



**FINANCIAL**<sup>TM</sup>  
DATA EXCHANGE

**FDX API V6.0  
Migration Guide**

*Version 1.0  
December 2023*



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## Revision History

Document Version	Notes	Date
1.0	Initial Document Release	December 2023

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# Introduction

V6.0 is a major release containing breaking changes from earlier releases. There are specific changes from prior versions of which implementors should be aware. This document specifies where breaking changes have occurred from previous releases.

**Note:** This document is best viewed online in FDX's [Confluence](#), which is only available to FDX members. Links contained in this PDF version will not function without FDX Confluence access.

## New Enums

### [RFC 0236 Extend Fraud Notification Payload Data Structure](#)

This contains a breaking change by adding a new enum value 'RISK' in NotificationType.

### [RFC 0266 Add US\\_FEDNOW, and RequestForPayments to Payments Network](#)

This contains a breaking change by adding a new enum value 'US\_FEDNOW' in PaymentNetworkType.

## Accounts, Transactions and Securities entity hierarchies

See Upgrading for Core structure changes, RFC 0232

from [DRAFT 0232 - Add discriminators to AccountDescriptor and Transaction \(AccountCategory\) and Security \(SecurityCategory\)](#)

In `AccountWithDetails` removing the seven `xxxAccount:` properties and requiring discriminator value `accountCategory:` on each account type, one of `ANNUITY_ACCOUNT`, `COMMERCIAL_ACCOUNT`, `DEPOSIT_ACCOUNT`, `INSURANCE_ACCOUNT`, `INVESTMENT_ACCOUNT`, `LOAN_ACCOUNT` or `LOC_ACCOUNT`. These values have not changed since prior versions v5.2 and v5.3.

In `Transactions` removing the six `xxxTransaction:` properties and requiring discriminator value `accountCategory:` on each transaction type. The property `accountCategory` and its use on Transaction types is new.

In `Holding` removing the six `xxxSecurity:` properties and requiring discriminator value `securityCategory:` on each security type, one of `DEBT_SECURITY`, `MUTUAL_FUND_SECURITY`, `OPTION_SECURITY`, `OTHER_SECURITY`, `STOCK_SECURITY`, or `SWEEP_SECURITY`. The property `securityCategory` and its use on Security types is new. Also new is the `Security` schema entity from which all security types now inherit.

#### New header elements

See <https://fdx.atlassian.net/wiki/spaces/FDX/pages/2645295105/FDX+API+v6.0+Migration+Guide#Adding-parameter-and-response-headers-previously-specified-but-now-defined-in-yaml%2C-RFC-0269> ,

from [DRAFT 0269 - Add definitions of FDX-API-Actor-Type header to API requests and x-fapi-interaction-id header to all API requests and responses](#)

Explicitly added to the FDX API schemas are three request / response headers previously defined only in the FDX API Specification document. The request / response header `x-fapi-interaction-id` is required on all requests and responses.

#### Deprecated elements, entities and an API endpoint

See <https://fdx.atlassian.net/wiki/spaces/FDX/pages/2645295105/FDX+API+v6.0+Migration+Guide#Upgrading-for-deprecated-element-removals%2C-RFC-0268> ,

from [DRAFT 0268 - Remove deprecations and obsolete markup for v6.0](#)

Removal of many past deprecated properties to be replaced by other current properties, especially in Core.

Remove of obsolete and deprecated properties for multiple IRS forms in Tax.

Removal of one deprecated API in Money Movement to be replaced by another existing API.

Standardizing response as object wrapping array
<p>See <a href="https://fdx.atlassian.net/wiki/spaces/FDX/pages/2645295105/FDX+API+v6.0+Migration+Guide#Standardizing-API-response-as-schema-object-(rather-than-array)%2C-RFC-0278">https://fdx.atlassian.net/wiki/spaces/FDX/pages/2645295105/FDX+API+v6.0+Migration+Guide#Standardizing-API-response-as-schema-object-(rather-than-array)%2C-RFC-0278</a> ,</p> <p>from <a href="#">DRAFT 0278 - v6.0 consistency cleanup to match Style Guide</a></p> <p>Wrapping one API response with schema object (rather than direct array) in Consent.</p> <p>Also additional limited impact:</p> <p>Update <code>operationId</code> of <code>/recurring-payments/{recurringPaymentId}/payments</code> <b>from</b> <code>paymentsForRecurringPayment</code> to <code>getPaymentsForRecurringPayment</code>.</p>
Refactoring common property names for consistency
<p>See <a href="https://fdx.atlassian.net/wiki/spaces/FDX/pages/2645295105/FDX+API+v6.0+Migration+Guide#Common-property-name-refactorings%2C-RFC-0282">https://fdx.atlassian.net/wiki/spaces/FDX/pages/2645295105/FDX+API+v6.0+Migration+Guide#Common-property-name-refactorings%2C-RFC-0282</a></p> <p>from <a href="#">DRAFT 0282 - Updates for Consistent Property Naming for FDX API v6.0</a></p>
SecuritySchemes added for non-consumer APIs
<p>See <a href="https://fdx.atlassian.net/wiki/spaces/FDX/pages/2645295105/FDX+API+v6.0+Migration+Guide#New-securitySchemes-definitions%2C-RFC-0276">https://fdx.atlassian.net/wiki/spaces/FDX/pages/2645295105/FDX+API+v6.0+Migration+Guide#New-securitySchemes-definitions%2C-RFC-0276</a></p> <p>from <a href="#">DRAFT 0276 - Endpoint Authorization per FDX Security Profile using SecuritySchemes</a></p>

Tax API redesign for compound statements

See <https://fdx.atlassian.net/wiki/spaces/FDX/pages/2645295105/FDX+API+v6.0+Migration+Guide#Restructured-Tax-API-for-explicit-TaxStatement-level-and-shared-issuer%2C-recipient-entities%2C-RFC-0280> ,

from [DRAFT 0280 - US Tax adding support for compound TaxStatements, common issuer and recipient entities](#)

Updating Tax API to support multi-form TaxStatements and shared model for issuers / recipients.

## Upgrading for Core structure changes, RFC 0232

An implementer's mapping of each Account must set required `AccountDescriptor` property `accountCategory`, and `account` is no longer wrapped with a named property (like `depositAccount`) when set into an `AccountWithDetails` response object.

An implementer's mapping of each Transaction must set required `Transaction` property `accountCategory`, and `transaction` is no longer wrapped with a named property (like `depositTransaction`) when set into a `Transactions` response object.

An implementer's mapping of each Security must set required new base class `Security` property `securityCategory`, and `security` is assigned into property `security` (rather than a typed name like `stockSecurity`) when set onto a `Holding` response object.

`Holding` response object also now supports an array of `securityIds` with `id/idType` pairs instead of a single `securityId/securityIdType` pair of identifiers.

