



SPARROW

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SPARROW Gateway

Merchant Upload API

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Revision History

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Overview

There are three possible ways to create a new company in the Sparrow Gateway:

- Create merchant manually using Create merchant company wizard.
- Upload merchant in xlsx format using Merchant Upload page.
- Upload merchant in xml format using API.

This document describes Merchant upload API.

Architecture

Authentication

To authenticate client in the system, you need to send HTTP GET request.

Request format:

<https://secure.sparrowone.com/Service.svc/Authenticate?username={USERNAME}&password={PASSWORD}>

Parameter	Format	Description
username	String	Username
password	String	Password

Client gets HTTP POST response in xml format. Response contains fields listed above:

Field	Format	Description
ResultCode	Integer	Result code of the Authentication operation. See Appendix B for all possible codes
Message	String	Message with information about Authentication result
AuthToken	String	Generated auth token

See [Appendix A](#) for examples of requests and responses.

After successful authentication client gets Auth Token. Below is an example of Auth Token:

70LOX65FMJDOB4FMYOBZ

Merchant Uploading Request

To create merchant, you need to send HTTP POST request to the URL with your Auth Token.

Below is an example of URL:

<https://secure.sparrowone.com/MerchantUpload.svc/Process?authtoken=70LOX65FMJDOB4FMYOBZ>

System allows user to:

- Upload new merchant company with accounts
- Upload merchant accounts for existing company

To upload merchant accounts for existing company you need to specify merchant company name and send merchant accounts data.

To upload new merchant company with accounts you need to send merchant company data and merchant accounts data.

See [Appendix A](#) for examples of xml.

All parameters described below:

Tag	Description	Format
<CompanyFields>		
<Bank>		
<AccountNumber>*	Bank account number	Up to 20 digit numeric
<AchAccountType>*	Ach account type	Checking/Savings
<AchAccountSubtype>*	Ach account subtype	Personal/Business
<BankName>*	Bank name	Up to 200 characters
<CheckNumber>	Bank check number	Up to 15 digit numeric
<Description>*	Bank description	Up to 200 characters
<RoutingNumber>*	Bank routing number	9 digit numeric
<Billing>		
<BillingAddress1>*	Billing company first address	Up to 200 characters
<BillingAddress2>	Billing company second address	Up to 200 characters
<BillingCity>	Billing company city	Up to 200 characters
<BillingCompanyName>*	Billing company name	Up to 200 characters
<BillingCountry>	Billing company country	Up to 200 characters
<BillingState>	Billing company state	Up to 200 characters
<BillingPostalCode>	Billing company postal code	Up to 200 characters
<BillingEmail>*	Billing company email	Email format (xxx@xxx.xxx)
<BillingFax>	Billing company fax	Up to 200 characters
<BillingFirstName>*	Billing company first name	Up to 200 characters
<BillingLastName>*	Billing company last name	Up to 200 characters
<BillingPhone>	Billing company phone	Up to 200 characters
<CompanyInfo>		
<CompanyAddress1>*	First company address	Up to 200 characters
<CompanyAddress2>	Second company address	Up to 200 characters
<CompanyCity>*	Company city	Up to 200 characters
<CompanyCountry>*	Company country	Up to 200 characters
<CompanyEmail>*	Company email	Email format (xxx@xxx.xxx)
<CompanyFax>	Company fax	Up to 200 characters
<CompanyName>*	Company name	Up to 200 characters
<CompanyPhone>*	Company phone	Up to 200 characters
<CompanyPostalCode>*	Company postal code	Up to 200 characters
<CompanyState>*	Company state	Up to 200 characters
<ContactInfo>		
<Email>*	Contact email	Email format (xxx@xxx.xxx)
<Fax>	Contact fax	Up to 200 characters

