenance**.
2. Select the **Financials** offering.
3. Open **Cash Management and Banking** and search for the task **Manage Bank Accounts**.
4. Select **Create (+)** to create a new account, or search for an existing account and open it for editing.
5. On the Create Bank Account page, go to the General tab.
6. In the Bank Company Identifier field, enter the bank-provided ACH Client ID.

   The bank provides the ACH Client ID for each relevant bank account.
7. Select **Save and Close**, then **Done**.

To enter the Sender ID:

1. Go to **Navigator** > **My Enterprise** > **Setup and Maintenance**.
2. Select the **Financials** offering.
3. Open **Payments** and search for the task **Manage Payment Systems**.
4. Search for and select the payment system you want.
5. Open its payment system options.
6. Select **Edit Payment System Accounts** and select the relevant **BOFA Payment System** account.
7. In the account settings setup and details area, locate the row for Bank Identifier and enter the bank-provided Sender ID in the Value column.

   If multiple Sender IDs are required, create multiple payment system accounts by copying the **BOFA Payment System** payment system account and update the Sender ID.
8. Select **Save and Close**, then **Done**.

Check Printing Service

You may use Bank of America for outsourced check printing services as part of the integration using the BOFA Check Payment Method.

You are responsible for working with your Bank of America implementation manager to configure the provided BOFA ISO20022 CGI CBPR payment format to meet your check printing payment needs.

Be sure to complete the required paperwork, test, and confirm that the configurations are acceptable to Bank of America.

You may use Delivery Channels via Payment Code to represent the check print stock template and mailing instructions. Work with your Bank of America implementation manager to determine the required codes.

Processing Payments

To ensure that your payment configurations use Bank of America embedded connectivity, update your Payment Process Request (PPR) to use the Payment Process Profile (PPP) named BOFA ISO20022 CGI CBPR or BOFA ISO20022 SEPA CBPR.

If you intend to create additional PPPs using embedded connectivity, use a copy of a predefined profile and change only the required values. Do not change the values for Payment System, Payment, Payment File, and Grouping.

Note: You are responsible for confirming with your bank's implementation manager that they expect to receive an encrypted payment file with this naming convention:

```
<POD NAME>.BOFA.PAY.0103.<variable information>.xml.pgp
```

Acknowledgments

Payment processing acknowledgments occur in four stages to validate payment files, confirm processing status, provide core processing, foreign exchange, and clearing details, and deliver final processing status.

The bank sends file-level and transaction-level acknowledgments at your request.

Note: You are responsible for requesting that your bank's implementation manager use the required encrypted file naming convention for payment acknowledgments. The file name and format must exactly match these standards:

- File name: <POD NAME>.BOFA.PAY-ACK.L*.<YYYYMMDDHHmmss>.xml.pgp
  - Provide the bank with your Oracle Fusion POD name.
  - Don't replace periods (.) with underscores (_).
  - The POD NAME should only include the POD family name. Don't include qualifiers like "-test" or "- dev1".
  - Use the provided encryption keys. The .pgp extension is added automatically after encryption. Don't manually rename the file to add the .pgp extension. Oracle Fusion Embedded Banking Services recognizes only properly encrypted PGP files.
  - Include the complete date and time stamp to ensure a unique file name. Embedded Banking Services doesn't process duplicate file names.
- The bank doesn't send payment acknowledgment files during UAT testing. These files are available only in production.

If the payment file status doesn't change to **Acknowledged** within a few hours, a validation error has likely occurred. Correct the error and resubmit the payment.

There are four levels of payment acknowledgment files during the clearing process, identified by file names containing L1, L2, L3, and L4.

- First Level (L1) Technical File Acknowledgment: Generated by the bank usually within seconds of receiving the payment file. Confirms that the file-level syntax within CashPro is correct.
- Second Level (L2) Payment System File Receipt Acknowledgment: Generated by the bank usually within seconds of receiving the payment file. Confirms additional payment validations.
- Third Level (L3) Payment System Core Processing Acknowledgment: Generated at the end of a two-hour processing window. Provides foreign exchange rate information and clearing details, when available. Applies only to foreign exchange and wire payments.

- Fourth Level (L4): Generated within two hours or after all items are processed, whichever occurs first. Currently available only for APAC customers. Applies only to foreign exchange and wire payments.

L3/L4 files are sent at the end of a 2-hour clearing window. Currently, these files apply only to FX and wire transfers.

Recommended Settings for Funds Disbursement

These settings are recommended for funds disbursement based on the predefined configuration.

Recommended Settings for Funds Disbursement

Parameter	Description
Service Level Code	For ACH transactions, select **NURG**. For wire and cross-border transactions, select **URGP**. For check payments, select **CCHQ**.
Delivery Channel	For US ACH, use **CCD**, **PPD**, **CCD+**, **PPD+**, **CTX**, or **IAT**. For check printing, delivery channel includes custom Payment Codes, such as **US**. To create payment codes: Go to **Setup and Maintenance** > **Payments** > **Manage Payment Codes** > **Create a Payment Code** (type = Delivery Channel).
Payment Method Alias	For ACH payments, the payment method is preconfigured with the alias **TRF**. If you create your own payment method, use **TRF** as the alias. For check payments, the payment method is preconfigured with the alias **CHK**. If you create your own payment method, use **CHK** as the alias.
Alias Values	Service level alias values: **NURG**, **URGP**, or **SEPA**. Payment reason alias values: **SUPP** (Supplier Payment), **TRAD** (Trade), and **CORT** (Trade Settlement Payment).
Validations	Various validations run at the format and payment method levels: • A delivery channel is required. • Either payee BIC or branch number is required. • Either payer BIC or branch number is required. • Either a payee bank account number or IBAN is required. • Payment method alias value is TRF.