From [DRAFT 0232 - Add discriminators to AccountDescriptor and Transaction \(AccountCategory\) and Security \(SecurityCategory\)](#)



Prior Accounts definition: (abbreviated)	Revised Accounts definition: (full)
<pre> AccountWithDetails:   title: Account With Details entity   oneOf:     - properties:         depositAccount:           \$ref:             '#/components/schemas/DepositAccount'         loanAccount:           \$ref:             '#/components/schemas/LoanAccount'         locAccount:           \$ref:             '#/components/schemas/LocAccount'         investmentAccount:           \$ref:             '#/components/schemas/InvestmentAccount'         insuranceAccount:           \$ref:             '#/components/schemas/InsuranceAccount'         annuityAccount:           \$ref:             '#/components/schemas/AnnuityAccount'         commercialAccount:           \$ref:             '#/components/schemas/CommercialAccount' </pre>	<pre> AccountWithDetails:   title: Account With Details entity   description: An instance of an account with full details   type: object   discriminator:     propertyName: accountCategory     mapping:       ANNUITY_ACCOUNT:         '#/components/schemas/AnnuityAccount'       COMMERCIAL_ACCOUNT:         '#/components/schemas/CommercialAccount'       DEPOSIT_ACCOUNT:         '#/components/schemas/DepositAccount'       INSURANCE_ACCOUNT:         '#/components/schemas/InsuranceAccount'       INVESTMENT_ACCOUNT:         '#/components/schemas/InvestmentAccount'       LOAN_ACCOUNT:         '#/components/schemas/LoanAccount'       LOC_ACCOUNT:         '#/components/schemas/LineOfCreditAccount'   oneOf:     - \$ref:         '#/components/schemas/AnnuityAccount'     - \$ref:         '#/components/schemas/CommercialAccount'     - \$ref:         '#/components/schemas/DepositAccount'     - \$ref:         '#/components/schemas/InsuranceAccount'     - \$ref:         '#/components/schemas/InvestmentAccount'     - \$ref:         '#/components/schemas/LineOfCreditAccount' </pre>

### Examples of prior structure:

#### Accounts:

```
accounts:
  - depositAccount:
      accountId: string

      balanceAsOf: 2021-07-15T14:46:41.375Z
      currentBalance: 0
      openingDayBalance: 0
      availableBalance: 0
      annualPercentageYield: 0
  - loanAccount:
      accountId: string

      balanceAsOf: 2021-07-15T14:46:41.375Z
      principalBalance: 0
      escrowBalance: 0
      originalPrincipal: 0
      originatingDate: 2021-07-15
  - locAccount:
      accountId: string

      balanceAsOf: 2021-07-15T14:46:41.375Z
      creditLine: 0
      availableCredit: 0
      nextPaymentAmount: 0
      nextPaymentDate: 2021-07-15
  - investmentAccount:
      accountId: string

      balanceAsOf: 2021-07-15T14:46:41.375Z
      allowedCheckWriting: true
      allowedOptionTrade: true
      currentValue: 0
      availableCashBalance: 0
  - insuranceAccount:
      accountId: string

      policyPremium: 0
```

### Examples of new v6.0 structure:

#### Accounts:

```
accounts:
  - accountId: string
    accountCategory: DEPOSIT_ACCOUNT
    balanceAsOf: 2021-07-15T14:46:41.375Z
    currentBalance: 0
    openingDayBalance: 0
    availableBalance: 0
    annualPercentageYield: 0
  - accountId: string
    accountCategory: LOAN_ACCOUNT
    balanceAsOf: 2021-07-15T14:46:41.375Z
    principalBalance: 0
    escrowBalance: 0
    originalPrincipal: 0
    originatingDate: 2021-07-15
  - accountId: string
    accountCategory: LOC_ACCOUNT
    balanceAsOf: 2021-07-15T14:46:41.375Z
    creditLine: 0
    availableCredit: 0
    nextPaymentAmount: 0
    nextPaymentDate: 2021-07-15
  - accountId: string
    accountCategory: INVESTMENT_ACCOUNT
    balanceAsOf: 2021-07-15T14:46:41.375Z
    allowedCheckWriting: true
    allowedOptionTrade: true
    currentValue: 0
    availableCashBalance: 0
  - accountId: string
    accountCategory: INSURANCE_ACCOUNT
    policyPremium: 0
```

<p>             policyPremiumTerm: MONTHLY              policyStartDate: 2021-07-15              policyStatus: ACTIVE              - annuityAccount:                accountId: string                  payoutType: DEFERRED                policyProductType: FIXED                payoutAmount: 0                payoutMode: ANNUALLY              - commercialAccount:                accountId: string                balanceAsOf: 2021-07-15T14:46:41.375Z              openingLedgerBalance: 0              closingLedgerBalance: 0              currentLedgerBalance: 0              openingAvailableBalance: 0           </p>	<p>             policyPremiumTerm: MONTHLY              policyStartDate: 2021-07-15              policyStatus: ACTIVE                - accountId: string                accountCategory: ANNUITY_ACCOUNT                payoutType: DEFERRED                policyProductType: FIXED                payoutAmount: 0                payoutMode: ANNUALLY                - accountId: string                accountCategory: COMMERCIAL_ACCOUNT              balanceAsOf: 2021-07-15T14:46:41.375Z              openingLedgerBalance: 0              closingLedgerBalance: 0              currentLedgerBalance: 0              openingAvailableBalance: 0           </p>
--	--

**Prior Transactions definition: (abbreviated)**

```
Transactions:
  title: Transactions entity
  description: Optionally paginated array of
transactions
  type: object
  allOf:
    - $ref:
'./fdxapi.components.yaml#/components/schemas/Pagina
tedArray'
    - type: object
      properties:
        transactions:
          description: >-
            An array of transactions with entity
type dependent on the
            account type (deposit, loan, line of
credit, investment, insurance, or commercial)
          type: array
          items:
            oneOf:
              - properties:
                  depositTransaction:
                    $ref:
'#/components/schemas/DepositTransaction'
              - properties:
                  loanTransaction:
                    $ref:
'#/components/schemas/LoanTransaction'
              - properties:
                  locTransaction:
                    $ref:
'#/components/schemas/LocTransaction'
              - properties:
                  investmentTransaction:
                    $ref:
'#/components/schemas/InvestmentTransaction'
              - properties:
                  insuranceTransaction:
```

**Revised Transactions definition: (full)**

```
Transactions:
  title: Transactions entity
  description: Optionally paginated array of
transactions
  type: object
  allOf:
    - $ref:
'./fdxapi.components.yaml#/components/schemas/Pagina
tedArray'
    - type: object
      properties:
        transactions:
          description: >-
            An array of transactions with entity
type dependent on the account type
            (commercial, deposit, insurance,
investment, line of credit or loan)
          type: array
          items:
            discriminator:
              propertyName: accountCategory
              mapping:
                COMMERCIAL_ACCOUNT:
'#/components/schemas/CommercialTransaction'
                DEPOSIT_ACCOUNT:
'#/components/schemas/DepositTransaction'
                INSURANCE_ACCOUNT:
'#/components/schemas/InsuranceTransaction'
                INVESTMENT_ACCOUNT:
'#/components/schemas/InvestmentTransaction'
                LOAN_ACCOUNT:
'#/components/schemas/LoanTransaction'
                LOC_ACCOUNT:
'#/components/schemas/LineOfCreditTransaction'
            oneOf:
              - $ref:
'#/components/schemas/CommercialTransaction'
```

<pre>       \$ref: '#/components/schemas/InsuranceTransaction'     - properties:       commercialTransaction:         \$ref: '#/components/schemas/CommercialTransaction' </pre>	<pre>     - \$ref: '#/components/schemas/DepositTransaction'     - \$ref: '#/components/schemas/InsuranceTransaction'     - \$ref: '#/components/schemas/InvestmentTransaction'     - \$ref: '#/components/schemas/LineOfCreditTransaction'     - \$ref: '#/components/schemas/LoanTransaction' </pre>
--	--

### Examples of prior structure:

#### Transactions:

```
transactions:
  - depositTransaction:
      accountId: string

      transactionId: string
      payee: string
      checkNumber: 0
  - loanTransaction:
      accountId: string

      transactionId: string
      paymentDetails:
        principalAmount: 0
        interestAmount: 0
        insuranceAmount: 0
        escrowAmount: 0
        pmiAmount: 0
        feesAmount: 0
  - locTransaction:
      accountId: string

      transactionId: string
      checkNumber: 0
      paymentDetails:
        principalAmount: 0
        interestAmount: 0
        insuranceAmount: 0
        escrowAmount: 0
        pmiAmount: 0
        feesAmount: 0
  - investmentTransaction:
      accountId: string

      transactionId: string
      shares: 0
      faceValue: 0
      price: 0
```