<FirstName>*	Contact person first name	Up to 200 characters
<LastName>*	Contact person last name	Up to 200 characters
<Phone>*	Contact person phone	Up to 200 characters
<GeneralInfo>		
<CompanyExternalId>	Company External ID	Up to 20 characters
<EIN>	Employer Identification Number	
<Modules>	List of available modules comma separated	FBI Tools, Chargeback Response Portal, Echo Data Exchange, Interchange Optimizer, Passenger Agency, Tokenization - Data Vault
<PaymentTypes>*	List of available types comma separated	ACH, Credit Card, eCheck, Star Card, Cash
<Surcharge>	Surcharge value from 0% to 4%	Value from 0.00 to 4.00
<User>		
<UserAddress1>	Users first address	Up to 200 characters
<UserAddress2>	Users second address	Up to 200 characters
<UserCity>	Users city	Up to 200 characters
<UserCountry>	Users country	Up to 200 characters
<UserState>	Users state	Up to 200 characters
<UserDepartment>	Users department	Up to 200 characters
<UserEmail>*	Users email	Email format (xxx@xxx.xxx)
<UserFax>	Users fax	Up to 200 characters
<UserFirstName>*	Users first name	Up to 200 characters
<UserLastName>*	Users last name	Up to 200 characters
<UserName>*	Users username	Up to 200 characters
<UserPassword>*	Users password	At least 7 characters in length and contain both Latin letters and numbers
<UserPhone>*	Users phone	Up to 200 characters
<UserPostalCode>	Users postal code	Up to 10 characters
<MerchantFields>		
<Company>*	Merchant company name to assign merchant account	Up to 200 characters
<Currency>*	ISO 4217 Currency Code	3 characters
<EnableMCP>*	Enable processing MCP transactions	Boolean (true or false)
<IntegrationMode>*	Integration mode of merchant account	Live/Test/Development
<BundleToken>*	Global unique identifier assigned to the bundle. Available on Admin > Bundle List page.	16-byte GUID
<FeePlanToken>*	Global unique identifier assigned to the fee plan.	16-byte GUID

	Available on Admin > Fee Plans page.	
<MerchantClass>*	Merchant class	RecurringBilling /Ecommerce/Retail/Moto/Restaurant /DirectMarketing/Passenger/Hotel
<MerchantName>*	Merchant name	Up to 200 characters
<EnableSwipeProcessing>*	Swipe processing enabling	True/False
<PaymentDescriptor>*	Payment descriptor	Up to 100 characters
<PaymentPhoneDescriptor>*	Payment phone descriptor	Up to 100 characters
<FirstData>		
<CompanyUrl>	Company URL	Up to 32 characters
<DatawireId>*	Datawire ID	Up to 21 characters
<GroupId>*	Group ID	Up to 32 characters
<Industry>*	Industry	Retail, Ecommerce, Restaurant, MOTO
<MerchantId>*	Merchant ID	Up to 32 characters
<ServicePhoneNumber>	Service phone number, required if merchant has Moto industry	10 alphanumeric characters
<TerminalId>*	Terminal ID	Up to 8 characters
<Tppld>*	TPP ID	Up to 32 characters
<MerchantCategoryCode>	Merchant category code	Up to 4 digit numeric
<TSYS>		
<AcquirerBIN>*	Acquirer BIN	6 digit numeric
<AgentBankNumber>*	Agent bank number	6 digit numeric
<AgentChainNumber>*	Agent chain number	6 digit numeric
<LocationNumber>	Location number	12 digit numeric
<MerchantNumber>*	Merchant number	Up to 12 numeric
<PartialApprovalBehaviour>*	Partial approval behavior	ApproveTransaction/DeclineTransaction
<RefundBatchBehaviour>*	Refund batch behavior	SingleBatch/MultiBatch
<ServicePhone>*	Service phone	Should be in XXX-XXXXXXX format. Example: 800-1234567
<StoreNumber>*	Store number	4 digit numeric
<TerminalNumber>*	Terminal number	4 digit numeric
<TimeZone>*	Time zone	3 digit numeric
<VNumber>*	VN number	8 digit numeric
<MerchantCategoryCode>*	Merchant category code	Up to 4 digit numeric

* - required fields

Merchant Uploading Response

Server response contains operation status.

