Google Pay Integration

Finrelay Payment Gateway

Finrelay

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Introduction

Google Pay™ lets users pay with their cards stored in their Google Account, including cards added through Google Play, YouTube, Chrome, or an Android device. Customers can use these cards to pay at web shops or mobile applications through the Finrelay Payment Gateway.

Benefits:

- Customers simply select a card from their Google Pay wallet — no need to manually enter card details.
- Secure encryption and decryption raises trust and reduces online fraud.
- Streamlined checkout experience increases conversion rates.

Important: If you provide Google Pay as a payment method to your customers, you must use the official Google Pay logo and button assets in compliance with the Google Pay Android brand guidelines (https://developers.google.com/pay/api/android/guides/brand-guidelines) and Google Pay web brand guidelines (https://developers.google.com/pay/api/web/guides/brand-guidelines), without modifications to the Google Pay asset colors, proportions, or appearance.

Tokenization Types

Google Pay supports two types of tokenized cards:

1. **PAN_ONLY** — A standard credit/debit card stored in the Google account. The actual card PAN is tokenized outside of card schemes. Standard 3D Secure verification is required for additional fraud protection. Only applicable for payments through point of sale.
2. **CRYPTOGRAM_3DS** — A virtual card with a device-specific account number (DPAN) used in place of a real plastic card. A digital signature from the mobile device protects against fraud, making 3D Secure unnecessary. Only applies to users of Google Digital Wallet on their mobile device.

The Finrelay Payment Gateway supports both `CRYPTOGRAM_3DS` and `PAN_ONLY` authorization methods.

Supported card networks: Visa, Mastercard

Google Pay & Finrelay Payments

There are two ways to accept Google Pay payments through the Finrelay Payment Gateway:

1. **Standard redirect integration** using the Finrelay Hosted Payment Page
2. **Direct API integration** using the Finrelay Payment Gateway API (requires appropriate PCI DSS certification)

Activation Prerequisites

Before accepting Google Pay payments, you must:

- Submit a request to your account manager at Finrelay to enable Google Pay on your terminal.
- Follow the Google Pay API Terms of Use at: https://payments.developers.google.com/terms/aup
- Publish your integration with Google Pay using instructions at: https://developers.google.com/pay/api/web/guides/test-and-deploy/publish-your-integration

Using the Finrelay Hosted Payment Page (Standard Redirect Integration)

If you have already completed your integration with the Finrelay Payment Gateway using the Hosted Payment Page, **no additional development is required**.

Simply request activation of the Google Pay payment method from your account manager. After activation, a Google Pay option will appear on the Finrelay Hosted Payment Page alongside other payment methods.

Using the Finrelay Payment Gateway API

The Finrelay Payment Gateway supports Google Pay transactions directly through its API. The integration works as follows:

1. Merchant integrates with the Google Pay API on their website or application.
2. Customer selects the Google Pay button on the merchant's checkout page.
3. Customer authenticates and confirms payment in the Google Pay dialog.
4. Google Pay returns a payment token to the merchant.
5. Merchant Base64-encodes the received token and sends it to the Finrelay Payment Gateway API as part of the `POST /api/transactions/authorize` request.

Google Pay API Web Integration

Follow the Google Pay API documentation for web applications to set up the Google Pay button and payment flow:

- **Google Pay API documentation:** https://developers.google.com/pay/api/web/overview
- **Brand guidelines:** https://developers.google.com/pay/api/web/guides/brand-guidelines
- **Integration checklist:** https://developers.google.com/pay/api/web/guides/test-and-deploy/integration-checklist

Google Pay API Configuration

To initiate a Google Pay transaction, your web application must send a request to the Google Pay API, specifying the payment method within the `PaymentMethod` object.

Configuration parameters:

Parameter	Value
`allowedAuthMethods`	`["PAN_ONLY", "CRYPTOGRAM_3DS"]`
`allowedCardNetworks`	`["VISA", "MASTERCARD"]`
`tokenizationSpecification.type`	`"PAYMENT_GATEWAY"`
`tokenizationSpecification.parameters.gateway`	`"finrelaypayments"`
`tokenizationSpecification.parameters.gatewayMerchantId`	Your Finrelay merchant ID (provided by your account manager)