Configure Funds Capture

Use this integration to process customer receipts through your bank accounts.

Configure lockbox receipts in Oracle Fusion by using standard Fusion implementation methodology.

- The bank provides the lockbox number and bank origination number.

- The Oracle Fusion lockbox configuration must include the bank origination number.
- The Oracle Fusion lockbox number and origination number must exactly match the values used in the file name, including any leading zeros.

Note: You are responsible for requesting that your bank's implementation manager follow the embedded lockbox process. The file format and name must conform exactly to these standards. Embedded Banking Services won't recognize the file if there are any variations.

- **Lockbox template format**: Request that your lockbox receipt details be provided in BAI2 format. Follow the link to get the template and integration rules: *ORA_BAI2_EXTENDED_GENERIC.xlsx*
- **File name**: ORALB.<Lockbox Number>.<ABA number/origination number>.BofA.<YYYYMMDDHHmmss>.txt.pgp
  - Don't replace periods (.) with underscores (_).
  - Use the provided encryption keys. The .pgp extension is added automatically after encryption. Don't manually rename the file to add the .pgp extension. Oracle Fusion Embedded Banking Services recognizes only properly encrypted PGP files.
  - Include the complete date and time stamp to ensure a unique file name. Embedded Banking Services doesn't process duplicate file names.
- Coordinate with the bank if you need additional receipt details using attributes within Record Type 6. You'll need to map those additional attributes.
- Oracle Fusion doesn't support multiple DDA's within a single lockbox.

Once the above conditions are met, the embedded banking process automatically processes the lockbox file when the bank receives it. Coordinate with the bank on the frequency for receiving lockbox files. You may view the results of lockbox file processing in the **Manage Receipts** page.

Configure Bank Statement Processing

Use this integration to automatically retrieve, import, and reconcile bank statements.

The integration uses the bank's CAMT.053 statement format based on ISO 20022 standards. Predefined configurations available through View Configurations simplify implementation and processing.

Configure banks and bank accounts for reconciliation by using the standard Oracle Fusion implementation methodology. Manually update your accounts with reconciliation rules using the predefined codes where relevant.

Note: You are responsible for requesting that your bank's implementation manager follow the Embedded Banking Services bank statement process. The file name and format must exactly match these standards:

- File Name: <POD NAME>.BOFA.CAMT53*.<YYYYMMDDHHmmss>.xml.pgp
- Provide the bank with your Oracle Fusion PODname.
- Don't replace periods (.) with underscores (_).
- The POD NAME should only include the POD family name. Don't include qualifiers like "-test" or "- dev1".
- Use the provided encryption keys. The .pgp extension is added automatically after encryption. Don't manually rename the file to add the .pgp extension. Oracle Fusion Embedded Banking Services recognizes only properly encrypted PGP files.
- Include the complete date and time stamp to ensure a unique file name. Embedded Banking Services doesn't process duplicate file names.

Bank Statement Transaction Codes

Bank statement transaction codes that don't exist in Oracle Fusion are created automatically during CAMT.053 statement processing.

If a transaction code isn't created automatically, you must create it manually. See the *implementation workbook* for details.

Bank Statement Processing and Reconciliation

The Embedded Banking process automatically processes the CAMT.053 statement file when it is received from the bank. You can view processing and reconciliation results on the Bank Statement and Reconciliation page.

Implementation Checklist

Share this checklist with the bank's implementation manager to track and confirm that each implementation step is completed by the responsible party.

Refer to this guide for detailed explanations. Your implementation might include additional use cases that aren't covered by this checklist.

Connectivity

Owner	Client Action in Oracle Fusion Cloud ERP	Bank Action/ Confirmation	Completion Evidence	Status
Client	Confirm that the implementer has the Financial Application Administrator role or an equivalent custom role.	No action.	Manage Embedded Banking Configurations opens.	Not Started
Client	Enter the promotion code received from Oracle Support.	No action.	Manage Embedded Banking Configuration becomes available.	Not Started
Client	Add the Oracle-provided lookup code under ORA_ERP_CONTROLLED_C(	No action.	Bank of America appears in the list of available banks.	Not Started
Joint	Select Bank of America and enable only the services that match the agreed scope of work.	Confirm the services requested for implementation.	Enabled services are documented and approved by both teams.	Not Started
Joint	Download the generated SSH and PGP keys.	Provide secure key exchange instructions to the client.	Keys are downloaded and securely shared with the bank.	Not Started
Bank	No Oracle Fusion action.	Receive and load the Oracle Fusion-generated SSH and PGP keys and configure the transmission.	Bank confirms that the keys are loaded	Not Started
Bank	No Oracle Fusion action.	Send B2Bi UAT and Production Portal credentials to the client, including the user ID and temporary password.	Client receives the credentials through the approved channel.	Not Started
Client	Sign in to the bank's B2Bi Portal using user ID and reset the password.	Confirm that the B2Bi credential reset is complete.	Portal access is verified and the password reset is complete.	Not Started
Joint	Return to **Manage Embedded Banking Configurations**, select **Bank of America**, select **Next**, and enter the user ID in the **User Account Name** field.	Confirm that the user ID is active and available for the Oracle B2B Service connection.	Connectivity is established and the selected services change from In Progress to Completed.	Not Started

Banks and Bank Accounts

Owner	Client Action in Oracle Fusion Cloud ERP	Bank Action/ Confirmation	Completion Evidence	Status
Joint	Create or verify the bank and bank accounts in Oracle Fusion Cloud ERP. *Account numbers in Oracle Fusion Cloud ERP must exactly match the bank's account numbers, including any leading zeros.	Confirm that the bank account details match the bank's records.	Bank and account records are created or validated.	Not Started