If account has not been created, response contains error message.

See [Appendix A](#) for example of server responses.

Field	Description	Format
<Successful>	Operation status	Boolean
<Message>	Operation message	String
<ErrorMessage>	Message with error description	String
<MerchantName>	Upload Merchant Name	String
<FieldError>	Message about format error in specific merchant field	String

Appendix A – upload data examples

This section contains request and response formats for Merchant Upload API. Full schema can be found at <https://secure.sparrowone.com/Services/MerchantUpload.svc/help/operations/Process>

Get Auth Token

Request:

Services/AuthenticationService.svc/Authenticate?username={USERNAME}&password={PASSWORD}

Response:

```
<?xml version="1.0" encoding="utf-8"?>
<LoginResponse>
  <ResultCode>2147483647</ResultCode>
  <Message>String content</Message>
  <AuthToken>70LOX65FMJDOB4FMYOBZ</AuthToken>
</LoginResponse>
```

Upload Merchant Data

Request (creating new company with two accounts):

```
<?xml version="1.0" encoding="utf-8"?>
<Company>
  <CompanyFields>
    <Bank>
      <AccountNumber>122000496</AccountNumber>
      <AchAccountSubtype>Personal</AchAccountSubtype>
      <AchAccountType>Checking</AchAccountType>
      <BankName>First Test Bank</BankName>
      <CheckNumber>110000000</CheckNumber>
      <Description>Description text</Description>
      <RoutingNumber>122000496</RoutingNumber>
    </Bank>
    <Billing>
      <BillingAddress1>3440 Cityview Drive</BillingAddress1>
      <BillingAddress2>422 Twin Oaks Drive</BillingAddress2>
      <BillingCity>Northport</BillingCity>
      <BillingCompanyName>Tech Hifi</BillingCompanyName>
      <BillingCountry>United States</BillingCountry>
      <BillingEmail>JessicaCEllis@rhyta.com</BillingEmail>
      <BillingFax>610-440-9541</BillingFax>
      <BillingFirstName>Jessica</BillingFirstName>
      <BillingLastName>Ellis</BillingLastName>
      <BillingPhone>231-386-0750</BillingPhone>
      <BillingPostalCode>49670</BillingPostalCode>
      <BillingState>Michigan</BillingState>
    </Billing>
    <CompanyInfo>
      <CompanyAddress1>3889 Fancher Drive</CompanyAddress1>
      <CompanyAddress2>3809 Bastin Drive</CompanyAddress2>
```

```

    <CompanyCity>Dallas</CompanyCity>
    <CompanyCountry>United States</CompanyCountry>
    <CompanyEmail>TracyMFaust@armyspy.com</CompanyEmail>
    <CompanyFax>484-741-9296</CompanyFax>
    <CompanyName>Tech Hifi</CompanyName>
    <CompanyPhone>214-298-8599</CompanyPhone>
    <CompanyPostalCode>75247</CompanyPostalCode>
    <CompanyState>Texas</CompanyState>
  </CompanyInfo>
  <ContactInfo>
    <Email>TracyMFaust@armyspy.com</Email>
    <Fax>484-741-9296</Fax>
    <FirstName>Tracy</FirstName>
    <LastName>Faust</LastName>
    <Phone>214-298-8599</Phone>
  </ContactInfo>
  <GeneralInfo>
    <CompanyExternalId>1234567890</CompanyExternalId>
    <EIN>1234567890</EIN>
    <Modules>Tokenization - Data Vault, Interchange Optimizer</Modules>
    <PaymentTypes>Credit Card, Cash, eCheck</PaymentTypes>
    <Surcharge>3.00</Surcharge>
  </GeneralInfo>
  <User>
    <UserAddress1>3889 Fancher Drive</UserAddress1>
    <UserAddress2>3809 Bastin Drive</UserAddress2>
    <UserCity>Dallas</UserCity>
    <UserCountry>United States</UserCountry>
    <UserDepartment>Department 1</UserDepartment>
    <UserEmail>TracyMFaust@armyspy.com</UserEmail>
    <UserFax>484-741-9296</UserFax>
    <UserFirstName>Tracy</UserFirstName>
    <UserLastName>Faust</UserLastName>
    <UserName>TracyMFaust</UserName>
    <UserPassword>adf5a4d6fad</UserPassword>
    <UserPhone>214-298-8599</UserPhone>
    <UserPostalCode>75247</UserPostalCode>
    <UserState>Texas</UserState>
  </User>
</CompanyFields>
<MerchantFields>
  <!--Valid elements of type: FirstData, Tsys-->
  <Merchant i:type="FirstData" xmlns:i="http://www.w3.org/2001/XMLSchema-
instance">
    <BundleToken>FCE417B0E9B34723A349</BundleToken>
    <Company>Tech Hifi</Company>
    <CompanyUrl>TechHifiCompany.com</CompanyUrl>
    <Currency>USD</Currency>
    <DatawireId>00010815976101801280</DatawireId>
    <EnableMCP>>false</EnableMCP>
    <EnableSwipeProcessing>>true</EnableSwipeProcessing>
    <FeePlanToken>3DBEAC438EB74A2E9149</FeePlanToken>
    <GroupId>10001</GroupId>
    <Industry>Moto</Industry>
    <IntegrationMode>Live</IntegrationMode>
    <MerchantCategoryCode>code</MerchantCategoryCode>