Example PaymentMethod object:

```
{
  "allowedPaymentMethods": [{
    "type": "CARD",
    "parameters": {
      "allowedAuthMethods": ["PAN_ONLY", "CRYPTOGRAM_3DS"],
      "allowedCardNetworks": ["VISA", "MASTERCARD"]
    },
    "tokenizationSpecification": {
      "type": "PAYMENT_GATEWAY",
      "parameters": {
        "gateway": "finrelaypayments",
        "gatewayMerchantId": "<your_merchant_id>"
      }
    }
  }],
  "transactionInfo": {
    "countryCode": "BA",
    "currencyCode": "EUR",
    "totalPriceStatus": "FINAL",
    "totalPrice": "10.00"
  },
  "merchantInfo": {
    "merchantId": "<your_google_merchant_id>",
    "merchantName": "<your_merchant_name>"
  },
  "callbackIntents": [
    "PAYMENT_AUTHORIZATION"
  ]
}
```

Notes:

- `gatewayMerchantId`: Your merchant identifier in the Finrelay Payment Gateway — provided by your account manager.
- `merchantId`: Your Google merchant ID — obtained from the Google Pay Business Console at https://pay.google.com/business/console/.

Billing Address

If a billing address is required for Google Pay, ensure that you include the required parameters in your Google Pay API request: set `billingAddressRequired` to `true` and configure `billingAddressParameters` on the `CARD` payment method. For more details, see the `BillingAddressParameters` reference at: https://developers.google.com/pay/api/web/reference/request-objects#BillingAddressParameters

Billing address request example:

```
{
  "allowedPaymentMethods": [
    {
      "type": "CARD",
      "parameters": {
        "billingAddressRequired": true,
        "billingAddressParameters": {
          "phoneNumberRequired": true,
          "format": "MIN"
        },
        "allowedCardNetworks": [...],
        "allowedAuthMethods": [...]
      },
      "tokenizationSpecification": {...}
    }
  ]
}
```

Payment Processing

After initiating a transaction via the Google Pay API, you receive a `PaymentData` object in the response. To complete the payment:

1. Extract the token from `paymentData.paymentMethodData.tokenizationData.token`.
2. **Base64-encode** the entire token string.
3. Send it to the Finrelay Payment Gateway API as the `payment_method.data.google_pay_token` parameter, with `payment_method.type` set to `"google-pay"`.

All other required parameters follow the standard Finrelay API integration documentation.

Example API request:

```
POST /api/transactions/authorize
Authorization: Bearer <access_token>
Content-Type: application/json
```

```
{
  "reference": "ORDER-GP-001",
  "terminal_id": "TERM001",
  "description": "Google Pay payment",
  "currency": "EUR",
  "amount": 10000,
  "transaction_type": "AUTHORIZE",
  "payment_method": {
    "type": "google-pay",
    "data": {
      "google_pay_token": "<Base64-encoded Google Pay token>"
    }
  },
  "customer": {
    "first_name": "John",
    "last_name": "Doe",
    "email": "john.doe@example.com",
    "phone": "+1234567890",
    "address": "123 Example Street",
    "city": "Sampletown",
    "country": "BA",
    "postal_code": "12345"
  },
  "browser_info": {
    "user_agent": "Mozilla/5.0...",
    "accept_header": "text/html,application/xhtml+xml...",
    "java_enabled": false,
    "color_depth": 24,
    "screen_height": 1080,
    "screen_width": 1920,
    "time_zone_offset": -120,
    "language": "en-US"
  },
  "metadata": {},
  "return_url": "https://merchant.example.com/return",
  "error_url": "https://merchant.example.com/error",
  "cancel_url": "https://merchant.example.com/cancel"
}
```

The `google_pay_token` value is the Base64-encoded Google Pay token. For reference, the raw Google Pay token has the following structure:

```
{
  "signature": "MEUCIQDk...",
  "intermediateSigningKey": {
    "signedKey": "{\"keyValue\":\"MFkwEw...\",
                  \"keyExpiration\":\"1234567890000\"}"
  },
  "protocolVersion": "ECv2",
  "signedMessage": "{\"encryptedMessage\":\"abc123...\",
                    \"ephemeralPublicKey\":\"BPni...\",
                    \"tag\":\"xyz789...\"}"
}
```


Secure Customer Authentication (SCA/3DS) and PSD2

To comply with **SCA (Strong Customer Authentication)** and **PSD2** regulations, the Finrelay Payment Gateway will send Google Pay transactions through the 3DS process if necessary.

After decrypting the Google Pay payment token, the payload can have one of two authentication method values:

- **PAN_ONLY** — A PAN that requires 3D Secure 2.0 authentication. The customer may need to complete a 3DS challenge.
- **CRYPTOGRAM_3DS** — An authenticated payload that can be processed without any further step-up or challenge.

Decryption of the Google Pay payload is handled entirely by the Finrelay Payment Gateway. As a merchant, you do **not** have visibility into whether the underlying credential is PAN_ONLY or CRYPTOGRAM_3DS.

Merchant expectation: Merchants must be prepared for their customers to pass 3D Secure authentication during payment processing when necessary.