Funds Disbursement

Owner	Client Action in Oracle Fusion Cloud ERP	Bank Action/ Confirmation	Completion Evidence	Status
Joint	Configure payment use cases. Update the CBPR + payment template, if necessary. See the *implementation workbook* for configuration options.	Provide additional requirements to support country-specific payment type configuration use cases.	Payment XML file is approved for each use case.	Not Started
Joint	Enter the bank-provided ACH Company ID where required.	Provide the ACH Company IDs.	Payment file includes the ACH Company ID, where relevant.	Not Started
Joint	Enter the bank-provided Sender ID as the Bank Identifier.	Provide the Sender ID.	Payment file includes the Sender ID.	Not Started
Client	Update the relevant Payment Process Request to use BOFA ISO20022 CGI CBPR or BOFA ISO20022 SEPA CBPR as the Payment Process Profile.	No action.	Bank receives payment file.	Not Started
Bank	Provide the Oracle Fusion POD family name to the bank. Embedded Banking Services recognizes only	Send encrypted payment acknowledgment files using this naming convention:	Production acknowledgment file is received and recognized by Oracle Fusion Cloud ERP.	Not Started

Owner	Client Action in Oracle Fusion Cloud ERP	Bank Action/ Confirmation	Completion Evidence	Status
	correctly named encrypted acknowledgment files.	<POD NAME>.BOFA.PAY-ACK.L*.<YYYYMMDDHHmm		

Funds Capture

Owner	Client Action in Oracle Fusion Cloud ERP	Bank Action/ Confirmation	Completion Evidence	Status
Client	Update Manage Receivables System Options for each participating business unit.	No action.	Business unit receivables options are updated.	Not Started
Joint	Provide the *ORA_BAI2_EXTENDED_GENERIC* template.	Provide lockbox receipt details in the provided BAI2 format.	Sample BAI2 lockbox file produced.	Not Started
Joint	Configure the lockbox with the origination number exactly as it appears in the bank's file name, including leading zeros.	Provide the correct lockbox number and bank origination number.	The lockbox configuration contains the bank-provided lockbox and origination number.	Not Started
Bank	Embedded Banking Services recognizes only correctly named encrypted lockbox files.	Send lockbox files using this naming convention: ORALB.<Lockbox Number>.<ABA Number/origination Number>.BofA.<YYYYMMD	Lockbox file is received and processed by Oracle Fusion Cloud ERP.	Not Started

Bank Statement Processing

Owner	Client Action in Oracle Fusion Cloud ERP	Bank Action/ Confirmation	Completion Evidence	Status
Client	Configure user-defined reconciliation rules, if relevant.	Confirm that the same accounts are enabled for statement delivery.	Reconciliation-ready accounts are documented.	Not Started
Bank	Use the ISO20022 CAMT.053.001.02 format	Confirm the bank's CAMT.053 template is configured.	Sample statement imports successfully.	Not Started

Owner	Client Action in Oracle Fusion Cloud ERP	Bank Action/ Confirmation	Completion Evidence	Status
	for prior-day bank statements.			
Bank	Provide the Oracle Fusion POD family name to the bank. Embedded Banking Services recognizes only correctly named encrypted CAMT.053 files.	Send statement files using this naming convention: <POD NAME> .BOFA.CAMT53*.<Y	CAMT.053 file is received and processed by Oracle Fusion Cloud ERP.	Not Started

Testing

Before testing, confirm all in-scope bank accounts and their intended use with your bank's implementation manager.

Completing this step before testing helps avoid delays during the Embedded Banking Services implementation.

Enable only one test environment at a time. The bank reuses the same security keys for all nonproduction environments that connect to the Bank of America UAT environment. Generate new keys for the production environment.

Embedded Banking Services with Bank of America provides connectivity, file template formats, and file naming conventions, but you are responsible for working with your bank's implementation manager to:

- Configure CBPR+ payment templates for your business use cases.
- Verify file naming conventions and encryption.
- Complete payment and banking service testing.
- Coordinate bank statement testing.

Obtain signoff from the bank before moving to production. Repeat the implementation steps for the production environment.

Implement Embedded Banking Services for PNC

To implement Embedded Banking Services in your Oracle Fusion environment, complete these activities:

- Establish secure connectivity between Oracle Cloud ERP and PNC.
- Configure banks and create bank accounts.
- Configure funds disbursement.
- Configure funds capture.
- Configure bank statement processing.

Note: In this playbook, PNC is also referred to as the bank.

Establish Connectivity Between Oracle Cloud ERP and the Bank

Follow these steps to establish connectivity between Oracle Cloud ERP and the bank, and create bank accounts.

- Manage the Banking Configuration
- Configure Banks and Bank Accounts

Get Ready to Implement

Before you enable Embedded Banking Services with PNC, coordinate with your PNC implementation manager and identify the Oracle Cloud ERP environment that you'll use for testing.

Coordinate with PNC

Notify your PNC implementation manager before you enable connectivity from Oracle Cloud ERP. PNC must assign a technical implementation analyst to process the SSH and PGP keys transmitted during enablement.

PNC can't retrieve transmitted keys after seven days. Coordinate the timing of enablement with your implementation manager so that PNC can process the keys within this period.

Plan Your Test Environment

You can have multiple Oracle Cloud ERP test environments for activities such as integration testing and user acceptance testing. However, PNC provides a single test account, so you can test the integration in only one environment at a time.

Complete testing in the current environment before moving to another environment.

