



Processing Payments Using Card Payouts and Oracle E-Business Suite

White Paper

Version 1.0

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2. Introduction

The Card Payouts service enables corporate (treasury) banks to offer the Visa Direct payout service to their enterprise clients. Card Payouts can be integrated into enterprise resource planning (ERP) systems, such as Oracle E-Business Suite, so that accounts payable teams can use the service as part of their A/P workflows.

This white paper is based on Visa's internal solution to enable its employees to get reimbursed for out of pocket expenses via Visa's Oracle E-Business Suite ERP system. Please note that this example may provide insight into application in numerous other payout scenarios and use cases. The document is intended to give enterprise system administrators an illustrative example of the functionality and steps associated with setting up and processing payments. The functionality discussed in this document may also be extended to supplier payments processed through the same system.

Process steps included

1. Creating a new payment method in Oracle E-Business Suite
2. Setting up a default new payment method on an employee supplier record
3. Processing payments and transferring payment files to Visa Direct
4. Processing payment response files from Visa Direct and voiding payments in case of failure
5. Informing employees following successful reimbursement

Important Note: To follow the steps outlined in this white paper, you will need to have already integrated Card Payouts into your Oracle E-Business Suite instance. This document does not include integration guidelines.

About Visa Direct

Visa Direct is a digital payment capability that enables enterprises and financial institutions to move money to billions of endpoints worldwide over the Visa network, using card numbers or financial account numbers to route the payments. With Visa Direct, enterprises have an efficient, secure and seamless way to disburse funds directly to a recipient's eligible Visa Debit or Visa Prepaid card (in the U.S.,



payments can also be routed to most Mastercard debit and prepaid cards¹. This makes it possible to easily pay employees, vendors, customers or others in real time,² 24/7/365, without the need to manage batch files or rely on slower payout methods like wire, check or ACH. For more information on Visa Direct, visit: https://developer.visa.com/capabilities/visa_direct.

¹ Visa offers the Visa Push Payment Gateway Service to enable push-to-card capabilities for non-Visa cards in the U.S.

² Actual fund availability depends on receiving financial institution and region.

3. Key Terms

Enterprise Resource Planning (ERP)

Enterprise resource planning (ERP) refers to a type of software that organizations use to manage day-to-day business activities, such as accounting, procurement, project management, risk management and compliance, and supply chain operations. A complete ERP suite also includes enterprise performance management software to help plan, budget, predict and report on an organization's financial results. This document focuses on the Oracle E-Business Suite.

Payment Method

The payment method is a payment attribute associated with an invoice that indicates the process by which a payer makes a payment to a payee.

Payment Process Profile (PPP)

A payment process profile is a payment attribute assigned to an invoice that specifies how Oracle Payments performs processing. PPPs are comprised of several types of payment processing information, including specifications for formatting and transmission.

Payment Process Request (PPR)

A payment process request is a request created by Oracle Payments services that contains one or more invoices to be paid along with payment processing instructions.

Employee Portal

This is the Oracle portal where employees can enter and manage their debit card information.

PAN Data

Personal Account Number (PAN) data refers to an employee's debit card account number.



ERP Shared Services

This contains the Secure Account Capture UI (which includes debit card account validation and bank tokenization) and the Message Transaction Service (which transfers the payment batch information during the API call and connects with the corporate bank for payment processing).

Hub/ERP Hub

This refers to Oracle E Business Suite.

Bank – Issuing

This is the bank that has issued the payee's Visa debit card and that will receive the disbursed funds.

Bank – Corporate or Treasury

This is the bank associated with the business who is paying the employee, vendor, or other payee. Funds will be transferred from this bank to the payee during the payment process.

Alias Directory Service (ADS)

The ADS is the beneficiary directory where Visa stores the bank tokens.

