

PaymentSpring Direct

Release Notes for June, 2020

GradGuard Integration

PaymentSpring Direct (PS-Direct) is integrating with GradGuard to support NBS Enterprise and a new product being offered to NBS Enterprise schools.

NBS Enterprise is integrating with an external vendor, GradGuard, to provide an insurance coverage to Higher Education schools that covers the student in the case that he/she cannot complete the term. The technical implementation involves API calls between Enterprise and GradGuard.

Enterprise will support three messages: Quoting, Policy, and Decline. For Quoting and Decline messages (decline of insurance, not decline of a card authorization), Enterprise will integrate with GradGuard. The Policy message is a request to purchase a tuition insurance policy and, as such, requires credit card information.

Enterprise will need the ability to send the Policy requests to PaymentSpring Direct. PS-Direct will replace the card token with the card number and will then forward the Policy request to the GradGuard endpoint. GradGuard will process the payment to the appropriate processor.

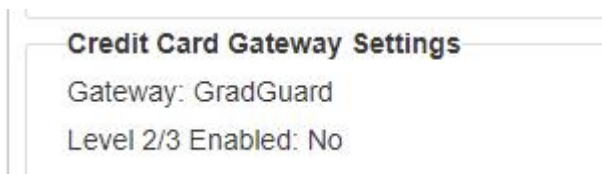
GradGuard will then send a response back (to PS-Direct) and PS-Direct will forward the response to Enterprise. It does not appear the response message has any card data in it; therefore, PS-Direct will just send the response to Enterprise.

Client Set Up

Clients participating in the GradGuard product must be set up in the PaymentSpring Direct Admin Portal and be configured with a credit card Gateway of GradGuard.

For NBS Enterprise, one account will be set up in PS-Direct with the Gateway of GradGuard. It is not necessary to set up each individual school.

Example of PS-Direct set up:



Credit Card Gateway Settings

Gateway: GradGuard

Level 2/3 Enabled: No

The information in this document is confidential and proprietary and is distributed to PaymentSpring clients for their exclusive use in operating PaymentSpring applications. It may not be reproduced in any form without prior written permission from PaymentSpring, LLC.

PaymentSpring Direct GradGuard API

Credentials for GradGuard Web Service and PaymentSpring Web Service:

GradGuard uses a header to authenticate with different servlets and process transactions and a URL endpoint to determine the type of transaction being sent. All use a 'Bearer' header to do authorization. Sample:

Bearer ABC123LMN

The key word Bearer must appear at the start with a space between it and an API Key created by GradGuard. "Authorization" is the header name. PS-Direct has no control or knowledge into the use and creation of the GradGuard API keys.

PaymentSpring uses the HTTP basic authentication method. The Authorization header is the PS-Direct merchant authorization header. It is used for all PS-Direct transactions to verify the source of the transaction. The GradGuard-Auth header is the header PS-Direct will use to create the Authorization header that is passed to GradGuard.

Header Name	Example Value
Authorization	Basic ABC123XYZ
GradGuard-Auth	Bearer ABC123LMN

If PS-Direct does not receive the two headers, then no message is passed to GradGuard and a PS-Direct response is sent back to NBS Enterprise.

PaymentSpring GradGuard Proxy:

The PS-Direct servlet will recognize policy transactions. Policy transactions will contain a JSON element named "card_number" and will contain a clear text credit card number in the transaction.

The goal of the servlet is to allow NBS Enterprise to send GradGuard transactions to PS-Direct with PaymentSpring tokens in the "card_number" JSON element. PS-Direct will replace the token with a credit card, send the request to GradGuard, and then return the resulting JSON message back to NBS Enterprise.

PaymentSpring GradGuard Proxy Service URL:

The URL PS-Direct uses for GradGuard is:

{Environment}/v2/gradguard

UAT: <https://api.uat.cryptpay3.com/v2/gradguard>

Production: <https://api.cryptpay3.com/v2/gradguard>

The environment variable would be the URL of the environment you are sending messages in (i.e., UAT or Production). These are the same as the Universal Transaction API.