```

```

<MerchantClass>RecurringBilling</MerchantClass>
<MerchantId>RCTST0000000162</MerchantId>
<MerchantName>FirstData 1</MerchantName>
<PaymentDescriptor>Descriptor 1</PaymentDescriptor>
<PaymentPhoneDescriptor>6789062345</PaymentPhoneDescriptor>
<ServicePhoneNumber>6789062345</ServicePhoneNumber>
<TerminalId>00000002</TerminalId>
<TppId>R5T001</TppId>
</Merchant>
<!--Valid elements of type: FirstData, Tsys-->
<Merchant i:type="Tsys" xmlns:i="http://www.w3.org/2001/XMLSchema-
instance">
  <AcquirerBIN>999995</AcquirerBIN>
  <AgentBankNumber>000000</AgentBankNumber>
  <AgentChainNumber>111111</AgentChainNumber>
  <BundleToken>FCE417B0E9B34723A349</BundleToken>
  <Company>Tech Hifi</Company>
  <Currency>USD</Currency>
  <EnableMCP>>false</EnableMCP>
  <EnableSwipeProcessing>>false</EnableSwipeProcessing>
  <FeePlanToken>3DBEAC438EB74A2E9149</FeePlanToken>
  <IntegrationMode>Live</IntegrationMode>
  <LocationNumber>00001</LocationNumber>
  <MerchantCategoryCode>5999</MerchantCategoryCode>
  <MerchantClass>RecurringBilling</MerchantClass>
  <MerchantName>TSYS 1</MerchantName>
  <MerchantNumber>888000003461</MerchantNumber>
  <PartialApprovalBehaviour>ApproveTransaction</PartialApprovalBehaviour>
  <PaymentDescriptor>Descriptor 2</PaymentDescriptor>
  <PaymentPhoneDescriptor>1234567890</PaymentPhoneDescriptor>
  <RefundBatchBehaviour>Multi Batch</RefundBatchBehaviour>
  <ServicePhone>800-1234567</ServicePhone>
  <StoreNumber>5999</StoreNumber>
  <TerminalNumber>1515</TerminalNumber>
  <TimeZone>112</TimeZone>
  <VNumber>71116105</VNumber>
</Merchant>
</MerchantFields>
</Company>

```

Request (creating two accounts for existing company):

```

<?xml version="1.0" encoding="utf-8"?>
<Company>
  <MerchantFields>
    <!--Valid elements of type: FirstData, Tsys-->
    <Merchant i:type="FirstData" xmlns:i="http://www.w3.org/2001/XMLSchema-
instance">
      <BundleToken>FCE417B0E9B34723A349</BundleToken>
      <Company>Tech Hifi</Company>
      <CompanyUrl>TechHifiCompany.com</CompanyUrl>
      <Currency>USD</Currency>
      <DatawireId>00010815976101801280</DatawireId>
      <EnableMCP>>false</EnableMCP>
      <EnableSwipeProcessing>>true</EnableSwipeProcessing>
    </Merchant>
  </MerchantFields>
</Company>