Coordinate with your PNC implementation manager to confirm these requirements before testing:

- **Payment account setup:** If you transmit payments, PNC must set up your accounts in its Integrated Payables system. Allow additional time for this setup. You can't begin payment testing until it's complete.
- **Account usage:** Identify the intended usage of each account, including ACH payments, domestic wire payments, international wire payments, check payments, prior-day reporting, current-day reporting, and lockbox processing. PNC configures the accounts for these usages. Payments will fail at the bank if payment accounts aren't configured for the correct usage.
- **Sender ID:** Obtain the sender ID that PNC creates for your company before transmitting payments.
- **Check payments testing:** Allow additional testing time for payments made using checks printed in-house.
- **File delivery schedules:** Bank statement and lockbox files are transmitted at specific times. Inform PNC whether you want to receive files every day or only on working days. Choose the delivery schedule based on your month-end close requirements.

Move Testing to Another Environment

To move testing to a new Oracle Cloud ERP environment:

1. Reset connectivity in the existing environment. Follow the instructions provided in the Oracle Support note *(Knowledge Article KB926878)*. This support note is available on the Oracle Support website.
2. Enable connectivity from the new environment by going to the **Manage Embedded Banking** page.
3. Notify PNC as soon as the connectivity is initiated so that PNC can perform the required steps.
4. On the **Manage Embedded Banking** page, verify that the status is **Completed** after enablement is complete.

Manage the Banking Configuration

After completing the required setup, enable Embedded Banking Services to establish connectivity with the bank.

Use the **Manage Banking Configurations** task to select the business flows to enable.

To enable connectivity between the bank and Oracle Cloud ERP:

1. Sign in with the **Financial Application Administrator** or **Application Implementation Consultant** role. If you use a custom role, add the Manage Banking Configurations privilege (FUN_MANAGE_PARTNER_CONFIGURATIONS_PRIV).
2. Go to the Setup and Maintenance work area and select the Financials offering.
3. Select the Banking Configurations functional area and then select **Manage Embedded Banking Configurations.**
4. Select your bank from the bank list. On the Manage Embedded Banking Configurations page, select the business flows to enable and select **Next**.
5. When connectivity is established, the status of each business flow changes from **In Progress** to **Completed**. You receive a notification when onboarding is complete. During this process:
    - Oracle Cloud ERP sends the enablement request to PNC through Oracle B2B Service.
    - Oracle B2B Service sends the SSH keys and PGP keys for the pod to PNC.
    - PNC sets up the user account, validates the keys, and creates the necessary folders.

You're now ready to test the integration. When testing is complete, bank provides testing signoff and then configures its production environment. After bank completes this configuration, enable connectivity again from your Oracle Cloud ERP production environment and repeat the implementation steps.

View Configurations

These tasks are preconfigured for each business flow.

You're responsible for any modifications to the predefined configuration and any additional setup required for your implementation.

PNC Configurations

Flow	Preconfigured Task	Predefined Value
Banks and Bank Accounts	Manage Payment Systems	PNC Payment System
Funds Disbursement	Manage Payment Methods	• PNC EFT Payment Method • PNC Check Payment Method
	Manage Payment Codes	• Delivery Channel Codes for ACH: o Cash concentration or disbursement corporate counterparty – CCD o Corporate trade exchange – CTX o Prearranged payment or deposit consumer counterparty – PPD o IN (Cross-border customer credit transfer)

Flow	Preconfigured Task	Predefined Value
		• Delivery Channel Codes for Wire: o BOP (International Wire) o FWT (Domestic Wire) • Service Level Codes: o Nonurgent payment – NURG o Urgent payment – URGP
	Manage Payment Process Profiles	• PNC ISO20022 CGI CBPR
	Manage Formats	• PNC ISO20022 CGI CBPR Format • PNC Disbursement Acknowledgment • PNC Positive Pay File Format
	Manage Transmission Configurations	PNC Positive Pay File Outbound
Funds Capture	Manage AutoMatch Rule Sets	ORA_Automatch 90%
	Manage Receivables Activities	ORA_Earned Discount, ORA_Unearned Discount
	Manage Receipt Classes and Methods	ORA_Lockbox
	Manage AutoCash Rule Sets	ORA_Invoice Match
	Manage Receipt Sources	Created for each bank account using bank account assignments
Bank Statement Processing	Manage Formats	• PNC ISO20022 CAMT053 Format (Prior Day Reporting) • PNC ISO20022 CAMT052 Format (Intraday Reporting)
	Manage Bank Statement Transaction Codes	Transaction Code 698
	Manage Bank Statement Transaction Creation Rules	698_<Legal Entity Name>
	Manage Bank Statement Reconciliation Matching Rules	Six rules to facilitate bank statement reconciliation
	Manage Bank Statement Reconciliation Rule Sets	Oracle B2B integration matching rule set

Configure Banks and Bank Accounts

Banks and bank accounts must be configured in Oracle Cloud ERP before transacting. The recommended method is to use turnkey implementation spreadsheet to upload bank accounts. Alternatively, you can manually enter the bank and bank account details using the user interface. This will not create any matching rule sets.

The bank provides a list of your bank accounts. Verify with the bank that the accounts are set up for the correct payment types and obtain the sender ID for the transmission.

- Upload bank accounts using the turnkey implementation spreadsheet.
  a. Download the template from the document *Knowledge Article KB930302* from the Oracle Support website.
  b. Copy the bank accounts from the list provided by the bank to the turnkey implementation spreadsheet
     i. Enter the sender ID received from the bank in the Company ID column.
     ii. Enter the legal entity.
  c. Generate the XML file by following the instructions in the template.
  d. Sign in as a Financials Administrator, Application Implementation Consultant, or a user with equivalent privileges.
  e. From the Setup and Maintenance work area, search for the task Upload Banks, Branches, and Accounts.
  f. Run the upload process by selecting:
     - File Type = Turnkey Onboarding
     - Data File = XML file generated from the spreadsheet

  The process:
  - Creates bank accounts and associated setup.
  - Assigns business units to bank accounts based on legal entities.
  - Automatically assigns the bank statement transaction creation rule set for the legal entity of the bank account and the bank statement reconciliation rule set **Oracle B2B integration matching rule set**.