### Examples of new v6.0 structure:

#### Transactions:

```
transactions:
  - accountId: string
    accountCategory: DEPOSIT_ACCOUNT
    transactionId: string
    payee: string
    checkNumber: 0
  - accountId: string
    accountCategory: LOAN_ACCOUNT
    transactionId: string
    paymentDetails:
      principalAmount: 0
      interestAmount: 0
      insuranceAmount: 0
      escrowAmount: 0
      pmiAmount: 0
      feesAmount: 0
  - accountId: string
    accountCategory: LOC_ACCOUNT
    transactionId: string
    checkNumber: 0
    paymentDetails:
      principalAmount: 0
      interestAmount: 0
      insuranceAmount: 0
      escrowAmount: 0
      pmiAmount: 0
      feesAmount: 0
  - accountId: string
    accountCategory: INVESTMENT_ACCOUNT
    transactionId: string
    shares: 0
    faceValue: 0
    price: 0
```

<pre> securityId: string securityIdType: CINS securityType: BOND symbol: string markup: 0 commission: 0 taxes: 0 fees: 0 load: 0 - insuranceTransaction:   accountId: string    transactionId: string - commercialTransaction:   accountId: string    transactionId: string   immediateAvailableBalance: 0   nextDayAvailableBalance: 0   twoDaysPlusAvailableBalance: 0   referenceBankId: string   referenceBranchId: string   referenceCustomerId: string </pre>	<pre> securityId: string securityIdType: CINS securityType: BOND symbol: string markup: 0 commission: 0 taxes: 0 fees: 0 load: 0  - accountId: string   accountCategory: INSURANCE_ACCOUNT   transactionId: string  - accountId: string   accountCategory: COMMERCIAL_ACCOUNT   transactionId: string   immediateAvailableBalance: 0   nextDayAvailableBalance: 0   twoDaysPlusAvailableBalance: 0   referenceBankId: string   referenceBranchId: string   referenceCustomerId: string </pre>
---	---

**Prior Holding securityId/securityIdType and  
xxxSecurity definitions: (abbreviated)**

```

Holding:
  title: Holding entity
  description: A holding in an investment
account
  type: object
  allof:
    - type: object
      properties:
        holdingId:
          $ref:
'./fdxapi.components.yaml#/components/schemas/Identifier'
        description: Long term persistent
identity of the holding
        securityId:
          description: Unique identifier of
security
          type: string
          securityIdType:
            $ref:
'#/components/schemas/SecurityIdType'
            description: CINS, CMC, CME, CUSIP,
ISIN, ITSA, NASDAQ, SEDOL, SICC, VALOR, WKN
# ...
    - oneOf:
      - properties:
          mutualFundSecurity:
            $ref:
'#/components/schemas/MutualFundSecurity'
      - properties:
          optionSecurity:
            $ref:
'#/components/schemas/OptionSecurity'
      - properties:
          otherSecurity:
            $ref:
'#/components/schemas/OtherSecurity'

```

**Revised Holding securityIds and security definition:  
(full)**

```

Holding:
  title: Holding entity
  description: A holding in an investment
account
  type: object
  properties:
    holdingId:
      $ref:
'./fdxapi.components.yaml#/components/schemas/Identifier'
    description: Long term persistent identity
of the holding
    securityIds:
      description: Unique identifiers for the
security
      type: array
      items:
        $ref: '#/components/schemas/SecurityId'
# ...
  security:
    discriminator:
      propertyName: securityCategory
    mapping:
      DEBT_SECURITY:
'#/components/schemas/DebtSecurity'
      MUTUAL_FUND_SECURITY:
'#/components/schemas/MutualFundSecurity'
      OPTION_SECURITY:
'#/components/schemas/OptionSecurity'
      OTHER_SECURITY:
'#/components/schemas/OtherSecurity'
      STOCK_SECURITY:
'#/components/schemas/StockSecurity'
      SWEEP_SECURITY:
'#/components/schemas/SweepSecurity'
    oneOf:

```



<pre> - properties:   stockSecurity:     \$ref: '#/components/schemas/StockSecurity' - properties:   sweepSecurity:     \$ref: '#/components/schemas/SweepSecurity' - properties:   debtSecurity:     \$ref: '#/components/schemas/DebtSecurity' </pre>	<pre> - \$ref: '#/components/schemas/DebtSecurity' - \$ref: '#/components/schemas/MutualFundSecurity' - \$ref: '#/components/schemas/OptionSecurity' - \$ref: '#/components/schemas/OtherSecurity' - \$ref: '#/components/schemas/StockSecurity' - \$ref: '#/components/schemas/SweepSecurity'  # New:   SecurityId:     title: Security ID entity     description: Unique identifier for a security     type: object     properties:       id:         \$ref: './fdxapi.components.yaml#/components/schemas/Identifier'         description: Security identifier       idType:         \$ref: '#/components/schemas/SecurityIdType'         description: CINS, CMC, CME, CUSIP, ISIN, ITSA, NASDAQ, SEDOL, SICC, VALOR, WKN </pre>
---	---

## Examples of prior structure:

### Holdings / Securities:

```
holdings:
- holdingId: string
  securityId: string
  securityIdType: CINS
  mutualFundSecurity:

    mutualFundType: OPENEND
    unitsStreet: 0
    unitsUser: 0
    reinvestDividends: true
    reinvestCapitalGains: true
    yield: 0
    yieldAsOfDate: 2021-07-15
- holdingId: string
  securityId: string
  securityIdType: CINS
  optionSecurity:

    secured: COVERED
    optionType: CALL
    strikePrice: 0
    expireDate: 2021-07-15
    sharesPerContract: 0
- holdingId: string
  securityId: string
  securityIdType: CINS
  otherSecurity:

    typeDescription: string
- holdingId: string
  securityId: string
  securityIdType: CINS
  stockSecurity:

    unitsStreet: 0
    unitsUser: 0
```

## Examples of new v6.0 structure:

### Holdings / Securities:

```
holdings:
- holdingId: string
  securityIds:
    - id: string
      idType: CINS
  security:
    securityCategory: MUTUAL_FUND_SECURITY
    mutualFundType: OPENEND
    unitsStreet: 0
    unitsUser: 0
    reinvestDividends: true
    reinvestCapitalGains: true
    yield: 0
    yieldAsOfDate: 2021-07-15
- holdingId: string
  securityIds:
    - id: string
      idType: CINS
  security:
    securityCategory: OPTION_SECURITY
    secured: COVERED
    optionType: CALL
    strikePrice: 0
    expireDate: 2021-07-15
    sharesPerContract: 0
- holdingId: string
  securityIds:
    - id: string
      idType: CINS
  security:
    securityCategory: OTHER_SECURITY
    typeDescription: string
- holdingId: string
  securityIds:
    - id: string
      idType: CINS
```

```

    reinvestDividends: true
    stockType: COMMON
    yield: 0
    yieldAsOfDate: 2021-07-15
  - holdingId: string
    securityId: string
    securityIdType: CINS
    sweepSecurity:

    currentBalance: 0
    availableBalance: 0
    balanceAsOf: 2021-07-15T14:46:41.375Z
    checks: true
  - holdingId: string
    securityId: string
    securityIdType: CINS
    debtSecurity:

    parValue: 0
    debtType: COUPON
    debtClass: CORPORATE
    couponRate: 0
    couponDate: 2021-07-15
    couponMatureFrequency: ANNUAL
    callPrice: 0
    yieldToCall: 0
    callDate: 2021-07-15
    callType: CALL
    yieldToMaturity: 0
    bondMaturityDate: 2021-07-15

```

```

    security:
      securityCategory: STOCK_SECURITY
      unitsStreet: 0
      unitsUser: 0
      reinvestDividends: true
      stockType: COMMON
      yield: 0
      yieldAsOfDate: 2021-07-15
  - holdingId: string
    securityIds:
      - id: string
        idType: CINS
    security:
      securityCategory: SWEEP_SECURITY
      currentBalance: 0
      availableBalance: 0
      balanceAsOf: 2021-07-15T14:46:41.375Z
      checks: true
  - holdingId: string
    securityIds:
      - id: string
        idType: CINS
    security:
      securityCategory: DEBT_SECURITY
      parValue: 0
      debtType: COUPON
      debtClass: CORPORATE
      couponRate: 0
      couponDate: 2021-07-15
      couponMatureFrequency: ANNUAL
      callPrice: 0
      yieldToCall: 0
      callDate: 2021-07-15
      callType: CALL
      yieldToMaturity: 0
      bondMaturityDate: 2021-07-15

```

## Adding parameter and response headers previously specified but now defined in yaml, RFC 0269

Two API header elements defined in the FDX API Specification have now been defined in the yaml.