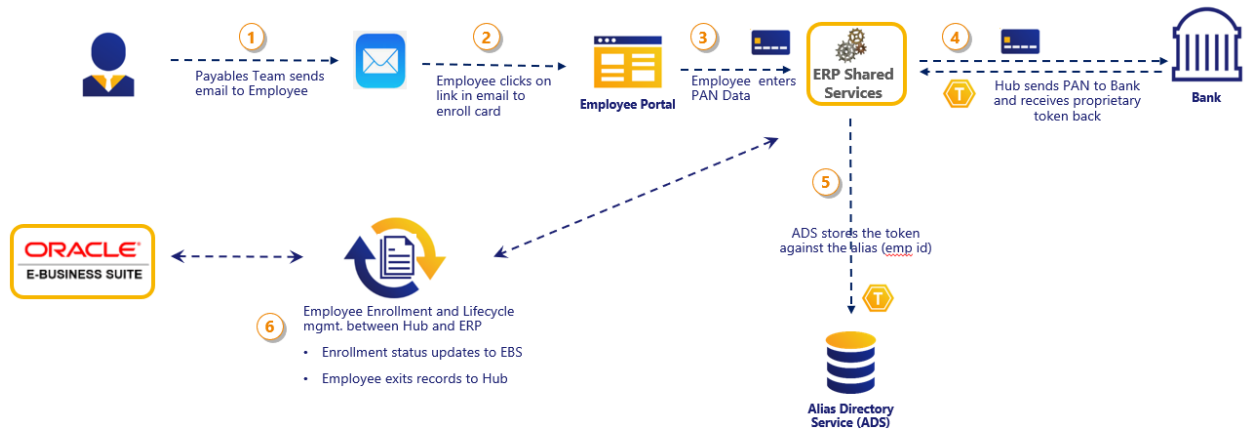
EBS

This is an acronym for Oracle E-Business Suite.

4. Payment process overview

There are two main processes involved in the overall payment flow as outlined below. This document will focus in detail on the Oracle E-Business Suite process and Card Payouts components that facilitate this flow.

4.1. Card Payouts Enrollment flow ^{*}



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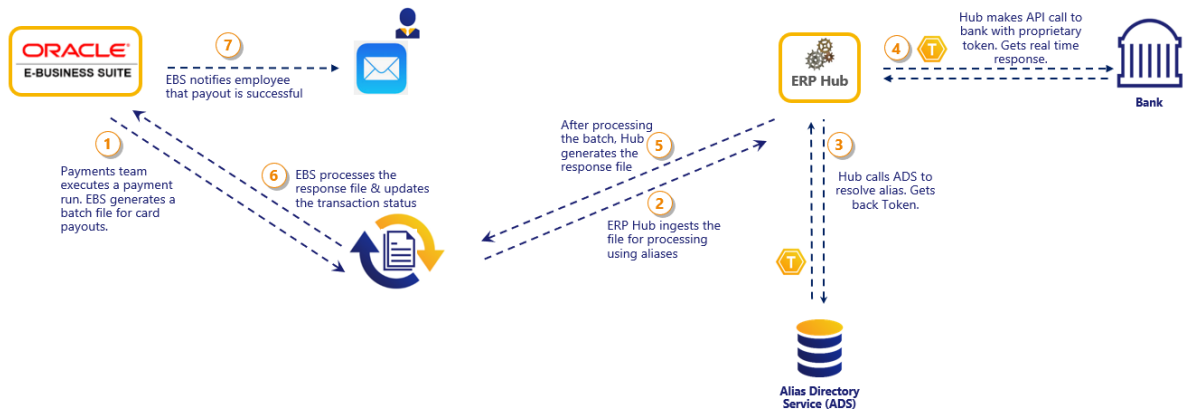
The high-level process flow for **Card Payouts Enrollment** includes the following steps:

- The **Accounts Payable** team sends the **employee** an invitation to enroll their **Visa debit card** in the **Card Payouts application**.
- The employee clicks on the enrollment link in the email, the system authenticates, and the employee is taken to the **Card Payouts Enrollment** page that has been integrated into the **Oracle employee portal**.
- The employee enters and submits their card details.
- The employee's **issuing bank** validates the card, checks for fast funds eligibility, and tokenizes the card's credentials. If the issuer is not fast funds enabled, the system cannot enroll the card and will return an error message.



- The **token** is stored in the **Alias Directory service (ADS)**, mapping the **employee ID** and token.
- The employee portal for Visa Direct generates a file with the **enrollment status** and transfers it to the **Oracle E-Business Suite system**.
- Oracle processes the enrollment file and updates the **payment method** in the **Card Payouts supplier record** for future payouts.

4.2. Card Payouts Processing flow



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The high-level process flow for **Card Payouts Processing** includes the following steps:

- The **enrolled employee** submits their out of pocket **expenses** for approval.
- Approved expenses are batched and sent to the **Oracle Payables** system.
- The **Accounts Payable** team creates an **invoice** with **payment method** set to **Card Payouts**.
- The Accounts Payable Team runs a **payment batch** for Card Payouts.
- The **Oracle E-Business system** generates a **payment file** for Card Payouts invoices.
- The payment file is processed by **Visa Direct** using the **employee debit card token**. API calls are made to the **corporate bank**, and the transaction status is updated.
- Visa Direct processes the transaction and provides the payment status as a **response file** to Oracle.
- Oracle processes the response file.
- A **confirmation email** is sent to employee upon successful reimbursement.