    If you've already enabled Embedded Banking Services with another bank, the Oracle B2B integration matching rule set already exists in your environment. You can assign this reconciliation matching rule set and the applicable transaction creation rule set to bank accounts that already exist in Oracle Cloud ERP to use enhanced bank statement processing capabilities. You can also continue to use your existing bank statement matching rules.

Configure Funds Disbursement

Embedded Banking Services supports payment processing through PNC using predefined Oracle Fusion configurations. Supported payment types include ACH and wire payments. The integration also supports outsourced check printing. Predefined configurations are available to accelerate implementation, while additional payment scenarios can be configured using standard Oracle Fusion functionality.

PNC integration uses predetermined file formats and file naming conventions, eliminating multiple decision points.

PNC supports payments within the US and Canada using the ISO20022 PAIN.001 message format for payments and the ISO20022 PAIN.002 message format for file-level and transaction-level acknowledgments. If you use Embedded Banking Services, you'll:

- Use the specified formats.
- Receive transaction-level acknowledgments.
- Print in-house checks using XML-based positive pay file transmission to PNC.

Supported Payment Types and Capabilities

These payment types are supported through the predefined integration with PNC.

- US ACH (CCD, CTX, PPD, IN)
- US Wire
- US Checks printed by PNC (outsourced checks)
- International payments to 55 countries

Positive pay for in-house printed checks is supported.

Note: Additional payment types are supported by customizing the payment templates and formats.

Preconfigured Setup

Enabling funds disbursement provides a preconfigured PNC payment setup, including payment formats, methods, codes, payment systems, process profiles, and transmission configurations. These configurations support common payment types such as ACH, domestic/international wires, checks, acknowledgments, and Positive Pay.

Enabling funds disbursement allows you to use preconfigured payment and acknowledgment setup and formats.

These configurations are available for your use.

Artifact	Details	Additional Information
Payment Format	• PNC ISO20022 CGI CBPR Format • PNC Disbursement Acknowledgment • PNC Positive Pay File Format	View in the **Manage Formats** page
Payment Method	• PNC Check Payment Method • PNC EFT Payment Method	View in the **Manage Payment Methods** page
Payment Codes	• Delivery channel codes for ACH o CCD, CTX, PPD, IN • Delivery channel codes for Wire o BOP (International Wire) o FWT (Domestic Wire) • Service level codes o NURG, URGP	View in the **Manage Payment Codes** page. These are generic codes and apply to multiple banks.
Payment System	PNC Payment System	View in the **Manage Payment Systems** page
Payment Process Profile	PNC ISO20022 CGI CBPR	View in the **Manage Payment Process Profiles** page

Artifact	Details	Additional Information
Transmission Configuration	PNC Positive Pay File Outbound	View in **Manage Transmission Configurations**

Manual Setup

By using the preconfigured setup, you're ready to process payments with a few simple optional setups if they apply to you.

Review Payment Voiding Option and Email Acknowledgment Option

By default, payments are voided when the acknowledgment status is rejected.

Review the payment system account and change the value for **Disbursement Acknowledgment Automatic Voiding Option** to **No** to prevent automatic voiding of payments.

To change the option, follow these steps:

1. From the **Setup and Maintenance** work area, go to the **Manage Payment Systems** page.
2. Search for **PNC Payment System** and select the **Edit** icon.
3. In the **Settings Required by Payment System** section, select the **plus** icon.
4. In the new row, enter **Email Disbursement Acknowledgment Details** in the **Name** field and enter EMAIL_DISB_ACK_DETAILS in the **Code** field.
5. Select **Save and Add Accounts**.
6. In the **Payment System Accounts** section, select **PNC_PSA** and perform these tasks:
    - Change the value of the option **Disbursement Acknowledgment Automatic Voiding Option** to **No** to prevent automatic voiding.
    - Select the desired action for the option **Disbursement Acknowledgment Voiding Invoice Action**.
    - Set the value to **Yes** for the option **Email Disbursement Acknowledgment Details**.
    - Select the value **Payment File Register Format** for the option **Payment File Register Format**.

Create Payment Process Request Template

Set up payment templates based on your organization's payment needs, with separate processing recommended for checks and electronic payments.

- Use the PNC ISO20022 CGI CBPR Format payment process profile to create a template.
- Define invoice selection criteria based on your company's needs.
- Select the disbursement bank account with PNC.

You can create one or more templates if you want to restrict payments to specific types, such as ACH, wire, or check, in a single file.

Create Delivery Channel for Check Printing

If you use outsourced checks with PNC, you must create the delivery channels required for check printing in the **Manage Payment Codes** page available from the **Setup and Maintenance** work area.

These values apply to check payments.

- UM - US Mail
- ON - Overnight Mail (FEDEX)

- BM - Bulk Mail (FEDEX)
- CN - Canadian
- IT - International
- 2D - Two Day (FEDEX)
- PM - Priority Mail (USPS)

If you use Bulk Mail (FEDEX), you must add the two-character address code to the end.

For example, BMA1, where A1 is the address code.

Set Up Positive Pay For In-House Printed Checks

To enable PNC Positive Pay for in-house printed checks, configure the PNC-specific check template and format, payment method alias, and payment process profile in Oracle Cloud ERP. The profile must use the PNC payment system and outbound Positive Pay configuration, with the required grouping, validation, reporting, and automatic file transmission settings.

If you print checks in-house and plan to use positive pay capability with PNC, you can do so by performing these steps.