All API implementations currently not supporting the **required** request header and response header `x-fapi-interaction-id` will need to be updated to support the header in all requests and responses.

From [DRAFT 0269 - Add definitions of FDX-API-Actor-Type header to API requests and x-fapi-interaction-id header to all API requests and responses](#)

### Example v5.3.1 endpoint

`/consents/{consentId}` from  
`fdxapi.consent.yaml`

Using `fdxapi.consent.yaml` as an example,  
with parameters defined at API path or  
endpoint level:

```
/consents/{consentId}:
  parameters:
    - $ref: '#/components/parameters/ConsentIdPath'
  get:
    summary: Get Consent Grant
    description: Get a Consent Grant
    operationId: getConsentGrant
    tags:
      - User Consent
    responses:
      '200':
        description: Ok
        content:
          application/json:
            schema:
              $ref: '#/components/schemas/ConsentGrant'
# ...
```

### Endpoint as updated with new request / response headers

The optional request header `FdxApiActorTypeHeader` and required request header `FapiInteractionIdHeader` were added at the path / endpoint level. To each response the response header `x-fapi-interaction-id` was also added:

```
/consents/{consentId}:
  parameters:
    - $ref: '#/components/parameters/ConsentIdPath'
# two request parameters added:
    - $ref: './fdxapi.components.yaml#/components/parameters/FapiInteractionIdHeader'
    - $ref: './fdxapi.components.yaml#/components/parameters/FdxApiActorTypeHeader'
  get:
    summary: Get Consent Grant
    description: Get a Consent Grant
    operationId: getConsentGrant
    tags:
      - User Consent
    responses:
      '200':
        description: Ok
# one response header added:
        headers:
          x-fapi-interaction-id:
            $ref: './fdxapi.components.yaml#/components/headers/x-fapi-interaction-id'
# ...
```

Standard responses also got the new response header definition

```
responses:
  '406':
    description: Content Type not Supported
    content:
      application/json:
        schema:
          $ref: '#/components/schemas/Error'
# ...
```

```
responses:
  '406':
    description: Content Type not Supported
# one response header added:
    headers:
      x-fapi-interaction-id:
        $ref: '#/components/headers/x-fapi-interaction-id'
    content:
      application/json:
        schema:
          $ref: '#/components/schemas/Error'
# ...
```

### New header definitions used in above:

The defined header properties FdxApiActorTypeHeader, InteractionIdHeader and x-fapi-interaction-id were added in v5.3.0:

```
parameters:

  FapiInteractionIdHeader:
    name: x-fapi-interaction-id
    in: header
    description: >-
      Unique identifier for this interaction as an
      [IETF RFC 4122] (https://datatracker.ietf.org/doc/html/rfc4122)
      UUID.
      Used across all FDX API requests and responses
    schema:
      type: string
      required: true
      example: c770aef3-6784-41f7-8e0e-ff5f97bddb3a

  FdxApiActorTypeHeader:
    name: FDX-API-Actor-Type
    in: header
    description: Identifies whether the customer is present (USER) or
    it is a BATCH operation
    schema:
      $ref: '#/components/schemas/ActorType'
    example: BATCH

headers:

  x-fapi-id:
    description: Unique identifier for this interaction
    schema:
      type: string
      example: rrt-970585410023330903-b-gce-821-23397-1
```

## Upgrading for deprecated element removals, RFC 0268

A number of request and response entities have had name changes and prior versions are deprecated. New names, entities, and one endpoint should be used instead.

From [DRAFT 0268 - Remove deprecations and obsolete markup for v6.0](#)

Address.state in fdxapi.components.yaml	To Address.region
<p>From Address, line 113+ (lines 18-22 here):</p> <pre>Address:   title: Address   description: Postal address   type: object   properties: # ...     state:       allOf:         - \$ref: '#/components/schemas/String64'       description: State or province.       deprecated: true       deprecated, will remove in FDX V6.0     region:       \$ref: '#/components/schemas/String64'       description: State or province or territory. Replaces "state" property # ...</pre>	<p>Removal of state property in addresses, replaced with region :</p> <pre>region:   \$ref: '#/components/schemas/String64' # updated description:   description: State, Province, Territory, Canton or Prefecture.   From [Universal Postal Union] (https://www.upu.int/en/Postal-Solutions/Programmes- Services/Addressing-Solutions#addressing-s42-standard)   as of 2-26-2020, [S42 International Address Standards] (https://www.upu.int/UPU/media/upu/documents/PostCod e/S42_International-Addressing-Standards.pdf).   For U.S. addresses can be 2-character code from '#/components/schemas/StateCode'</pre>



<p><b>Replace deprecated AnnuityAccount properties in fdxapi.core.yaml, from v5.3.1 schemas:</b></p> <pre> AnnuityAccount:   title: Annuity Account entity   description: An annuity account type   type: object   allof:     - \$ref: '#/components/schemas/Account'     - type: object       properties:         annuityProductType:           allof:             - \$ref: '#/components/schemas/AnnuityProductType'           description: CURRENCY, SHARES. Deprecated, will be removed in v6.0           deprecated: true </pre>	<p><b>To the new ACORD-defined property names</b></p> <p>Deprecated field <code>annuityProductType</code> is not replaced by a new field on <code>AnnuityAccount</code>:</p>
	<p><b>Existing field <code>payoutType</code> is not replacing a deprecated field on <code>AnnuityAccount</code>:</b></p> <pre> payoutType:   \$ref: '#/components/schemas/PayoutType'   description: Indicates type of payout such as immediate or deferred </pre>
<pre> annuityValueBasis:   allof:     - \$ref: '#/components/schemas/AnnuityValueBasis'   description: FIXED, VARIABLE. Deprecated, will be removed in v6.0   deprecated: true </pre>	<pre> policyProductType:   \$ref: '#/components/schemas/PolicyProductType'   description: The type of annuity product, e.g. Fixed or Variable </pre>

<pre> paymentAmount:   type: number   description: Amount of the recurring payment. Deprecated, will be removed in v6.0   deprecated: true </pre>	<pre> payoutAmount:   type: number   description: Amount paid out, based on mode frequency </pre>
<pre> paymentFrequency:   allOf:     - \$ref: '#/components/schemas/PaymentFrequency'   description: &gt;-     ANNUALLY, BIWEEKLY, DAILY, MONTHLY, SEMIANNUALLY, SEMIMONTHLY, WEEKLY. Deprecated, will be removed in v6.0   deprecated: true </pre>	<pre> payoutMode:   \$ref: '#/components/schemas/PayoutMode'   description: Frequency of annuity payments </pre>
<pre> paymentStartDate:   allOf:     - \$ref: './fdxapi.components.yaml#/components/sche mas/TimeStamp'   description: Date of first payment; could be a future date. Deprecated, will be removed in v6.0   deprecated: true </pre>	<pre> payoutStartDate:   \$ref: './fdxapi.components.yaml#/components/schemas/DateString'   description: Date the payout starts </pre>
<pre> paymentEndDate:   allOf:     - \$ref: './fdxapi.components.yaml#/components/sche mas/TimeStamp'   description: Date last payment will be made. Deprecated, will be removed in v6.0   deprecated: true </pre>	<pre> payoutEndDate:   \$ref: './fdxapi.components.yaml#/components/schemas/DateString'   description: Date the payout ends </pre>