- If any errors occur, the **Accounts Payable** team is notified and failed payments are automatically voided in the system.
- The **employee** receives funds in the bank account associated with their debit card.

5. How to set up and process payments

5.1. Create a new Payment Method in Oracle E-Business Suite

Step 1 | Log in to Oracle E-Business Suite as an **Administrator**.

Step 2 | Navigate to **Oracle Payments Setup > Payment Methods > Create**

Oracle Payments Setup

Expand All | Collapse All

Focus	Task Name	Description	Status	Go To Task
	Payments Setup			
	Shared Setup			
	System Security Options	Set security options for encryption, masking, and credit card control.	■	
	Validations	View validations that can be assigned to formats or disbursement payment methods.		
	Formats			
	XML Publisher Format Templates	Create and register format templates needed for your payment processing.		
	Formats	Define formats, link them to your XML Publisher Templates, and assign validations.	■	
	Payment Systems			
	Transmission Configurations	Review transmission protocols and add parameter values to create configurations.	■	
	Payment Systems	Define the external organizations that process your funds capture and disbursement transactions.	■	
	Funds Disbursement Setup			
	Payment Methods			
	Payment Methods	Define payment methods, rules for their use on documents to be paid, and validations for documents.	■	
	Payment Method Defaulting Rules	Create and maintain rules for how your payment methods should default on documents to be paid.	■	

Step 3 | Enter the following details:

Code	VCPAY
Name	Card Payout
Description	Employee Expense Reimbursement Card Payout Method
Format Value Mapping	VCPAY



General Usage Rules Validations Review

Create Payment Method: General

* Indicates required field

* Code: VCPAY

* Name: Card Payout

Description: Employee Expense Reimbursement Card Payout Method

Format Value Mapping: VCPAY
Value as it should appear in the payment file.

Anticipated Disbursement Float:
Days added to payment date for use in cash forecasting.

Bills Payable

Use Payment Method to Issue Bills Payable
When you enable this setting, the payment method is used only for bills payable creation.

Maturity Date Override:

Quick Tip
Payments created with a bills payable payment method will have a maturity date that is calculated based on the earliest available discount or due date when the payment is created. You can optionally override this calculation by entering a number of days in Maturity Date Override. The maturity date is then calculated by adding that number of days to the payment date.

Cancel Step 1 of 4 Next Review

Step 3 | Click **Next**, then **Select Payables**. Uncheck the box next to **Automatically assign Payment Method to all Payees**.

General Usage Rules Validations Review

Create Payment Method: Usage Rules

Usage rules, together with assignment of payment methods to payees, determine when payment methods are available to enter on a document. To add or update conditions, query the payment method on the Payment Methods search page and click the Update Usage Rules icon.

Automatically assign Payment Method to all Payees

Product	Enabled	Availability
Payables	<input checked="" type="checkbox"/>	Always
Loans	<input type="checkbox"/>	Never
Cash Management	<input type="checkbox"/>	Never
Receivables	<input type="checkbox"/>	Never
Student System	<input type="checkbox"/>	Never

Cancel Back Step 2 of 4 Next Review

Step 3 | Click **Next**, then click **Next** again, and finally click **Finish**.

5.2. Set up the new Payment Method as default on the Employee Supplier Record

Once an employee enrolls their debit card in the Card Payouts application, Visa Direct automatically generates a registration file based on the below specification. This file is sent to Oracle E-Business Suite, which then updates the payment method in the employee's supplier record in the Card Payouts application. This will become the new default payment method for future payments to this employee.

Visa Direct registration file specification

File name : **org_user_card_events_<YYYYMMDDHHMMSS>.txt**



File structure will be header & record(s).

Header structure:

InitiatingParty: VisaPaymentEnabler
ReceivingParty: <org_API_Key>
NumberOfTransactions: <count of records>

Record structure:

All these individual elements are delimited by "|"

userIdentifier(sent by organization)
token
last4digits
expiryMonth
expiryYear
cardBrand
createDate
changeDate|
Mode(AorD)

A – add
D – delete

Oracle E-Business Suite uses Visa's Card Registration API below to process the registration file and update the employee supplier payment method.