1. Create a check template.
    a. Create a check template according to the PNC-specific format for in-house check printing.
    b. Upload the check template to the BI Publisher under the **Payments** folder.
2. Create a check format.
    a. From the **Setup and Maintenance** work area, go to the **Manage Formats** page and create a new format with the **Disbursement Payment File Formats** type.
    b. In the **Template** field, select the check template created in the previous step.
    c. In the **Predefined Validations** section, add these validations:
        - Payment Method Alias = **CHK**
        - Either Payer BIC or Branch Number is required
        - Logical Group Reference Number is required

        > **Note:** PNC follows the ISO20022 format for positive pay files and requires the logical group reference value.

    d. Save the new format.
3. Update the payment methods used for PNC in-house check printing by setting the Alias to **CHK**.
4. Create a payment process profile for in-house check printing.
    a. From the **Setup and Maintenance** work area, go to the **Manage Payment Process Profiles** page and create a profile for check printing.
        i. In the Payment File Format field, select the check format that you created in the previous steps.
        ii. In the Payment System tab, select **PNC Payment System**.
            - In the Payment System Accounts tab, a new row is automatically created with PNC_PSA as the **Payment System Account**.
            - In the Payment File Transmission Configuration field, select **PNC Positive Pay File Outbound**.
        iii. In the Payment tab, enable these document grouping rules: **Ultimate Debtor**, **Bank Charge Bearer**, **Payment Reason**, and **Delivery Channel**.
        iv. In the Grouping tab, enable all transaction grouping rules.
        v. In the Reporting tab, select these values in the Positive Pay section:
            - In the Format field, select **PNC Positive Pay File Format**.

- Enable the **Automatically transmit file** option.

b. Save this payment process profile and use it when creating the payment process request template for check printing.

Set Up Or Update Supplier Payment Methods and Payment Attributes

You can capture payment attributes, such as service level and delivery channel, at the payment process profile level or at the supplier level.

You can update the supplier records to reflect the payment attributes by following these steps:

- Update Supplier Payment Methods or add Payment Method Alias
- Update Service Level Code
- Update Delivery Channel

Update Supplier Payment Method or Add Payment Method Alias

You can update the payment method at the supplier level or site level based on your usage.

1. In the **Edit Suppliers** page, go to **Payments** > **Payment methods** either at the supplier level or site level.
2. Select the payment method:
   - Select **PNC EFT Payment Method** for electronic payments.
   - Select **PNC Check Payment Method** for outsourced check payments.

   The new payment methods are effective only for new payments.
3. Alternatively, you can add the payment method alias to the existing payment method instead of changing the payment methods for the supplier.
   a. Go to **Manage Payment Methods**.
   b. Select the payment method that you've been using for the suppliers and add a payment method alias.
      - For electronic (ACH and wire) payments, enter the payment method alias as **TRF**.
      - For check payments, enter the payment method alias as **CHK**.

Note: When you add a payment method alias, make sure that it doesn't affect payments through other banks.

Update Service Level Code

A wire transfer is distinguished from an ACH by the service level code.

You can capture the service level code at the supplier level or at the payment process profile level.

To capture the service level code at the supplier level, go to the **Edit Suppliers** page. At the supplier level or site level, go to **Payments** > **Payment Attributes** > **Payment Delivery** > **Service Level Code**.

Select from these values that apply to PNC.

- Urgent Payment (URGP, to denote a wire transfer)
- Nonurgent Payment (NURG, to denote ACH)

Update Delivery Channel

ACH and wire payments have a delivery channel to indicate the nature of the payment.

You can capture the delivery channel at the supplier level or at the payment process profile level.

To update the delivery channel at the supplier level, go to the **Edit Suppliers** page. At the supplier level or site level, go to **Payments** > **Payment Attributes** > **Payment Delivery** > **Delivery Channel**.

Payment Type	Service Level	Delivery Channel
Nonurgent Payments (ACH)	NURG	• Cash concentration or disbursement counter party (CCD) • Corporate trade exchange (CTX) • Prearranged payment or deposit consumer counter party (PPD) • Cross border customer credit transfer (IN)
Urgent Payments (Wire)	URGP	• Domestic Wire (FWT) • International Wire (BOP)
Check	Doesn't Apply	• Delivery channels that you created

Set Up Purpose Codes for International Payments

International payments to countries such as Bahrain, China, India, Indonesia, Mexico, Morocco, New Zealand, Oman, Philippines, Qatar, Romania, Saudi Arabia, Singapore, South Africa, Thailand, Turkey, Uganda, United Arab Emirates, and Zambia require payment purpose codes in the payment file. Set up the payment codes using the Manage Payment Codes task and select the correct payment code at the invoice instalment level so the data is transmitted to the bank.

Create Additional Payment Process Profiles For Bank Transfers and Ad Hoc Payments

If you use Embedded Banking Services for bank transfers and ad hoc payments, you may need to set up additional payment process profiles depending on the service levels and delivery channels used.

For example, if you use wire for domestic bank transfers and ACH for ad hoc payments using CCD, you must create two additional payment process profiles. One payment process profile must have the service level set to Urgent Payment (URGP) and the delivery channel set to domestic wire (FWT), and the other payment process profile must have the service level set to Nonurgent Payment (NURG) and the delivery channel set to CCD.

Additionally, select **PNC Funds Disbursement Outbound** for the **Payment File Transmission Configuration** field. This is a required step.

Update Unpaid Invoices

You must update any existing unpaid invoices of the suppliers with the payment method, delivery channel, and service level code if these attributes don't reflect the correct values in the invoices.

Schedule Payment Runs

You use the newly created payment process request template to schedule the payment runs.

Verify that the invoice selection criteria are accurate and reflect the intended suppliers and invoices.