<p>totalPaymentCount:  type: number  description: Total number of payments that will be produced by the annuity. Deprecated, will be removed in v6.0  deprecated: true</p>	<p>numberModalPayouts:  type: integer  description: Total number of payouts</p>
<p>netPresentValue:  type: number  description: Surrender or cash balance value. Deprecated, will be removed in v6.0  deprecated: true</p>	<p>surrenderValue:  type: number  description: Cash surrender value (net) available if contract is surrendered</p>
<p>annualIncrease:  type: number  description: Percent or dollar amount of annual payment increase. Deprecated, will be removed in v6.0  deprecated: true  annualIncreaseType:  allOf:  - \$ref: '#/components/schemas/AnnualIncreaseType'  description: FIXED, PERCENT, DOLLAR. Deprecated, will be removed in v6.0  deprecated: true</p>	<p><b>Rather than two fields, one for annualIncrease and one to specify the annualIncreaseType, either the payoutChangePercentage or payoutChangeAmount field is specified:</b></p> <p>payoutChangePercentage:  type: number  description: Percentage of the accumulated value to be paid to the payee each year; used exclusive of payoutChangeAmount  payoutChangeAmount:  type: number  description: Incremental modal amount (positive or negative) by which the payout amount will be changed; used exclusive of payoutPercentage</p>
<p>periodCertainGuarantee:  allOf:  - \$ref: '#/components/schemas/PeriodCertainGuarantee'  description: NONE, 5-YEAR, 10-YEAR, 20-YEAR, 30-YEAR. Deprecated, will be removed in v6.0  deprecated: true</p>	<p>periodCertainType:  \$ref: '#/components/schemas/PeriodCertainType'  description: The number of modal periods comprising the duration of the certain period of an annuity payout</p>

<b>Replace use of deprecated <code>InvestmentAccount</code> property in <code>fdxapi.core.yaml</code> of type <code>Timestamp</code>, from v5.3.1 schemas:</b>	<b>With the new corrected spelling property name of type <code>integer</code></b>
<p>Misspelled property in <code>InvestmentAccount</code>, starting line 1883:</p> <pre> InvestmentAccount:   title: Investment Account entity   description: An investment account type and information such as balances, transactions,   holdings and privileges   type: object   allof:     - \$ref: '#/components/schemas/Account'     - type: object   properties: # ...     calendaryearFor401K:       \$ref: './fdxapi.components.yaml#/components/schemas/Timestamp'       description: &gt;-         Date for this calendar year for 401k account. Deprecated, renamed to         calendaryearFor401K, will be removed in FDX v6.0       deprecated: true # ... </pre>	<pre>     calendarYearFor401K:       type: integer       description: The calendar year for this 401k account </pre>

**Deprecated endpoint GET /transfers/{transferId}/status in fdxapi.money-movement.yaml, from v5.3.1 schemas:**

Entire endpoint, starting line 1806:

```
/transfers/{transferId}/status:
  get:
    operationId: getTransferStatus
    tags:
      - Internal Transfers
    description: >-
      This endpoint has been deprecated in favor of the
`getTransfer`
      (`GET /transfers/{transferId}`) operation. Get status
of transfer between accounts
    deprecated: true
    summary: Get transfer status
    parameters:
      - $ref: '#/components/parameters/TransferIdPath'
    responses:
      '200':
        description: Current status of the requested
transfer
        content:
          application/json:
            schema:
              $ref: '#/components/schemas/TransferStatus'
# ...
```

**Should instead use endpoint GET /transfers/{transferId}**

Replace with

```
/transfers/{transferId}:
  get:
    operationId: getTransfer
    tags:
      - Internal Transfers
    description: Get a transfer been
accounts
    summary: Get a transfer
    parameters:
      - $ref:
'#/components/parameters/TransferIdPath'
    responses:
      '200':
        description: Ok
        content:
          application/json:
            schema:
              $ref:
'#/components/schemas/Transfer'
# ...
```

**Replace deprecated `taxYears` parameter removed from `fdxapi.tax.yaml`, from v5.3.1 schemas:**

`taxYears` array parameter:

```

/tax-forms:
  get:
    operationId: searchForTaxForms
    summary: Search tax forms
    description: Get the full lists of tax
document data and tax form images
      available for a specific year for the
current authorized customer
    tags:
      - Tax Forms
    parameters:
      - name: taxYears
        in: query
        description: >-
          One or more tax years in which to
search for tax forms. Comma separated.
          Deprecated in favor of single taxYear
parameter, will be removed in FDX v6.0
        deprecated: true
        style: form
        explode: false
        schema:
          type: array
          items:
            type: integer
      - $ref:
'#/components/parameters/AccountIdQuery'
      - $ref:
'#/components/parameters/TaxYearQuery'
# ...

```

**With single `taxYear` parameter**

Becomes single integer parameter

```

/tax-forms:
  get:
    operationId: searchForTaxForms
    summary: Search tax forms
    description: Get the full lists of tax document
data and tax form images
      available for a specific year for the current
authorized customer
    tags:
      - Tax Forms
    parameters:
# ...
      - $ref:
'#/components/parameters/TaxYearQuery'
# ...

components:
  parameters:
    TaxYearQuery:
      name: taxYear
      in: query
      description: Tax year in which to search for
tax forms. Optional
      schema:
        type: integer

```

Other FDX Tax API fields were removed from the schema since they have not been included on IRS Tax Forms since 2020 or earlier. They should not need support or migration to V6.0.0.

See [DRAFT 0268 - Remove deprecations and obsolete markup for v6.0](#) for the full list of removed tax form properties, and [RFC 0280 changes for fdxapi.tax.yaml](#) for complete proposed yaml with all deprecated elements removed.

## Standardizing API response as schema object (rather than array), RFC 0278

The defined response for `/consents/{consentId}/revocation` is modified to a schema object from its prior array definition. One Money Movement `operationId` is changed.

From [DRAFT 0278 - v6.0 consistency cleanup to match Style Guide](#)



<p><b>Prior array response to</b>  <b>/consents/{consentId}/revocation in</b>  <b>fdxapi.consent.yaml</b></p> <p>Response for GET consent revocations was modified to be an object containing an array, rather than an array directly.</p> <pre> /consents/{consentId}/revocation:   parameters:     - \$ref: '#/components/parameters/ConsentIdPath' # ... get: # ...   responses:     '200':       description: Ok       content:         application/json:           schema:             type: array             items:               \$ref: '#/components/schemas/ConsentRevocation' </pre>	<p><b>Changed to newly defined ConsentRevocationList entity containing an array</b></p> <pre> /consents/{consentId}/revocation:   parameters:     - \$ref: '#/components/parameters/ConsentIdPath' # ... get: # ...   responses:     '200':       description: Ok       content:         application/json:           schema:             \$ref: '#/components/schemas/ConsentRevocationList'  ConsentRevocationList:   title: Consent Revocation List entity   description: List of consent grant revocation requests   type: object   properties:     revocations:       description: The list of revocation requests       type: array       items:         \$ref: '#/components/schemas/ConsentRevocation' </pre>
<p><b>Prior definition of /recurring-payments/{recurringPaymentId}/payments in</b>  <b>fdxapi.money-movement.yaml with operationId of</b>  <b>paymentsForRecurringPayment</b></p>	<p><b>Changed to operationId of</b> getPaymentsForRecurringPayment</p>

Code generation can create artifact names based on `operationId`, this change could impact automated development tools:

```
/recurring-  
payments/{recurringPaymentId}/payments:  
  get:  
    operationId: paymentsForRecurringPayment
```

New code generation will use new `operationId` for names?

```
/recurring-payments/{recurringPaymentId}/payments:  
  get:  
    operationId: getPaymentsForRecurringPayment
```

And name changed in `OperationId` enum in `fdxapi.meta.yaml`, which would similarly impact any implementation of Meta APIs referencing `/recurring-payments/{recurringPaymentId}/payments` endpoint.