Card Registration API specification

API

Package : iby_disbursement_setup_pub
API name : Update_External_Payee
Type : Public
Pre-reqs : None
Function : Update payees for records passed in through the payee PL/SQL table
Parameters :

IN	: p_api_version	IN NUMBER	Required
	: p_init_msg_list	IN VARCHAR2	Optional
	: p_ext_payee_tab	IN External_Payee_Tab_Type	Required
OUT	: x_return_status	OUT VARCHAR2	Required
	: x_msg_count	OUT NUMBER	Required
	: x_msg_data	OUT VARCHAR2	Required
	: x_ext_payee_id_tab	OUT Ext_Payee_ID_Tab_Type	
	: x_ext_payee_status_tab	OUT Ext_Payee_Create_Tab_Type	Required

5.3. Set up a payment processing file and transfer it to Visa Direct

The next step is to create a payment format template that Oracle needs to generate a payment file per the specification below. This template includes the supplier information that Oracle will use to generate a payment batch file that is ready to make an API call to the corporate bank.

Payment file specification

File name will be "cardpay_YYYYMMDDHHMMSS.txt"

File structure will be header & record(s).

Header structure:

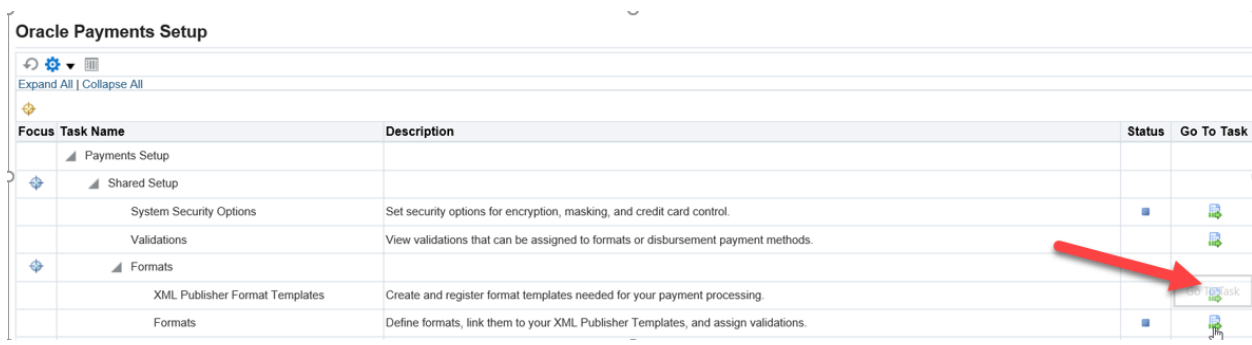
- InitiatingParty: <org_API_Key>
- ReceivingParty: VisaPaymentEnabler
- NumberOfTransactions: <count of records>

Record structure:

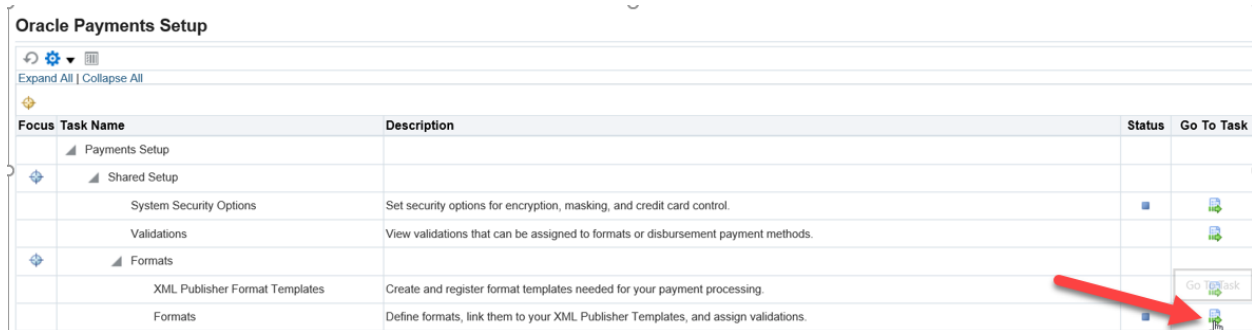
- All these individual elements are delimited by "|"
- PaymentInformationIdentification <PmtInflId> - 35 – AlphaNumeric
- Bankname
- BankIdentifier (account number)
- Branch
- UserIdentifier (organization)
- paymentToken (returned by secureCapture form during card registration)
- CdtTrAmt - credit transfer amount
- CdtTrAmtCcy – Credit transfer amount currency - ISO 4217 (3 contiguous letters)
- PurpCode – purpose code (list of invoice numbers) – 100 text

Step 1 | Log in to Oracle E-Business Suite as an **Administrator**.