Reviewing the Payments

When you use Embedded Banking Services, the payment transmission is managed by Oracle Cloud ERP and Oracle B2B Service.

Oracle will correct any file transmission failure. With PNC, Oracle Cloud ERP processes the transaction-level acknowledgment files. The status of the payments reflects where the payments are in the payment lifecycle. Oracle Cloud ERP automatically voids rejected payments. You can reprocess these payments if needed.

PNC sends either a file-level acknowledgment or a transaction-level acknowledgment to customers. With Oracle Cloud ERP Embedded Banking Services, PNC sends a transaction-level acknowledgment.

Note: Contact Oracle Support to identify the next steps in these scenarios:

- Payment transmission failed and can't be retried.
- Payment file status hasn't changed to Acknowledged within a couple of hours.

These statuses apply for the payment file and the payments.

Transaction-Level Acknowledgment	Payment File Status	Payment Status
Payment file is transmitted to bank	Completed and pending acknowledgment	N/A
All payments are accepted	Acknowledged	Negotiable
Some payments are rejected	Acknowledged	• Negotiable for accepted payments • Voided for rejected payments
All payments are rejected	Acknowledged	Voided

Because Oracle Cloud ERP automatically initiates acknowledgment processing, the results of the Retrieve Disbursement Acknowledgments process may not be visible by default in the **Payments** work area.

To enable Payments users to view this process in either the **Payments** work area or the **Scheduled Processes** work area, provide read privileges for this process:

- JobDefinition://oracle/apps/ess/financials/payments/fundsDisbursement/payments/FDAckProcessing

  For more information, see Example for granting a user privileges to see output of specific ESS job processes in *Knowledge Article KB96503*.

Note: The Retrieve Disbursement Acknowledgments process is initiated by the system user urn_opc_resource_fusion_<pod name>_erp_APPID.

If you're sending positive pay files to PNC, you can review the positive pay file in the **Create Positive Pay** process results.

Consider these points when transmitting positive pay files:

- The positive pay file is transmitted automatically after the payment file is confirmed.
- A positive pay file can't be generated for single or pay-in-full payments.
- Acknowledgment processing isn't supported for positive pay files.

Generate Positive Pay Files for Voided Checks

To generate and send an ISO 20022 positive pay file for voided PNC checks:

1. Void the applicable check payment. Run the Create Positive Pay File process.
2. Select the applicable PNC positive pay payment process profile. Verify that the transmission configuration for this profile is PNC Positive Pay File Outbound.
3. Select the payment file number associated with the voided payment.
4. Confirm that Select Status is set to Voided Payments Only.
5. Submit the process and review the generated positive pay file.

Note: Positive pay files for stopped payments aren't supported.

Configure Funds Capture

Use this integration to process customer receipts through your bank accounts.

Lockbox processing with PNC uses the preconfigured setup and the ORA_BAI2_EXTENDED_GENERIC format, an Oracle-specific BAI2 format. The bank transmits lockbox files to Oracle Cloud ERP in this format. Lockbox receipts are automatically applied when the business unit or lockbox permits automatic application.

Preconfigured Setup

The preconfigured setup automates receivables processing and matching, with supporting configurations created based on your bank account and business unit structure.

Artifact	Details	Additional Information
AutoMatch Rule Set	ORA_Automatch 90%	View in **Manage AutoMatch Rule Sets**
AutoCash Rule Set	ORA_Invoice Match	View in **Manage AutoCash Rule Sets**
Receivables Activities	• ORA_Unearned Discount • ORA_Earned Discount Created for each business unit associated with the bank accounts.	View in **Manage Receivables Activities** page
Receipt Classes and Methods	ORA_Lockbox	View in **Manage Receipt Classes and Methods**
Receipt Sources	Created for each bank account using bank account assignments	View in **Manage Receipt Sources**

Manual Setup

Complete the manual receivables setup by configuring relevant defaults and lockboxes, with document sequencing handled automatically when enabled.

- Set default settings at the receivables system options level
  - If it's relevant for your company's needs, consider setting these defaults at the receivables system options for the business unit.

        - AutoMatch Rule Set to ORA_Automatch 90%
        - AutoCash Rule Set to ORA_Invoice Match
        - Auto Apply to Yes
- Create lockbox
    - Create any new lockboxes that you need using the provided receipt source, receipt method, AutoCash rule set, and AutoMatch rule set. Alternatively, you can use the rules that you currently use.

  If document sequencing is enabled for the relevant Ledger or Legal Entity, the related receipt processing document sequencing is set up automatically.

Reviewing Lockbox Processing Results

You can review the lockbox processing results from the Accounts Receivables work area.

The transmission name for the lockbox will be the lockbox number. You can review the lockbox exceptions, correct them, and reprocess as needed. All successfully processed lockbox transactions can be reviewed in the **Manage Receipts** page.

Each lockbox file contains the transactions for a single lockbox. When the bank posts a lockbox file, Oracle Cloud ERP retrieves the file, places it in the Universal Content Management (UCM) directory for lockbox, and initiates the Process Intraday Lockboxes process for the retrieved file.

Because Oracle Cloud ERP automatically initiates lockbox import processing, Accounts Receivable users may not be able to view the related processes in the **Scheduled Processes** work area by default.

To enable Accounts Receivable users to view these processes in the **Scheduled Processes** work area, provide read privileges for these processes:

- JobDefinition://oracle/apps/ess/financials/receivables/receipts/manualBatches/IntradayLockboxesMasterEss
- JobDefinition://oracle/apps/ess/financials/receivables/receipts/lockboxes/ProcessLockboxesEss

  For more information, see Example for granting a user privileges to see output of specific ESS job processes in *Knowledge Article KB96503*.