# Common property name refactorings, RFC 0282

From [DRAFT 0282 - Updates for Consistent Property Naming for FDX API v6.0](#)

Prior property names:	Changed to new property names:
<p>To sync existing <code>programId</code> with naming in <code>/reward-programs/{rewardProgramId}</code>:</p> <pre>RewardProgram: # ...   properties:     programId:       \$ref: './fdxapi.components.yaml#/components/schemas/Identifier'       description: Long term persistent identity of the reward program</pre>	<p>New name in <code>fdxapi.core.yaml</code></p> <pre>RewardProgram: # ...   properties:     rewardProgramId:       \$ref: './fdxapi.components.yaml#/components/schemas/Identifier'       description: Long term persistent identity of the reward program</pre>

**To use plural property names for all arrays, rename location and partyGroup:**

```

      Branch:
# ...
      location:
        type: array
        description: Location of the branch
        items:
          $ref:
'#/components/schemas/PaymentDeliveryAddress'

      FinancialInstitution:
# ...
      location:
        type: array
        description: Location of the financial
institution
        items:
          $ref:
'#/components/schemas/PaymentDeliveryAddress'

      PaymentInitiationPartyToPaymentMethod:
# ...
      location:
        type: array
        description: Address associated with the
payment method registration of a payment initiation
party
        items:
          $ref:
'#/components/schemas/PaymentDeliveryAddress'

      PaymentInitiationParty:
# ...
      partyGroup:
        type: array
        description: |

```

**New names locations and partyGroups in fdxapi.money-movement.yaml:**

```

      Branch:
# ...
      locations:
        type: array
        description: Locations of the branch
        items:
          $ref:
'#/components/schemas/PaymentDeliveryAddress'

      FinancialInstitution:
# ...
      locations:
        type: array
        description: Locations of the financial
institution
        items:
          $ref:
'#/components/schemas/PaymentDeliveryAddress'

      PaymentInitiationPartyToPaymentMethod:
# ...
      locations:
        type: array
        description: Addresses associated with the
payment method registration of a payment initiation
party
        items:
          $ref:
'#/components/schemas/PaymentDeliveryAddress'

      PaymentInitiationParty:
# ...
      partyGroups:
        type: array
        description: |

```

<p>The PartyGroups to which this initiation party belongs. Optional, can be omitted if party belongs to no groups.</p> <pre> items:   \$ref: '#/components/schemas/PartyGroup'</pre>	<p>The PartyGroups to which this initiation party belongs. Optional, can be omitted if party belongs to no groups.</p> <pre> items:   \$ref: '#/components/schemas/PartyGroup'</pre>
<p><b>To use plural property names for all arrays, rename email in fdxapi.components.yaml:</b></p> <pre> # from fdxapi.components.yaml Customer: # ...   email:     type: array     items:       type: string     description: &gt;-       An array of the customer's electronic mail addresses     addresses:       type: array       items:         \$ref: '#/components/schemas/DeliveryAddress'     description: &gt;-       An array of the customer's physical mail addresses     telephones:       type: array       items:         \$ref: '#/components/schemas/TelephoneNumber'     description: An array of the customer's telephone numbers</pre>	<p><b>New name emails refactored into a shared Contacts entity:</b></p> <pre> # new contact arrays to fdxapi.components.yaml Contacts: # ...   properties:     emails:       type: array       items:         type: string       description: Array of the contact email addresses     addresses: # ...     telephones: # ... # updated Customer: # ...   allOf:     - \$ref: '#/components/schemas/Contacts'     - type: object       properties: # remaining ...</pre>

Change **Image Id Not Found** error code from '406' to '404'

from `/accounts/{accountId}/transaction-images/{imageId}` in `fdxapi.core.yaml`:

```
      '404':
# ...
      '406':
        description: Image Id not found for
Transaction
        content:
          application/json:
            schema:
              $ref:
'./fdxapi.components.yaml#/components/schemas/Error'
        examples:
          Image Id not found for Transaction:
            value:
              code: '1103'
              message: Image Id not found for
Transaction
              debugMessage: Provider custom
developer-level error details for troubleshooting
```

Add `$ref:` to '406' error in `fdxapi.components.yaml` for wrong Content Type, and change existing '406' to new '404' example:

```
      '404':
        description: Account or image with id not
found
        content:
          application/json:
            schema:
              $ref:
'./fdxapi.components.yaml#/components/schemas/Error'
# ...
          Image Id not found for Transaction:
            value:
              code: '1103'
              message: Image Id not found for
Transaction
              debugMessage: Provider custom
developer-level error details for troubleshooting
      '406':
        $ref:
'./fdxapi.components.yaml#/components/responses/406'
```

Current RecipientRequest **“type: number”** properties duration\_period and lookback\_period would permit decimal day amounts:

Text description of each from [RFC 0153 - Recipient Registration Automation](#):

- duration\_period - Optional
  - The number of days which consent is granted. Duration period is required when duration\_type=time\_based.
- lookback\_period - Optional
  - The maximum number of days allowed for Data Recipient consumers to obtain in transaction history, effective from the current date.

```
RecipientRequest:
# ...
  duration_period:
    type: number
    description: The duration period is the
maximum consent duration that would be requested for
a Recipient consumer
  lookback_period:
    type: number
    description: The maximum number of days
allowed for Data Recipient consumers to obtain in
transaction history,
effective from the current
date
```

Update each to type: integer , since each is a "number of days", and updating descriptions to match.

```
# in fdxapi.components.yaml

RecipientRequest:
# ...
  duration_period:
    type: integer
    description: The maximum consent duration
in days for duration_type TIME_BOUND for the Data
Recipient,
effective from the date of consent
  lookback_period:
    type: integer
    description: The maximum number of days
allowed for Data Recipient to obtain in transaction
history,
effective from the current date
```

# New securitySchemes definitions, RFC 0276

From [DRAFT 0276 - Endpoint Authorization per FDX Security Profile using SecuritySchemes](#)

New, shared definition of FAPI Security Profile 1.0 Part One – Baseline	Added to all endpoints in Consent, Event Notifications, Fraud, Meta, Recipient Registration and Registry APIs
<p>Prior FDX API versions did not provide defined securitySchemes, this is being added:</p> <pre> components:   securitySchemes:     OAuthFapilBaseline:       type: oauth2       description: &gt;-         This authorization protocol         uses FAPI Security Profile 1.0 Part One         – Baseline.         To be used with the following         FDX API domains: Event – Notification         Subscription, Meta,         Data Recipient Registration,         Tax (update endpoints), and FDX         Participant Registry.          Client must comply with         [6.2.2 Client         provisions] (https://openid.net/specs/op         enid-financial-api-part-1-         1_0.html#client-provisions).         Authorization server must         comply with the         [5.2.2 Authorization         server] (https://openid.net/specs/openid-         financial-api-part-1-         1_0.html#authorization-server).           </pre>	<p>This non-customer-specific securityScheme is being added to all non-customer-specific FDX APIs, as:</p> <pre> # additions in # fdxapi.consent.yaml # fdxapi.event-notifications.yaml # fdxapi.fraud.yaml # fdxapi.meta.yaml # fdxapi.recipient-registration.yaml # fdxapi.registry.yaml  openapi: 3.1.0 # ...  security:   - OAuthFapilBaseline: [] # &lt;-- file security securityScheme, has no scopes # &lt;-- below-specified  components:   securitySchemes:      OAuthFapilBaseline:        \$ref:         './fdxapi.components.yaml#/components/securitySchemes/OAuthFapilB         aseline'           </pre>