PaymentSpring GradGuard Proxy Service HTTP Method:

HTTP POST

PaymentSpring GradGuard Transaction Tracing:

PaymentSpring does not log or save any transaction data; however, it tries to log the status from the transaction status information. It will log the value of the existing JSON element "transaction_id" and assume it will be unique for each transaction based on GradGuard documentation.

GradGuard API Request Example

```
{
  "client_id": "Nelnet",
  "transaction_id": "AnyNumber42",
  "account": {
    "first_name": "John",
    "last_name": "Smith",
    "email": " testclient@paymentspring.com ",
    "billing_address": {
      "street": "123 Main Street",
      "city": "Omaha",
      "region": "NE",
      "postal_code": "68137",
      "country": "USA"
    },
    "payment": {
      "payment_method": "CC",
      "card_number": "4QADOM20MDhD4242",
      "expiration_month": "2",
      "expiration_year": "2022"
    }
  },
  "insured": {
    "email": "testclient@paymentspring.com",
    "insured_address": {
      "street": "123 Main Street",
      "city": "Omaha",
```

```

        "region": "NE",
        "postal_code": "68137",
        "country": "USA"
    },
    "customer_id": 23429,
    "first_name": "John",
    "last_name": "Smith",
    "school_id": 6387,
    "school_cd": "gradguard"
},
"terms": [
    {
        "sequence_number": 1,
        "quote_id": "2703620961234520729"
    },
    {
        "sequence_number": 0,
        "quote_id": "2703620961133280253"
    }
]
}

```

PS-Direct Error Codes

Before sending requests to GradGuard, the PaymentSpring web service will authenticate the user, replace the token, and post the requests to GradGuard. During processing, it might encounter errors. In order to remain consistent with GradGuard schema, and, at the same time, indicate the error from PaymentSpring, a new flag is added in an option flag, `isPaymentSpring`, shown below:

```

{
    "status": "failed",
    "error": {
        "isPaymentSpring": true,
        "error_code": 104,
        "error_message": "PaymentSpring Direct Error: The message body does not contain a valid token. Please verify this is a valid transaction and retry the transaction."
    }
}

```

All other PS-Direct errors that can occur are the same as the PS-Direct transaction servlet. A complete list of PS-Direct error codes is available in the **PaymentSpring Direct Web API Credit Card Transaction Specifications** document.

The following error codes and messages have been added for GradGuard transactions:

Error Code	Description	Resolution
100	PaymentSpring Direct Error: The API-URL header does not contain the basic authentication value. Please populate it with a value and retry the transaction.	Add the basic authentication value to the HTTP header.
101	PaymentSpring Direct Error: This Merchant is not configured to use this API. Please update it to use this process.	Review the Merchant Portal documentation for merchant configuration.
102	PaymentSpring Direct Error: The GradGuard-Auth header is empty. Please populate it with a value and retry the transaction.	Add a header to the message to PaymentSpring with the correct value.
103	PaymentSpring Direct Error: The message body is empty. Please populate it with a value and retry the transaction.	Add the GradGuard transaction to the message body to PaymentSpring with the correct value.
104	PaymentSpring Direct Error: The message body does not contain a valid token. Please verify this is a valid transaction and retry the transaction.	Please check the request. The actual resolution depends on the scenario which caused the error. Scenarios which may cause an error include: omitting the <card_number> field from the request, leaving the <card_number> field blank, or using an expired cryptcard/token in the <card_number> field.
500	Error descriptions include the following: <ul style="list-style-type: none"> message – Something Went Wrong; OR <ul style="list-style-type: none"> error_code – System error_message – We’ve failed to complete your request 	Please check the request. The actual resolution depends on the scenario which caused the error. Scenarios which may cause an error include: leaving the <paymentmethod> field blank or leaving the <insured:email> field blank.

Reporting

There are no reports for this project.

Client Action

Clients will not be impacted by these enhancements. No action is required at this time, as all transactions submitted through existing certified solutions will process successfully.

Review the information in this communication to determine potential impacts to your business processes, policies, and systems to support these enhancements.

The PaymentSpring Direct User Acceptance Test (UAT) environment is available for clients to test new functionality and for regression testing.

If you have questions or encounter issues during testing, contact PaymentSpring Client Services at ClientServices@PaymentSpring.com or 1.866.431.4637.