> **Note:** The Process Intraday Lockbox process is initiated by the system user urn_opc_resource_fusion_<pod name>_erp_APPID.

Configure Bank Statement Processing

Embedded Banking Services with PNC provides preconfigured setup and formats for bank statement processing and reconciliation. Use this integration to automatically retrieve, import, and reconcile bank statements.

When bank statements are placed in the respective PNC folders, Oracle Cloud ERP retrieves and processes those files immediately. After statement processing, automatic bank reconciliation is initiated. You don't need to schedule any process for bank statement processing.

Supported Bank Statement Reporting Formats

These PNC bank statement reporting formats are supported:

- Prior Day Reporting – CAMT.053 format
- Intraday Reporting – CAMT.052 format

Preconfigured Setup

The PNC preconfigured setup streamlines bank statement processing and reconciliation through predefined transaction and matching rules.

Artifact	Details	Additional Information
Transaction Code	Transaction code 698	View in **Manage Bank Statement Transaction Codes**
Transaction Creation Rules	Transaction creation rule for transaction code 698 for each legal entity assigned to the bank accounts	View in **Manage Bank Statement Transaction Creation Rules**
Reconciliation Matching Rules	Six rules to facilitate bank statement reconciliation	View in **Manage Bank Statement Reconciliation Matching Rules**
Reconciliation Matching Rule Set	Oracle B2B integration matching rule set	View in **Manage Bank Statement Reconciliation Rule Sets**

Manual Setup

PNC doesn't provide the End to End ID in the corresponding tag in the bank statements for the payments originated from Oracle Cloud ERP.

You can create an additional parse rule and matching rule based on this information.

- For ACH payments, parse the Additional Entry Information field for the numeric value that follows RECEIVER ID: and store it in the End to End ID field.
- For wire payments, parse the Additional Entry Information field for the numeric value that follows RMT INF: and store it in the End to End ID field.
- Match statement transactions and payments using End to End ID for both transactions.

Reviewing Bank Statement Processing Results

You can review the bank statement processing results in the Bank Account Reconciliation work area. Any unreconciled transactions can be manually reconciled.

When Embedded Banking Services is enabled, bank statement processing is automatically initiated by Oracle Cloud ERP. When the bank posts a bank statement for the company, Oracle Cloud ERP retrieves the file, places it in the Universal Content Management (UCM) directory for Cash Management, and initiates the Load and Import Bank Statement process for the retrieved file. When the bank statement load is completed, the process automatically initiates the bank reconciliation process.

Because Oracle Cloud ERP automatically initiates bank statement import and reconciliation processing, Cash Management users can not view the related processes in the **Bank Account Reconciliation** work area by default.

To enable Cash Management users to view these processes in the **Bank Account Reconciliation** work area or the **Scheduled Processes** work area, provide read privileges for these processes:

- JobDefinition://oracle/apps/ess/financials/cashManagement/bankStatements/BankStatementsProcessingForCloud
- JobDefinition://oracle/apps/ess/financials/cashManagement/bankStatements/BankStatementsProcessing
- JobDefinition://oracle/apps/ess/financials/cashManagement/cashPosition/integration/CashPositionDataExtraction

  For more information, see Example for granting a user privileges to see output of specific ESS job processes in *Knowledge Article KB96503*.

Note: The Load and Import Bank Statement process is initiated by the system user urn_opc_resource_fusion_<pod name>_erp_APPID.

Security

If you don't use the predefined Financials Administrator or Application Implementation Consultant roles, add the FUN_MANAGE_PARTNER_CONFIGURATIONS_PRIV privilege to your custom role to access the Manage Embedded Banking Configurations page.

Testing

PNC requires successful testing for each enabled payment account, payment type, and lockbox before production migration, with testing performed in one Oracle Cloud ERP environment at a time.

Testing requirements necessary for production migration:

- Three successful tests for each payment account and the payment type enabled for that account. For example, if you've three payment accounts and all three are enabled for ACH, wire, and check, you require a total of nine successful tests to be approved for production migration.
- Three successful tests for lockbox.

Effects of an Oracle Cloud ERP P2T Refresh on Embedded Banking

Use these FAQs to understand how an Oracle Cloud ERP production-to-test (P2T) refresh affects Embedded Banking Services enablement, test-environment setup changes, payment templates, and bank files.

What happens if a P2T refresh occurs while Embedded Banking Services enablement is in progress?

The P2T refresh doesn't affect the enablement process. Embedded Banking Services enablement continues to progress. However, any setup changes that you made but didn't promote to production are lost during the P2T refresh.

Note: After a P2T refresh, verify that your payment templates point to the correct folder.

What happens if a P2T refresh occurs after Embedded Banking Services enablement is complete and testing is in progress?

The P2T refresh doesn't affect your Embedded Banking Services enablement status. Embedded Banking Services remains enabled. However, if you made changes in the test environment to support Embedded Banking Services, any changes that you didn't promote to production are lost during the P2T refresh. If bank statements or acknowledgment files are scheduled for delivery to the test environment, the files continue to flow to the test environment after the refresh. However, file processing might fail if the setup is incomplete.

Note: After a P2T refresh, verify that your payment templates point to the correct folder.

Plan Your Production Cutover

Plan your production cutover for Oracle Fusion Cloud Financials Embedded Banking Services with PNC by allowing sufficient notice for your planned go-live date and accounting for the bank's year-end freeze period.

- Allow time for production cutover notice.

  Provide at least two weeks notice to PNC for the planned production cutover. If outsourced check printing is involved, additional time might be required. Share your planned go-live date with the bank early enough to meet the required notice period.
- Schedule the go-live date outside PNC's freeze period.

  The bank observes a freeze period during late December and early January. If your planned go-live date falls during this period, work with the bank to identify a date outside the freeze period.