<p>Client, authorization server and resource server requirements described in full by:</p> <ul style="list-style-type: none"><li>* [FAPI Security Profile 1.0 Part One – Baseline] (<a href="https://openid.net/specs/openid-financial-api-part-1-1_0.html">https://openid.net/specs/openid-financial-api-part-1-1_0.html</a>)</li><li>* FDX API Security Model specification published with the FDX API</li></ul> <p>flows:</p> <p>clientCredentials:</p> <p>tokenUrl:</p> <p>'https://auth.fi.com/fdx/v6/token'</p> <p>scopes: {}</p>	
---	--

# Restructured Tax API: Explicit TaxStatement level, shared issuer, recipient entities, RFC 0280

From [DRAFT 0280 - US Tax adding support for compound TaxStatements, common issuer and recipient entities](#)

<p><b>Prior TaxDataList ambiguously combined single form with multi-form statements</b></p> <p>Former definition of TaxDataList, with no form or statement metadata:</p> <pre>TaxDataList:   title: Tax Data List   description: Paginated array of tax data   type: object   allOf:     - \$ref:         './fdxapi.components.yaml#/components/schemas/PaginatedArray'     - type: object       properties:         forms:           type: array           description: The list of tax forms           items:  \$ref: '#/components/schemas/TaxData'</pre>	<p><b>Changed to TaxStatement and made explicit whether single- or multi-form tax documents</b></p> <p>New TaxStatement entity with full metadata and support for single issuer and/or recipient data:</p> <pre>TaxStatement:   title: Tax Statement   description: Tax statement containing one or more tax forms   type: object   properties:     taxYear:       description: Year for which taxes are being paid       \$ref: '#/components/schemas/TaxYear'     taxStatementId:       description: Long-term persistent id for the tax statement.       Depending upon the data provider, this may be the same id as the id on the enclosed tax form(s), or this may be a different id       \$ref:         './fdxapi.components.yaml#/components/schemas/Identifier'     issuer:       description: Issuer's name, address, phone, and TIN.       Issuer data need only be transmitted on TaxStatement, 'JSON' data type</pre>
--	---

	<p>responses if it is the same on all included tax forms</p> <pre>       \$ref: '#/components/schemas/TaxParty'     recipient:       description: Recipient's name, address, phone, and TIN.       Recipient data need only be transmittted on TaxStatement, 'JSON' data type       responses if it is the same on all included tax forms       \$ref: '#/components/schemas/TaxParty'     taxDataType:       description: Whether this `application/json` tax form response contains data       in `forms` property (as 'JSON' format) or `pdf` property (as 'BASE64_PDF' format)       \$ref: '#/components/schemas/TaxDataType'     forms:       description: The list of data contents for all included tax forms,       response should include one of `forms` or `pdf`       type: array       items:         \$ref: '#/components/schemas/TaxData'     pdf:       description: PDF version of the tax statement containing all form pages,       binary encoded as Base64, response should include one of `pdf` or `forms`       type: string       format: base64     attributes:       description: Additional tax statement attributes that the provider wishes to include       type: array       items: </pre>
--	--

	\$ref: './fdxapi.components.yaml#/components/schemas/FiAttribute'
--	--

Former definition of Tax API endpoints, all using TaxDataList for response and/or request:

```

/tax-forms:
  get:
    operationId: searchForTaxForms
# ...
  responses:
    '200':
      description: Array of metadata for all
the tax document data and
      tax form images available for the
customer matching search criteria
      content:
        application/json:
          schema:
            $ref:
'#/components/schemas/TaxDataList'
    post:
      operationId: createTaxForm
# ...
      description: Submit the data for a
specific tax document
      requestBody:
        content:
          application/json:
            schema:
              description: The full data
contents of the tax document and all its
included forms including the indexing metadata
values
            $ref:
'#/components/schemas/TaxDataList'
      responses:
        '201':
          description: Created document for the
tax data submitted
          content:
            application/json:

```

New Tax API endpoints use either TaxStatement or TaxStatementList for response and/or request:

```

/tax-forms:
# ...
  get:
    operationId: searchForTaxForms
# ...
  responses:
    '200':
      description: Array of all the tax document data
and tax form
      images available for the customer matching
search criteria
# ...
      content:
# ...
        application/json:
          schema:
            $ref:
'#/components/schemas/TaxStatementList'
# ...
    '206':
      description: Partial Content success searching
for customer Tax Data forms,
      some errors are being returned
# ...
      content:
        application/json:
          schema:
            $ref:
'#/components/schemas/TaxStatementList'
# ...
    post:
      operationId: createTaxForm
# ...
      requestBody:
        content:
          application/json:

```

<pre>                 schema:                   description: The full data contents of the tax document and all its included forms as ingested                   \$ref: '#/components/schemas/TaxDataList'          /tax-forms/{taxFormId}:           get:             operationId: getTaxForm # ...             responses:               '200':                 description: &gt;-                   The document image or TaxDataList as json for a single tax document                   for the customer. A single document can include multiple IRS tax forms                   and/or other reporting statements as delivered by providers                 content: # ...                 application/json:                   schema:                     description: &gt;-                       The TaxDataList json for a single tax document containing                       one or more tax reporting forms for the customer                   \$ref: '#/components/schemas/TaxDataList'             put:               operationId: updateTaxForm # ...               requestBody:                 content:                   application/json:                     schema: </pre>	<pre>                 schema:                   description: The full data contents of the tax document and all its included forms including the indexing metadata values                   \$ref: '#/components/schemas/TaxStatement'             responses:               '201':                 description: Created document for the tax data submitted # ...                 content:                   application/json:                     schema:                       description: The full data contents of the tax document and all its included forms as ingested                       \$ref: '#/components/schemas/TaxStatement'               '206':                 description: Partial Content success creating customer tax document, some errors are being returned # ...                 content:                   application/json:                     schema:                       description: The data contents of the tax document as ingested, with Errors on some included forms                       \$ref: '#/components/schemas/TaxStatement' # ...         /tax-forms/{taxFormId}: # ...           get:             operationId: getTaxForm # ...             responses:               '200':                 description: &gt;-                   The document image or TaxStatement as json for a single tax document                   for the customer. A single document can include multiple IRS tax forms </pre>
--	---

```

        description: The full data
contents of the document and all its contained
forms including the indexing metadata values
        $ref:
'#/components/schemas/TaxDataList'
# ...
    responses:
        '200':
            description: Ok
        '206':
            description: Partial Content success
updating customer tax document, some errors are
being returned
            content:
                application/json:
                    schema:
                        description: The data contents
of the tax document as updated, with Errors on
some included forms
                        $ref:
'#/components/schemas/TaxDataList'

```

```

        and/or other reporting statements as
delivered by providers
# ...
        content:
# ...
            application/json:
                schema:
                    description: >-
                        The TaxStatement json for a single tax
document containing
                        one or more tax reporting forms for the
customer
                        $ref: '#/components/schemas/TaxStatement'
# ...
        '206':
            description: Partial Content success retrieving
a customer tax document, some errors are being returned
# ...
            content:
                application/json:
                    schema:
                        description: >-
                            The TaxStatement json for a single tax
document containing one or more
                            tax reporting forms for the customer,
one or more of which contain an Error
                            $ref: '#/components/schemas/TaxStatement'
# ...
            put:
                operationId: updateTaxForm
# ...
            requestBody:
                content:
                    application/json:
                        schema:
                            description: The full data contents of the
document and all its contained forms including the
indexing metadata values
                            $ref: '#/components/schemas/TaxStatement'
# ...