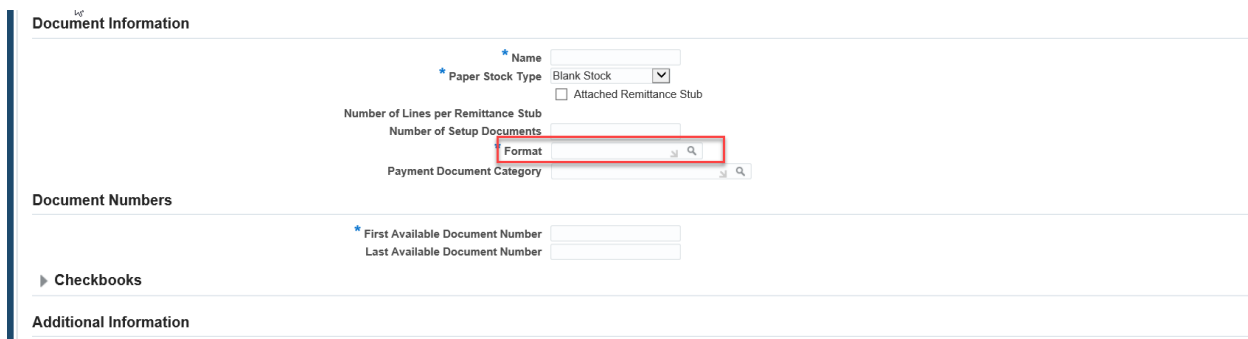
Step 2 | Navigate to **Oracle Payments Setup > Formats > XML Publisher Format Templates > Go to Task > Create Template**



Step 3 | After creating the template, create the payment format. Navigate **Oracle Payments Setup > Formats > Go To Task**. Select **Disbursement Payment Instruction > Create**.



Step 4 | Next, set up the payment document and internal bank details. Navigate to **Cash Management > Setup > Banks > Bank Accounts**. Search for the correct bank, select an account and click on **Manage Payment Documents** and **Create**. Select the payment format created in Step 3.



Step 4 | Next, set up the payment process request that is needed to generate a payment file. Navigate to **Oracle Payments > Payment Process Requests**. Create a new payment process request for payment method "Card Payouts."

Step 5 | Once the payment file is generated, transfer it to the Visa Direct hub for processing the payment.

5.4. Process the payment response file from Visa Direct and void failed payments as needed.

Visa Direct will process the payment file and send back the response file to Oracle E-Business Suite per the specification below.

Payment response specification

File format of cardpay_YYYYMMDDHHMMSS_response.txt

Header structure:

InitiatingParty: VisaPaymentEnabler
 ReceivingParty: <org_API_Key>
 NumberOfTransactionsProcessed:<count of records>

Record Structure:

All these individual elements are delimited by "|"
 PaymentInformationIdentification <PmtInflId> - 35 – AlphaNumeric
 Bankname
 BankIdentifier (account number)
 Branch
 UserIdentifier (organization)
 paymentToken (returned by secureCapture form during card registration)
 CdtTrAmt - credit transfer amount



CdtTrAmtCcy – Credit transfer amount currency - ISO 4217 (3 contiguous letters)
PurpCode – purpose code (list of invoice numbers) – 100 text
Status
C – Successful completion
F – Failed with <reason>

To void any failed payments, create a concurrent program in Oracle to process the response file and use the Void Failed Payment API listed below. Note that Visa is using a standard API provided by Oracle here, and the Oracle name for this API is **AP_VOID_PKG.IBY_VOID_CHECK**.

Void Failed Payment API

API
Package : Ap_Void_Pkg
API name : iby_Void_Check
Pre-reqs : None
Function : procedure to be used by Oracle Payments during voiding of payments
Parameters :
IN : p_api_version IN NUMBER Required
p_init_msg_list IN VARCHAR2 Optional
p_commit IN VARCHAR2 Optional
p_payment_id IN NUMBER Required
p_void_date IN DATE Required
OUT : x_return_status OUT VARCHAR2 Required
x_msg_count OUT VARCHAR2 Required
x_msg_data OUT VARCHAR2 Required

In the case of payment failure, be sure to inform the Accounts Payable team (Oracle Alerts can be utilized for this purpose).

4.5 Send a payment confirmation email to the employee

Once the response file is processed and the payment is successful, send an email confirmation to the employee (Oracle Alerts can be utilized for this purpose).

Commercialization support partner



Visa has ~~partnered~~collaborated with a consulting service company who supports Card Payout implementations and Oracle configurations. For more details, please reach out to the Visa Direct ERP product team at: gzhan@visa.com.