```

```

<FeePlanToken>3DBEAC438EB74A2E9149</FeePlanToken>

<GroupId>10001</GroupId>
<Industry>Moto</Industry>
<IntegrationMode>Live</IntegrationMode>
<MerchantCategoryCode>code</MerchantCategoryCode>
<MerchantClass>RecurringBilling</MerchantClass>
<MerchantId>RCTST0000000162</MerchantId>
<MerchantName>FirstData 2</MerchantName>
<PaymentDescriptor>Descriptor 1</PaymentDescriptor>
<PaymentPhoneDescriptor>6789062345</PaymentPhoneDescriptor>
<ServicePhoneNumber>6789062345</ServicePhoneNumber>
<TerminalId>00000002</TerminalId>
<TppId>ID123</TppId>
</Merchant>
<!--Valid elements of type: FirstData, Tsys-->
<Merchant i:type="Tsys" xmlns:i="http://www.w3.org/2001/XMLSchema-
instance">
  <AcquirerBIN>999995</AcquirerBIN>
  <AgentBankNumber>000000</AgentBankNumber>
  <AgentChainNumber>111111</AgentChainNumber>
  <BundleToken>FCE417B0E9B34723A349</BundleToken>
  <Company>Tech Hifi</Company>
  <Currency>USD</Currency>
  <EnableMCP>>false</EnableMCP>
  <EnableSwipeProcessing>>true</EnableSwipeProcessing>
  <FeePlanToken>3DBEAC438EB74A2E9149</FeePlanToken>
  <IntegrationMode>Live</IntegrationMode>
  <LocationNumber>00001</LocationNumber>
  <MerchantCategoryCode>5999</MerchantCategoryCode>
  <MerchantClass>RecurringBilling</MerchantClass>
  <MerchantName>TSYS 2</MerchantName>
  <MerchantNumber>888000003461</MerchantNumber>
  <PartialApprovalBehaviour>Approve
Transaction</PartialApprovalBehaviour>
  <PaymentDescriptor>Descriptor 1</PaymentDescriptor>
  <PaymentPhoneDescriptor>1234567890</PaymentPhoneDescriptor>
  <RefundBatchBehaviour>Multi Batch</RefundBatchBehaviour>
  <ServicePhone>800-1234567</ServicePhone>
  <StoreNumber>5999</StoreNumber>
  <TerminalNumber>1515</TerminalNumber>
  <TimeZone>112</TimeZone>
  <VNumber>71116105</VNumber>
</Merchant>
</MerchantFields>
</Company>

```

Response:

```

<?xml version="1.0" encoding="utf-8"?>
<Output>
  <ResultCode>2147483647</ResultCode>
  <Message>String content</Message>
  <CompanyResult>
    <ErrorMessage>String</ErrorMessage>

```

```
</CompanyResult>
<MerchantResult>
  <ErrorMessages>
    <ErrorMessage>String</ErrorMessage>
  </ErrorMessages>
  <MerchantErrors>
    <MerchantError>
      <MerchantName>String</MerchantName>
      <FieldsErrors>
        <FieldError>String</FieldError>
      </FieldsErrors>
    </MerchantError>
    <MerchantError>
      <MerchantName>String</MerchantName>
      <FieldsErrors>
        <FieldError>String</FieldError>
      </FieldsErrors>
    </MerchantError>
  </MerchantErrors>
</MerchantResult>
<Successfull>bool</Successfull>
</Output>
```

Appendix B – Result codes of the Authentication operation

Result Code	Message
0	Successful
1	Incorrect login password
2	User cannot use API
7	User is locked
8	Company is locked
21	Password expired
100	Unknown error