```

	<pre> responses:   '206':     description: Partial Content success updating customer tax document, some errors are being returned # ...     content:       application/json:         schema:           description: The data contents of the tax document as updated, with Errors on some included forms           \$ref: '#/components/schemas/TaxStatement' </pre>
--	--



Prior example of form-specific issuer and recipient entities for IRS 1099-NEC form:

```
Tax1099Nec:
  title: Form 1099-NEC
  description: Non-Employee Compensation
  type: object
  allOf:
    - $ref: '#/components/schemas/Tax'
    - type: object
      properties:
        payerNameAddress:
          $ref:
            './fdxapi.components.yaml#/components/schemas/NameAddressPhone'
          description: PAYER'S name, address, and phone
        payerTin:
          description: PAYER'S TIN
          type: string
        recipientTin:
          description: RECIPIENT'S TIN
          type: string
        recipientNameAddress:
          $ref:
            './fdxapi.components.yaml#/components/schemas/NameAddress'
          description: RECIPIENT'S name and address
        accountNumber:
          description: Account number
          type: string
# ...
```

Which uses NameAddress and NameAddressPhone from fdxapi.components.yaml:

NameAddress:

New Tax1099Nec entity which inherits single issuer and recipient from Tax entity.

**Especially note new description line on all tax forms including Tax1099Nec which describe where to encode former specific form properties: here payerNameAddress, payerTin, recipientTin and recipientNameAddress get mapped to issuer and recipient TaxParty entities.**

```
Tax:
# ...
  issuer:
    $ref: '#/components/schemas/TaxParty'
    description: Issuer's name, address, phone, and TIN.
    Issuer data need only be transmitted on enclosing TaxStatement, if it is the same on all its included tax forms.
  recipient:
    $ref: '#/components/schemas/TaxParty'
    description: Recipient's name, address, phone, and TIN.
    Recipient data need only be transmitted on enclosing TaxStatement, if it is the same on all its included tax forms.

Tax1099Nec:
  title: Form 1099-NEC
  description: Non-Employee Compensation, from PAYER (1st-2nd boxes as issuer) to RECIPIENT (3rd-4th boxes)
  type: object
  allOf:
    - $ref: '#/components/schemas/Tax'
    - type: object
      properties:
```

<pre>         title: Name and Address         description: Individual or business name with address         type: object         allOf:           - \$ref: '#/components/schemas/Address'           - type: object             properties:               name1:                 \$ref: '#/components/schemas/String64'                 description: Name line 1               name2:                 \$ref: '#/components/schemas/String64'                 description: Name line 2          NameAddressPhone:           title: Name, Address and Phone           description: Contact phone number with name and address           type: object           allOf:             - \$ref: '#/components/schemas/NameAddress'             - type: object               properties:                 phone:                   \$ref: '#/components/schemas/TelephoneNumberPlusExtensi on'                   description: Phone number </pre>	<pre>         accountNumber:           description: Account number           type: string # ... </pre> <p><b>New TaxParty entity used for issuers and recipients:</b></p> <pre>         TaxParty:           title: Tax Party           description: Legal entity for issuer or recipient, used across all tax forms           type: object           properties:             tin:               description: Issuer or recipient Tax Identification Number.               Usually EIN for issuer and SSN for recipient               type: string             partyType:               \$ref: '#/components/schemas/TaxPartyType'               description: Type of issuer or recipient legal entity, as "BUSINESS" or "INDIVIDUAL".               Commonly BUSINESS for issuer and INDIVIDUAL for recipient             individualName:               \$ref: './fdxapi.components.yaml#/components/schemas/IndividualN ame'               description: Individual issuer or recipient name             businessName:               \$ref: './fdxapi.components.yaml#/components/schemas/BusinessNam e'               description: Business issuer or recipient name             address:               \$ref: './fdxapi.components.yaml#/components/schemas/Address'               description: Issuer or recipient address </pre>
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	<pre> phone:   \$ref:     './fdxapi.components.yaml#/components/schemas/TelephoneNu mberPlusExtension'   description: Issuer or recipient telephone number   email:     description: Issuer or recipient email address.       (Additional information, not part of IRS forms)   type: string </pre>
<p>Removed <code>format: double</code> from all (~423) instances of monetary amount fields in Tax API. This could impact code generation tooling, for example openapi-generator uses type <code>Double</code> for <code>format: double</code> properties and type <code>BigDecimal</code> for <code>'type: number'</code> properties without a format specified. Example of a prior definition:</p> <pre> federalTaxWithheld:   description: Box 4, Federal income tax withheld   format: double   type: number </pre>	<p>New definition of amount types without <code>format: double</code>:</p> <pre> federalTaxWithheld:   description: Box 4, Federal income tax withheld   type: number </pre>

<p><b>Existing LocalTaxWithholding and StateTaxWithholding (abbreviated)</b></p> <pre> StateTaxWithholding:   title: State Tax Withholding   description: Income in a state and its tax withholding   type: object   properties:     stateTaxWithheld:       description: Amount of state income tax withheld       format: double       type: number     state:       description: State two-digit code       type: string     stateTaxId:       description: Tax id of company withholding state income tax       type: string     stateIncome:       description: Income amount for state tax purposes       format: double       type: number  LocalTaxWithholding:   title: Local Tax Withholding   description: Income in a locality and its tax withholding   type: object   properties:     localTaxWithheld:       description: Amount of local income tax withheld       format: double       type: number     localityName: </pre>	<p><b>Consolidated inside new StateAndLocalTaxWithholding per lessons learned and IRS IRIS schemas:</b></p> <pre> StateAndLocalTaxWithholding:   title: State and Local Tax Withholding   description: Income in a state and its tax withholding   type: object   properties:     stateCode:       description: State two-digit code       \$ref: '#/components/schemas/StateCode'     state:       description: Amount of state income tax withheld       \$ref:         '#/components/schemas/StateTaxWithholding'     local:       description: Amount of local income tax withheld       \$ref:         '#/components/schemas/LocalTaxWithholding'  StateTaxWithholding:   title: State Tax Withholding   description: Income in a state and its tax withholding   type: object   properties:     taxWithheld:       description: Amount of state income tax withheld       format: double       type: number     taxId:       description: Filer's state tax id number       type: string     income: </pre>
---	---

<pre> description: Locality name type: string state:   description: State code of state in   which locality exists   type: string localIncome:   description: Income amount for local   tax purposes   format: double   type: number  # prior example data structures: stateTaxWithholding:   - stateTaxWithheld: 15023.0 state: NY stateTaxId: 14- 000023 localTaxWithholding:   - localTaxWithheld: 17022.0 localityName: New York City state: NY </pre>	<pre> description: Income amount for state tax purposes format: double type: number  LocalTaxWithholding:   title: Local Tax Withholding   description: Income in a locality and its tax   withholding   type: object   properties:     taxWithheld:       description: Amount of local income tax withheld       format: double       type: number     localityName:       description: Locality name       type: string     income:       description: Income amount for local tax purposes       format: double       type: number  # Changes on all these tax forms: # 1099-B, SecurityDetail (1099-B), 1099-DIV, 1099-G, 1099-Int, 1099-K, # 1099-MISC, 1099-NEC, 1099-OID, 1099-R, W-2, and 1042-S. # Add new to 1099-PATR and W-2G forms. # Modify this property: stateTaxWithholding:   description: Boxes 12-14, State tax withholding   type: array   items:     \$ref: '#/components/schemas/StateTaxWithholding' # Remove this property, where it exists: </pre>
--	--

	<pre> localTaxWithholding:   description: Boxes 15-17, Local tax withholding   type: array   items:     \$ref:       '#/components/schemas/LocalTaxWithholding'  # So tax form changes become: stateAndLocal:   description: Boxes 12-17, State and Local tax withholding   type: array   items:     \$ref:       '#/components/schemas/StateAndLocalTaxWithholding'  # With new example: stateAndLocal:   - stateCode: NY     state:       taxWithheld: 15023.0       taxId: 14-000023     local:       taxWithheld: 17022.0       localityName: New York City </pre>
--	--